Emerson DNP3 Protocol Specifications Manual (for FB1000- and FB2000-Series Flow Computers)

Remote Automation Solutions

EMERSON

Contents

1. Introduction

This *DNP3 Protocol Specifications Manual* enables internal Emerson personnel, Emerson customers, and third -party vendors to integrate data to SCADA and other supervisory systems. The FBxConnect toolset and SCADA vendors can use this manual to configure, send, and receive data to and from the FB1100, FB1200, FB2100, and FB2200 model flow computers (referred to generically in this manual as "*FBx-Series devices*").

1.1 Scope

This manual covers the implementation of the DNP3 protocol in the FBx-Series devices. It should assist SCADA integrators in interfacing DNP3 host-based applications with Emerson FBx-Series devices for both configuration and data collection.

1.2 Glossary

Following are words, terms, and acronyms pertinent to this manual.

Term	Definition
ALFC	Application Layer Function Code
ALSFC	Application Layer Sub Function Code
Authority	A notified body that can change certain parameters on the flow computer which cannot otherwise be changed by the customer or engineers on site.
CON	A bit in the Application Layer's control byte that specifies whether an Application Layer confirmation is required.
CRC	Cyclic Redundancy Check code that is generated according to a specific algorithm, and transmitted with the message for the purpose of detecting data corruption during communication via the Physical Layer.
Deprecated	Indicates that a feature or requirement is still permitted although its use is discouraged, and it is not guaranteed to be part of future specification versions. See also *obsolete*.
DLFC	Data Link layer Function Code
DNP	Distributed Network Protocol
DNP3	The third generation of DNP
End device	A device that provides information to another ('host") device.
ERR	Error bit, used in the control byte of the Application Layer header information
FBx-Series devices	A collective term for the FB1100, FB1200, FB2100, and FB2200 flow computers.
FIN	Final Data Link frame or final Application Layer fragment in a message
FIR	First Data Link frame or first Application Layer fragment in a message
Fragment	A packet of bytes that is sized to fit into the buffers of the receiving device's Application Layer. Each fragment has an application header and bytes containing Application Layer request, response or confirmation information.
Frame	A packet of bytes transmitted from the Link Layer in one device to the Link Layer in another device over the Physical Layer. Each frame contains a link header, CRC bytes and sometimes a segment from the Transport Function.
Host device	A device which controls other ("end") devices.
IED	Intelligent Electronic Device. These are usually physically located close to sensors or actuators that are monitored or controlled.

Term	Definition
IIN	Internal Indications. This bit field appears in response headers that indicate certain states or error conditions with an end device.
IP	Internet Protocol
LSB	Least Significant Byte, the byte which represents that part of a value split across two or more bytes.
LMB	Lower Middle Byte
MSB	Most Significant Byte, the byte which represents the part of a value split across two or more bytes.
Poll	A poll is a request for data from a host device.
Private	Belonging to or restricted to an individual device not generally known to other devices.
RAS	Remote Automation Solutions, a business unit of Emerson Process Management.
Report by Exception (RBE)	A reporting method in which an end device reports only changes rather than an entire data set. RBE is used in both polled and unsolicited responses.
RDI	Remote Device Interface
Request	An Application Layer message from a host device that asks an end device to perform a specific action. A poll is only one type of request with multiple different types available.
Response	An Application Layer message from the end device that is returned to the host device as the result of a request from the host device.
Route	Describes how multiple flow computers can be connected so that they can be layered on top of one another.
RTU	Remote Terminal Unit. Similar to an IED, RTUs are normally placed in the field close to the sensors or actuators that they monitor or control.
SCADA	Supervisor Control and Data Acquisition. A generic term used to indicate monitoring and controlling devices that are physically located remotely from a centralized computer. Communications are implied between the central location and the outlying devices.
Segment	A packet of bytes that is sized to fit into a Link Layer frame. Each segment contains a transport header and a portion of a fragment from the Application Layer.
SEQ	Sequence number that differentiates subsequent Data Link frames or Application Layer fragments. Sequence numbers associated with unsolicited responses are distinct from sequence numbers used for solicited messages
TCP	Transmission Control Protocol
Tunnelling	Built-in messaging functionality using DNP3 string object (group 110) to send and receive messages.
UDP	User Datagram Protocol
UMB	Upper Middle Byte
Unsolicited Response	An Application Layer message from a slave device to a master for which no explicit request was received. The request is implied by the act of a master enabling unsolicited reporting from slave devices.
UNS	A bit in the Application Layer's control byte that specifies whether a fragment (response and confirmation) pertains to an unsolicited message. When this bit is set the sequence number in the SEQ field refers to the unsolicited sequence number.
URBE	Unsolicited report by exception

1.3 DNP3 Protocol Overview

Emerson FBx-Series devices are implemented as DNP3 outstations for communication and configuration with Emerson Field Tools software and SCADA hosts. DNP3 is an open and public protocol used to ensure

standards-based inter-operability between DNP3 outstations and a SCADA host.

The flow computers support physical communication over Wi-Fi®, Ethernet, and serial communications.

Note

DNP3 uses little-endian as the byte order of the messages.

The FBx-Series devices implement the DNP3 level 3 protocol subset.

2. DNP3 Application Layer Definitions

In the Emerson FBx-Series devices DNP3 data points map statically to tags.

2.1 DNP3 Point

The DNP3 point is a uniquely identifiable physical/logical entity that applies to inputs and outputs like binaries, analogs, and inputs (such as counters).

Point type is an independent array of points having related characteristics.

2.2 Index, Groups, and Variations

Index numbers identify points having the same point type. They are zero-based and the lowest element is always zero.

Groups enable you to classify the data types within a message. Each group number shares a common point type and a common method of data generation and creation. For example, these might be the different group numbers in an analog input point type:

Group 30	Current value of the point
Group 31	Frozen value of the point
Group 32	Change of current value event
Group 33	Change of frozen value event

Variations are different encoding formats for the data types within a group. Every group number has an independent set of variations. For example, these might be the variations in group 20:

Variation 1	32-bit with flag
Variation 2	16-bit with flag
Variation 3	32-bit with flag, delta
Variation 4	16-bit with flag, delta
Variation 5	32-bit without flag
Variation 6	16-bit without flag
Variation 7	32-bit without flag, delta
Variation 8	16-bit without flag, delta

2.3 DNP3 Objects

An object is an encoded representation of data from a point. The system formats data according to its group and variation number in order to transport the message.

DNP3 messages may contain multiple objects, each representing the value of a point at a given instant in time or a command to be issued to an output point.

The supported DNP3 objects and groups are:

Name	Group Number
Binary Inputs	1, 2
Binary Outputs	10
Control Relay Output (CROB)	12
Binary Counters	20, 21, 22, 23
Analog Inputs	30, 32
Analog Outputs	40, 41
Time and Data	50
Class	60
Internal Indications	80
Octet String	110

2.4 Static, Event, and Class Data

2.4.1 Static Data

Static data refers to a point's current or most recently recorded value. For binary input points, "static data" refers to the present on/off condition.

2.4.2 Event Data

Events are associations with changes in points, such as state changes, measurement at some threshold, or an analog input changing by more than its defined dead band.

Structured information stored in each event, including:

- Type of event
- Value
- Point index
- Time when event occurred
- Class assignment

2.4.3 DNP3 Classes Data

Classes organize events and current values into categories:

- **Class 0** data refers to static data. When a host device requests class 0 data from a flow computer, the end device reports back the most recently measured, computed, or obtained values for the different point types.
- **Class 1, 2, and 3** are event classes. DNP3 does not assign significance to these event classes. Implementations can use different strategies around these classes, such as assigning highest priority events to class 1 and lowest priority events to class 3. Host devices may request events from one or more of these classes.

3. DNP3 Application Layer Messaging

Host devices send a request fragment to an end device to execute a command or return data. The end device performs the requested action, generates the appropriate response, and transmits it back to the host device.

The end device may transmit unsolicited response messages to the host. DNP message fragments can contain header, data, and checksum bytes. *Figure 3-1* shows the response/response message fragment.

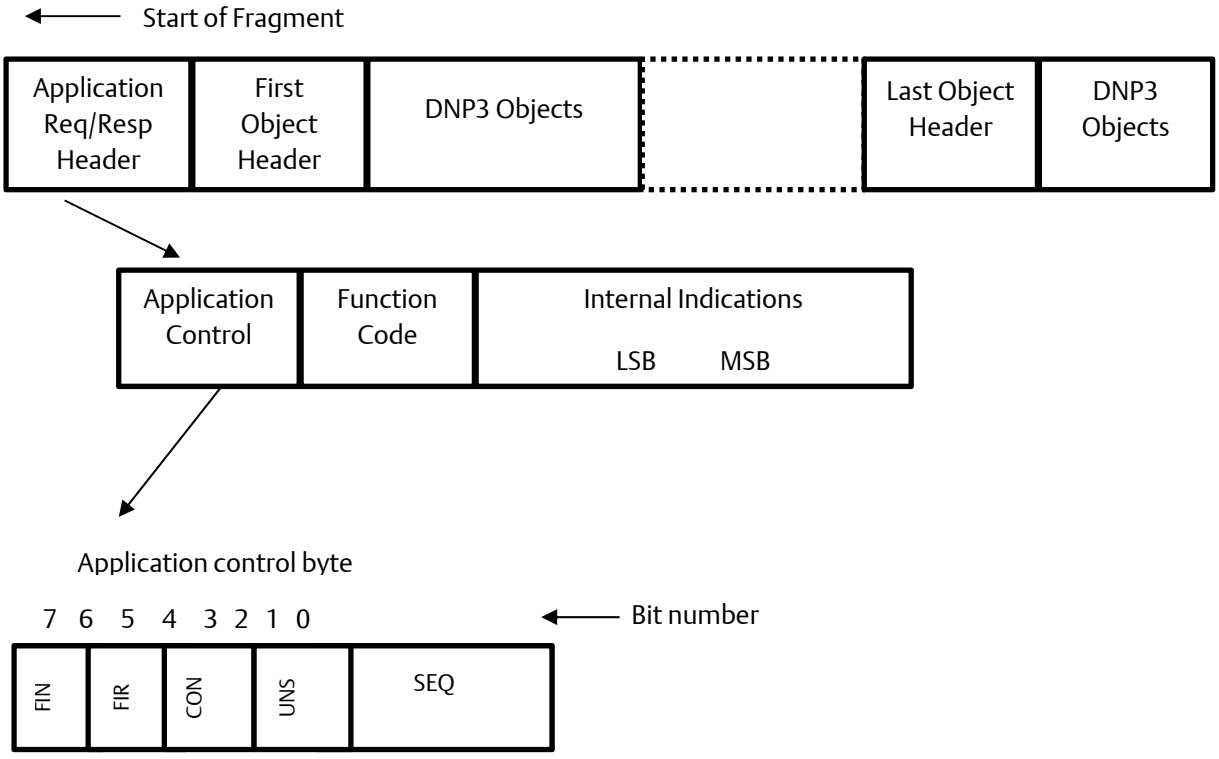


Figure 3-1: DNP3 Message Fragment

Each fragment (request or response) begins with an application header that contains message control information. The application response header contains an additional field called “internal indications.”

3.1 Function Code Table

The function code octet identifies the purpose of the message. Request messages from host devices use function codes in the range of 0 to 128, and response messages from outstations use function codes with values ranging from 129 to 255. The following table describes the function codes.

Requests (Hex)	
0x00	Confirm
0x01	Read

Requests (Hex)	
0x02	Write
0x03	Select
0x04	Operate
0x05	Direct operate
0x06	Direct operate – no response
0x07	Freeze
0x08	Freeze – no response
0x09	Freeze clear
0x0A	Freeze clear – no response
0x0B	Freeze at time
0x0C	Freeze at time – no response
0x0D	Cold start
0x0E	Warm start
0x0F	Initialize data
0x10	Initialized application
0x11	Start application
0x12	Stop application
0x13	Save configuration
0x14	Enable unsolicited messages
0x15	Disable unsolicited messages
0x16	Assign class
0x17	Delay measurements
0x18	Record measurement
0x19	Open file
0x1A	Close file
0x1B	Delete file
0x1C	Get file information
0x1D	Authenticate file
0x1E	Abort file
0x1F	Activate configuration
0x20	Authenticate request
0x21	Authenticate request – no ack

Responses (Hex)	
0x81	Response
0x82	Unsolicited response
0x83	Authenticate response

4. DNP3 Data Point List

In the Emerson FBx-Series devices DNP3 data points map statically to tags.

4.1 Binary Input: DNP3 Object Groups 1 (Static) & 2 (Events)

4.1.1 DNP3 Object Group 1: Binary Input Static

This group can be read with two possible variations:

- **Variation 1**: Package format having single bit binary input state without status flags
- **Variation 2**: Each DNP3 point is returned with a single byte having status flags indicating the point status (such as online/offline, comm lost, over range, etc.)

4.1.2 DNP3 Object Group 2: Binary Input Events

This group can be read with three possible variations:

- **Variation 1**: A single byte for reporting state of input and status flags without time
- **Variation 2**: A single byte for reporting state of input and status flags with absolute time when the event occurred.
- **Variation 3**: A single byte for reporting state of input and status flags with relative time. A preceding common time of occurrence (CTO) object, group 51, establishes the basis for relative time.

Point Index	Tag Mapped	Name for State when value = 0	Name for State when value = 1	Default Class Assigned
0	System Pwr_1.SRAM_BATT_STATUS	Normal	Failed	Class_1
1	DI_1-1.SELECTED	OFF	ON	Class_1
2	DI_1-2.SELECTED	OFF	ON	Class_1
3	DI_1-3.SELECTED	OFF	ON	Class_1
4	DI_1-4.SELECTED	OFF	ON	Class_1
5	DI_1-5.SELECTED	OFF	ON	Class_1
6	DI_1-6.SELECTED	OFF	ON	Class_1
7	DI_1-7.SELECTED	OFF	ON	Class_1
8	DI_1-8.SELECTED	OFF	ON	Class_1
9	DI_1-9.SELECTED	OFF	ON	Class_1
10	DI_1-10.SELECTED	OFF	ON	Class_1
11	DO_1-1.SELECTED	OFF	ON	Class_1
12	DO_1-2.SELECTED	OFF	ON	Class_1
13	DO_1-3.SELECTED	OFF	ON	Class_1

Point Index	Tag Mapped	Name for State when value = 0	Name for State when value = 1	Default Class Assigned
14	DO_1-4.SELECTED	OFF	ON	Class_1
15	DO_1-5.SELECTED	OFF	ON	Class_1
16	DO_1-6.SELECTED	OFF	ON	Class_1
17	DO_1-7.SELECTED	OFF	ON	Class_1
18	DO_1-8.SELECTED	OFF	ON	Class_1
19	DO_1-9.SELECTED	OFF	ON	Class_1
20	DO_1-10.SELECTED	OFF	ON	Class_1
21	Station_1.FLD-TYPE	NaturalGasDry	NaturalGasSat	Class_3
22	Station_2.FLD-TYPE	NaturalGasDry	NaturalGasSat	Class_3
23	DP Mtr_1.STATION_OBJ.FLD_TYPE	NaturalGasDry	NaturalGasSat	Class_3
24	DP Mtr_2.STATION_OBJ.FLD_TYPE	NaturalGasDry	NaturalGasSat	Class_3
25	Linear Mtr_1. STATION_OBJ.FLD_TYPE	NaturalGasDry	NaturalGasSat	Class_3
26	Linear Mtr_2.STATION_OBJ.FLD_TYPE	NaturalGasDry	NaturalGasSat	Class_3
27	PID_1.OUTPUT_MODE	Manual	Auto	Class_3
28	PID_2.OUTPUT_MODE	Manual	Auto	Class_3
29	PID_3.OUTPUT_MODE	Manual	Auto	Class_3

4.2 Binary Output: DNP3 Object Groups 10 (Static) & 12 (Commands)

4.2.1 DNP3 Object Group 10: Binary Output Static

This group can be read with the following variations:

- **Variation 1**: Package format having single bit binary output state without status flags
- **Variation 2**: Each DNP3 point is returned with a single byte having status flags indicating the point status (such as online/offline, comm lost, over range, etc.)

4.2.2 DNP3 Object Group 12: Binary Output Command or Control Relay Output Block (CROB)

This group can be read with the following variations:

- **Variation 1**: Control Relay Output Block
- **Variation 2**: Pattern Control Block (PCB); this variation is **not** supported.
- **Variation 3**: Pattern Control Mask; this variation is **not** supported.

Point Index	Tag Mapped	Name for State when value = 0	Name for State when value = 1	Default Class Assigned
0	DP Mtr_1.PRESS_LOC	Upstream	Downstream	None
1	DP Mtr_1.PRESS_TYPE	Absolute	Gauge	None
2	DP Mtr_2.PRESS_LOC	Disabled	Enabled	None
3	DP Mtr_2.PRESS_TYPE	Disabled	Enabled	None
4	Linear Mtr_1.MTR_TYPE	Volume	Mass	None
5	Linear Mtr_1.PRESS_TYPE	Absolute	Gauge	None
6	Linear Mtr_2.MTR_TYPE	Volume	Mass	None
7	Linear Mtr_2.PRESS_TYPE	Absolute	Gauge	None
8	PID_1.PID_ENABLE	Disable	Enable	None
9	PID_1.OUTPUT_TYPE	Analog	Digital	None
10	PID_2.PID_ENABLE	Disable	Enable	None
11	PID_2.OUTPUT_TYPE	Analog	Digital	None
12	PID_3.PID_ENABLE	Disable	Enable	None
13	PID_3.OUTPUT_TYPE	Analog	Digital	None

4.3 Analog Input: DNP3 Object Groups 30 (Static) & 32 (Events)

4.3.1 DNP3 Object Group 30: Analog Input Static

This group can be read with the following variations:

- **Variation 1:** 32-bit with flag
- **Variation 2**: 16-bit with flag
- **Variation 3**: 32-bit without flag
- **Variation 4**:16-bit without flag
- **Variation 5**: Single precision floating point with flag
- **Variation 6**: Double precision floating point with flag

4.3.2 DNP3 Object Group 32: Analog Input Events

This group can be read with the following variations:

- **Variation 1**: 32-bit with flag
- **Variation 2**: 16-bit with flag
- **Variation 3**: 32-bit without flag
- **Variation 4**: 16-bit without flag
- **Variation 5**: single precision floating without time
- **Variation 6**: double precision floating without time
- **Variation 7**: single precision floating with time

- **Variation 8**: double precision floating with time

Point Index	Tag Mapped	Default Class	Group 30 Default Variation	Group 32 Default Variation
0	System_1.NUM_ALM	Class_2	Variation 1	Variation 1
1	System_1.NUM_EVT	Class_2	Variation 1	Variation 1
2	System_1.NUM_WM_EVT	Class_2	Variation 1	Variation 1
3	System Pwr_1.BATT_ALM.PROCESS_ALM	Class_1	Variation 2	Variation 2
4	System Pwr_1.EXT_VOLT_ALM.PROCESS_ALM	Class_1	Variation 2	Variation 2
5	Clock_1.TIME	Class_2	Variation 1	Variation 1
6	Clock_1.YEAR	Class_2	Variation 2	Variation 2
7	Clock_1.MONTH	Class_2	Variation 2	Variation 2
8	Clock_1.DAY	Class_2	Variation 2	Variation 2
9	Clock_1.HOUR	Class_2	Variation 2	Variation 2
10	Clock_1.SECOND	Class_2	Variation 2	Variation 2
11	Clock_1.MINUTE	Class_2	Variation 2	Variation 2
12	Log_1.LOG_ALM	Class_2	Variation 1	Variation 1
13	Log_1.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
14	Log_2.LOG_ALM	Class_2	Variation 1	Variation 1
15	Log_2.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
16	Log_3.LOG_ALM	Class_2	Variation 1	Variation 1
17	Log_3.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
18	Log_4.LOG_ALM	Class_2	Variation 1	Variation 1
19	Log_4.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
20	Log_5.LOG_ALM	Class_2	Variation 1	Variation 1
21	Log_5.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
22	Log_6.LOG_ALM	Class_2	Variation 1	Variation 1
23	Log_6.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
24	Log_7.LOG_ALM	Class_2	Variation 1	Variation 1
25	Log_7.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
26	Log_8.LOG_ALM	Class_2	Variation 1	Variation 1
27	Log_8.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
28	Log_9.LOG_ALM	Class_2	Variation 1	Variation 1
29	Log_9.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
30	Log_10.LOG_ALM	Class_2	Variation 1	Variation 1
31	Log_10.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
32	Log_11.LOG_ALM	Class_2	Variation 1	Variation 1

Point Index	Tag Mapped	Default Class	Group 30 Default Variation	Group 32 Default Variation
33	Log_11.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
34	Log_12.LOG_ALM	Class_2	Variation 1	Variation 1
35	Log_12.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
36	Log_13.LOG_ALM	Class_2	Variation 1	Variation 1
37	Log_13.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
38	Log_14.LOG_ALM	Class_2	Variation 1	Variation 1
39	Log_14.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
40	Log_15.LOG_ALM	Class_2	Variation 1	Variation 1
41	Log_15.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
42	Log_16.LOG_ALM	Class_2	Variation 1	Variation 1
43	Log_16.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
44	Log_17.LOG_ALM	Class_2	Variation 1	Variation 1
45	Log_17.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
46	Log_18.LOG_ALM	Class_2	Variation 1	Variation 1
47	Log_18.LAST_READ_SEQ	Class_2	Variation 1	Variation 1
48	AI_1-1.SELECTED	Class_2	Variation 5	Variation 5
49	AI_1-2.SELECTED	Class_2	Variation 5	Variation 5
50	AI_1-3.SELECTED	Class_2	Variation 5	Variation 5
51	AI_1-4.SELECTED	Class_2	Variation 5	Variation 5
52	AI_1-5.SELECTED	Class_2	Variation 5	Variation 5
53	AI_1-6.SELECTED	Class_2	Variation 5	Variation 5
54	AI_1-7.SELECTED	Class_2	Variation 5	Variation 5
55	AI_1-8.SELECTED	Class_2	Variation 5	Variation 5
56	AI_1-1.INPUT_STATUS	Class_1	Variation 2	Variation 2
57	AI_1-2.INPUT_STATUS	Class_1	Variation 2	Variation 2
58	AI_1-3.INPUT_STATUS	Class_1	Variation 2	Variation 2
59	AI_1-4.INPUT_STATUS	Class_1	Variation 2	Variation 2
60	AI_1-5.INPUT_STATUS	Class_1	Variation 2	Variation 2
61	AI_1-6.INPUT_STATUS	Class_1	Variation 2	Variation 2
62	AI_1-7.INPUT_STATUS	Class_1	Variation 2	Variation 2
63	AI_1-8.INPUT_STATUS	Class_1	Variation 2	Variation 2
64	AO_1-1.SELECTED	Class_2	Variation 5	Variation 5
65	AO_1-2.SELECTED	Class_2	Variation 5	Variation 5
66	AO_1-3.SELECTED	Class_2	Variation 5	Variation 5
67	AO_1-4.SELECTED	Class_2	Variation 5	Variation 5

Point Index	Tag Mapped	Default Class	Group 30 Default Variation	Group 32 Default Variation
68	AO_1-5.SELECTED	Class_2	Variation 5	Variation 5
69	AO_1-6.SELECTED	Class_2	Variation 5	Variation 5
70	AO_1-7.SELECTED	Class_2	Variation 5	Variation 5
71	AO_1-8.SELECTED	Class_2	Variation 5	Variation 5
72	AO_1-1.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
73	AO_1-2.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
74	AO_1-3.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
75	AO_1-4.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
76	AO_1-5.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
77	AO_1-6.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
78	AO_1-7.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
79	AO_1-8.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
80	DI_1-1.INPUT_STATUS	Class_1	Variation 2	Variation 1
81	DI_1-2.INPUT_STATUS	Class_1	Variation 2	Variation 2
82	DI_1-3.INPUT_STATUS	Class_1	Variation 2	Variation 2
83	DI_1-4.INPUT_STATUS	Class_1	Variation 2	Variation 2
84	DI_1-5.INPUT_STATUS	Class_1	Variation 2	Variation 2
85	DI_1-6.INPUT_STATUS	Class_1	Variation 2	Variation 2
86	DI_1-7.INPUT_STATUS	Class_1	Variation 2	Variation 2
87	DI_1-8.INPUT_STATUS	Class_1	Variation 2	Variation 2
88	DI_1-9.INPUT_STATUS	Class_1	Variation 2	Variation 2
89	DI_1-10.INPUT_STATUS	Class_1	Variation 2	Variation 2
90	DO_1-1.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
91	DO_1-2.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
92	DO_1-3.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
93	DO_1-4.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
94	DO_1-5.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
95	DO_1-6.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
96	DO_1-7.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
97	DO_1-8.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
98	DO_1-9.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
99	DO_1-10.OUTPUT_STATUS	Class_1	Variation 2	Variation 2
100	PI_1-1.SELECTED_FREQ	Class_2	Variation 5	Variation 5
101	PI_1-2.SELECTED_FREQ	Class_2	Variation 5	Variation 5
102	PI_1-3.SELECTED_FREQ	Class_2	Variation 5	Variation 5

Point Index	Tag Mapped	Default Class	Group 30 Default Variation	Group 32 Default Variation
103	PI_1-4.SELECTED_FREQ	Class_2	Variation 5	Variation 5
104	PI_1-5.SELECTED_FREQ	Class_2	Variation 5	Variation 5
105	PI_1-6.SELECTED_FREQ	Class_2	Variation 5	Variation 5
106	PI_1-7.SELECTED_FREQ	Class_2	Variation 5	Variation 5
107	PI_1-8.SELECTED_FREQ	Class_2	Variation 5	Variation 5
108	PI_1-9.SELECTED_FREQ	Class_2	Variation 5	Variation 5
109	PI_1-10.SELECTED_FREQ	Class_2	Variation 5	Variation 5
110	PI_1-1.INPUT_STATUS	Class_1	Variation 2	Variation 2
111	PI_1-2.INPUT_STATUS	Class_1	Variation 2	Variation 2
112	PI_1-3.INPUT_STATUS	Class_1	Variation 2	Variation 2
113	PI_1-4.INPUT_STATUS	Class_1	Variation 2	Variation 2
114	PI_1-5.INPUT_STATUS	Class_1	Variation 2	Variation 2
115	PI_1-6.INPUT_STATUS	Class_1	Variation 2	Variation 2
116	PI_1-7.INPUT_STATUS	Class_1	Variation 2	Variation 2
117	PI_1-8.INPUT_STATUS	Class_1	Variation 2	Variation 2
118	PI_1-9.INPUT_STATUS	Class_1	Variation 2	Variation 2
119	PI_1-10.INPUT_STATUS	Class_1	Variation 2	Variation 2
120	Fluid Prop_1.PCALC_ALM	Class_2	Variation 1	Variation 1
121	Fluid Prop_2.PCALC_ALM	Class_2	Variation 1	Variation 1
122	Fluid Prop_3.PCALC_ALM	Class_2	Variation 1	Variation 1
123	Fluid Prop_4.PCALC_ALM	Class_2	Variation 1	Variation 2
124	Station_1.UVOL_RATE	Class_2	Variation 6	Variation 6
125	Station_1.SVOL_RATE	Class_2	Variation 6	Variation 6
126	Station_1.MASS_RATE	Class_2	Variation 6	Variation 6
127	Station_1.ENERGY_RATE	Class_2	Variation 6	Variation 6
128	Station_1.FLW_ALM_OBJ.PROCESS_ALM	Class_1	Variation 2	Variation 2
129	Station_1.HIST_GRP_OBJ.CONTRACT_HR	Class_1	Variation 2	Variation 2
130	Station_2.UVOL_RATE	Class_2	Variation 6	Variation 6
131	Station_2.SVOL_RATE	Class_2	Variation 6	Variation 6
132	Station_2.MASS_RATE	Class_2	Variation 6	Variation 6
133	Station_2.ENERGY_RATE	Class_2	Variation 6	Variation 6
134	Station_2.FLW_ALM_OBJ.PROCESS_ALM	Class_1	Variation 2	Variation 2
135	Station_2.HIST_GRP_OBJ.CONTRACT_HR	Class_1	Variation 2	Variation 2
136	DP Mtr_1.DP_OBJ.SELECTED	Class_2	Variation 5	Variation 5
137	DP Mtr_1.PF_OBJ.SELECTED	Class_2	Variation 5	Variation 5

Point Index	Tag Mapped	Default Class	Group 30 Default Variation	Group 32 Default Variation
138	DP Mtr_1.TF_OBJ.SELECTED	Class_2	Variation 5	Variation 5
139	DP Mtr_1.UVOL_RATE	Class_2	Variation 6	Variation 6
140	DP Mtr_1.SVOL_RATE	Class_2	Variation 6	Variation 6
141	DP Mtr_1.MASS_RATE	Class_2	Variation 6	Variation 6
142	DP Mtr_1.ENERGY_RATE	Class_2	Variation 6	Variation 6
143	DP Mtr_1.FLW_ALM_OBJ.PROCESS_ALM	Class_1	Variation 2	Variation 2
144	DP Mtr_1.DP_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
145	DP Mtr_1.PF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
146	DP Mtr_1.TF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
147	DP Mtr_2.DP_OBJ.SELECTED	Class_2	Variation 5	Variation 5
148	DP Mtr_2.PF_OBJ.SELECTED	Class_2	Variation 5	Variation 5
149	DP Mtr_2.TF_OBJ.SELECTED	Class_2	Variation 5	Variation 5
150	DP Mtr_2.UVOL_RATE	Class_2	Variation 6	Variation 6
151	DP Mtr_2.SVOL_RATE	Class_2	Variation 6	Variation 6
152	DP Mtr_2.MASS_RATE	Class_2	Variation 6	Variation 6
153	DP Mtr_2.ENERGY_RATE	Class_2	Variation 6	Variation 6
154	DP Mtr_2.FLW_ALM_OBJ.PROCESS_ALM	Class_1	Variation 2	Variation 2
155	DP Mtr_2.DP_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
156	DP Mtr_2.PF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
157	DP Mtr_2.TF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
158	Linear Mtr_1.IQ_RATE	Class_2	Variation 6	Variation 6
159	Linear Mtr_1.PF_INUSE	Class_2	Variation 6	Variation 6
160	Linear Mtr_1.TF_INUSE	Class_2	Variation 6	Variation 6
161	Linear Mtr_1.UVOL_RATE	Class_2	Variation 6	Variation 6
162	Linear Mtr_1.SVOL_RATE	Class_2	Variation 6	Variation 6
163	Linear Mtr_1.MASS_RATE	Class_2	Variation 6	Variation 6
164	Linear Mtr_1.ENERGY_RATE	Class_2	Variation 6	Variation 6
165	Linear Mtr_1.FLW_ALM_OBJ.PROCESS_ALM	Class_1	Variation 2	Variation 2
166	Linear Mtr_1.PF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
167	Linear Mtr_1.TF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
168	Linear Mtr_2.IQ_RATE	Class_2	Variation 6	Variation 6
169	Linear Mtr_2.PF_INUSE	Class_2	Variation 6	Variation 6
170	Linear Mtr_2.TF_INUSE	Class_2	Variation 6	Variation 6
171	Linear Mtr_2.UVOL_RATE	Class_2	Variation 6	Variation 6
172	Linear Mtr_2.SVOL_RATE	Class_2	Variation 6	Variation 6

Point Index	Tag Mapped	Default Class	Group 30 Default Variation	Group 32 Default Variation
173	Linear Mtr_2.MASS_RATE	Class_2	Variation 6	Variation 6
174	Linear Mtr_2.ENERGY_RATE	Class_2	Variation 6	Variation 6
175	Linear Mtr_2.FLW_ALM_OBJ.PROCESS_ALM	Class_1	Variation 2	Variation 2
176	Linear Mtr_2.PF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
177	Linear Mtr_2.TF_OBJ.INPUT_STATUS	Class_1	Variation 2	Variation 2
178	PID_1.P_PROCESS_VARIABLE	Class_2	Variation 5	Variation 5
179	PID_1.O_PROCESS_VARIABLE	Class_2	Variation 5	Variation 5
180	PID_2.P_PROCESS_VARIABLE	Class_2	Variation 5	Variation 5
181	PID_2.O_PROCESS_VARIABLE	Class_2	Variation 5	Variation 5
182	PID_3.P_PROCESS_VARIABLE	Class_2	Variation 5	Variation 5
183	PID_3.O_PROCESS_VARIABLE	Class_2	Variation 5	Variation 5

4.4 Analog Output: DNP3 Object Groups 40 (Status) & 41 (Commands)

4.4.1 DNP3 Object Group 40: Analog Output Status

This group can be read with the following variations:

- **Variation 1:**32-bit with flag
- **Variation 2**: 16-bit with flag
- **Variation 3**: single-precision floating point with flag
- **Variation 4:** double-precision floating point with flag

4.4.2 DNP3 Object Group 41: Analog Output Commands

This group can be read with the following variations:

- **Variation 1**: Write 32-bit value
- **Variation 2**: Write 16-bit value
- **Variation 3**: Write single-precision floating point value
- **Variation 4**: Write double-precision floating point value

Note
This table classifies the analog output points which can be written to (Sel_Op – Select/Operate) but cannot be operated upon (NA).

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
0	System_1.PROD_TYPE	Class_3	NA	Variation 2	Variation 2
1	System_1.MPU_LOAD	Class_3	NA	Variation 3	Variation 3
2	System_1.MAX_PID	Class_3	NA	Variation 1	Variation 1
3	System_1.MAX_STN	Class_3	NA	Variation 1	Variation 1
4	System_1.MAX_STRM	Class_3	NA	Variation 1	Variation 1
5	Mtr Setup_1.MAX_MTRS	Class_3	NA	Variation 1	Variation 1
6	System Pwr_1.BATT_VAL	Class_3	NA	Variation 3	Variation 3
7	System Pwr_1.EXT_VOLT_VAL	Class_3	NA	Variation 3	Variation 3
8	Mtr Setup_1.NUM_DPMTRS	None	Sel_Op	Variation 2	Variation 2
9	Mtr Setup_1.NUM_LINMTRS	None	Sel_Op	Variation 2	Variation 2
10	System Pwr_1.BATT_TYPE	None	Sel_Op	Variation 2	Variation 2
11	Log_1.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
12	Log_2.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
13	Log_3.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
14	Log_4.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
15	Log_5.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
16	Log_6.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
17	Log_7.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
18	Log_8.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
19	Log_9.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
20	Log_10.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
21	Log_11.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
22	Log_12.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
23	Log_13.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
24	Log_14.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
25	Log_15.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
26	Log_16.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
27	Log_17.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
28	Log_18.LOG_TYPE	None	Sel_Op	Variation 2	Variation 2
29	AI_1-1.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
30	AI_1-2.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
31	AI_1-3.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
32	AI_1-4.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
33	AI_1-5.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
34	AI_1-6.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
35	AI_1-7.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
36	AI_1-8.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
37	AI_1-1.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
38	AI_1-2.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
39	AI_1-3.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
40	AI_1-4.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
41	AI_1-5.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
42	AI_1-6.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
43	AI_1-7.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
44	AI_1-8.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
45	AI_1-1.LOW_EU	None	Sel_Op	Variation 3	Variation 3
46	AI_1-2.LOW_EU	None	Sel_Op	Variation 3	Variation 3
47	AI_1-3.LOW_EU	None	Sel_Op	Variation 3	Variation 3
48	AI_1-4.LOW_EU	None	Sel_Op	Variation 3	Variation 3
49	AI_1-5.LOW_EU	None	Sel_Op	Variation 3	Variation 3

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
50	AI_1-6.LOW_EU	None	Sel_Op	Variation 3	Variation 3
51	AI_1-7.LOW_EU	None	Sel_Op	Variation 3	Variation 3
52	AI_1-8.LOW_EU	None	Sel_Op	Variation 3	Variation 3
53	AI_1-1.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
54	AI_1-2.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
55	AI_1-3.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
56	AI_1-4.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
57	AI_1-5.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
58	AI_1-6.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
59	AI_1-7.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
60	AI_1-8.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
61	AO_1-1.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
62	AO_1-2.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
63	AO_1-3.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
64	AO_1-4.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
65	AO_1-5.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
66	AO_1-6.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
67	AO_1-7.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
68	AO_1-8.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
69	AO_1-1.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
70	AO_1-2.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
71	AO_1-3.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
72	AO_1-4.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
73	AO_1-5.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
74	AO_1-6.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
75	AO_1-7.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
76	AO_1-8.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
77	AO_1-1.LOW_EU	None	Sel_Op	Variation 3	Variation 3
78	AO_1-2.LOW_EU	None	Sel_Op	Variation 3	Variation 3
79	AO_1-3.LOW_EU	None	Sel_Op	Variation 3	Variation 3
80	AO_1-4.LOW_EU	None	Sel_Op	Variation 3	Variation 3
81	AO_1-5.LOW_EU	None	Sel_Op	Variation 3	Variation 3
82	AO_1-6.LOW_EU	None	Sel_Op	Variation 3	Variation 3
83	AO_1-7.LOW_EU	None	Sel_Op	Variation 3	Variation 3
84	AO_1-8.LOW_EU	None	Sel_Op	Variation 3	Variation 3

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
85	AO_1-1.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
86	AO_1-2.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
87	AO_1-3.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
88	AO_1-4.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
89	AO_1-5.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
90	AO_1-6.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
91	AO_1-7.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
92	AO_1-8.HIGH_EU	None	Sel_Op	Variation 3	Variation 3
93	DI_1-1.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
94	DI_1-2.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
95	DI_1-3.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
96	DI_1-4.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
97	DI_1-5.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
98	DI_1-6.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
99	DI_1-7.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
100	DI_1-8.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
101	DI_1-9.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
102	DI_1-10.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
103	DI_1-1.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
104	DI_1-2.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
105	DI_1-3.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
106	DI_1-4.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
107	DI_1-5.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
108	DI_1-6.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
109	DI_1-7.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
110	DI_1-8.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
111	DI_1-9.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
112	DI_1-10.DI_TYPE	None	Sel_Op	Variation 2	Variation 2
113	DO_1-1.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
114	DO_1-2.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
115	DO_1-3.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
116	DO_1-4.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
117	DO_1-5.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
118	DO_1-6.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
119	DO_1-7.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
120	DO_1-8.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
121	DO_1-9.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
122	DO_1-10.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
123	DO_1-1.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
124	DO_1-2.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
125	DO_1-3.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
126	DO_1-4.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
127	DO_1-5.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
128	DO_1-6.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
129	DO_1-7.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
130	DO_1-8.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
131	DO_1-9.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
132	DO_1-10.DO_TYPE	None	Sel_Op	Variation 2	Variation 2
133	PI_1-1.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
134	PI_1-2.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
135	PI_1-3.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
136	PI_1-4.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
137	PI_1-5.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
138	PI_1-6.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
139	PI_1-7.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
140	PI_1-8.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
141	PI_1-9.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
142	PI_1-10.ACTUAL_MODE	Class_3	NA	Variation 2	Variation 2
143	PI_1-1.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
144	PI_1-2.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
145	PI_1-3.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
146	PI_1-4.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
147	PI_1-5.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
148	PI_1-6.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
149	PI_1-7.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
150	PI_1-8.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
151	PI_1-9.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
152	PI_1-10.TODAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
153	PI_1-1.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
154	PI_1-2.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
155	PI_1-3.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
156	PI_1-4.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
157	PI_1-5.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
158	PI_1-6.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
159	PI_1-7.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
160	PI_1-8.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
161	PI_1-9.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
162	PI_1-10.YESTERDAYS_TOTAL	Class_3	NA	Variation 4	Variation 4
163	PI_1-1.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
164	PI_1-2.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
165	PI_1-3.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
166	PI_1-4.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
167	PI_1-5.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
168	PI_1-6.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
169	PI_1-7.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
170	PI_1-8.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
171	PI_1-9.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
172	PI_1-10.FREQ_ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
173	PI_1-1.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
174	PI_1-2.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
175	PI_1-3.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
176	PI_1-4.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
177	PI_1-5.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
178	PI_1-6.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
179	PI_1-7.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
180	PI_1-8.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
181	PI_1-9.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
182	PI_1-10.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
183	Sensor_1-1.XMTR_STATUS	Class_3	NA	Variation 2	Variation 2
184	Sensor_1-2.XMTR_STATUS	Class_3	NA	Variation 2	Variation 2
185	Sensor_1-3.XMTR_STATUS	Class_3	NA	Variation 2	Variation 2
186	Station_1.ATMPR_SEL	Class_3	NA	Variation 4	Variation 4
187	Station_1.GRAV_SEL	Class_3	NA	Variation 4	Variation 4
188	Station_1.PB	None	Sel_Op	Variation 4	Variation 4
189	Station_1.TB_SEL	None	Sel_Op	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
190	Station_1.LATITUDE	None	Sel_Op	Variation 4	Variation 4
191	Station_1.ELEVATION	None	Sel_Op	Variation 4	Variation 4
192	Station_1.ZF_METHOD	None	Sel_Op	Variation 2	Variation 2
193	Station_1.HV_METHOD	None	Sel_Op	Variation 2	Variation 2
194	Station_1.UVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
195	Station_1.UVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
196	Station_1.UVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
197	Station_1.UVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
198	Station_1.UVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
199	Station_1.SVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
200	Station_1.SVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
201	Station_1.SVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
202	Station_1.SVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
203	Station_1.SVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
204	Station_1.MASS_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
205	Station_1.MASS_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
206	Station_1.MASS_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
207	Station_1.MASS_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
208	Station_1.MASS_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
209	Station_1.ENERGY_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
210	Station_1.ENERGY_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
211	Station_1.ENERGY_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
212	Station_1.ENERGY_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
213	Station_1.ENERGY_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
214	Station_2.ATMPR_SEL	Class_3	NA	Variation 4	Variation 4
215	Station_2.GRAV_SEL	Class_3	NA	Variation 4	Variation 4
216	Station_2.PB	None	Sel_Op	Variation 4	Variation 4
217	Station_2.TB_SEL	None	Sel_Op	Variation 4	Variation 4
218	Station_2.LATITUDE	None	Sel_Op	Variation 4	Variation 4
219	Station_2.ELEVATION	None	Sel_Op	Variation 4	Variation 4
220	Station_2.ZF_METHOD	None	Sel_Op	Variation 2	Variation 2
221	Station_2.HV_METHOD	None	Sel_Op	Variation 2	Variation 2
222	Station_2.UVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
223	Station_2.UVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
224	Station_2.UVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
225	Station_2.UVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
226	Station_2.UVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
227	Station_2.SVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
228	Station_2.SVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
229	Station_2.SVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
230	Station_2.SVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
231	Station_2.SVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
232	Station_2.MASS_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
233	Station_2.MASS_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
234	Station_2.MASS_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
235	Station_2.MASS_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
236	Station_2.MASS_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
237	Station_2.ENERGY_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
238	Station_2.ENERGY_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
239	Station_2.ENERGY_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
240	Station_2.ENERGY_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
241	Station_2.ENERGY_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
242	DP Mtr_1.MTR_TYPE	None	Sel_Op	Variation 2	Variation 2
243	DP Mtr_1.AGA3_METHOD	None	Sel_Op	Variation 2	Variation 2
244	DP Mtr_1.ISO5167_METHOD	None	Sel_Op	Variation 2	Variation 2
245	DP Mtr_1.RMT_ORIF_METHOD	None	Sel_Op	Variation 2	Variation 2
246	DP Mtr_1.CONE_METHOD	None	Sel_Op	Variation 2	Variation 2
247	DP Mtr_1.ABAR_METHOD	None	Sel_Op	Variation 2	Variation 2
248	DP Mtr_1.MTR_DIAM	None	Sel_Op	Variation 4	Variation 4
249	DP Mtr_1.PIPE_DIAM	None	Sel_Op	Variation 4	Variation 4
250	DP Mtr_1.NO_FLOW_LIM	None	Sel_Op	Variation 4	Variation 4
251	DP Mtr_1.PIPE_MAT_OPT	None	Sel_Op	Variation 2	Variation 2
252	DP Mtr_1.MTR_MAT_OPT	None	Sel_Op	Variation 2	Variation 2
253	DP Mtr_1.PIPE_DIAM_REF	None	Sel_Op	Variation 4	Variation 4
254	DP Mtr_1.MTR_DIAM_REF	None	Sel_Op	Variation 4	Variation 4
255	DP Mtr_1.FCALC_ALM	Class_3	NA	Variation 1	Variation 1
256	DP Mtr_1.MTR_DIAM_SEL	Class_3	NA	Variation 4	Variation 4
257	DP Mtr_1.PIPE_DIAM_SEL	Class_3	NA	Variation 4	Variation 4
258	DP Mtr_1.BETA_SEL	Class_3	NA	Variation 4	Variation 4
259	DP Mtr_1.PLOSS_SEL	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
260	DP Mtr_1.RE_SEL	Class_3	NA	Variation 4	Variation 4
261	DP Mtr_1.CD_SEL	Class_3	NA	Variation 4	Variation 4
262	DP Mtr_1.FS_SEL	Class_3	NA	Variation 4	Variation 4
263	DP Mtr_1.Y1_SEL	Class_3	NA	Variation 4	Variation 4
264	DP Mtr_1.EV_SEL	Class_3	NA	Variation 4	Variation 4
265	DP Mtr_1.IV_SEL	Class_3	NA	Variation 4	Variation 4
266	DP Mtr_1.IMV_SEL	Class_3	NA	Variation 4	Variation 4
267	DP Mtr_1.MF_SEL	Class_3	NA	Variation 4	Variation 4
268	DP Mtr_1.USER_CORR_FACTOR	Class_3	NA	Variation 4	Variation 4
269	DP Mtr_1.STATION_OBJ.PB	None	Sel_Op	Variation 4	Variation 4
270	DP Mtr_1.STATION_OBJ.TB_SEL	None	Sel_Op	Variation 2	Variation 2
271	DP Mtr_1.STATION_OBJ.LATITUDE	None	Sel_Op	Variation 4	Variation 4
272	DP Mtr_1.STATION_OBJ.ELEVATION	None	Sel_Op	Variation 4	Variation 4
273	DP Mtr_1.STATION_OBJ.ATMPR_SEL	Class_3	NA	Variation 4	Variation 4
274	DP Mtr_1.STATION_OBJ.GRAV_SEL	Class_3	NA	Variation 4	Variation 4
275	DP Mtr_1.STATION_OBJ.HIST_ GRP_OBJ.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
276	DP Mtr_1.FLUID_PROP_OBJ.N2_INUSE	Class_3	NA	Variation 4	Variation 4
277	DP Mtr_1.FLUID_PROP_OBJ.CO2_INUSE	Class_3	NA	Variation 4	Variation 4
278	DP Mtr_1.FLUID_PROP_OBJ.C1_INUSE	Class_3	NA	Variation 4	Variation 4
279	DP Mtr_1.FLUID_PROP_OBJ.C2_INUSE	Class_3	NA	Variation 4	Variation 4
280	DP Mtr_1.FLUID_PROP_OBJ.C3_INUSE	Class_3	NA	Variation 4	Variation 4
281	DP Mtr_1.FLUID_PROP_OBJ.NC4_INUSE	Class_3	NA	Variation 4	Variation 4
282	DP Mtr_1.FLUID_PROP_OBJ.IC4_INUSE	Class_3	NA	Variation 4	Variation 4
283	DP Mtr_1.FLUID_PROP_OBJ.NC5_INUSE	Class_3	NA	Variation 4	Variation 4
284	DP Mtr_1.FLUID_PROP_OBJ.IC5_INUSE	Class_3	NA	Variation 4	Variation 4
285	DP Mtr_1.FLUID_PROP_OBJ.C6_INUSE	Class_3	NA	Variation 4	Variation 4
286	DP Mtr_1.FLUID_PROP_OBJ.C7_INUSE	Class_3	NA	Variation 4	Variation 4
287	DP Mtr_1.FLUID_PROP_OBJ.C8_INUSE	Class_3	NA	Variation 4	Variation 4
288	DP Mtr_1.FLUID_PROP_OBJ.C9_INUSE	Class_3	NA	Variation 4	Variation 4
289	DP Mtr_1.FLUID_PROP_OBJ.C10_INUSE	Class_3	NA	Variation 4	Variation 4
290	DP Mtr_1.FLUID_PROP_OBJ.H2S_INUSE	Class_3	NA	Variation 4	Variation 4
291	DP Mtr_1.FLUID_PROP_OBJ.H2O_INUSE	Class_3	NA	Variation 4	Variation 4
292	DP Mtr_1.FLUID_PROP_OBJ.HE_INUSE	Class_3	NA	Variation 4	Variation 4
293	DP Mtr_1.FLUID_PROP_OBJ.O2_INUSE	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
294	DP Mtr_1.FLUID_PROP_OBJ.H2_INUSE	Class_3	NA	Variation 4	Variation 4
295	DP Mtr_1.FLUID_PROP_OBJ.CO_INUSE	Class_3	NA	Variation 4	Variation 4
296	DP Mtr_1.FLUID_PROP_OBJ.AR_INUSE	Class_3	NA	Variation 4	Variation 4
297	DP Mtr_1.FLUID_PROP_OBJ.H2O_ CONTENT_SEL	Class_3	NA	Variation 4	Variation 4
298	DP Mtr_1.FLUID_PROP_OBJ.HV_REAL_SEL	Class_3	NA	Variation 4	Variation 4
299	DP Mtr_1.FLUID_PROP_OBJ.RD_REAL_SEL	Class_3	NA	Variation 4	Variation 4
300	DP Mtr_1.FLUID_PROP_OBJ.ZB_SEL	Class_3	NA	Variation 4	Variation 4
301	DP Mtr_1.FLUID_PROP_OBJ.ZS_SEL	Class_3	NA	Variation 4	Variation 4
302	DP Mtr_1.FLUID_PROP_OBJ.ZF_SEL	Class_3	NA	Variation 4	Variation 4
303	DP Mtr_1.FLUID_PROP_OBJ.DENSB_SEL	Class_3	NA	Variation 4	Variation 4
304	DP Mtr_1.FLUID_PROP_OBJ.DENSF_SEL	Class_3	NA	Variation 4	Variation 4
305	DP Mtr_1.DP_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
306	DP Mtr_1.PF_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
307	DP Mtr_1.TF_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
308	DP Mtr_1.UVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
309	DP Mtr_1.UVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
310	DP Mtr_1.UVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
311	DP Mtr_1.UVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
312	DP Mtr_1.UVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
313	DP Mtr_1.SVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
314	DP Mtr_1.SVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
315	DP Mtr_1.SVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
316	DP Mtr_1.SVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
317	DP Mtr_1.SVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
318	DP Mtr_1.MASS_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
319	DP Mtr_1.MASS_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
320	DP Mtr_1.MASS_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
321	DP Mtr_1.MASS_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
322	DP Mtr_1.MASS_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
323	DP Mtr_1.ENERGY_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
324	DP Mtr_1.ENERGY_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
325	DP Mtr_1.ENERGY_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
326	DP Mtr_1.ENERGY_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
327	DP Mtr_1.ENERGY_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
328	DP Mtr_1.FLWTM_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
329	DP Mtr_1.FLWTM_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
330	DP Mtr_1.FLWTM_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
331	DP Mtr_1.FLWTM_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
332	DP Mtr_1.FLWTM_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
333	DP Mtr_1.IV_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
334	DP Mtr_1.IV_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
335	DP Mtr_1.IV_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
336	DP Mtr_1.IV_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
337	DP Mtr_1.IV_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
338	DP Mtr_2.MTR_TYPE	None	Sel_Op	Variation 2	Variation 2
339	DP Mtr_2.AGA3_METHOD	None	Sel_Op	Variation 2	Variation 2
340	DP Mtr_2.ISO5167_METHOD	None	Sel_Op	Variation 2	Variation 2
341	DP Mtr_2.RMT_ORIF_METHOD	None	Sel_Op	Variation 2	Variation 2
342	DP Mtr_2.CONE_METHOD	None	Sel_Op	Variation 2	Variation 2
343	DP Mtr_2.ABAR_METHOD	None	Sel_Op	Variation 2	Variation 2
344	DP Mtr_2.MTR_DIAM	None	Sel_Op	Variation 4	Variation 4
345	DP Mtr_2.PIPE_DIAM	None	Sel_Op	Variation 4	Variation 4
346	DP Mtr_2.NO_FLOW_LIM	None	Sel_Op	Variation 4	Variation 4
347	DP Mtr_2.PIPE_MAT_OPT	None	Sel_Op	Variation 2	Variation 2
348	DP Mtr_2.MTR_MAT_OPT	None	Sel_Op	Variation 2	Variation 2
349	DP Mtr_2.PIPE_DIAM_REF	None	Sel_Op	Variation 4	Variation 4
350	DP Mtr_2.MTR_DIAM_REF	None	Sel_Op	Variation 4	Variation 4
351	DP Mtr_2.FCALC_ALM	Class_3	NA	Variation 1	Variation 1
352	DP Mtr_2.MTR_DIAM_SEL	Class_3	NA	Variation 4	Variation 4
353	DP Mtr_2.PIPE_DIAM_SEL	Class_3	NA	Variation 4	Variation 4
354	DP Mtr_2.BETA_SEL	Class_3	NA	Variation 4	Variation 4
355	DP Mtr_2.PLOSS_SEL	Class_3	NA	Variation 4	Variation 4
356	DP Mtr_2.RE_SEL	Class_3	NA	Variation 4	Variation 4
357	DP Mtr_2.CD_SEL	Class_3	NA	Variation 4	Variation 4
358	DP Mtr_2.FS_SEL	Class_3	NA	Variation 4	Variation 4
359	DP Mtr_2.Y1_SEL	Class_3	NA	Variation 4	Variation 4
360	DP Mtr_2.EV_SEL	Class_3	NA	Variation 4	Variation 4
361	DP Mtr_2.IV_SEL	Class_3	NA	Variation 4	Variation 4
362	DP Mtr_2.IMV_SEL	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
363	DP Mtr_2.MF_SE:	Class_3	NA	Variation 4	Variation 4
3643	DP Mtr_2.USER_CORR_FACTOR	Class_3	NA	Variation 4	Variation 4
365	DP Mtr_2.STATION_OBJ.ATMPR_SEL	Class_3	NA	Variation 4	Variation 4
366	DP Mtr_2.STATION_OBJ.GRAV_SEL	Class_3	NA	Variation 4	Variation 4
367	DP Mtr_2.STATION_OBJ.PB	None	Sel_Op	Variation 4	Variation 4
368	DP Mtr_2.STATION_OBJ.TB_SEL	None	Sel_Op	Variation 2	Variation 2
369	DP Mtr_2.STATION_OBJ.LATITUDE	None	Sel_Op	Variation 4	Variation 4
370	DP Mtr_2.STATION_OBJ.ELEVATION	None	Sel_Op	Variation 4	Variation 4
371	DP Mtr_2.STATION_OBJ.HIST_GRP_OBJ. CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
372	DP Mtr_2.FLUID_PROP_OBJ.N2_INUSE	Class_3	NA	Variation 4	Variation 4
373	DP Mtr_2.FLUID_PROP_OBJ.CO2_INUSE	Class_3	NA	Variation 4	Variation 4
374	DP Mtr_2.FLUID_PROP_OBJ.C1_INUSE	Class_3	NA	Variation 4	Variation 4
375	DP Mtr_2.FLUID_PROP_OBJ.C2_INUSE	Class_3	NA	Variation 4	Variation 4
376	DP Mtr_2.FLUID_PROP_OBJ.C3_INUSE	Class_3	NA	Variation 4	Variation 4
377	DP Mtr_2.FLUID_PROP_OBJ.NC4_INUSE	Class_3	NA	Variation 4	Variation 4
378	DP Mtr_2.FLUID_PROP_OBJ.IC4_INUSE	Class_3	NA	Variation 4	Variation 4
379	DP Mtr_2.FLUID_PROP_OBJ.NC5_INUSE	Class_3	NA	Variation 4	Variation 4
380	DP Mtr_2.FLUID_PROP_OBJ.IC5_INUSE	Class_3	NA	Variation 4	Variation 4
381	DP Mtr_2.FLUID_PROP_OBJ.C6_INUSE	Class_3	NA	Variation 4	Variation 4
382	DP Mtr_2.FLUID_PROP_OBJ.C7_INUSE	Class_3	NA	Variation 4	Variation 4
383	DP Mtr_2.FLUID_PROP_OBJ.C8_INUSE	Class_3	NA	Variation 4	Variation 4
384	DP Mtr_2.FLUID_PROP_OBJ.C9_INUSE	Class_3	NA	Variation 4	Variation 4
385	DP Mtr_2.FLUID_PROP_OBJ.C10_INUSE	Class_3	NA	Variation 4	Variation 4
386	DP Mtr_2.FLUID_PROP_OBJ.H2S_INUSE	Class_3	NA	Variation 4	Variation 4
387	DP Mtr_2.FLUID_PROP_OBJ.H2O_INUSE	Class_3	NA	Variation 4	Variation 4
388	DP Mtr_2.FLUID_PROP_OBJ.HE_INUSE	Class_3	NA	Variation 4	Variation 4
389	DP Mtr_2.FLUID_PROP_OBJ.O2_INUSE	Class_3	NA	Variation 4	Variation 4
390	DP Mtr_2.FLUID_PROP_OBJ.H2_INUSE	Class_3	NA	Variation 4	Variation 4
391	DP Mtr_2.FLUID_PROP_OBJ.CO_INUSE	Class_3	NA	Variation 4	Variation 4
392	DP Mtr_2.FLUID_PROP_OBJ.AR_INUSE	Class_3	NA	Variation 4	Variation 4
393	DP Mtr_2.FLUID_PROP_OBJ.H2O_ CONTENT_SEL	Class_3	NA	Variation 4	Variation 4
394	DP Mtr_2.FLUID_PROP_OBJ.HV_REAL_SEL	Class_3	NA	Variation 4	Variation 4
395	DP Mtr_2.FLUID_PROP_OBJ.RD_REAL_SEL	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
396	DP Mtr_2.FLUID_PROP_OBJ.ZB_SEL	Class_3	NA	Variation 4	Variation 4
397	DP Mtr_2.FLUID_PROP_OBJ.ZS_SEL	Class_3	NA	Variation 4	Variation 4
398	DP Mtr_2.FLUID_PROP_OBJ.ZF_SEL	Class_3	NA	Variation 4	Variation 4
399	DP Mtr_2.FLUID_PROP_OBJ.DENSB_SEL	Class_3	NA	Variation 4	Variation 4
400	DP Mtr_2.FLUID_PROP_OBJ.DENSF_SEL	Class_3	NA	Variation 4	Variation 4
401	DP Mtr_2.DP_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
402	DP Mtr_2.PF_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
403	DP Mtr_2.TF_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
404	DP Mtr_2.UVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
405	DP Mtr_2.UVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
406	DP Mtr_2.UVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
407	DP Mtr_2.UVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
408	DP Mtr_2.UVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
409	DP Mtr_2.SVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
410	DP Mtr_2.SVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
411	DP Mtr_2.SVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
412	DP Mtr_2.SVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
413	DP Mtr_2.SVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
414	DP Mtr_2.MASS_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
415	DP Mtr_2.MASS_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
416	DP Mtr_2.MASS_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
417	DP Mtr_2.MASS_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
418	DP Mtr_2.MASS_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
419	DP Mtr_2.ENERGY_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
420	DP Mtr_2.ENERGY_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
421	DP Mtr_2.ENERGY_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
422	DP Mtr_2.ENERGY_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
423	DP Mtr_2.ENERGY_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
424	DP Mtr_2.FLWTM_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
425	DP Mtr_2.FLWTM_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
426	DP Mtr_2.FLWTM_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
427	DP Mtr_2.FLWTM_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
428	DP Mtr_2.FLWTM_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
429	DP Mtr_2.IV_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
430	DP Mtr_2.IV_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
431	DP Mtr_2.IV_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
432	DP Mtr_2.IV_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
433	DP Mtr_2.IV_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
434	Linear Mtr_1.NO_FLOW_LIM	None	Sel_Op	Variation 4	Variation 4
435	Linear Mtr_1.NO_FLOW_TIME	None	Sel_Op	Variation 1	Variation 1
436	Linear Mtr_1.FACTOR_CURVE_OPT	None	Sel_Op	Variation 2	Variation 2
437	Linear Mtr_1.USER_CORR_FACTOR	None	Sel_Op	Variation 4	Variation 4
438	Linear Mtr_1.MASS_CORR_PF_OPT	None	Sel_Op	Variation 4	Variation 4
439	Linear Mtr_1.PCAL	None	Sel_Op	Variation 4	Variation 4
440	Linear Mtr_1.MASS_CORR_PF_COEFF	None	Sel_Op	Variation 4	Variation 4
441	Linear Mtr_1.FCALC_ALM	Class_3	NA	Variation 1	Variation 1
442	Linear Mtr_1.PRESS_MULT	Class_3	NA	Variation 4	Variation 4
443	Linear Mtr_1.TEMP_MULT	Class_3	NA	Variation 4	Variation 4
444	Linear Mtr_1.COMP_MULT	Class_3	NA	Variation 4	Variation 4
445	Linear Mtr_1.IMV_SEL	Class_3	NA	Variation 4	Variation 4
446	Linear Mtr_1.MF_SEL	Class_3	NA	Variation 4	Variation 4
447	Linear Mtr_1.KF_SEL	Class_3	NA	Variation 4	Variation 4
448	Linear Mtr_1.PF_OBJ.CAL_OBJ.USER_ZERO_VAL	None	Sel_Op	Variation 3	Variation 3
449	Linear Mtr_1.PF_OBJ.CAL_OBJ.USER_SPAN_VAL	None	Sel_Op	Variation 3	Variation 3
450	Linear Mtr_1.TF_OBJ.CAL_OBJ.USER_ZERO_VAL	None	Sel_Op	Variation 3	Variation 3
451	Linear Mtr_1.TF_OBJ.CAL_OBJ.USER_SPAN_VAL	None	Sel_Op	Variation 3	Variation 3
452	Linear Mtr_1.STATION_OBJ.ATMPR_SEL	Class_3	NA	Variation 4	Variation 4
453	Linear Mtr_1.STATION_OBJ.GRAV_SEL	Class_3	NA	Variation 4	Variation 4
454	Linear Mtr_1.STATION_OBJ.PB	None	Sel_Op	Variation 4	Variation 4
455	Linear Mtr_1.STATION_OBJ.TB_SEL	None	Sel_Op	Variation 4	Variation 4
456	Linear Mtr_1.STATION_OBJ.LATITUDE	None	Sel_Op	Variation 4	Variation 4
457	Linear Mtr_1.STATION_OBJ.ELEVATION	None	Sel_Op	Variation 4	Variation 4
458	Linear Mtr_1.STATION_OBJ.HIST_GRP_OBJ.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
459	Linear Mtr_1.FLUID_PROP_OBJ.N2_INUSE	Class_3	Sel_Op	Variation 4	Variation 4
460	Linear Mtr_1.FLUID_PROP_OBJ.CO2_INUSE	Class_3	NA	Variation 4	Variation 4
461	Linear Mtr_1.FLUID_PROP_OBJ.C1_INUSE	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
462	Linear Mtr_1.FLUID_PROP_OBJ.C2_INUSE	Class_3	NA	Variation 4	Variation 4
463	Linear Mtr_1.FLUID_PROP_OBJ.C3_INUSE	Class_3	NA	Variation 4	Variation 4
464	Linear Mtr_1.FLUID_PROP_OBJ.NC4_INUSE	Class_3	NA	Variation 4	Variation 4
465	Linear Mtr_1.FLUID_PROP_OBJ.IC4_INUSE	Class_3	NA	Variation 4	Variation 4
466	Linear Mtr_1.FLUID_PROP_OBJ.NC5_INUSE	Class_3	NA	Variation 4	Variation 4
467	Linear Mtr_1.FLUID_PROP_OBJ.IC5_INUSE	Class_3	NA	Variation 4	Variation 4
468	Linear Mtr_1.FLUID_PROP_OBJ.C6_INUSE	Class_3	NA	Variation 4	Variation 4
469	Linear Mtr_1.FLUID_PROP_OBJ.C7_INUSE	Class_3	NA	Variation 4	Variation 4
470	Linear Mtr_1.FLUID_PROP_OBJ.C8_INUSE	Class_3	NA	Variation 4	Variation 4
471	Linear Mtr_1.FLUID_PROP_OBJ.C9_INUSE	Class_3	NA	Variation 4	Variation 4
472	Linear Mtr_1.FLUID_PROP_OBJ.C10_INUSE	Class_3	NA	Variation 4	Variation 4
473	Linear Mtr_1.FLUID_PROP_OBJ.H2S_INUSE	Class_3	NA	Variation 4	Variation 4
474	Linear Mtr_1.FLUID_PROP_OBJ.H2O_INUSE	Class_3	NA	Variation 4	Variation 4
475	Linear Mtr_1.FLUID_PROP_OBJ.HE_INUSE	Class_3	NA	Variation 4	Variation 4
476	Linear Mtr_1.FLUID_PROP_OBJ.O2_INUSE	Class_3	NA	Variation 4	Variation 4
477	Linear Mtr_1.FLUID_PROP_OBJ.H2_INUSE	Class_3	NA	Variation 4	Variation 4
478	Linear Mtr_1.FLUID_PROP_OBJ.CO_INUSE	Class_3	NA	Variation 4	Variation 4
479	Linear Mtr_1.FLUID_PROP_OBJ.AR_INUSE	Class_3	NA	Variation 4	Variation 4
480	Linear Mtr_1.FLUID_PROP_OBJ.H2O_ CONTENT_SEL	Class_3	NA	Variation 4	Variation 4
481	Linear Mtr_1.FLUID_PROP_OBJ.HV_REAL_ SEL	Class_3	NA	Variation 4	Variation 4
481	Linear Mtr_1.FLUID_PROP_OBJ.RD_REAL_ SEL	Class_3	NA	Variation 4	Variation 4
483	Linear Mtr_1.FLUID_PROP_OBJ.ZB_SEL	Class_3	NA	Variation 4	Variation 4
484	Linear Mtr_1.FLUID_PROP_OBJ.ZS_SEL	Class_3	NA	Variation 4	Variation 4
485	Linear Mtr_1.FLUID_PROP_OBJ.ZF_SEL	Class_3	NA	Variation 4	Variation 4
486	Linear Mtr_1.FLUID_PROP_OBJ.DENSB_SEL	Class_3	NA	Variation 4	Variation 4
487	Linear Mtr_1.FLUID_PROP_OBJ.DENSF_SEL	Class_3	NA	Variation 4	Variation 4
488	Linear Mtr_1.PF_OBJ.ALM_OBJ.PROCESS_ ALM	Class_3	NA	Variation 2	Variation 2
489	Linear Mtr_1.TF_OBJ.ALM_OBJ.PROCESS_ ALM	Class_3	NA	Variation 2	Variation 2
490	Linear Mtr_1.UVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
491	Linear Mtr_1.UVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
492	Linear Mtr_1.UVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
493	Linear Mtr_1.UVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
494	Linear Mtr_1.UVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
495	Linear Mtr_1.SVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
496	Linear Mtr_1.SVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
497	Linear Mtr_1.SVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
498	Linear Mtr_1.SVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
499	Linear Mtr_1.SVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
500	Linear Mtr_1.MASS_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
501	Linear Mtr_1.MASS_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
502	Linear Mtr_1.MASS_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
503	Linear Mtr_1.MASS_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
504	Linear Mtr_1.MASS_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
505	Linear Mtr_1.ENERGY_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
506	Linear Mtr_1.ENERGY_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
507	Linear Mtr_1.ENERGY_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
508	Linear Mtr_1.ENERGY_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
509	Linear Mtr_1.ENERGY_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
510	Linear Mtr_1.FLWTM_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
511	Linear Mtr_1.FLWTM_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
512	Linear Mtr_1.FLWTM_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
513	Linear Mtr_1.FLWTM_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
514	Linear Mtr_1.FLWTM_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
515	Linear Mtr_2.NO_FLOW_LIM	None	Sel_Op	Variation 4	Variation 4
516	Linear Mtr_2.NO_FLOW_TIME	None	Sel_Op	Variation 1	Variation 1
517	Linear Mtr_2.FACTOR_CURVE_OPT	None	Sel_Op	Variation 2	Variation 2
518	Linear Mtr_2.USER_CORR_FACTOR	None	Sel_Op	Variation 4	Variation 4
519	Linear Mtr_2.MASS_CORR_PF_OPT	None	Sel_Op	Variation 4	Variation 4
520	Linear Mtr_2.PCAL	None	Sel_Op	Variation 4	Variation 4
521	Linear Mtr_2.MASS_CORR_PF_COEFF	None	Sel_Op	Variation 4	Variation 4
522	Linear Mtr_2.FCALC_ALM	Class_3	NA	Variation 1	Variation 1
523	Linear Mtr_2.PRESS_MULT	Class_3	NA	Variation 4	Variation 4
524	Linear Mtr_2.TEMP_MULT	Class_3	NA	Variation 4	Variation 4
525	Linear Mtr_2.COMP_MULT	Class_3	NA	Variation 4	Variation 4
526	Linear Mtr_2.IMV_SEL	Class_3	NA	Variation 4	Variation 4
527	Linear Mtr_2.MF_SEL	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
528	Linear Mtr_2.KF_SEL	Class_3	NA	Variation 4	Variation 4
529	Linear Mtr_2.PF_OBJ.CAL_OBJ.USER_ZERO_VAL	None	Sel_Op	Variation 3	Variation 3
530	Linear Mtr_2.PF_OBJ.CAL_OBJ.USER_SPAN_VAL	None	Sel_Op	Variation 3	Variation 3
531	Linear Mtr_2.TF_OBJ.CAL_OBJ.USER_ZERO_VAL	None	Sel_Op	Variation 3	Variation 3
532	Linear Mtr_2.TF_OBJ.CAL_OBJ.USER_SPAN_VAL	None	Sel_Op	Variation 3	Variation 3
533	Linear Mtr_2.STATION_OBJ.PB	None	Sel_Op	Variation 4	Variation 4
534	Linear Mtr_2.STATION_OBJ.TB_SEL	None	Sel_Op	Variation 4	Variation 4
535	Linear Mtr_2.STATION_OBJ.LATITUDE	None	Sel_Op	Variation 4	Variation 4
536	Linear Mtr_2.STATION_OBJ.ELEVATION	None	Sel_Op	Variation 4	Variation 4
537	Linear Mtr_2.STATION_OBJ.ATMPR_SEL	Class_3	NA	Variation 4	Variation 4
538	Linear Mtr_2.STATION_OBJ.GRAV_SEL	Class_3	NA	Variation 4	Variation 4
539	Linear Mtr_2.STATION_OBJ.HIST_GRP_OBJ.CONTRACT_HR	None	Sel_Op	Variation 2	Variation 2
540	Linear Mtr_2.FLUID_PROP_OBJ.N2_INUSE	Class_3	NA	Variation 4	Variation 4
541	Linear Mtr_2.FLUID_PROP_OBJ.CO2_INUSE	Class_3	NA	Variation 4	Variation 4
542	Linear Mtr_2.FLUID_PROP_OBJ.C1_INUSE	Class_3	NA	Variation 4	Variation 4
543	Linear Mtr_2.FLUID_PROP_OBJ.C2_INUSE	Class_3	NA	Variation 4	Variation 4
544	Linear Mtr_2.FLUID_PROP_OBJ.C3_INUSE	Class_3	NA	Variation 4	Variation 4
545	Linear Mtr_2.FLUID_PROP_OBJ.NC4_INUSE	Class_3	NA	Variation 4	Variation 4
546	Linear Mtr_2.FLUID_PROP_OBJ.IC4_INUSE	Class_3	NA	Variation 4	Variation 4
547	Linear Mtr_2.FLUID_PROP_OBJ.NC5_INUSE	Class_3	NA	Variation 4	Variation 4
548	Linear Mtr_2.FLUID_PROP_OBJ.IC5_INUSE	Class_3	NA	Variation 4	Variation 4
549	Linear Mtr_2.FLUID_PROP_OBJ.C6_INUSE	Class_3	NA	Variation 4	Variation 4
550	Linear Mtr_2.FLUID_PROP_OBJ.C7_INUSE	Class_3	NA	Variation 4	Variation 4
551	Linear Mtr_2.FLUID_PROP_OBJ.C8_INUSE	Class_3	NA	Variation 4	Variation 4
552	Linear Mtr_2.FLUID_PROP_OBJ.C9_INUSE	Class_3	NA	Variation 4	Variation 4
553	Linear Mtr_2.FLUID_PROP_OBJ.C10_INUSE	Class_3	NA	Variation 4	Variation 4
554	Linear Mtr_2.FLUID_PROP_OBJ.H2S_INUSE	Class_3	NA	Variation 4	Variation 4
555	Linear Mtr_2.FLUID_PROP_OBJ.H2O_INUSE	Class_3	NA	Variation 4	Variation 4
556	Linear Mtr_2.FLUID_PROP_OBJ.HE_INUSE	Class_3	NA	Variation 4	Variation 4
557	Linear Mtr_2.FLUID_PROP_OBJ.O2_INUSE	Class_3	NA	Variation 4	Variation 4
558	Linear Mtr_2.FLUID_PROP_OBJ.H2_INUSE	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
559	Linear Mtr_2.FLUID_PROP_OBJ.CO_INUSE	Class_3	NA	Variation 4	Variation 4
560	Linear Mtr_2.FLUID_PROP_OBJ.AR_INUSE	Class_3	NA	Variation 4	Variation 4
561	Linear Mtr_2.FLUID_PROP_OBJ.H2O_CONTENT_SEL	Class_3	NA	Variation 4	Variation 4
562	Linear Mtr_2.FLUID_PROP_OBJ.HV_REAL_SEL	Class_3	NA	Variation 4	Variation 4
563	Linear Mtr_2.FLUID_PROP_OBJ.RD_REAL_SEL	Class_3	NA	Variation 4	Variation 4
564	Linear Mtr_2.FLUID_PROP_OBJ.ZB_SEL	Class_3	NA	Variation 4	Variation 4
565	Linear Mtr_2.FLUID_PROP_OBJ.ZS_SEL	Class_3	NA	Variation 4	Variation 4
566	Linear Mtr_2.FLUID_PROP_OBJ.ZF_SEL	Class_3	NA	Variation 4	Variation 4
567	Linear Mtr_2.FLUID_PROP_OBJ.DENSB_SEL	Class_3	NA	Variation 4	Variation 4
568	Linear Mtr_2.FLUID_PROP_OBJ.DENSF_SEL	Class_3	NA	Variation 4	Variation 4
569	Linear Mtr_2.PF_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
570	Linear Mtr_2.TF_OBJ.ALM_OBJ.PROCESS_ALM	Class_3	NA	Variation 2	Variation 2
571	Linear Mtr_2.UVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
572	Linear Mtr_2.UVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
573	Linear Mtr_2.UVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
574	Linear Mtr_2.UVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
575	Linear Mtr_2.UVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
576	Linear Mtr_2.SVOL_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
577	Linear Mtr_2.SVOL_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
578	Linear Mtr_2.SVOL_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
579	Linear Mtr_2.SVOL_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
580	Linear Mtr_2.SVOL_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
581	Linear Mtr_2.MASS_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
582	Linear Mtr_2.MASS_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
583	Linear Mtr_2.MASS_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
584	Linear Mtr_2.MASS_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
585	Linear Mtr_2.MASS_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
586	Linear Mtr_2.ENERGY_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
587	Linear Mtr_2.ENERGY_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
588	Linear Mtr_2.ENERGY_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
589	Linear Mtr_2.ENERGY_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
590	Linear Mtr_2.ENERGY_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
591	Linear Mtr_2.FLWTM_TOT_OBJ.CURRENT	Class_3	NA	Variation 4	Variation 4
592	Linear Mtr_2.FLWTM_TOT_OBJ.CUR_PER	Class_3	NA	Variation 4	Variation 4
593	Linear Mtr_2.FLWTM_TOT_OBJ.PREV_PER	Class_3	NA	Variation 4	Variation 4
594	Linear Mtr_2.FLWTM_TOT_OBJ.CUR_DAY	Class_3	NA	Variation 4	Variation 4
595	Linear Mtr_2.FLWTM_TOT_OBJ.PREV_DAY	Class_3	NA	Variation 4	Variation 4
596	PID_1.PID_LOOP_TYPE	None	Sel_Op	Variation 2	Variation 2
597	PID_1.P_PROPORTIONAL_G	None	Sel_Op	Variation 3	Variation 3
598	PID_1.P_INTEGRAL_GAIN	None	Sel_Op	Variation 3	Variation 3
599	PID_1.P_DERIVATIVE_GAIN	None	Sel_Op	Variation 3	Variation 3
600	PID_1.O_PROPORTIONAL_G	None	Sel_Op	Variation 3	Variation 3
601	PID_1.O_INTEGRAL_GAIN	None	Sel_Op	Variation 3	Variation 3
602	PID_1.O_DERIVATIVE_GAIN	None	Sel_Op	Variation 3	Variation 3
603	PID_1.P_SETPOINT	Class_3	NA	Variation 3	Variation 3
604	PID_1.O_SETPOINT	Class_3	NA	Variation 3	Variation 3
605	PID_1.SELECTED_LOOP	Class_3	NA	Variation 2	Variation 2
606	PID_2.PID_LOOP_TYPE	None	Sel_Op	Variation 2	Variation 2
607	PID_2.P_PROPORTIONAL_G	None	Sel_Op	Variation 3	Variation 3
608	PID_2.P_INTEGRAL_GAIN	None	Sel_Op	Variation 3	Variation 3
609	PID_2.P_DERIVATIVE_GAIN	None	Sel_Op	Variation 3	Variation 3
610	PID_2.O_PROPORTIONAL_G	None	Sel_Op	Variation 3	Variation 3
611	PID_2.O_INTEGRAL_GAIN	None	Sel_Op	Variation 3	Variation 3
612	PID_2.O_DERIVATIVE_GAIN	None	Sel_Op	Variation 3	Variation 3
613	PID_2.P_SETPOINT	Class_3	NA	Variation 3	Variation 3
614	PID_2.O_SETPOINT	Class_3	NA	Variation 3	Variation 3
615	PID_2.SELECTED_LOOP	Class_3	NA	Variation 2	Variation 2
616	PID_3.PID_LOOP_TYPE	None	Sel_Op	Variation 2	Variation 2
617	PID_3.P_PROPORTIONAL_G	None	Sel_Op	Variation 3	Variation 3
618	PID_3.P_INTEGRAL_GAIN	None	Sel_Op	Variation 3	Variation 3
619	PID_3.P_DERIVATIVE_GAIN	None	Sel_Op	Variation 3	Variation 3
620	PID_3.O_PROPORTIONAL_G	None	Sel_Op	Variation 3	Variation 3
621	PID_3.O_INTEGRAL_GAIN	None	Sel_Op	Variation 3	Variation 3
622	PID_3.O_DERIVATIVE_GAIN	None	Sel_Op	Variation 3	Variation 3
623	PID_3.P_SETPOINT	Class_3	NA	Variation 3	Variation 3
624	PID_3.O_SETPOINT	Class_3	NA	Variation 3	Variation 3

Point Index	Tag Mapped	Default Class	Support Control Operations	Group 40 Default Variation	Group 41 Default Variation
625	PID_3.SELECTED_LOOP	Class_3	NA	Variation 2	Variation 2

4.5 Binary Counter: DNP3 Object Groups 20 (Events) & 22 (Events)

4.5.1 DNP3 Object Group 20: Counters (Static)

This group can be read with the following variations:

- **Variation 1:** 32-bit with flag
- **Variation 2**: 16-bit with flag
- **Variation 3**: 32-bit with flag, delta
- **Variation** 4: 16-bit with flag, delta
- **Variation 5**: 32-bit without flag
- **Variation 6**: 16-bit without flag
- **Variation 7**: 32-bit without flag, delta
- **Variation 8**: 16-bit without flag, delta

4.5.2 DNP3 Object Group 22: Counters (Events)

This group can be read with the following variations:

- **Variation 1**: 32-bit with flag
- **Variation 2**: 16-bit with flag
- **Variation 3**: 32-bit with flag, delta
- **Variation 4**: 16-bit with flag, delta
- **Variation 5**: 32-bit with flag and time
- **Variation 6**: 16-bit with flag and time
- **Variation 7**: 32-bit with flag and time, delta
- **Variation 8**: 16-bit with flag and time, delta

Point Index	Tag Mapped	Default Class	Default variation Group 20	Default Variation Group 22
0	PI_1-1.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
1	PI_1-2.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
2	PI_1-3.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
3	PI_1-4.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
4	PI_1-5.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
5	PI_1-6.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
6	PI_1-7.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag

Point Index	Tag Mapped	Default Class	Default variation Group 20	Default Variation Group 22
7	PI_1-8.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
8	PI_1-9.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag
9	PI_1-10.PULSE_DAY_ACCUM_32	Class_3	Variation 1-32b flag	Variation 1-32b flag

4.6 String Group: DNP3 Object Group 110 (Static)

4.6.1 DNP3 Object Group 110: Octet Strings (Static)

This group can be read with all variations:

Point Index	Tag Mapped	Default Class Assigned
0	DNP3_2.DESC	None
1	System_1.PROD_DESC	None
2	System_1.SITE_NAME	None
3	AI_1-1.DESC	None
4	AI_1-2.DESC	None
5	AI_1-3.DESC	None
6	AI_1-4.DESC	None
7	AI_1-5.DESC	None
8	AI_1-6.DESC	None
9	AI_1-7.DESC	None
10	AI_1-8.DESC	None
11	AO_1-1.DESC	None
12	AO_1-2.DESC	None
13	AO_1-3.DESC	None
14	AO_1-4.DESC	None
15	AO_1-5.DESC	None
16	AO_1-6.DESC	None
17	AO_1-7.DESC	None
18	AO_1-8.DESC	None
19	DI_1-1.DESC	None
20	DI_1-2.DESC	None
21	DI_1-3.DESC	None
22	DI_1-4.DESC	None
23	DI_1-5.DESC	None
24	DI_1-6.DESC	None

Point Index	Tag Mapped	Default Class Assigned
25	DI_1-7.DESC	None
26	DI_1-8.DESC	None
27	DI_1-9.DESC	None
28	DI_1-10.DESC	None
29	DO_1-1.DESC	None
30	DO_1-2.DESC	None
31	DO_1-3.DESC	None
32	DO_1-4.DESC	None
33	DO_1-5.DESC	None
34	DO_1-6.DESC	None
35	DO_1-7.DESC	None
36	DO_1-8.DESC	None
37	DO_1-9.DESC	None
38	DO_1-10.DESC	None
39	PI_1-1.DESC	None
40	PI_1-2.DESC	None
41	PI_1-3.DESC	None
42	PI_1-4.DESC	None
43	PI_1-5.DESC	None
44	PI_1-6.DESC	None
45	PI_1-7.DESC	None
46	PI_1-8.DESC	None
47	PI_1-9.DESC	None
48	PI_1-10.DESC	None
49	Sensor_1-1.DESC	None
50	Sensor_1-2.DESC	None
51	Sensor_1-3.DESC	None
52	Station_1.DESC	None
53	Station_2.DESC	None
54	DP Mtr_1.DESC	None
55	DP Mtr_1.SER_NUM	None
56	DP Mtr_2.DESC	None
57	DP Mtr_2.SER_NUM	None
58	Linear Mtr_1.DESC	None
59	Linear Mtr_1.SER_NUM	None

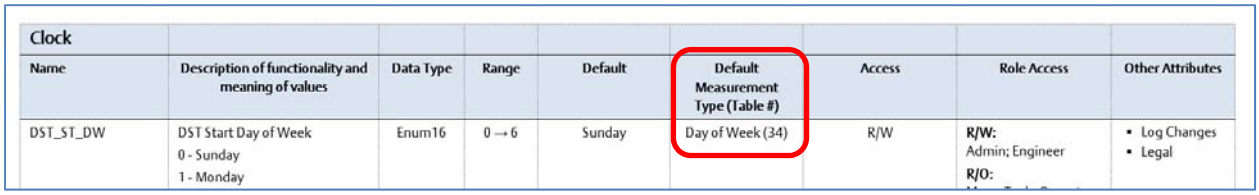
Point Index	Tag Mapped	Default Class Assigned
60	Linear Mtr_2.DESC	None
61	Linear Mtr_2.SER_NUM	None
62	PID_1.DESC	None
63	PID_2.DESC	None
64	PID_3.DESC	None

5. Object Parameter Listing

This chapter provides tables describing the measurement types and parameters for each DNP3 object.

5.1 Measurement Types

The following table details the unit codes associated with each measurement type. The unit code type associated with a parameter (or a particular instance of a parameter) appears as a number in parentheses in the Default Measurement Type column:



Clock								
Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DST_ST_DW	DST Start Day of Week 0 - Sunday 1 - Monday	Enum16	0 → 6	Sunday	Day of Week (34)	R/W	R/W: Admin; Engineer R/O:	• Log Changes • Legal

Table 5-1: Measurement Types

Type	Description	Units
0	Unitless	
1	Differential Pressure Display	0 = inH2O @ 60 °F 1 = inH2O @ 68 °F 2 = kPa 3 = mbar 4 = kg/cm² 5 = psi 6 = bar
2	Absolute Pressure	0 = psi(a) 1 = kPa(a) 2 = MPa(a) 3 = bar(a) 4 = kg/cm²(a)
3	Temperature	0 = °F 1 = °C 2 = K
4	Density	0 = lb/ft³ 1 = kg/m³ 2 = g/cc
5	Volume Heating Value	0 = Btu/ft³ 1 = MJ/m³
6	Dynamic Viscosity	0 = cP 1 = lb/ft-s
7	Linear (Short)	0 = in 1 = mm
8	Linear (Long)	0 = ft 1 = m
9	Volume Total	0 = ft³

Type	Description	Units
		1 = m^3 2 = MCF 3 = (k)m^3 4 = MMCF 5 = BCF
10	Mass Total	0 = lb 1 = kg 2 = Mlb 3 = tonne
11	Energy Total	0 = Btu 1 = MMBtu 2 = J 3 = MJ 4 = GJ 5 = Dth
12	Volume Rate	0 = ft^3/s 1 = ft^3/min 2 = ft^3/h 3 = ft^3/d 4 = MCF/s 5 = MCF/min 6 = MCF/h 7 = MCF/d 8 = m^3/s 9 = m^3/min 10 = m^3/h 11 = m^3/d 12 = (k)m^3/s 13 = (k)m^3/min 14 = (k)m^3/h 15 = (k)m^3/d 16 = MMCF/s 17 = MMCF/min 18 = MMCF/h 19 = MMCF/d 20 = BCF/s 21 = BCF/min 22 = BCF/h 23 = BCF/d
13	Mass Rate	0 = lb/s 1 = lb/min 2 = lb/h 3 = lb/d 4 = Mlb/s 5 = Mlb/min 6 = Mlb/h 7 = Mlb/d 8 = kg/s

Type	Description	Units
		9 = kg/min 10 = kg/h 11 = kg/d 12 = tonne/s 13 = tonne/min 14 = tonne/h 15 = tonne/d
14	Energy Rate	0 = Btu/s 1 = Btu/min 2 = Btu/h 3 = Btu/d 4 = MMBtu/s 5 = MMBtu/min 6 = MMBtu/h 7 = MMBtu/d 8 = J/s 9 = J/min 10 = J/h 11 = J/d 12 = MJ/s 13 = MJ/min 14 = MJ/h 15 = MJ/d 16 = GJ/s 17 = GJ/min 18 = GJ/h 19 = GJ/d 20 = Dth/s 21 = Dth/min 22 = Dth/h 23 = Dth/d
15	Current	0 = mA 1 =A
16	Voltage	0 = V 1 = kV
17	Duration	0 = s 1 = min 2 = h 3 = d
18	Percentage	0 = %
19	Acceleration	0 = ft/s² 1= m/s²
20	Latitude	0 = °
21	Water Content	0 = lb/MMSCF 1 = kg/(k)m³
22	Joule-Thompson Coefficient	0 = °F/psi 1 = K/bar

Type	Description	Units
		2 = K/kPa 3 = °C/bar 4 = °C/kPa 5 = K/MPa
23	Resistance	0 = ohms
24	Frequency	0 = Hz
25	Molar Mass	0 = lb/lb-mol 1 = kg/kmol 2 = g/mol
26	Differential Pressure Selection	0 = inH2O@60°F 1 = inH2O@68°F 2 = kPa 3 = mbar 4 = kg/cm² 5 = psi 6 = bar
27	Volumetric K-factor	0 = pulses/ft³ 1 = pulses/m³
28	Mass K-factor	0 = pulses/lb 1 = pulses/kg
29	Gauge Pressure	0 = psi(g) 1 = kPa(g) 2 = MPa(g) 3 = bar(g) 4 = kg/cm²(g)
30	Enable/Disable Selection	0 = Disable 1 = Enable
31	User Selection	0 = Live 1 = Override
32	Fault Selection	0 = Live 1 = Fault 2 = Last Good
33	Composite System Integrity	0 = Normal 1 = Alarm 2 = Fault
34	Day of Week	0 = Sunday 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday
35	Date Format Selection	0 = MM/DD/YY 1 = MM/DD/YYYY 2 = DD/MM/YY 3 = DD/MM/YYYY

Type	Description	Units
		4 = YYYY/MM/DD 5 = YY/MM/DD
36	Time Format Selection	0 = 12 Hour 1 = 24 Hour
37	Language Selection	0 = English
38	Port Owner	1 = DNP3/Modbus Slave 2 = DNP3 3 = Modbus Slave 4 = Master Modbus 5 = BSAP 6 = ROC 7 = MVS4088
39	Baud Rate	0 = 1200 1 = 2400 2 = 4800 3 = 9600 4 = 19.2K 5 = 38.4K 6 = 57.6K 7 = 115.2K
40	Serial Settings	0 = 7 data bits | odd parity | 1 stop bit 1 = 7 data bits | even parity | 1 stop bit 2 = 8 data bits | no parity | 1 stop bit 3 = 8 data bits | odd parity | 1 stop bit 4 = 8 data bits | even parity | 1 stop bit
41	IPv4 Address	0 = IPv4
42	48-Bit MAC Address	0 = 48-bit
43	History Type	0 = Average 1 = Total / Difference 2 = Snapshot 3 = Minimum 4 = Maximum 5 = Integration
44	Alarm Status DP SP	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Override Active 5 = In Alarm 6 = Point Fail 7 = Above URL 8 = Below LRL 9 = Input Frozen
45	Composite Status Alarm	0 = Normal 1 = Low 2 = Low Low 3 = High

Type	Description	Units
		4 = High High 5 = Rate of Change 6 = Point Fail
46	Discrete Output Types	0 = Latching 1 = Momentary 2 = Toggle 3 = Time Duration Output Momentary 4 = Time Duration Output Toggle 5 = Scaled Pulse Output
47	Output Mode	0 = Manual 1 = Auto
48	Output Action on Power Cycle	0 = Last 1 = Fault
49	CVD Curve Selection	0 = User 1 = Alpha 0.00385 DIN/IEC 2 = Alpha 0.00392
50	Meter Type Selection	0 = AGA3 Orifice (Flange Taps) 1 = ISO5167 Orifice (Flange Taps) 2 = ISO5167 Orifice (Corner Taps) 3 = ISO5167 Orifice (D & D/2 Taps) 4 = ISO5167 Venturi (As Cast) 5 = ISO5167 Venturi (Machined) 6 = ISO5167 Venturi (Rough Weld) 7 = ISO5167 Nozzle (Venturi) 8 = ISO5167 Nozzle (Long Radius) 9 = ISO5167 Nozzle (ISA 1932) 10 = 1595 Conditioning Orifice (Flange) 11 = 1595 Conditioning Orifice (D and D/2) 12 = 405C Compact Orifice 13 = Cone (McCrometer V-Cone) 14 = Cone (McCrometer Wafer-Cone) 15 = Cone (NUFLO)
51	AGA 3 Calculation Method	0 = AGA3 1992 Volume 1 = AGA3 1992 Mass 2 = AGA3 1992 Relative Density 3 = AGA3 2012 Volume 4 = AGA3 2012 Mass 5 = AGA3 2012 Relative Density
52	ISO 5167 Calculation Method	0 = ISO5167 1991 1 = ISO5167 1998 2 = ISO5167 2003
53	Linear Meter Type	0 = Turbine 1 = Coriolis 2 = Auto-Adjust
54	Density/Compress Calc Selection	0 = AGA8 1994 Detailed 1 = AGA8 1994 Gross 1 2 = AGA8 1994 Gross 2

Type	Description	Units
		3 = ISO 12213-2 2009 4 = SGERG 1991 Std (CV/RD/CO2/H2) 5 = SGERG 1991 Alt 1 (CV/RD/N2/H2) 6 = SGERG 1991 Alt 2 (RD/CO2/N2/H2) 7 = SGERG 1991 Alt 3 (CV/CO2/N2/H2) 8 = ISO12213-3 2006 Pref (CV/RD/CO2/H2) 9 = ISO12213-3 2006 Alt 1 (CV/RD/N2/H2) 10 = ISO12213-3 2006 Alt 2 (RD/CO2/N2/H2) 11 = ISO12213-3 2006 Alt 3 (CV/CO2/N2/H2) 12 = NX-19 1962 13 = NX-19 Mod 14 = NX-19 VDE/VDI
55	Heating Value Calculation Selection	0 = GPA2172 2009 Gross 1 = ISO6976 1995 Superior 2 = ISO6976 1995 Inferior
56	Heating Value Combustion Reference	0 = 60°F 1 = 0°C 2 = 15°C 3 = 20°C 4 = 25°C
57	SP Type Selection	0 = Gauge 1 = Absolute
58	Pressure Location	0 = Upstream 1 = Downstream
59	Material Selection	0 = Carbon Steel 1 = 304 Stainless Steel 2 = 316 Stainless Steel 3 = Generic Stainless 4 = Monel 400 5 = User Entered Alpha
60	Modbus Mode Selection	0 = ASCII 1 = RTU
61	Modbus Byte Order Selection	0 = LSB 1 = MSB
62	Modbus 4-byte Types	0 = 1 Register 1 = 2 Register 0-1-2-3 2 = 2 Register 1-0-3-2 3 = 2 Register 2-3-0-1 4 = 2 Register 3-2-1-0
63	Modbus 8-byte Types	0 = 1 Register 1 = 4 Register 0-1-2-3-4-5-6-7 2 = 4 Register 2-3-0-1-6-7-4-5 3 = 4 Register 4-5-6-7-0-1-2-3 4 = 4 Register 6-7-4-5-3-2-0-1 5 = 4 Register 1-0-3-2-5-4-7-6

Type	Description	Units
		6 = 4 Register 3-2-1-0-7-6-5-4 7 = 4 Register 5-4-7-6-1-0-3-2 8 = 4 Register 7-6-5-4-3-2-1-0
64	Data Type Select	0 = Unknown
65	Calculation Fault Option	0 = Alarm Disabled 1 = Alarm and Continue 2 = Alarm and Halt Calculation
66	Remote Data Types	0 = No Conversion 1 = UINT8 2 = INT8 3 = UINT16 4 = INT16 5 = UINT32 (2 Registers 0-1-2-3) 6 = UINT32 (2 Registers 1-0-3-2) 7 = UINT32 (2 Registers 2-3-0-1) 8 = UINT32 (2 Registers 3-2-1-0) 9 = INT32 (2 Registers 0-1-2-3) 10 = INT32 (2 Registers 1-0-3-2) 11 = INT32 (2 Registers 2-3-0-1) 12 = INT32 (2 Registers 3-2-1-0) 13 = UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 = UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 = UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 = UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 = UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 = UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 = UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 = UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 = INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 = INT64 (4 Registers 2-3-0-1-6-7-4-5) 23 = INT64 (4 Registers 4-5-6-7-0-1-2-3) 24 = INT64 (4 Registers 6-7-4-5-2-3-0-1) 25 = INT64 (4 Registers 1-0-3-2-5-4-7-6) 26 = INT64 (4 Registers 3-2-1-0-7-6-5-4) 27 = INT64 (4 Registers 5-4-7-6-1-0-3-2) 28 = INT64 (4 Registers 7-6-5-4-3-2-1-0) 29 = FLOAT (2 Registers 0-1-2-3) 30 = FLOAT (2 Registers 1-0-3-2) 31 = FLOAT (2 Registers 2-3-0-1) 32 = FLOAT (2 Registers 3-2-1-0) 33 = DOUBLE (4 Registers 0-1-2-3-4-5-6-7) 34 = DOUBLE (4 Registers 2-3-0-1-6-7-4-5) 35 = DOUBLE (4 Registers 4-5-6-7-0-1-2-3) 36 = DOUBLE (4 Registers 6-7-4-5-2-3-0-1) 37 = DOUBLE (4 Registers 1-0-3-2-5-4-7-6) 38 = DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 = DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 = DOUBLE (4 Registers 7-6-5-4-3-2-1-0)

Type	Description	Units
		41 = SINGLE REGISTER FLOATING POINT 42 = SINGLE REGISTER DOUBLE 43 = SINGLE REGISTER INT32 44 = SINGLE REGISTER UINT32 45 = SINGLE REGISTER INT64 46 = SINGLE REGISTER UINT64
67	Normalization Type	0 = None 1 = Full Normalization 2 = Methane Adjust
68	Port Type	0 = Serial 1 = Ethernet 2 = Wi-Fi
69	Serial Port Mode	0 = RS-232 1 = RS-485 (No Termination) 2 = RS-485 (Terminated) 3 = RS-422 (No Termination) 4 = RS-422 (Terminated)
70	H20 Content Basis	0 = Dry 1 = Saturated at Base Conditions 3 = Partially Saturated
71	Averaging Type	0 = Linear 1 = Flow Dependent Linear
72	Battery Type	0 = None 1 = Lithium 2 = Lead Acid 3 = Not Applicable
73	Fluid Type	0 = Natural Gas
74	Base Temperature	0 = User 1 = 60°F 2 = 15°C 3 = 20°C 4 = 30°C 5 = 0°C
75	Water Content Calc Standard	0 = IGT Bulletin 8
76	Reserverd	0 = Reserved
77	Annubar Calc Selection	0 = 485-1 1 = 485-2 2 = 485-3
78	Pressure	0 = psi 1 = kPa 2 = MPa 3 = bar 4 = kg/cm²
79	User Mode Selection 1	0 = Measured 1 = Override 2 = Calculated

Type	Description	Units
80	Object Status	0 = Normal 1 = In Alarm 2 = Failure 3 = Override 4 = Inactive
82	Live Trigger	0 = No Action 1 = Accept Composition
83	RTD Type	0 = 2-wire 1 = 3-wire 2 = 4-wire
84	History Group Type	0 = General History 1 = Meter History 2 = User Periodic
85	Sensor Configuration	0 = Standard Coplanar 1 = Standard Threaded 2 = Level Coplanar 3 = Reference Class Coplanar 4 = High Temp Conventional 252 = Unknown
86	Sensor Type	0 = Dual Variable 1 = DP Only 2 = SP Only
87	Status Pressure Type	0 = No Static Pressure 1 = Absolute 2 = Gauge
88	RMT Sensor Range	0 = Range 0 1 = Range 1 2 = Range 2 3 = Range 3 4 = Range 4 5 = Range 5 6 = Range 6 7 = Range 7 8 = Range 8 9 = Range 9 10 = Range 10 253 = Special
89	Flange Type	12 = Traditional 13 = Coplanar 14 = Remote Seal 15 = Level; 3in; 150lb 16 = Level; 4in; 150lb 17 = Level; 3in; 300lb 18 = Level; 4in; 300lb 19 = Level; DN 80; PN 40 20 = Level; DN 100; PN 40 21 = Level; DN 100; PN 10/16

Type	Description	Units
		22 = Level; 2 in; 150lb 23 = Level; 2in; 300lb 24 = Level; DN 50; PN 6 25 = Level; DN 50; PN 40 44 = 1/2in; NPTF 45 = DIN16288G 1/2 A male 46 = 1/4in; NPTF 240 = Auto Clave F-250-C 241 = Tri-Clamp 242 = Fractional Line Fit 243 = 1/8in; NPTF 244 = VCR 245 = PMC 246 = Traditional RC 1/4 247 = Traditional RC 1/2 252 = Unknown 253 = Special
90	Sensor Material	0 = Carbon Steel 1 = Undefined 2 = 316 Stainless Steel 3 = Hastelloy C 4 = Monel 5 = Tantallum 15 = Gold Monel 24 = Kynar 25 = Gold Monel 30 = Hastelloy C276 34 = PTFE Coated 316L SST 35 = Gold Plated Hastelloy C276 239 = Monel 400 251 = None 252 = Unknown 253 = Special
91	O-ring Material	10 = PTFE (Teflon R) 11 = Viton 12 = Buna-N 13 = Ethyl-Prop 36 = PTFE Glass 37 = PTFE Graphite 251 = None 252 = Unknown 253 = Special
92	Fill Fluid	0 = Undefined 1 = Silicone 2 = Inert 7 = Neobee 252 = Unknown 253 = Special

Type	Description	Units
93	Product Type	0 = FB1100 1 = FB1200 2 = FB2100 3 = FB2200
94	Heavy Gas Mode	0 = Disabled 1 = C6+ 2 = C7+ 3 = C8+ 4 = C9+
95	Wi-Fi Security Option	0 = Open 1 = WPA-2
96	Cd/Fc Curve Option	0 = Disabled 1 = Cd vs Re Curve 2 = Fc vs Flow Curve
97	User Mode Selection 2	1 = Override 2 = Calculated
98	User Mode Selection 3	0 = Measured 1 = Override 2 = Calculated 3 = Remote Download
99	Actual Mode	0 = Measured 1 = Override 2 = Calculated 3 = Remote Download 4 = Fault
100	Alarm Type	0 = Low 1 = Low Low 2 = High 3 = High High 4 = Rate of Change 5 = User Account Locked 6 = Log Full Limit Exceeded 7 = Log Nearly Full Limit Exceeded 8 = Log Integrity Failure 9 = Battery Status 10 = Low Voltage 11 = Override 12 = Point Fail 13 = DI ON Status Alarm 14 = No Response From History 15 = Analysis Timeout 16 = Normalization Failure 17 = Flow Calculation Alarm 18 = Properties Calculation Alarm 19 = Auto-Adjust System Alarm 20 = Auto-Adjust Flow Alarm 21 = Auto-Adjust Delta A Alarm

Type	Description	Units
101	Alarm Direction	0 = Clear 1 = Set
102	User Alarm Type	0 = TBD
103	Event Type	1 = Power Applied 2 = Power Removed 3 = Battery Changed 4 = Firmware Update Start 5 = Firmware Apply Package Version 6 = Firmware Update Complete 7 = Firmware Update Package Restore Fail 8 = Event Type 8 9 = Event Type 9 10 = Event Type 10 11 = Event Type 11 12 = Event Type 12 13 = Event Type 13 14 = Event Type 14 15 = Event Type 15 16 = Login Success 17 = Login Fail Invalid Credentials 18 = Account Locked 19 = Logout 20 = Account Added 21 = Account Removed 22 = Account Modified 23 = Log Clear 24 = Log Clear Due to CRC Corrupt 25 = History Point Cleared 26 = System Down 27 = Action Block Trip Status Changed 28 = Database Initialized 29 = Daylight Saving Time Change 30 = Raw Total Rollover 31 = System Restart 32 = Pulse Accum Rollover 33 = Firmware Apply Image Version 34 = Firmware I/O Board Disabled
104	Calibration Event Type	0 = Verification 1 = Calibration Start 2 = Set Zero 3 = Set Span 4 = Set Midpoint1 5 = Set Midpoint2 6 = Set Midpoint3 7 = Calibration Done 8 = Calibration Cancel 9 = Calibration Restore Defaults 10 = Set Zero Shift

Type	Description	Units
		11 = Input Frozen 12 = Input Unfrozen 13 = Calibration Timeout
105	User Event Type	0 = TBD
106	Alarm Record Type	0 = Parameter 1 = Application 2 = User Application
107	Event Record Type	0 = Parameter Change 1 = Application 2 = Calibration 3 = User Application 4 = String
110	Sensor Transmitter Status	0 = Normal 1 = SP Out of Low Limits 2 = SP Below Low Alr Limits 3 = SP Above Upr Alr Limits 4 = SP Out of Hi Limits 5 = DP Out of Low Limits 6 = DP Below Low Alr Limits 7 = DP Above Upr Alr Limits 8 = DP Out of Hi Limits 9 = Warning Set 10 = Critical Alr Set 11 = 4088 Calib in Progress 12 = Sensor Module Fail 13 = LCD Comm Error 14 = RTD Sensor Mismatch 15 = ST Below Low Alr Limits 16 = ST Above Upr Alr Limits 17 = ST Out of Low Limits 18 = ST Out of Hi Limits 19 = PT Sensor Fail 20 = PT Out of Low Limits 21 = PT Below Low Alr Limits 22 = PT Above Upr Alr Limits 23 = PT Out of Hi Limits 24 = ST Simulation Enable 25 = Write Protect Switch Lock 26 = PT Simulation Enable 27 = Feature Board Fail 28 = SP Simulation Enable 29 = DP Simulation Enable 30 = Sensor Module Incompatible 31 = Power Fail 32 = Sensor Module Comm Fail
111	Idle Action	0 = Sleep 1 = Always On

Type	Description	Units
112	PID Control Type	0 = Primary Only 1 = Override Only 2 = Dual Control
113	PID Output Type	0 = Analog 1 = Discrete
114	PID Control Action	0 = Forward 1 = Reverse
115	PID Switch Logic	0 = Lesser 1 = Greater
116	PID Selected Loop	0 = Disabled 1 = Primary 2 = Override
117	Data Quality	0 = Healthy 1 = Unhealthy
118	PID Action on Unhealthy Data	0 = Continue 1 = Manual Mode
119	QTR Log Break Options	0 = Disabled 1 = Hourly Only 2 = All Standard Periodic Logs
120	Temperature Correction Selection	0 = No Correction 1 = Isentropic 2 = Isenthalpic (Joule-Thomson)
121	Lockout Type	0 = Disabled 1 = Timed
123	Enclosure Door Status	0 = Enclosure Door Open 1 = Enclosure Door Closed
124	AI Resistor Selection	0 = Current 1 = Voltage 2 = Disabled
125	Actual Mode	0 = Live 1 = Auto 2 = Auto Read 3 = Override 4 = Calibration 5 = Fault 6 = Last Good
127	Raw Counts	0 = A/D Counts 1 = D/A Counts
128	Factory Calibration Status	0 = Invalid 1 = Valid
129	AI Status	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Override Active

Type	Description	Units
		5 = In Alarm 6 = Point Fail 7 = Above URL 8 = Below LRL 9 = Input Frozen 10 = Input Clipped 11 = Factory Calibration Invalid 12 = User Calibration Invalid 13 = Disabled
130	AO Status	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Override Active 5 = In Alarm 6 = Point Fail 7 = Above URL 8 = Below LRL 9 = Output Frozen 10 = Output Clipped 11 = Factory Calibration Invalid 12 = Auto Read Parameter Invalid 13 = AO Readback Failure
131	IO Output User Selection	0 = Auto 1 = Override 2 = Auto Read
132	DI Type	0 = Normal 1 = Latched
133	Logic Level	0 = 66 microamps 1 = 2 milliamps
134	Digital Status	0 = Off 1 = On
135	DI Status	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Override Active 5 = In Alarm 6 = Point Fail
136	IO Fault Selection	0 = Fault 1 = Last Good
137	DO Status	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Override Active 5 = In Alarm

Type	Description	Units
		6 = Point Fail 7 = Auto Read Parameter Invalid 8 = SPO Parameter Invalid
138	PI Filter Mode	0 = Low Speed Filter 1 = High Speed Filter
139	PI Conversion Factor	0 = Pulses/EU
140	PI Rate Period	0 = Seconds 1 = Minutes 2 = Hours 3 = Days
141	Pulses	0 = Pulses
142	PI Status	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Override Active 5 = In Alarm 6 = Point Fail 7 = Above URL 8 = Below LRL
143	Module Mode	0 = Not Installed 1 = Boot 2 = Normal 3 = Not Licensed 4 = Communication Failure 5 = Module Failure 6 = Power Off
144	Reserved	0 = Reserved
145	Channel Type Select None	0 = None
146	Channel Type Select DO Only	0 = DO Only
147	AI/AO Channel Type Select	0 = AI 1 = AO
148	DI/DO/PI Channel Type Select	0 = DI 1 = DO 2 = PI
150	Calibration Status	0 = Calibration Not in Progress 1 = Input Frozen 2 = Calibration in Progress 3 = Reserved 4 = Set Command Failed 5 = Timeout Occurred 6 = Span Too Small 7 = Excess Correction 8 = Passed Parameter Too Small 9 = Passed Parameter Too Large 10 = Ideal Value Too Small

Type	Description	Units
		11 = Ideal Value Too Large 12 = Wrong Command 13 = Verification in Progress
151	Week of Month	0 = First Week 1 = Second Week 2 = Third Week 3 = Fourth Week 4 = Last Week
152	Battery Status	0 = Battery Not in Use 1 = Lead Acid Fault 2 = Lead Acid Charging 3 = Lead Acid Standby 4 = Lithium Battery on Reserve C Cell 5 = Lithium Battery Error 6 = Lithium Battery on Main D Cell
153	SRAM Battery Status	0 = Battery Normal 1 = Battery Failure or Removal
154	Battery Change	0 = No Change 1 = Battery Replaced 2 = SRAM Battery Replaced
155	Operational Trip Point	0 = 6 Volts 1 = 12 Volts 2 = 24 Volts
156	Log Type	0 = Undefined 1 = Legal Event 2 = Non Legal Event 3 = Legal Alarm 4 = Non Legal Alarm 5 = Legal History 6 = Non Legal History
157	Contract Day of Month	0 = 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 10 = 10 11 = 11 12 = 12 13 = 13 14 = 14 15 = 15 16 = 16

Type	Description	Units
		17 = 17 18 = 18 19 = 19 20 = 20 21 = 21 22 = 22 23 = 23 24 = 24 25 = 25 26 = 26 27 = 27 28 = 28
158	Start Poll	0 = Cancel 1 = Start
159	Continuous Poll	0 = Disabled 1 = Enabled
160	Indexing Used	0 = Point 1 = Parameter
161	Function Code	0 = Polling Disabled 1 = Read Coil Status 2 = Read Input Status 3 = Read Holding Registers 4 = Read Input Registers 5 = Force Single Coil 6 = Set Single Register 15 = Force Multiple Coils 16 = Set Multiple Registers
162	Comm Status	0 = Inactive or Start of Transmission 1 = Response Timeout 2 = Function Code Error 3 = Invalid Register Error 4 = Invalid Request Data Error 5 = Exception Error Code Received 6 = Mapping Table Error 7 = Invalid Response Received 8 = CRC or LRC Check Error 9 = Database Read Error 10 = Valid Response Received 11 = Request Framing Error 12 = Transmit Timeout Error 13 = Database Write Error 14 = Broadcast Request Transmitted
163	Comm Port Instance	0 = Serial Port 1 1 = Serial Port 2 2 = Serial Port 3 3 = Wi-Fi Port 4 = Ethernet Port

Type	Description	Units
164	Master Comm Mode	0 = RTU 1 = ASCII
165	Master Byte Order	0 = LSB First 1 = MSB First
166	Action Block Status	0 = Inactive 1 = Active
167	Action Block Operators	0 = Greater Than 1 = Less Than 2 = Equal To 3 = Greater Than Or Equal To 4 = Not Equal To 5 = Less Than Or Equal To 6 = AND (Bitwise) 7 = OR (Bitwise) 8 = Watchdog 9 = Soft Timer
168	Action Block Bypass Type	0 = Latched 1 = Class B 2 = Class C 3 = Class B / C
169	Action Block Alarm Option	0 = None 1 = Alarm on Active 2 = Alarm on Inactive
170	Action Block Event Option	0 = None 1 = Event on Active 2 = Event on Inactive
171	Action Block Trip Logic	0 = True If Block True 1 = True If Chain True 2 = True If Either True 3 = True If Both True
172	Action Block Action Type	0 = No Action 1 = Effect 2 = Binary Action 3 = Move Value 4 = Load Value 5 = Write Value
173	Discrete Action Type	0 = Force 1 True & 0 False 1 = Force 0 True & 1 False 2 = Poke 1 True 3 = Poke 0 True 4 = Poke 1 True & 0 False 5 = Poke 0 True & 1 False 6 = Force 1 True & Poke 0 False 7 = Force 0 True & Poke 1 False 8 = Force 1 True 9 = Force 0 True

Type	Description	Units
174	Math Block Equation State	0 = Invalid 1 = Valid
175	Effect Output Assert Type	0 = Neither State 1 = Active State Only 2 = Inactive State Only 3 = Both States
176	Effect Reset Option	0 = No Reset Required 1 = Reset Required
177	Effect Reset Ready Values	0 = No Reset Needed 1 = Ready for Reset
178	AI Units Type	0 = Unitless 2 = Absolute Pressure 3 = Temperature 4 = Density 5 = Volume Heating Value 6 = Dynamic Viscosity 7 = Linear (Short) 8 = Linear (Long) 12 = Volume Rate 13 = Mass Rate 14 = Energy Rate 15 = Current 16 = Voltage 18 = Percentage 19 = Acceleration 21 = Water Content 23 = Resistance 26 = Differential Pressure 29 = Gauge Pressure 225 = Mass Heating Value
179	AO Units Type	0 = Unitless 2 = Absolute Pressure 3 = Temperature 4 = Density 5 = Volume Heating Value 6 = Dynamic Viscosity 7 = Linear (Short) 8 = Linear (Long) 12 = Volume Rate 13 = Mass Rate 14 = Energy Rate 15 = Current 16 = Voltage 18 = Percentage 19 = Acceleration 23 = Resistance 26 = Differential Pressure

Type	Description	Units
		29 = Gauge Pressure 225 = Mass Heating Value
180	PI Units Type	0 = Unitless 9 = Volume Total 10 = Mass Total 24 = Frequency
181	HV Measurement Basis	0 = Volume 1 = Mass
182	Water Adjustment Option	0 = No Adjustment 1 = Adjust Composition
183	Factor Curve Option	0 = Single Meter Factor / Single K-factor 1 = Meter Factor Curve / Single K-factor 2 = Single Meter Factor / K-factor Curve
184	Pipe Schedule	0 = Schedule 10 1 = Schedule 40 2 = Schedule 80
185	Meter Averaging Type	0 = Flow Dependent Linear 1 = Flow Dependent Formulaic 2 = Flow Weighted Linear 3 = Flow Weighted Formulaic
186	Rosemount Orifice Method	0 = Based on ISO5167 2003
187	Velocity	0 = ft/s 1 = m/s
188	User Mode Selection 4	0 = Measured 1 = Override 3 = Remote Download
189	GC Component Update	0 = None 1 = Methane 2 = Nitrogen 3 = Carbon Dioxide 4 = Ethane 5 = Propane 6 = Water 7 = Hydrogen Sulfide 8 = Hydrogen 9 = Carbon Monoxide 10 = Oxygen 11 = i-Butane 12 = n-Butane 13 = i-Pentane 14 = n-Pentane 15 = Hexane 16 = Heptane 17 = Octane 18 = Nonane 19 = Decane 20 = Helium

Type	Description	Units
		21 = Argon 22 = neo-Pentane 23 = Benzene 24 = Toluene 25 = Undecane (C11) 26 = Dodecane (C12)
190	Components Alarm	0 = Normal 1 = Analysis Timeout 2 = Normalization Failure
191	Cx Split Type	0 = Hexane Plus Split 1 = Heptane Plus Split 2 = Octane Plus Split 3 = Nonane Plus Split
192	GC Validation Alarm	0 = Normal 1 = Component Limit Alarm 2 = Heating Value Limit Alarm 3 = Relative Density Limit Alarm 4 = Un-normalized Mole Sum Alarm 5 = Total Mole Sum Alarm 6 = Composition Deviation Alarm 7 = Alarm 1 8 = Alarm 2
193	Auto Configure	0 = No Action 1 = Auto Configure
194	Daylight Saving Time Status	0 = Standard Time 1 = Saving Time 2 = Gift Time
195	Rate of Change Mode Alarm	0 = Disabled 1 = Alarm on Positive Changes 2 = Alarm on Negative Changes 3 = Alarm on Both
196	LCD Bit Masks	0 = None 1 = Differential Pressure 2 = Absolute Pressure 3 = Temperature 4 = Baud Rate 5 = Gage Pressure 6 = Sensor Temperature 7 = Reserved 8 = Slave Address 9 = Host Parameter 1 10 = Host Parameter 2 11 = Host Parameter 3 12 = Host Parameter 4 13 = Host Parameter 5 14 = Host Parameter 6 15 = Reserved

Type	Description	Units
		16 = Reserved 17 = Host Variable 1 18 = Host Variable 2 19 = Host Variable 3
197	Transmitter Status Option	0 = None 1 = DP Sensor Present 2 = AP Sensor Present 3 = GP Sensor Present 4 = PT Sensor Present 5 = LCD Available
198	User Commands	0 = No Command 1 = On Demand Connect 2 = On Demand Synchronize 3 = Transmitter Reset 4 = On Demand Write 5 = On Demand Read
199	Calibration Status of 4088	0 = No Measurement In Calibration 1 = DP Measurement In Calibration 2 = SP Measurement In Calibration 3 = PT Measurement In Calibration
200	Status	0 = Success 1 = Failure
201	4088 Input Status	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Write Protect Lock 5 = Config. Issue Due To Write Protect 6 = Config. Issue Due To Comm. Fail 7 = Config. Issue 8 = Transmitter Failed 9 = Synchronization In Progress 10 = Scan Disabled 11 = Config. Issue Due To Invalid Value 12 = Write On Demand Failed 13 = Scanning Baud Rate 14 = EMV in Mode A 15 = Reading Device 16 = Writing Device 17 = Baud Too Low
202	Variable Status	0 = Good - Not Limited 1 = Poor Accuracy-Low Limited 2 = Poor Accuracy-High Limited 3 = Poor Accuracy-No Limited 4 = Manual/Fixed - Constant 5 = Bad -Constant 6 = Unknown

Type	Description	Units
203	GC Type	0 = American 1 = European
204	GC US Alarm 1	0 = Normal 1 = A/D 0 Low 2 = A/D 0 High 3 = A/D 1 Low 4 = A/D 1 High 5 = A/D 2 Low 6 = A/D 2 High 7 = A/D Cal Low 8 = A/D Cal High 9 = D/A 1 Low 10 = D/A 1 High 11 = D/A 2 Low 12 = D/A 2 High 13 = D/A 3 Low 14 = D/A 3 High 15 = Analyzer Failure 16 = Checksum Failure
205	GC US Alarm 2	0 = Normal 1 = Power Failure 2 = RF % Deviation 3 = Preamp Failure 4 = Adjust Preamp
206	Flow Calculation Alarm	0 = Normal 1 = Calculation Error
207	Property Calculation Alarm	0 = Normal 1 = Calculation Error
208	Yes/No Option	0 = No 1 = Yes
209	Module Type	0 = Unknown 1 = HMI 2 = On-Board I/O 3 = Optional I/O 4 = Expanded I/O 255 = Main CPU
210	Module Subtype	0 = None
211	Option Not Applicable	0 = Not Applicable
212	LCD Installed	0 = LCD Not Found 1 = LCD Detected
213	Wi-Fi Installed	0 = Wi-Fi Not Found 1 = Wi-Fi Detected
214	Serial Port Module	0 = RS-232 1 = RS-485 (No Termination) 2 = RS-485 (Terminated)
215	Action Block Alarm Type	0 = Low

Type	Description	Units
		1 = Low Low 2 = High 3 = High High 4 = Rate of Change
216	Action Block Chain Type	0 = AND 1 = OR 2 = NAND
217	Action Block Chain to Status	0 = Block Status 1 = Chain Status 2 = Output Status
218	Action Block Chain to Status	0 = Local Latched 1 = Remote Latched 2 = Class B 3 = Class C 4 = Class B/C
219	4088 RTD Type	1 = 3-wire 2 = 4-wire
220	Alarm Status RTD	0 = Normal 1 = Not Licensed 2 = Instance Inactive 3 = Comm Fail 4 = Override Active 5 = In Alarm 6 = Point Fail 7 = Above URL 8 = Below LRL 9 = Input Frozen 10 = Type Mismatch
221	EU Scaling Mode	0 = Multi-Point Calibration 1 = EU Scaling
222	Alpha	0 = in./in.-°F 1 = mm/mm-°C
223	Calculated Cd	0 = Flow Equation Standard 1 = Calibrated Discharge Coefficient Curve
224	Ethernet Support	0 = No Ethernet Support 1 = Ethernet Supported
225	Mass Heating Value	0 = Btu/lb 1 = MJ/kg
226	Wi-Fi Antenna Type	0 = Internal Antenna 1 = External Antenna
227	Auto Adjust Initial Cycle	0 = Initial Cycle Complete 1 = Initial Cycle In Progress
228	Auto Adjust System Alarm	0 = Normal Flow 1 = No Flow / Loss of Both Pulses 2 = Leakage or Resonant No-Net Flow 3 = No Main Rotor Pulses

Type	Description	Units
		4 = No Sensing Rotor Pulses
229	Auto Adjust Flow Alarm	0 = Normal Flow 1 = Non-steady Flow
230	Auto Adjust Delta A Alarm	0 = Normal 1 = Low Warning 2 = High Warning 3 = Low Alarm 4 = High Alarm
231	Serial Port 1 Owner	2 = DNP3 3 = Modbus Slave 4 = Master Modbus 5 = BSAP 6 = ROC
232	Serial Port 2 Owner	2 = DNP3 3 = Modbus Slave 4 = Master Modbus 5 = BSAP 6 = ROC
233	Serial Port 3 Owner	2 = DNP3 3 = Modbus Slave 4 = Master Modbus 5 = BSAP 6 = ROC 7 = MVS4088
234	Wi-Fi Port Owner	2 = DNP3
236	Months of Year	1 = January 2 = February 3 = March 4 = April 5 = May 6 = June 7 = July 8 = August 9 = September 10 = October 11 = November 12 = December
237	GC Poll Alarm	0 = Successful Poll 1 = Error in Poll 2 = Comp Code Match Error
238	No Flow Option	0 = Time Between Pulses 1 = Flow Cut-off
239	No Flow Status	0 = Not Flowing 1 = Flowing
240	Protocol	0 = None 1 = DNP3

Type	Description	Units
		2 = Modbus 3 = ROC 4 = BSAP
241	String Type	0 = None 1 = Password
242	4088 Temperature	0 = °F 1 = °C
243	GC EU Alarm 1	0 = Normal 1 = Peak Overflow 2 = Unknown Error 3 = Peak Analysis Failure 4 = Chromat I/O Failure 5 = Controller Stack Overflow 6 = Undefined 7 = Undefined 8 = Peak Analysis Start 9 = Chromat I/O Start Failure 10 = Analog Input Failure 11 = Analog Input Failure 12 = Analog Input Failure 13 = Chromat Buffer Overflow 14 = Inputs Out of Range 15 = Preamp Failure 16 = Preamp Adjust
244	GC EU Alarm 2	0 = Normal 1 = Calibration Failure 2 = Auto Start Fail 3 = Alarm on 24Hr Averages 4 = Analysis Failure 5 = Auto Start Alarm
245	Pulse Rate	0 = Pulses/sec 1 = Pulses/min 2 = Pulses/hr 3 = Pulses/day
246	Event Log Config Type	0 = Combined Event Log 1 = Separate Legal and Non-Legal Event Logs
247	Pressure Effect	0 = %/psi(a) 1 = %/bar(a)
248	IP Connection 1 2 3 Owner	0 = DNP3 Protocol 1 = Modbus Slave Protocol 2 = ROC Protocol
249	IP Connection 4 5 6 Owner	0 = Modbus Slave Protocol 1 = ROC Protocol
250	Screen Saver Password	0 = No Password Required 1 = Password Required
251	Alarm Format	0 = Standard Alarm Format

Type	Description	Units
		1 = Extended Alarm Format
252	Signal Name Format	0 = ACCOL 3 1 = Native
253	Meter Direction	0 = Forward 1 = Reverse
254	Alarm Status	0 = Normal 1 = In Alarm
255	Low Power Option	0 = Low Power Mode Not Available 1 = Low Power Mode Available
256	Database Recovery Option	0 = Restore to Database Defaults 1 = Restore from Flash Config File
257	Power Control Comm Port Option	3 = All Comm Ports Enabled
258	Override Type Select	0 = Low 1 = High
259	Power Control Status	0 = Power Control Inactive 1 = Power Control Active 2 = Power Control Low Voltage 3 = Power Control Held by Comms

5.2 Object Parameters

The tables in this section list the parameters associated with each object. Parameters include:

Field	Description		
Name	The parameter's system identifier.		
Description	Description for the parameter, including (if appropriate) any values.		
Data Type	Type of data associated with the parameter. Valid values include:		
	BIN	Binary value; the numeric value indicates the number of bits (for example, **BIN32** is a 32-bit binary)	
	BYTE	Byte array; the numeric value indicates the number of bytes (for example, **BYTE32** is a 32-byte array)	
	DOUBLE	64-bit floating point number	
	ENUM	Enumeration; the numeric value indicates the number of bits (for example, **ENUM16** is a 16-bit long enumeration)	
	FLOAT	32-bit floating point number	
	INT	Signed integer; the numeric value indicates the number of bits (for example, **INT16** is a 16-bit signed integer)	
	OBJREF	Object reference	
	PRMREF	Parameter reference	
	TIME	Number of seconds since 01 January 2000 @ 00:00:00 (taking into account the 2038 issue)	
	UC	Character string with null termination. Valid values are:	
		UC10	10-character string with null termination (11 bytes max)
		UC20	20-character string with null termination (21 bytes max)
		UC30	30-character string with null termination (31 bytes max)
		UC40	40-character string with null termination (41 bytes max)
	UINT	Unsigned integer; the numeric value indicates the number of bits (for example, **UINT16** is a 16-bit unsigned integer)	
	Unknown	Data type is unknown	

Field	Description	
Range	Indicates the range of possible values for the parameter (if applicable)	
Default	Indicates the default value for the parameter.	
Default Measurement Type	Indicates (for ENUM16 and BIN data types) the measurement type used for possible values. For other data types, indicates the default units for the parameter and the associated measurement type.	
Access	Indicates the overall accessibility of the parameter. Valid values are R/O (the parameter can only be read) and R/W (the parameter can be modified if the user has the proper role access).	
Role Access	Correlates the access to specific roles (Administrator, Engineer, Measurement Technician, Operator, or Auditor)	
Other Attributes	Identifies any other attributes associated with the parameter. Values can include:	
	Log Changes	The system logs any changes to the parameter in the Event log.
	Legal	This parameter affects the calculation of flow rates, totals, and/or averages. The system logs any user changes to this parameter to the legal event log.
	Verified	Changing the parameter value requires additional verification by the system (beyond range checking). When a new value is written to the parameter, it updates the parameter status to indicate the value is undergoing verification. Once verification is complete, the system updates the parameter status to indicate the value has been verified.

5.2.1 System Parameters

Description: The System object provides the parameters for configuring and viewing information on the system as a whole.

Number of Instances: 1 instance may exist.

Storage Location: Saved to internal configuration memory.

Table 5-2: System Parameters

System								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		System		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	Bin32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
PROD_TYPE	Product Type 0 - FB1100 1 - FB1200 2 - FB2100 3 - FB2200	ENUM16		FB1100	Product Type (93)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

System

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PROD_DESC	Product Description	UC40		Explosion Proof Flow Computer		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SITE_NAME	Site Name	UC40				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
DEV_TEST_DATE	Device Test Date	Time				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
DEV_SER_NUM	Device Serial Number	UC30				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CONN_TEST_DATE	Connectivity Board Test Date	Time				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CONN_SER_NUM	Connectivity Board Serial Number	UC30				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
PKG_VER	Package Version	UC20		1.0.0.0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MAX_STN	Max Number Stations	UINT32	0 → 2	1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

System

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MAX_STRM	Max Number Streams	UINT32	0 → 2	1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MAX_PID	Max Number PID	UINT32	0 → 3	0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
NUM_ALM	Number Alarm Records	UINT32	1000 → 2500	1000		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
NUM_EVT	Number Event Records	UINT32	1000 → 2500	1000		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
NUM_WM_EVT	Number W&M Events	UINT32	1000 → 2500	1000		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MPU_LOAD	MPU Loading	Float	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SYS_INTEG	System Integrity 0 - Normal 1 - Alarm 2 - Fault	Bin32		Normal	Composite System Integrity (33)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
RESTART_TM	Restart Time	Time				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

System

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
BATT_TYPE	Battery Type 0 - None 1 - Lithium 2 - Lead Acid 3 - Not Applicable	ENUM16		None	Battery Type (72)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MFG_ID	Manufacturer ID	UC20		Emerson		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MODEL_SPEC_1	Model Specification 1	UC40				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MODEL_SPEC_2	Model Specification 2	UC40				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MODEL_SPEC_3	Model Specification 3	UC40				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CPU_TEMP	CPU Temperature	FLOAT		0	°F (3.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
EVT_CONF_TYPE	Event Log Configuration Type 0 - Combined Event Log 1 - Separate Legal and Non-Legal Event Logs	ENUM16	0 → 1	Combined Event Log	Event Log Config Type (246)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	

System

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DB_RECOVERY_OPTION	Database Recovery Option 0 - Restore to Database Defaults 1 - Restore from Flash Config File	ENUM16	0 → 1	Restore to Database Defaults	Database Recovery Option (256)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	

5.2.2 Module Parameters

Description: The Module object provides the parameters that contain information on each of the hardware modules that make up the system.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-3: Module Parameters

Module								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Module_1		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Module

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INSTALLED	Installed 0 - No 1 - Yes	ENUM16	0 → 1	No	Yes/No Option (208)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_MODE	Module Mode 0 - Not Installed 1 - Boot 2 - Normal 3 - Not Licensed 4 - Communication Failure 5 - Module Failure 6 - Power Off	ENUM16		Not Installed	Module Mode (143)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_TYPE	Module Type 0 - Unknown 1 - HMI 2 - On-Board I/O 3 - Optional I/O 4 - Expanded I/O 255 - Main CPU	ENUM16		Unknown	Module Type (209)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SUBTYPE	Module Subtype 0 - None	ENUM16		None	Module Subtype (210)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HW_SER_NUM	Serial Number	UC30				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HW_TEST_DATE	Hardware Test Date	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Module

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
APP_DESC	Firmware Description	UC20				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
APP_SER_NUM	Firmware Serial Number	UC30				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
APP_PART_NUM	Firmware Part Number	UC20				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
APP_VER	Firmware Version	UC20				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
APP_DATE	Firmware Creation Date	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BOOT_PART_NUM	Boot Part Number	UC20				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BOOT_VER	Boot Version	UC20				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BOOT_DATE	Boot Creation Date	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Module

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CFG_OPT_1	Configuration Option 1 0 - Not Applicable	ENUM16		Not Applicable	Option Not Applicable (211)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CFG_OPT_2	Configuration Option 2 0 - Not Applicable	ENUM16		Not Applicable	Option Not Applicable (211)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CFG_STR_1	Configuration String 1	UC40				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CFG_STR_2	Configuration String 2	UC40				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CFG_STR_3	Configuration String 3	UC40				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SET_UINT64_1	UINT64 Setting 1	UINT64	0 → 60	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

5.2.3 Clock Parameters

Description: The Clock object provides the parameters for viewing information on, and configuring, the clock and daylight savings time.

Number of Instances: 1 instance may exist.

Storage Location: Saved to internal configuration memory.

Table 5-4: Clock Parameters

Clock								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Clock		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
TIME	Current Time	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Clock

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
YEAR	Current Year	UINT16		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MONTH	Current Month 1 - January 2 - February 3 - March 4 - April 5 - May 6 - June 7 - July 8 - August 9 - September 10 - October 11 - November 12 - December	ENUM16			Months of the Year (236)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DAY	Current Day	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HOUR	Current Hour	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SECOND	Current Second	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Clock

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MINUTE	Current Minute	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
WEEK_DY	Current Day of the Week 0 - Sunday 1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday 5 - Friday 6 - Saturday	ENUM16		Sunday	Day of Week (34)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DST_MODE	Auto Daylight Saving Time Mode 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DST_STATUS	Daylight Saving Time Status 0 - Standard Time 1 - Saving Time 2 - Gift Time	ENUM16		Standard Time	Daylight Saving Time Status (194)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DST_ST_HR	DST Start Hour	UINT8	0 → 23	2		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Clock

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DST_ST_DW	DST Start Day of Week 0 - Sunday 1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday 5 - Friday 6 - Saturday	ENUM16	0 → 6	Sunday	Day of Week (34)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DST_ST_OCR	DST Start Occurrence in Month 0 - First Week 1 - Second Week 2 - Third Week 3 - Fourth Week 4 - Last Week	ENUM16	0 → 4	Second Week	Week of Month (151)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DST_ST_MTH	DST Start Month 1 - January 2 - February 3 - March 4 - April 5 - May 6 - June 7 - July 8 - August 9 - September 10 - October 11 - November 12 - December	ENUM16	1 → 12	March	Months of the Year (236)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Clock

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DST_ST_TM	DST Start Date / Time	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DST_EN_HR	DST End Hour	UINT8	0 → 23	2		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DST_EN_DW	DST End Day of Week 0 - Sunday 1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday 5 - Friday 6 - Saturday	ENUM16	0 → 6	Sunday	Day of Week (34)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DST_EN_OCR	DST Occurrence in Month 0 - First Week 1 - Second Week 2 - Third Week 3 - Fourth Week 4 - Last Week	ENUM16	0 → 4	First Week	Week of Month (151)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Clock

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DST_EN_MTH	DST End Month 1 - January 2 - February 3 - March 4 - April 5 - May 6 - June 7 - July 8 - August 9 - September 10 - October 11 - November 12 - December	ENUM16	1 → 12	November	Months of the Year (236)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DST_EN_TM	DST End Date / Time	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.4 Comm Parameters

Description: The Comm object provides the parameters for configuring the communications ports.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-5: Comm Parameters

Comm								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 – COM1 2 – COM2 3 – COM3 4 – WiFi 5 – Ethernet		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 – Normal 1 – In Alarm 2 – Failure 3 – Override 4 – Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

Comm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PORT_DESC	Port Description	UC20		Instance: 1 – Serial Port 1 2 – Serial Port 2 3 – Serial Port 3 4 – WiFi 5 – Ethernet		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
PORT_ENABLE	Port Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OWNER	Port Owner 0 – Debug 2 – DNP3 3 – Modbus Slave 4 – Master Modbus 5 – BSAP 6 – ROC 7 – MVS4088B	ENUM16	Instance: 1 - 0 → 6 2 - 0 → 6 3 - 0 → 7 4 - 2 5 - 0 → 6	Instance: 1 – DNP3 (2) 2 – DNP3 (2) 3 – DNP3 (2) 4 – DNP3 (2) 5 – DNP3 (2)	Instance: 1 - Serial Port 1 Owner (231) 2 – Serial Port 2 Owner (232) 3 – Serial Port 3 Owner (233) 4 – Wi-Fi Port Owner (234)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
PORT_TYPE	Port Type 0 – Serial 1 – Ethernet 2 – Wi-Fi	ENUM16	0 → 2	Instance: 1 – Serial (0) 2 – Serial (0) 3 – Serial (0) 4 – Wi-Fi (2) 5 – Ethernet (1)	Port Type (68)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

Comm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SER_MODE	Serial Mode 0 – RS-232 1 – RS-485 (No Termination) 2 – RS-485 (Terminated) 3 – RS-422 (No Termination) 4 – RS-422 (Terminated)	ENUM16	Instance: 1 - 0 → 4 2 - 0 → 2 3 - 0 → 2 4 - 0 → 4 5 - 0 → 4	RS-232	Instance: 1 - Serial Port Mode (69) 2 – Serial Port Module (214) 3 – Serial Port Module (214) 4 - Serial Port Mode (69) 5 - Serial Port Mode (69)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BAUD	Baud Rate 0 - 1200 1 - 2400 2 - 4800 3 - 9600 4 - 19.2K 5 - 38.4K 6 - 57.6K 7 - 115.2K	ENUM16	0 → 7	115.2K	Baud Rate (39)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SER_SETTING	Serial Settings 0 - 7 data bits; odd parity; 1 stop bit 1 - 7 data bits; even parity; 1 stop bit 2 - 8 data bits; no parity; 1 stop bit 3 - 8 data bits; odd parity; 1 stop bit 4 - 8 data bits; even parity; 1 stop bit	ENUM16	0 → 4	8 data bits; no parity; 1 stop bit	Serial Settings (40)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

Comm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IPV4_ADDRESS	IPv4 IP Address	BYTE4		192.168.1.10	IPv4 Address (41)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
MAC48_ADDRESS	MAC 48-bit Address	BYTE6			48-bit MAC Address (42)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MAX_CONNECT	Maximum Number of Connections	UINT8		Instance: 1 – 1 2 – 1 3 – 1 4 – 1 5 – 6		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CUR_CONNECT	Current Number of Connections	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SSID	Wi-Fi SSID	UC30				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SECURE_TYPE	Wireless Security Type 0 - Open 1 - WPA-2	ENUM16	0 → 1	WPA-2	Wi-Fi Security Option (95)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	

Comm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
KEY	Wireless Security Key	UC40		EmersonFBXX00	Password (241.1)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
WI-FI_CHANNEL	Wireless Channel	UINT8	1 → 11	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
IPV4_GATEWAY	Gateway Address (IPv4)	BYTE4		192.168.1.1	IPV4 Address (41)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
IPV4_SUBNET_MASK	Subnet Mask (IPv4)	BYTE4		255.255.255.0	IPV4 Address (41)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
WI-FI_ANTENNA	Wi-Fi Antenna Type 0 - Internal Antenna 1 - External Antenna	ENUM16	0 → 1	Internal Antenna	Wi-Fi Antenna Type (226)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
IP_CONN1_OWNER	IP Connection 1 Owner 0 - DNP3 Protocol 1 - Modbus Slave Protocol 2 - ROC Protocol	ENUM16	0 → 3	DNP3 Protocol	IP Connection 1 2 3 Owner (248)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

Comm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IP_CONN2_OWNER	IP Connection 2 Owner 0 - DNP3 Protocol 1 - Modbus Slave Protocol 2 - ROC Protocol	ENUM16	0 → 3	DNP3 Protocol	IP Connection 1 2 3 Owner (248)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
IP_CONN3_OWNER	IP Connection 3 Owner 0 - DNP3 Protocol 1 - Modbus Slave Protocol 2 - ROC Protocol	ENUM16	0 → 3	DNP3 Protocol	IP Connection 1 2 3 Owner (248)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
IP_CONN4_OWNER	IP Connection 4 Owner 0 - Modbus Slave Protocol 1 - ROC Protocol	ENUM16	0 → 2	Modbus Slave Protocol	IP Connection 4 5 6 Owner (249)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
IP_CONN5_OWNER	IP Connection 5 Owner 0 - Modbus Slave Protocol 1 - ROC Protocol	ENUM16	0 → 2	Modbus Slave Protocol	IP Connection 4 5 6 Owner (249)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
IP_CONN6_OWNER	IP Connection 6 Owner 0 - Modbus Slave Protocol 1 - ROC Protocol	ENUM16	0 → 2	ROC Protocol	IP Connection 4 5 6 Owner (249)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
KEY_ON_DELAY	Key On Delay	FLOAT	0 → 3	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

Comm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
KEY_OFF_DELAY	Key Off Delay	FLOAT	0 → 3	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.5 DNP3 Parameters

Description: The DNP3 object provides the parameters for configuring DNP3 communications.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-6: DNP3 Parameters

DNP3								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		DNP3		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
LOGIN_TMOUT	Inactivity Timeout	UINT16	30 → 1440	120	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DNP3

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
UNSOLICIT_MODE	Unsolicited Message Option 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DNP_TCP_ENABLE	Enable TCP for DNP3 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 5 - Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TCPIP_PORT	TCP/IP Port	UINT16		20000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ADDRESS	16-bit source address for the session.	UINT16	0 → 65519	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BIN_IN_SCAN_PRD	Group 2 scan period; defines the binary input group scan period. **1** indicates that the system scans all binary input points for changes once each second. **0** indicates scanning is disabled.	UINT32	0 → 60	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ANLG_IN_SCAN_PRD	Group 32 scan period; defines the analog input group scan period. **1** indicates that the system scans all analog input points for changes once each second. **0** indicates scanning is disabled.	UINT32	0 → 60	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DNP3

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
BIN_CNTR_SCAN_PRD	Group 22 scan period; defines the counter group scan period. **1** indicates that the system scans all binary input points once each second. **0** indicates scanning is disabled.	UINT32	0 → 60	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
CONFIRM_TIMEOUT	Master confirmation timeout; specifies (for a **solicited** response) the number of milliseconds the end DNP device waits for an application layer confirmation from the host device.	UINT32	1000 → 20000	10000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CFM_TIMEOUT	Unsolicited confirmation timeout; specifies (for an **unsolicited** response) the number of milliseconds the end DNP device waits for an application layer confirmation from the host device.	UINT32	1000 → 20000	10000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_NUM_RETRIES	Unsolicited Number of retries; specifies the maximum number of unsolicited retries before changing to the “offline” retry period.	UINT16	1 → 65535	3		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_RETRY_DELAY	Delay between unsolicited retries; specifies (in milliseconds) the time to delay after an unsolicited confirm timeout before retrying the unsolicited response.	UINT32	1 → 65535	30000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DNP3								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
UNSOL_CLASS1	Enables unsolicited messages for class 1 events. Valid values are **0** (disabled, the default) and **1** (enabled).	ENUM16	0 → 1	Disabled (0)	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CLASS2	Enables unsolicited messages for class 2 events. Valid values are **0** (disabled, the default) and **1** (enabled).	ENUM16	0 → 1	Disabled (0)	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CLASS3	Enables unsolicited messages for class 3 events. Valid values are **0** (disabled, the default) and **1** (enabled).	ENUM16	0 → 1	Disabled (0)	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CLASS1_MAX	Indicates the maximum number of events allowed in class 1 before generating an unsolicited response.	UINT8	0 → 255	5		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CLASS2_MAX	Indicates the maximum number of events allowed in class 2 before generating an unsolicited response.	UINT8	0 → 255	5		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CLASS3_MAX	Indicates the maximum number of events allowed in class 3 before generating an unsolicited response.	UINT8	0 → 255	5		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DNP3

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
UNSOL_CLASS1_DELAY	Indicates (in milliseconds) the maximum amount of time the system waits after receiving a class 1 event before generating an unsolicited response.	UINT32	1000 → 10000	5000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CLASS2_DELAY	Indicates (in milliseconds) the maximum amount of time the system waits after receiving a class 2 event before generating an unsolicited response.	UINT32	1000 → 10000	5000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_CLASS3_DELAY	Indicates (in milliseconds) the maximum amount of time the system waits after receiving a class 3 event before generating an unsolicited response.	UINT32	1000 → 10000	5000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BIN_EVT_MAX	Indicates the maximum number of binary input events that an outstation can queue before either an internal event buffer overflow (IIN2.3) occurs or an unsolicited message is sent out (if enabled). Default value depends on instance.	UINT16	0 → 17	Instance: 1 – 17 2 – 17 3 – 17 4 – 0 5 – 17		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ANLG_EVT_MAX	Indicates the maximum number of analog input events that an outstation can queue before either an internal event buffer overflow (IIN2.3) occurs or an unsolicited message is sent out (if enabled). Default value depends on instance.	UINT16	0 → 115	Instance: 1 – 115 2 – 115 3 – 115 4 – 0 5 – 115		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DNP3

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
BIN_CNTR_EVT_MAX	Indicates the maximum number of binary counter events that an outstation can queue before either an internal event buffer overflow (IIN2.3) occurs or an unsolicited message is sent out (if enabled). Default value depends on instance.	UINT16	0 → 10	Instance: 1 – 10 2 – 10 3 – 10 4 – 0 5 – 10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FRZN_CNTR_EVT	Indicates the maximum number of frozen counter events that an outstation can queue before either an internal event buffer overflow (IIN2.3) occurs or an unsolicited message is sent out (if enabled).	UINT16	0 → 1	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNSOL_DEST_ADDRESS	Unsolicited Destination Address	UINT16	0 → 65519	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.6 Role Parameters

Description: The Role object provides the parameters for configuring roles assigned to different users.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-7: Role Parameters

Role								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Role		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ROLE_NAME	Role Name	UC20		Admin		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Role

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FW_PERM	Permit Firmware Update 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Enable 3 – Enable 4 – Disable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
USR_PERM	Permit User Management 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Disable 3 – Disable 4 – Disable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
CFG_PERM	Permit Configuration Download 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Enable 3 – Enable 4 – Disable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
SYS_RST_PERM	Permit System Restart 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Enable 3 – Enable 4 – Disable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DAT_COLL_PERM	Permit Data Collection 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Enable 3 – Enable 4 – Enable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Role

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DAT_MGMT_PERM	Permit Data Management 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Enable 3 – Enable 4 – Disable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
CALIB_PERM	Permit Calibration 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Enable 3 – Enable 4 – Disable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
TIME_SYNC_PERM	Permit Time Synchronization 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Enable 2 – Enable 3 – Enable 4 – Enable 5 – Disable	Enable/Disable Selection (30)	Instance: 1 – R/O 2 – R/W 3 – R/W 4 – R/W 5 – R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

5.2.7 Security Parameters

Description: The Security object provides the parameters for configuring user login requirements and lockout settings.

Number of Instances: 1 instance may exist.

Storage Location: Saved to internal configuration memory.

Table 5-9: Security Parameters

Security								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Security Policy		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Security Policy		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Security

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LOCKOUT_TYPE	Lockout Type 0 - Disabled 1 - Timed	ENUM16	0 → 1	Timed	Lockout Type (121)	R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
LOCKOUT_THRESHOLD	Lockout Threshold	UINT8	1 → 10	5		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
LOCKOUT_DURATION	Lockout Duration	UINT16	1 → 20160	15	minutes (17.1)	R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
SUG_MIN_PASS_LEN	Minimum Password Length	UINT8	0 → 32	8		R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
SS_REQUIRE_LOGIN	Screen Saver 0 - No Password Required 1 - Password Required	ENUM16	0 → 1	No Password Required	Screen Saver Password (250)	R/W	**R/W:** Admin **R/O:** Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

5.2.8 Display Parameters

Description: The Display object provides the parameters for configuring the device LCD and the values shown on the screen saver.

Number of Instances: 1 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-10: Display Parameters

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OBJ_NAME	Tag	UC20		Device LCD		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Device LCD		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CONTRAST	Contrast	UINT8	0 → 100	50	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BRIGHTNESS	Brightness	UINT8	0 → 100	50	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SS_PRM_DESC_1	Item 1 User Description	UC20		Differential Press.		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_1	Item 1 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_1	Item 1 Parameter	PRMREF		DP_1-1.SELECTED		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_1	Item 1 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_DESC_2	Item 2 User Description	UC20		Static Pressure		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_2	Item 2 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_2	Item 2 Parameter	PRMREF		Press_1-1.SELECTED		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_2	Item 2 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_3	Item 3 User Description	UC20		Temperature		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_3	Item 3 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_REF_3	Item 3 Parameter	PRMREF		RTD_1-1.SELECTED		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_3	Item 3 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_4	Item 4 User Description	UC20		Svol Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_4	Item 4 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_4	Item 4 Parameter	PRMREF		DP Mtr_1.SVOL_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_4	Item 4 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_DESC_5	Item 5 User Description	UC20		Uvol Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_5	Item 5 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_5	Item 5 Parameter	PRMREF		DP Mtr_1.UVOL_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_5	Item 5 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_6	Item 6 User Description	UC20		Mass Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_6	Item 6 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_REF_6	Item 6 Parameter	PRMREF		DP Mtr_1.MASS_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_6	Item 6 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_7	Item 7 User Description	UC20		Energy Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_7	Item 7 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_7	Item 7 Parameter	PRMREF		DP Mtr_1.ENERGY_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_7	Item 7 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_DESC_8	Item 8 User Description	UC20		Svol Total		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_8	Item 8 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_8	Item 8 Parameter	PRMREF		DP Mtr_1.SVOL_RAW _TOT		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_8	Item 8 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_9	Item 9 User Description	UC20		Uvol Total		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_9	Item 9 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_REF_9	Item 9 Parameter	PRMREF		DP Mtr_1.UVOL_RAW _TOT		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_9	Item 9 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_10	Item 10 User Description	UC20		Mass Total		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_10	Item 10 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_10	Item 10 Parameter	PRMREF		DP Mtr_1.MASS_RAW _TOT		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_10	Item 10 Enable 0 - Disable 1 - Enable	Enum16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_DESC_11	Item 11 User Description	UC20		Energy Total		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_11	Item 11 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_11	Item 11 Parameter	PRMREF		DP Mtr_1.ENERGY_RAW_TOT		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_11	Item 11 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_12	Item 12 User Description	UC20		H2O Content		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_12	Item 12 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_REF_12	Item 12 Parameter	PRMREF		Fluid Prop_1.H2O_CONTENT_SEL		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_12	Item 12 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_13	Item 13 User Description	UC20		HV Real		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_13	Item 13 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_13	Item 13 Parameter	PRMREF		Fluid Prop_1.HV_REAL_SEL		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_13	Item 13 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_DESC_14	Item 14 User Description	UC20		RD Real		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_14	Item 14 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_14	Item 14 Parameter	PRMREF		Fluid Prop_1.RD_REAL_SEL		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_14	Item 14 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_15	Item 15 User Description	UC20		Svol Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_15	Item 15 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_REF_15	Item 15 Parameter	PRMREF		Station_1.SVOL_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_15	Item 15 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_16	Item 16 User Description	UC20		Uvol Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_16	Item 16 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_16	Item 16 Parameter	PRMREF		Station_1.UVOL_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_16	Item 16 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_DESC_17	Item 17 User Description	UC20		Mass Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_17	Item 17 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_17	Item 17 Parameter	PRMREF		Station_1.MASS_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_17	Item 17 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_18	Item 18 User Description	UC20		Energy Flow Rate		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_18	Item 18 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_REF_18	Item 18 Parameter	PRMREF		Station_1.ENERGY_RATE		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_18	Item 18 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_19	Item 19 User Description	UC20		Mass Total		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_19	Item 19 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_19	Item 19 Parameter	PRMREF		Station_1.MASS_RAW_TOT		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_19	Item 19 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Display

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SS_PRM_DESC_20	Item 20 User Description	UC20		Energy Total		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_DESC_EN_20	Item 20 User Description Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_REF_20	Item 20 Parameter	PRMREF		Station_1.ENERGY_RAW_TOT		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SS_PRM_ENABLE_20	Item 20 Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.9 Hist Grp Parameters

Description: The Hist Grp object provides the parameters for configuring history groups.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-12: Hist Grp Parameters

Hist Grp

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OBJ_NAME	Tag	UC20		Hist Grp_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		User Periodic 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Hist Grp

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
GRP_TYPE	History Group Type 0 - General History 1 - Meter History 2 - User Periodic	ENUM16	0 → 2	User Periodic	History Group Type (84)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
STATION_OBJ	Station Assignment	OBJREF	Station	Undefined		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
NUM_PTS	Number of History Points	UINT16	0 → 60	10		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CONTRACT_HR	Contract Hour	UINT8	0 → 23	0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
CONTRACT_WKDAY	Contract Day of Week 0 - Sunday 1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday 5 - Friday 6 - Saturday	ENUM16	0 → 6	Sunday	Day of Week (34)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Hist Grp

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CONTRACT_DAY	Contract Day of Month 1 - 1 2 - 2 3 - 3 4 - 4 5 - 5 6 - 6 7 - 7 8 - 8 9 - 9 10 - 10 11 - 11 12 - 12 13 - 13 14 - 14 15 - 15 16 - 16 17 - 17 18 - 18 19 - 19 20 - 20 21 - 21 22 - 22 23 - 23 24 - 24 25 - 25 26 - 26 27 - 27 28 – 28 29 = 3rd from last day of month 30 = 2nd from last day of month 31 = Last day of month	ENUM16	1 → 28	1	Contract Day of Month (157)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Hist Grp

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USER_PERIOD	User Period	UINT32	1 → 720000	60	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PER_OPT	Hourly History Option 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
DAY_OPT	Daily History Option 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
WK_OPT	Weekly History Option 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
MNTH_OPT	Monthly History Option 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
PER_LOG_OBJ	Hourly Log	OBJREF		Undefined		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DAY_LOG_OBJ	Daily Log	OBJREF		Undefined		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
WK_LOG_OBJ	Weekly Log	OBJREF		Undefined		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Hist Grp

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MNTH_LOG_OBJ	Monthly Log	OBJREF		Undefined		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_LOG_OBJ	User Periodic Log	OBJREF		Log_5		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.10 Hist Parameters

Description: The Hist object provides the parameters for configuring the individual history points in each group.

Number of Instances: 90 instances may exist.

Storage Location: Saved saves to internal configuration memory.

Table 5-13: Hist Parameters

Hist								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		History		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Hist

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HIST_GRP_OBJ	History Group	OBJREF	Hist Grp	Hist Grp_1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HIST_PARAM	Parameter to Archive	PRMREF		4-1 Total_5 (DP Mtr 1 Flow Time) – Total/Difference 4-2 Average_1 (DP Mtr 1 DP) - Average 4-3 Average_2 (DP Mtr 1 PF) - Average 4-4 Average_3 (DP Mtr 1 TF) - Average 4-5 Average_4 (DP Mtr 1 IMV) - Average 4-6 Total_6 (DP Mtr 1 IV) – Total/Difference 4-7 Total_2 (DP Mtr 1 SVOL) – Total/Difference 4-8 Total_4 (DP Mtr 1 ENERGY) – Total/Difference 4-9 Total_2 (DP Mtr 1 SVOL) - Snapshot 4-10 Total_4 (DP Mtr 1 ENERGY) - Snapshot		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Hist

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HIST_TYPE	Archive Type 0 - Average 1 - Total / Difference 2 - Snapshot 3 - Minimum 4 - Maximum 5 - Integration	ENUM16	0 → 5	4-1 Total_5 (DP Mtr 1 Flow Time) – Total/Difference 4-2 Average_1 (DP Mtr 1 DP) - Average 4-3 Average_2 (DP Mtr 1 PF) - Average 4-4 Average_3 (DP Mtr 1 TF) - Average 4-5 Average_4 (DP Mtr 1 IMV) - Average 4-6 Total_6 (DP Mtr 1 IV) – Total/Difference 4-7 Total_2 (DP Mtr 1 SVOL) – Total/Difference 4-8 Total_4 (DP Mtr 1 ENERGY) – Total/Difference 4-9 Total_2 (DP Mtr 1 SVOL) - Snapshot 4-10 Total_4 (DP Mtr 1 ENERGY) - Snapshot	History Type (43)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.11 Log Parameters

Description: The Log object provides the parameters for configuring and viewing logs.

Number of Instances: 18 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-14: Log Parameters

Log								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Log_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Legal Event Log		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Log

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LOG_TYPE	Type of Log 0 - Undefined 1 - Legal Event 2 - Non Legal Event 3 - Legal Alarm 4 - Non Legal Alarm 5 - Legal History 6 - Non Legal History	ENUM16		1 - Legal Event 2 - Non-legal Event 3 - Legal Alarm 4 - Undefined 5-10 - Non-legal history 11-18 - Legal history	Log Type (156)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LOG_ENB	Logging 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance 4 - Disabled	Enable/Disable Selection (30)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HIST_GRP_OBJ	History Group	OBJREF	Hist Grp	Undefined		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LAST_READ_SEQ	Sequence Number Last Read Record	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
FULL_LIM	Log Full Remaining Records	UINT16	0 → 5000	100		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NEAR_LIM	Log Nearly Full Remaining Records	UINT16	0 → 5000	200		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Log

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LOG_ALM	Log Full Alarm Status	BIN32				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.12 Alarm Parameters

Description: The Alarm object provides the parameters for configuring and viewing alarms.

Number of Instances: 45 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-15: Alarm Parameters

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OBJ_NAME	Tag	UC20		Alarm_X (where X is instance number)		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ALM_DESC	Alarm Description	UC20		Differential Press 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ALM_VAL_PARAM	Value to Alarm	PRMREF		1 - DP_1-1.SELECTED		R/O	**R/O:** Admin; Engineer;	▪ Log Changes ▪ Legal

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
				2 – Press_1-1.SELECTED 3 – RTD_1-1.SELECTED 4 – DP_1-2.SELECTED 5 – Press_1-2.SELECTED 6 – RTD_1-2.SELECTED 7 – DP-1-3.SELECTED 8 – Press_1-3.SELECTED 9 – RTD_1-3.SELECTED 10 – DP mtr_1.SVOL_RATE 11 – Station_1.SVOL_RATE 12 – DP Mtr_2.SVOL_RATE 13 – Station_2.SVOL_RATE 14 – AI_1-1.SELECTED 15 – AI_1-2.SELECTED 16 – AI_1-3.SELECTED 17 – AI_1-4.SELECTED 18 – AI_1-5.SELECTED			Meas. Tech; Operator; Auditor	

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
				19 – AI_1-6.SELECTED 20 – AI_1-7.SELECTED 21 – AI_1-8.SELECTED 22 – PI_1-1.SELECTED_FREQ 23 – PI_1-2.SELECTED_FREQ 24 – PI_1-3.SELECTED_FREQ 25 – PI_1-4.SELECTED_FREQ 26 – PI_1-5.SELECTED_FREQ 27 – PI_1-6.SELECTED_FREQ 28 – PI_1-7.SELECTED_FREQ 29 – PI_1-8.SELECTED_FREQ 30 – PI_1-9.SELECTED_FREQ 31 – PI_1-10.SELECTED_FREQ 32 – System Pwr_1.BATT_VAL 33 – System Pwr_1.EXT_VOL-VAL 34 – Linear Mtr_1.SVOL-RATE 35 – Linear Mtr_2.SVOL_RATE			

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
				36-45 - Undefined				
LO_ENB	Low Alarm Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LO_LIM	Low Alarm Limit	FLOAT		0	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator **R/O:** Auditor	▪ Log Changes ▪ Legal
LO_ST	Low Alarm Status 0 - Normal 1 - In Alarm	ENUM16	0 → 1	Normal	Alarm Status (254)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LO_PRI	Low Alarm Priority	UINT8	0 → 6	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LOLO_ENB	Low Low Alarm Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LOLO_LIM	Low Low Alarm Limit	FLOAT		0	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator **R/O:** Auditor	▪ Log Changes ▪ Legal

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LOLO_ST	Low Low Alarm Status 0 - Normal 1 - In Alarm	ENUM16	0 → 1	Normal	Alarm Status (254)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LOLO_PRI	Low Low Alarm Priority	UINT8	0 → 6	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HI_ENB	High Alarm Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HI_LIM	High Alarm Limit	FLOAT		10000	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator **R/O:** Auditor	▪ Log Changes ▪ Legal
HI_ST	High Alarm Status 0 - Normal 1 - In Alarm	ENUM16	0 → 1	Normal	Alarm Status (254)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HI_PRI	High Alarm Priority	UINT8	0 → 6	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HIHI_ENB	High High Alarm Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HIHI_LIM	High High Alarm Limit	FLOAT		10000	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator **R/O:** Auditor	▪ Log Changes ▪ Legal
HIHI_ST	High High Alarm Status 0 - Normal 1 - In Alarm	ENUM16	0 → 1	Normal	Alarm Status (254)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HIHI_PRI	High High Alarm Priority	UINT8	0 → 6	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ROC_MODE	Rate of Change Alarm Mode 0 - Disabled 1 - Alarm on Positive Changes 2 - Alarm on Negative Changes 3 - Alarm on Both	ENUM16	0 → 3	Disabled	Rate of Change Alarm Mode (195)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ROC_LIM	Rate of Change Limit	FLOAT	≥ 0	100	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator **R/O:** Auditor	▪ Log Changes ▪ Legal

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ROC_TM	Rate of Change Time Period	FLOAT	≥ 1	1	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ROC_ST	Rate of Change Alarm Status 0 - Normal 1 - In Alarm	ENUM16	0 → 1	Normal	Alarm Status (254)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ROC_PRI	Rate of Change Alarm Priority	UINT8	0 → 6	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PF_ENB	Point Failure Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PF_ST	Point Failure Alarm Status 0 - Normal 1 - In Alarm	ENUM16	0 → 1	Normal	Alarm Status (254)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PF_PRI	Point Failure Priority	UINT8	0 → 6	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Alarm

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DEADBAND	Alarm Deadband	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PROCESS_ALM	Composite Alarm Status 0 - Normal 1 - Low 2 - Low Low 3 - High 4 - High High 5 - Rate of Change 6 - Point Fail	BIN8		Normal	Composite Alarm Status (45)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.13 RTD Parameters

Description: The RTD object provides the parameters for configuring remote temperature detectors.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-16: RTD Parameters

RTD								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - Local RTD 2 – 4088B-1 RTD 3 – 4088B-2 RTD		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

RTD

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHANNEL	Channel	UINT8		Instance: 1 -3 2 – 242 3 - 242		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 - Local RTD 2 - 4088B-1 RTD 3 - 4088B-2 RTD		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
UNITS	Units. Instances: 1 - 0 - °F; 1 - °C; 2 – K 2 - 0 - °F; 1 - °C 3 - 0 - °F; 1 - °C	ENUM16	Instance: 1 - 0 → 2 2 -1 3 - 1	°F	Temperature Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LIVE	Live Value	FLOAT		0	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
OVRD	Override Value	FLOAT		0	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT	Fault Value	FLOAT		0	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

RTD

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LAST_GOOD	Last Good Value	FLOAT		0	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SELECTED	Selected Value	FLOAT		0	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
OHMS	RTD Ohms	FLOAT		0	ohms (23.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MODE	Operation Mode 0 - Live 1 - Override	ENUM16	0 → 1	Live	User Selection (31)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT_MODE	Fault Mode 0 - Live 1 - Fault 2 - Last Good	ENUM16	0 → 3	Live	Fault Selection (32)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
RTD_TYPE	RTD Type. Instances: 1: 0=2-wire; 1=3-wire; 2=4-wire 2: 0=not used; 1=3-wire; 2=4-wire 3: 0=not used; 1=3-wire; 2=4-wire	ENUM16	Inst. 1=:0 → 2	4-wire	RTD Type. Instances: 1- (83) 2 – (219) 3 – (219)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

RTD

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CVD_CURVE	CVD Curve Selection 0 - User 1 - Alpha 0.00385 DIN/IEC 2 - Alpha 0.00392	ENUM16	0 → 2	User	CVD Curve Selection (49)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
RTD_ACOEFF	CVD A Coeff In Use	FLOAT		0.0039083		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
RTD_BCOEFF	CVD B Coeff In Use	FLOAT		-5.78E-07		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
RTD_R0COEFF	CVD R0 Coeff in Use	FLOAT		100		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
RTD_CCOEFF	CVD C Coeff In Use	FLOAT		-4.18E-12		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USR_ACOEFF	CVD A Coeff Entered	FLOAT	0.00039083 → 0.039083	0.0039083		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
USR_BCOEFF	CVD B Coeff Entered	FLOAT	-5.775E-06 → -5.775E-08	-5.78E-07		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

RTD

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USR_R0COEFF	CVD R0 Coeff Entered	FLOAT	95 → 105	100		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
USR_CCOEFF	CVD C Coeff Entered	FLOAT	-4.183E-11 → 4.183E-11	-4.18E-12		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DAMPING	Damping Time	FLOAT	0 → 60	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
ALM_OBJ	Alarm Reference	OBJREF		Instances: 1 - Alarm_3 2 – Alarm_6 3 – Alarm_9		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
URL	Upper Range Limit	FLOAT		1562	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LRL	Lower Range Limit	FLOAT		-328	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

RTD

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MONITOR_MAX	Monitor Maximum	FLOAT		250	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
MONITOR_MIN	Monitor Minimum	FLOAT		-50	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
MIN_SPAN	Minimum Span	FLOAT		100	°F (3.0) Instance: 1 – (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
INPUT_STATUS	Input Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail 7 - Above URL 8 - Below LRL 9 - Input Frozen 10 - Type Mismatch	BIN16		Normal	Alarm Status RTD (220)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CAL_OBJ	Calibration Reference	OBJREF		Instances: 1- FLTCal_3 2 – FLTCal_6 3 – FLTCal_9		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.14 DP Parameters

Description: The DP object provides the parameters for configuring differential pressure sensors.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-17: DP Parameters

DP								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - Integral Sensor DP 2 – 4088B-1 DP 3 – 4088B-2 DP		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHANNEL	Channel	UINT8		Instance: 1 – 1 2 – 2 3 - 3		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 - Integral Sensor DP 2 – 4088B-1 DP 3 – 4088B-2 DP		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
UNITS	Units 0 - inH2O@60°F 1 - inH2O@68°F 2 - kPa 3 - mbar 4 - kg/cm² 5 - psi 6 - bar	ENUM16	0 → 6	inH2O@60°F	Differential Pressure Selection (26)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LIVE	Live Value	FLOAT		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
OVRD	Override Value	FLOAT		0	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT	Fault Value	FLOAT		0	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LAST_GOOD	Last Good Value	FLOAT		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SELECTED	Selected Value	FLOAT		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MODE	Operation Mode 0 - Live 1 - Override	ENUM16	0 → 1	Live	User Selection (31)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT_MODE	Fault Mode 0 - Live 1 - Fault 2 - Last Good	ENUM16	0 → 3	Live	Fault Selection (32)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
REV_DP	Reverse Differential Pressure	FLOAT		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DAMPING	Damping Time	FLOAT	0 → 60	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ALM_OBJ	Alarm Reference	OBJREF		Instance: 1 - Alarm_1 2 – Alarm_4 3 – Alarm_7		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
URL	Upper Range Limit	FLOAT		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LRL	Lower Range Limit	FLOAT		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MONITOR_MAX	Monitor Maximum	FLOAT		250	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MONITOR_MIN	Monitor Minimum	FLOAT		0	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MIN_SPAN	Minimum Span	FLOAT		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INPUT_STATUS	Input Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail 7 - Above URL 8 - Below LRL 9 - Input Frozen	BIN16		Normal	Alarm Status DP SP (44)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CAL_OBJ	Calibration Reference	OBJREF		Instance: 1 - FLTCal_1 2 – FLTCal_4 3 – FLTCal_7		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.15 Press Parameters

Description: The Press object provides the parameters for configuring static pressure sensors.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-18: Press Parameters

Press								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - Integral Sensor Pr 2 – 4088B-1 Press 3 – 4088B-2 Press		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Press

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHANNEL	Channel	UINT8		Instance: 1 – 1 2 – 2 3 - 3		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 - Integral Sensor Pr 2 – 4088B-1 Press 3 – 4088B-2 Press		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
UNITS	Units 0 - psi 1 - kPa 2 - MPa 3 - bar 4 - kg/cm²	ENUM16	0 → 4	psi	Pressure (78)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LIVE	Live Value	FLOAT		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
OVRD	Override Value	FLOAT		0	psi(a) (2.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT	Fault Value	FLOAT		0	psi(a) (2.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Press

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LAST_GOOD	Last Good Value	FLOAT		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SELECTED	Selected Value	FLOAT		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MODE	Operation Mode 0 - Live 1 - Override	ENUM16	0 → 1	Live	User Selection (31)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT_MODE	Fault Mode 0 - Live 1 - Fault 2 - Last Good	ENUM16	0 → 3	Live	Fault Selection (32)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DAMPING	Damping Time	FLOAT	0 → 60	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ALM_OBJ	Alarm Reference	OBJREF		Instance: 1 - Alarm_2 2 – Alarm_5 3 – Alarm_8		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
URL	Upper Range Limit	FLOAT		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Press

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LRL	Lower Range Limit	FLOAT		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MONITOR_MAX	Monitor Maximum	FLOAT		4000	psi(a) (2.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MONITOR_MIN	Monitor Minimum	FLOAT		0	psi(a) (2.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MIN_SPAN	Minimum Span	FLOAT		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
INPUT_STATUS	Input Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail 7 - Above URL 8 - Below LRL 9 - Input Frozen	BIN16		Normal	Alarm Status DP SP (44)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Press

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CAL_OBJ	Calibration Reference	OBJREF		Instance: 1 - FLTCal_2 2 – FTLCal_5 3 – FLTCal_8		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.16 Sensor Parameters

Description: The Sensor object provides the parameters for configuring multivariable sensors.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-19: Sensor Parameters

Sensor								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - Integral Sensor-1 2 – 4088B_Sensor-1 3 – 4088B_Sensor-2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DESC	Description	UC20		Instance: 1 - Integral Sensor-1 2 – 4088B_Sensor-1 3 – 4088B_Sensor-2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
SER_NUM	Serial Number	UINT32	0 → 16777216	0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
XMTR_STATUS	Transmitter Status 0 - Normal 1 - SP Out of Low Limits 2 - SP Below Low Alr Limits 3 - SP Above Upr Alr Limits 4 - SP Out of Hi Limits 5 - DP Out of Low Limits 6 - DP Below Low Alr Limits 7 - DP Above Upr Alr Limits 8 - DP Out of Hi Limits 9 - Warning Set 10 - Critical Alr Set 11 - 4088 Calib in Progress 12 - Sensor Module Fail 13 - LCD Comm Error 14 - RTD Sensor Mismatch 15 - ST Below Low Alr Limits 16 - ST Above Upr Alr Limits 17 - ST Out of Low Limits 18 - ST Out of Hi Limits	BIN32		Normal	Sensor Transmitter Status (110)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	19 - PT Sensor Fail 20 - PT Out of Low Limits 21 - PT Below Low Alr Limits 22 - PT Above Upr Alr Limits 23 - PT Out of Hi Limits 24 - ST Simulation Enable 25 - Write Protect Switch Lock 26 - PT Simulation Enable 27 - Feature Board Fail 28 - SP Simulation Enable 29 - DP Simulation Enable 30 - Sensor Module Incompatible 31 - Power Fail 32 - Sensor Module Comm Fail							
DP	Differential Pressure Object	OBJREF	DP	Instance: 1 - DP_1-1 2 – DP_1-2 3 – DP_1-3		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SP	Static Pressure Object	OBJREF	Press	Instance: 1 - Press_1-1 2 – Press_1-2 3 – Press_1-3		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PT	Flowing Temperature Object	OBJREF	RTD	Instance: 1 - RTD_1-1 2 – RTD_1-2 3 – RTD_1-3		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SENS_TEMP	Sensor Temperature	FLOAT		0	Instance: 1 - (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TEMP_UNITS	Temperature Units. Instance: 1 - 0 - °F; 1 - °C; 2 – K 2 - 0 - °F; 1 - °C 3 - 0 - °F; 1 - °C	ENUM16	Instance: 1 - 0 → 2 2 – 1 3 - 1	°F	Temperature Instance: 1 - (3) 2 – (242) 3 – (242)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
URL	Upper Range Limit	FLOAT		0	Instance: 1 - (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LRL	Lower Range Limit	FLOAT		0	Instance: 1 - (3.0) 2 – (242.0) 3 – (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SW_REV	Sensor App FW Revision	BYTE4				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SENS_CFG	Sensor Configuration 0 - Standard Coplanar 1 - Standard Threaded 2 - Level Coplanar 3 - Reference Class Coplanar 4 - High Temp Conventional 252 - Unknown	ENUM16		Standard Coplanar	Sensor Configuration (85)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SENS_TYPE	Sensor Type 0 - Dual Variable 1 - DP Only 2 - SP Only	ENUM16		Dual Variable	Sensor Type (86)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SP_TYPE	Static Pressure Type 0 - No Static Pressure 1 - Absolute 2 - Gauge	ENUM16		Absolute	Static Pressure Type (87)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DP_RANGE	DP Range 0 - Range 0 1 - Range 1 2 - Range 2 3 - Range 3 4 - Range 4 5 - Range 5 6 - Range 6 7 - Range 7 8 - Range 8 9 - Range 9 10 - Range 10 253 - Special	ENUM16		Range 0	RMT Sensor Range (88)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SP_RANGE	SP Range 0 - Range 0 1 - Range 1 2 - Range 2 3 - Range 3 4 - Range 4 5 - Range 5 6 - Range 6 7 - Range 7 8 - Range 8 9 - Range 9 10 - Range 10 253 - Special	ENUM16		Range 0	RMT Sensor Range (88)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FLNG_TYPE	Flange Type 12 - Traditional 13 - Coplanar 14 - Remote Seal 15 - Level; 3in; 150lb 16 - Level; 4in; 150lb 17 - Level; 3in; 300lb 18 - Level; 4in; 300lb 19 - Level; DN 80; PN 40 20 - Level; DN 100; PN 40 21 - Level; DN 100; PN 10/16 22 - Level; 2 in; 150lb 23 - Level; 2in; 300lb 24 - Level; DN 50; PN 6 25 - Level; DN 50; PN 40 44 - 1/2in; NPTF 45 - DIN16288G 1/2 A male 46 - 1/4in; NPTF 240 - Auto Clave F-250-C 241 - Tri-Clamp 242 - Fractional Line Fit 243 - 1/8in; NPTF 244 - VCR 245 - PMC 246 - Traditional RC 1/4 247 - Traditional RC 1/2 252 - Unknown 253 - Special	ENUM16		Traditional	Flange Type (89)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FLNG_MAT	Flange Material 0 - Carbon Steel 1 - Undefined 2 - 316 Stainless Steel 3 - Hastelloy C 4 - Monel 5 - Tantallum 15 - Gold Monel 24 - Kynar 25 - Gold Monel 30 - Hastelloy C276 34 - PTFE Coated 316L SST 35 - Gold Plated Hastelloy C276 239 - Monel 400 251 - None 252 - Unknown 253 - Special	ENUM16		316 Stainless Steel	Sensor Material (90)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ORING_MTL	O-ring Material 10 - PTFE (Teflon R) 11 - Viton 12 - Buna-N 13 - Ethyl-Prop 36 - PTFE Glass 37 - PTFE Graphite 251 - None 252 - Unknown 253 - Special	ENUM16		PTFE Graphite	O-ring Material (91)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DRN_VNT_MTL	Drain Vent Material 0 - Carbon Steel 1 - Undefined 2 - 316 Stainless Steel 3 - Hastelloy C 4 - Monel 5 - Tantallum 15 - Gold Monel 24 - Kynar 25 - Gold Monel 30 - Hastelloy C276 34 - PTFE Coated 316L SST 35 - Gold Plated Hastelloy C276 239 - Monel 400 251 - None 252 - Unknown 253 - Special	ENUM16		316 Stainless Steel	Sensor Material (90)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Sensor

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ISO_MTL	Module Isolate Material 0 - Carbon Steel 1 - Undefined 2 - 316 Stainless Steel 3 - Hastelloy C 4 - Monel 5 - Tantallum 15 - Gold Monel 24 - Kynar 25 - Gold Monel 30 - Hastelloy C276 34 - PTFE Coated 316L SST 35 - Gold Plated Hastelloy C276 239 - Monel 400 251 - None 252 - Unknown 253 - Special	ENUM16		Carbon Steel	Sensor Material (90)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FILL_FLD	Module Fill Fluid 0 - Undefined 1 - Silicone 2 - Inert 7 - Neobee 252 - Unknown 253 - Special	ENUM16		Undefined	Fill Fluid (92)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.17 Mtr Setup Parameters

Description: The Mtr Setup object provides the parameters for configuring general meter run parameters.

Number of Instances: 1 instance may exist.

Storage Location: Saved to internal configuration memory.

Table 5-20: Mtr Setup Parameters

Mtr Setup								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Mtr Setup_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Meter Setup		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Mtr Setup

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MAX_MTRS	Maximum Meters	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NUM_DPMTRS	Number of Active DP Meters	UINT8		1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NUM_LINMTRS	Number of Active Linear Meters	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LOG_BRK_OPT	QTR Log Break Option 0 - Disabled 1 - Hourly Only 2 - All Standard Periodic Logs	ENUM16	0 → 2	Disabled	QTR Log Break Options (119)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AVG_METHOD	Meter Averaging Method 0 - Flow Dependent Linear 1 - Flow Dependent Formulaic 2 - Flow Weighted Linear 3 - Flow Weighted Formulaic	ENUM16	0 → 3	Flow Dependent Linear	Meter Averaging Method (185)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.18 Station Parameters

Description: The Station object provides the parameters for configuring stations.

Number of Instances: 2 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-21: Station Parameters

Station								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Station 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HIST_GRP_OBJ	History Group	OBJREF	Hist Grp	Hist Grp_4		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FLD_TYPE	Fluid Type 0 - Natural Gas	ENUM16	0 → 0	Natural Gas	Fluid Type (73)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PB	Base Pressure	DOUBLE	≥ 0.0001	14.696	psi(a) (2.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TB_OPT	Base Temperature Selection 0 - User 1 - 60°F 2 - 15°C 3 - 20°C 4 - 30°C 5 - 0°C	ENUM16	0 → 5	60°F	Base Temperature (74)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TB_USER	User Base Temperature	DOUBLE		60	°F (3.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TB_SEL	Selected Base Temperature	DOUBLE		60	°F (3.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LATITUDE	Latitude	DOUBLE	-90 → 90	45	° (20.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ELEVATION	Elevation	DOUBLE	-100 → 20000	0	ft (8.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ZF_METHOD	Compressibility/Density Calc 0 - AGA8 1994 Detailed 1 - AGA8 1994 Gross 1 2 - AGA8 1994 Gross 2 3 - ISO 12213-2 2009 4 - SGERG 1991 Std (CV/RD/CO2/H2) 5 - SGERG 1991 Alt 1 (CV/RD/N2/H2) 6 - SGERG 1991 Alt 2 (RD/CO2/N2/H2) 7 - SGERG 1991 Alt 3 (CV/CO2/N2/H2) 8 - ISO12213-3 2006 Pref (CV/RD/CO2/H2) 9 - ISO12213-3 2006 Alt 1 (CV/RD/N2/H2) 10 - ISO12213-3 2006 Alt 2 (RD/CO2/N2/H2) 11 - ISO12213-3 2006 Alt 3 (CV/CO2/N2/H2) 12 - NX-19 1962 13 - NX-19 Mod 14 - NX-19 VDE/VDI	ENUM16	0 → 14	AGA8 1994 Detailed	Density/Compress Calc Selection (54)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HV_METHOD	Heating Value Calc Standard 0 - GPA2172 2009 Gross 1 - ISO6976 1995 Superior 2 - ISO6976 1995 Inferior	ENUM16	0 → 2	GPA2172 2009 Gross	Heating Value Calculation Selection (55)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HV_MEAS_BASIS	Heating Value Measurement Basis 0 - Volume 1 - Mass	ENUM16	0 → 1	Volume	HV Measurement Basis (181)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HV_COMB_REF	Heating Value Combustion Temperature 0 - 60°F 1 - 0°C 2 - 15°C 3 - 20°C 4 - 25°C	ENUM16	0 → 4	60°F	Heating Value Combustion Reference (56)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_CONTENT_BASIS	Water Content Basis 0 - Dry 1 - Saturated at Base Conditions 3 - Partially Saturated	ENUM16	0 → 3	Dry	H2O Content Basis (70)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_CONTENT_METHOD	Water Content Calculation 0 - IGT Bulletin 8	ENUM16	0 → 0	IGT Bulletin 8	Water Content Calc Standard (75)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2O_ADJ_OPT	Water Adjustment Option 0 - No Adjustment 1 - Adjust Composition	ENUM16	0 → 1	No Adjustment	Water Adjustment Option (182)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ATMPR_UMODE	Atm Pressure Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Override	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ATMPR_CALC	Calculated Atm Pressure	DOUBLE	≥ 0	14.696	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ATMPR_OVRD	Override Atm Pressure	DOUBLE	≥ 0	14.696	psi(a) (2.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ATMPR_SEL	Selected Atm Pressure	DOUBLE	≥ 0	14.696	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
GRAV_UMODE	Local Grav Acceleration Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
GRAV_CALC	Calc Local Grav Acceleration	DOUBLE	≥ 0	32.14398	ft/s² (19.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
GRAV_OVRD	Override Local Grav Acceleration	DOUBLE	≥ 0	32.14398	ft/s² (19.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
GRAV_SEL	Selected Local Grav Acceleration	DOUBLE	≥ 0	32.14398	ft/s² (19.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CALC_FAIL_OPT	Calculation Failure Option 0 - Alarm Disabled 1 - Alarm and Continue 2 - Alarm and Halt Calculation	ENUM16	0 → 2	Alarm and Continue	Calculation Fault Option (65)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DIFF_PRESS_UNITS	Differential Pressure Units 0 - inH2O@60°F 1 - inH2O@68°F 2 - kPa 3 - mbar 4 - kg/cm² 5 - psi 6 - bar	ENUM16	0 → 6	inH2O@60°F	Differential Pressure Selection (26)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PRESS_UNITS	Pressure Units 0 - psi 1 - kPa 2 - MPa 3 - bar 4 - kg/cm²	ENUM16	0 → 4	psi	Pressure (78)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TEMP_UNITS	Temperature Units 0 - °F 1 - °C 2 - K	ENUM16	0 → 2	°F	Temperature (3)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DENS_UNITS	Density Units 0 - lb/ft³ 1 - kg/m³ 2 - g/cc	ENUM16	0 → 2	lb/ft³	Density (4)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VOL_HV_UNITS	Volume Based Heating Value Units 0 - Btu/ft³ 1 - MJ/m³	ENUM16	0 → 1	Btu/ft³	Volume Heating Value (5)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MASS_HV_UNITS	Mass Based Heating Value Units 0 - Btu/lb 1 - MJ/kg	ENUM16	0 → 1	Btu/lb	Mass Heating Value (225)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DYN_VISC_UNITS	Viscosity Units 0 - cP 1 - lb/ft-s	ENUM16	0 → 1	lb/ft-s	Dynamic Viscosity (6)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_CONTENT_UNITS	Water Content Units 0 - lb/MMSCF 1 - kg/(k)m³	ENUM16	0 → 1	lb/MMSCF	Water Content (21)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LIN_LONG_UNITS	Linear Long Units 0 - ft 1 - m	ENUM16	0 → 1	ft	Linear (Long) (8)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LIN_SHRT_UNITS	Linear Short Units 0 - in 1 - mm	ENUM16	0 → 1	in	Linear (Short) (7)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VOL_TOT_UNITS	Volume Units for Totals 0 - ft³ 1 - m³ 2 - MCF 3 - (k)m³ 4 - MMCF 5 - BCF	ENUM16	0 → 5	MCF	Volume Total (9)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MASS_TOT_UNITS	Mass Units for Totals 0 - lb 1 - kg 2 - Mlb 3 - tonne	ENUM16	0 → 4	Mlb	Mass Total (10)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ENERGY_TOT_UNITS	Energy Units for Totals 0 - Btu 1 - MMBtu 2 - J 3 - MJ 4 - GJ 5 - Dth	ENUM16	0 → 5	MMBtu	Energy Total (11)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VOL_RATE_UNITS	Volume Units for Rates 0 - ft³/s 1 - ft³/min 2 - ft³/h 3 - ft³/d 4 - MCF/s 5 - MCF/min 6 - MCF/h 7 - MCF/d 8 - m³/s 9 - m³/min 10 - m³/h 11 - m³/d 12 - (k)m³/s 13 - (k)m³/min 14 - (k)m³/h 15 - (k)m³/d 16 - MMCF/s 17 - MMCF/min 18 - MMCF/h 19 - MMCF/d 20 - BCF/s 21 - BCF/min 22 - BCF/h 23 - BCF/d	ENUM16	0 → 23	MCF/d	Volume Rate (12)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MASS_RATE_UNITS	Mass Units for Rates 0 - lb/s 1 - lb/min 2 - lb/h 3 - lb/d 4 - Mlb/s 5 - Mlb/min 6 - Mlb/h 7 - Mlb/d 8 - kg/s 9 - kg/min 10 - kg/h 11 - kg/d 12 - tonne/s 13 - tonne/min 14 - tonne/h 15 - tonne/d	ENUM16	0 → 15	Mlb/d	Mass Rate (13)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ENERGY_RATE_UNITS	Energy Units for Rates 0 - Btu/s 1 - Btu/min 2 - Btu/h 3 - Btu/d 4 - MMBtu/s 5 - MMBtu/min 6 - MMBtu/h 7 - MMBtu/d 8 - J/s 9 - J/min 10 - J/h 11 - J/d 12 - MJ/s 13 - MJ/min 14 - MJ/h 15 - MJ/d 16 - GJ/s 17 - GJ/min 18 - GJ/h 19 - GJ/d 20 - Dth/s 21 - Dth/min 22 - Dth/h 23 - Dth/d	ENUM16	0 → 23	MMBtu/d	Energy Rate (14)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
VOL_KF_UNITS	Volumetric K-factor Units 0 - pulses/ft³ 1 - pulses/m³	ENUM16	0 → 1	pulses/ft³	Volumetric K-Factor (27)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MASS_KF_UNITS	Mass K-factor Units 0 - pulses/lb 1 - pulses/kg	ENUM16	0 → 1	pulses/lb	Mass K-Factor (28)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
UVOL_RATE	Uncorrected Volume Flow Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SVOL_RATE	Corrected Volume Flow Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MASS_RATE	Mass Flow Rate	DOUBLE		0	Mlb/d (13.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ENERGY_RATE	Energy Flow Rate	DOUBLE		0	MMBtu/d (14.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UVOL_RAW_TOT	Uncorrected Volume Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SVOL_RAW_TOT	Corrected Volume Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MASS_RAW_TOT	Mass Total	DOUBLE		0	Mlb (10.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Station

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ENERGY_RAW_TOT	Energy Total	DOUBLE		0	MMBtu (11.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UVOL_TOT_OBJ	Uncorrected Volume Total Object	OBJREF	Total	Total_7		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
SVOL_TOT_OBJ	Corrected Volume Total Object	OBJREF	Total	Total_8		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
MASS_TOT_OBJ	Mass Total Object	OBJREF	Total	Total_9		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
ENERGY_TOT_OBJ	Energy Total Object	OBJREF	Total	Total_10		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
FLW_ALM_OBJ	Flow Alarm Object	OBJREF		Alarm_11		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

5.2.19 DP Meter Parameters

Description: The DP Meter object provides the parameters for configuring differential pressure meters.

Number of Instances: 2 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-22: DP Meter Parameters

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OBJ_NAME	Tag	UC20		DP Mtr_X (where X is the instance number)		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	Bin32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
STATION_OBJ	Station Assignment	OBJREF	Station	Station_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FLUID_PROP_OBJ	Fluid Properties Reference	OBJREF	Fluid Prop	1 - Fluid Prop_1 2 - Fluid Prop_2		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
MTR_TYPE	Meter Type 0 - AGA3 Orifice (Flange Taps) 1 - ISO5167 Orifice (Flange Taps) 2 - ISO5167 Orifice (Corner Taps) 3 - ISO5167 Orifice (D & D/2 Taps) 4 - ISO5167 Venturi (As Cast) 5 - ISO5167 Venturi (Machined) 6 - ISO5167 Venturi (Rough Weld) 7 - ISO5167 Nozzle (Venturi) 8 - ISO5167 Nozzle (Long Radius) 9 - ISO5167 Nozzle (ISA 1932) 10 - 1595 Conditioning Orifice (Flange) 11 - 1595 Conditioning Orifice (D and D/2) 12 - 405C Compact Orifice 13 - Cone (McCrometer V-Cone) 14 - Cone (McCrometer Wafer-	ENUM16	0 → 16	AGA3 Orifice (Flange Taps)	Meter Type Selection (50)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	Cone) 15 - Cone (NUFLO)							
FLW_DIR	Flow Direction 0 - Forward 1 - Reverse	ENUM16	0 → 1	Forward	Meter Direction (253)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SER_NUM	Serial Number	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AGA3_METHOD	AGA 3 Calculation Selection 0 - AGA3 1992 Volume 1 - AGA3 1992 Mass 2 - AGA3 1992 Relative Density 3 - AGA3 2012 Volume 4 - AGA3 2012 Mass 5 - AGA3 2012 Relative Density	ENUM16	0 → 5	AGA3 1992 Volume	AGA 3 Calculation Method (51)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ISO5167_METHOD	ISO 5167 Calculation Selection 0 - ISO5167 1991 1 - ISO5167 1998 2 - ISO5167 2003	ENUM16	0 → 2	ISO5167 2003	ISO 5167 Calculation Method (52)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
RMT_ORIF_METHOD	Rosemount Orifice Calculation 0 - Based on ISO5167 2003	ENUM16	0 → 0	Based on ISO5167 2003	Rosemount Orifice Method (186)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ABAR_METHOD	Annubar Calc Selection 0 - 485-1 1 - 485-2 2 - 485-3	ENUM16	0 → 2	485-1	Annubar Calc Selection (77)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MTR_DIAM	Meter Diameter	DOUBLE	≥ 0.0001	4	in (7.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PIPE_DIAM	Pipe Diameter	DOUBLE	≥ 0.0001	8	in (7.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PRESS_LOC	Static Pressure Location 0 - Upstream 1 - Downstream	ENUM16	0 → 1	Upstream	Pressure Location (58)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PRESS_TYPE	Pressure Transmitter Type 0 - Gauge 1 - Absolute	ENUM16	0 → 1	Absolute	SP Type Selection (57)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TEMP_CORR_METHOD	Temperature Correction 0 - No Correction 1 - Isentropic 2 - Isenthalpic (Joule-Thomson)	ENUM16	0 → 2	No Correction	Temperature Correction Selection (120)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
NO_FLOW_LIM	No Flow Cut-off Limit	DOUBLE	≥ 0	0	inH2O (1.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DP_OBJ	Differential Pressure Object	OBJREF		DP_1-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PF_OBJ	Static Pressure Object	OBJREF		Press_1-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TF_OBJ	Flowing Temperature Object	OBJREF		RTD_1-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DP_INUSE	Differential Pressure in Use	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PF_INUSE	Flowing Pressure in Use	DOUBLE		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
TF_INUSE	Flowing Temperature in Use	DOUBLE		0	°F (3.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PIPE_MAT_OPT	Pipe Material Option 0 - Carbon Steel 1 - 304 Stainless Steel 2 - 316 Stainless Steel 3 - Generic Stainless 4 - Monel 400 5 - User Entered Alpha	ENUM16	0 → 5	Carbon Steel	Material Selection (59)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MTR_MAT_OPT	Meter Material Option 0 - Carbon Steel 1 - 304 Stainless Steel 2 - 316 Stainless Steel 3 - Generic Stainless 4 - Monel 400 5 - User Entered Alpha	ENUM16	0 → 5	316 Stainless Steel	Material Selection (59)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PIPE_DIAM_REF	Pipe Diameter Reference Temperature	DOUBLE		68	°F (3.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MTR_DIAM_REF	Meter Diameter Reference Temperature	DOUBLE		68	°F (3.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MTR_ALPHA_OVRD	Meter Material User Alpha	DOUBLE		8.89E-06	in./in.-°F (222.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MTR_ALPHA_SEL	Meter Material Alpha	DOUBLE		8.89E-06	in./in.-°F (222.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PIPE_ALPHA_OVRD	Pipe Material User Alpha	DOUBLE		6.20E-06	in./in.-°F (222.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
PIPE_ALPHA_SEL	Pipe Material Alpha	DOUBLE		6.20E-06	in./in.-°F (222.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FLW_ALM_OBJ	Flow Alarm Object	OBJREF		Alarm_10		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FCALC_ALM	Flow Calculation Alarm Code 0 - Normal 1 - Calculation Error	BIN32		Normal	Flow Calculation Alarm (206)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MTR_DIAM_SEL	Corrected Meter Diameter	DOUBLE	≥ 0.0001	4	in (7.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PIPE_DIAM_SEL	Corrected Pipe Diameter	DOUBLE	≥ 0.0001	8	in (7.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BETA_SEL	Selected Diameter Ratio	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PLOSS_SEL	Selected Pressure Loss	DOUBLE	≥ 0	0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
REL_PLOSS_RATIO	Relative Pressure Loss Ratio	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
RE_SEL	Reynolds Number	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CD_OVRD	Discharge Coefficient Override	DOUBLE	0.1 → 1	0.6		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CD_CALC	Discharge Coefficient Calculated	DOUBLE		0.6		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CD_UMODE	Discharge Coefficient User Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CD_SEL	Selected Discharge Coefficient	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PIPE_SCHED	Pipe Schedule 0 - Schedule 10 1 - Schedule 40 2 - Schedule 80	ENUM16	0 → 2	Schedule 10	Pipe Schedule (184)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FS_SEL	Pipe Schedule Adjustment Factor	DOUBLE		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
COEFF_CURVE_OPT	Discharge Coefficient Option 0 - Flow Equation Standard 1 - Calibrated Discharge Coefficient Curve	ENUM16	0 → 1	Flow Equation Standard	Calculated Cd (223)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_1	Discharge/Flow Coefficient 1	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_1_FLOW	Reynolds Number / Flowrate 1	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_2	Discharge/Flow Coefficient 2	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COEFF_2_FLOW	Reynolds Number / Flowrate 2	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_3	Discharge/Flow Coefficient 3	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_3_FLOW	Reynolds Number / Flowrate 3	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_4	Discharge/Flow Coefficient 4	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_4_FLOW	Reynolds Number / Flowrate 4	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_5	Discharge/Flow Coefficient 5	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COEFF_5_FLOW	Reynolds Number / Flowrate 5	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_6	Discharge/Flow Coefficient 6	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_6_FLOW	Reynolds Number / Flowrate 6	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_7	Discharge/Flow Coefficient 7	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_7_FLOW	Reynolds Number / Flowrate 7	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_8	Discharge/Flow Coefficient 8	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COEFF_8_FLOW	Reynolds Number / Flowrate 8	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_9	Discharge/Flow Coefficient 9	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_9_FLOW	Reynolds Number / Flowrate 9	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_10	Discharge/Flow Coefficient 10	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_10_FLOW	Reynolds Number / Flowrate 10	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_11	Discharge/Flow Coefficient 11	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COEFF_11_FLOW	Reynolds Number / Flowrate 11	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_12	Discharge/Flow Coefficient 12	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_12_FLOW	Reynolds Number / Flowrate 12	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_13	Discharge/Flow Coefficient 13	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_13_FLOW	Reynolds Number / Flowrate 13	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_14	Discharge/Flow Coefficient 14	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COEFF_14_FLOW	Reynolds Number / Flowrate 14	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_15	Discharge/Flow Coefficient 15	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_15_FLOW	Reynolds Number / Flowrate 15	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_16	Discharge/Flow Coefficient 16	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_16_FLOW	Reynolds Number / Flowrate 16	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_17	Discharge/Flow Coefficient 17	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COEFF_17_FLOW	Reynolds Number / Flowrate 17	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_18	Discharge/Flow Coefficient 18	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_18_FLOW	Reynolds Number / Flowrate 18	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_19	Discharge/Flow Coefficient 19	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_19_FLOW	Reynolds Number / Flowrate 19	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COEFF_20	Discharge/Flow Coefficient 20	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COEFF_20_FLOW	Reynolds Number / Flowrate 20	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
Y1_SEL	Upstream Expansion Factor	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
EV_SEL	Velocity of Approach	DOUBLE		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IV_SEL	Integral Value	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IMV_SEL	Integral Multiplier Value (IMV/C-Factor)	DOUBLE		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_CORR_FACTOR	User Correction Factor	DOUBLE	≥ 0	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
UVOL_RATE	Uncorrected Volume Flow Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SVOL_RATE	Corrected Volume Flow Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MASS_RATE	Mass Flow Rate	DOUBLE		0	Mlb/d (13.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ENERGY_RATE	Energy Flow Rate	DOUBLE		0	MMBtu/d (14.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UVOL_RAW_TOT	Uncorrected Volume Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SVOL_RAW_TOT	Corrected Volume Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MASS_RAW_TOT	Mass Total	DOUBLE		0	Mlb (10.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ENERGY_RAW_TOT	Energy Total	DOUBLE		0	MMBtu (11.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FLWTM_RAW_TOT	Flow Time Total	DOUBLE		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IV_RAW_TOT	Integral Value Total	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UVOL_TOT_OBJ	Uncorrected Volume Total Object	OBJREF	Total	Total_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SVOL_TOT_OBJ	Corrected Volume Total Object	OBJREF	Total	Total_2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MASS_TOT_OBJ	Mass Total Object	OBJREF	Total	Total_3		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ENERGY_TOT_OBJ	Energy Total Object	OBJREF	Total	Total_4		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FLWTM_TOT_OBJ	Flow Time Total Object	OBJREF	Total	Total_5		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

DP Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IV_TOT_OBJ	Integral Value Total Object	OBJREF	Total	Total_6		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
INSPECT_TIME	Last Plate Inspection Time	TIME				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CALIB_FACTOR	Calibration Factor	DOUBLE	≥ 0.0001	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.20 Linear Meter Parameters

Description: The Linear Meter object provides the parameters for configuring linear meters.

Number of Instances: 2 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-23: Linear Meter Parameters

Linear Meter								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Linear Mtr_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
STATION_OBJ	Station Assignment	OBJREF	Station	Station_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FLUID_PROP_OBJ	Fluid Properties Reference	OBJREF	Fluid Prop	1 - Fluid Prop_3 2 - Fluid Prop_4		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
MTR_TYPE	Meter Type 0 - Turbine 1 - Coriolis 2 - Auto-Adjust	ENUM16	0 → 2	Turbine	Linear Meter Type (53)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SER_NUM	Serial Number	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PRESS_TYPE	Pressure Transmitter Type 0 - Gauge 1 - Absolute	ENUM16	0 → 1	Absolute	SP Type Selection (57)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NO_FLOW_TIME	No Flow Time	DOUBLE	≥ 0	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
NO_FLOW_LIM	No Flow Cut-off Limit	DOUBLE	≥ 0	0	Hz (24.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NO_FLOW_OPT	No Flow Option 0 - Time Between Pulses 1 - Flow Cut-off	ENUM16	0 → 1	Time Between Pulses	No Flow Option (238)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NO_FLOW_STATUS	No Flow Status 0 - Not Flowing 1 - Flowing	ENUM16		Not Flowing	No Flow Status (239)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FLOW_OBJ	Indicated Flow	OBJREF	PI	Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FLOW_SEC_OBJ	Secondary Flow Input Object	OBJREF	PI	Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PF_OBJ	Static Pressure Object	OBJREF		Press_1-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TF_OBJ	Flowing Temperature Object	OBJREF		RTD_1-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PF_INUSE	Flowing Pressure In Use	DOUBLE		0	psi(a) (2.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
TF_INUSE	Flowing Temperature In Use	DOUBLE		0	°F (3.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FLW_ALM_OBJ	Flow Alarm Object	OBJREF	Alarm	Alarm_34		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FCALC_ALM	Flow Calculation Alarm Code 0 - Normal 1 - Calculation Error	BIN32		Normal	Flow Calculation Alarm (206)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IMV_SEL	Integral Multiplier Value (IMV/C-Factor)	DOUBLE		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FACTOR_CURVE_OPT	Meter Factor / K-factor Curve Option 0 - Single Meter Factor / Single K-factor 1 - Meter Factor Curve / Single K-factor 2 - Single Meter Factor / K-factor Curve	ENUM16	0 → 2	Single Meter Factor / Single K-factor	Factor Curve Option (183)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MF_OVRD	Override Meter Factor	DOUBLE	≥ 1E-06	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MF_CALC	Calculated Meter Factor	DOUBLE	≥ 0	1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MF_SEL	Selected Meter Factor	DOUBLE	≥ 0	1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MF_UMODE	Meter Factor Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Override	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
KF_OVRD	Override K-factor	DOUBLE	≥ 1E-06	1	pulses/ft³ (27.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
KF_CALC	Calculated K-factor	DOUBLE	≥ 0	1	pulses/ft³ (27.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
KF_SEL	Selected K-factor	DOUBLE	≥ 0	1	pulses/ft³ (27.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
KF_UMODE	K-Factor Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Override	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
USER_CORR_FACTOR	User Correction Factor	DOUBLE	≥ 0	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
IQ_RATE	Indicated Quantity Flow Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UVOL_RATE	Uncorrected Volume Flow Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SVOL_RATE	Corrected Volume Flow Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MASS_RATE	Mass Flow Rate	DOUBLE		0	Mlb/d (13.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ENERGY_RATE	Energy Flow Rate	DOUBLE		0	MMBtu/d (14.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
UVOL_RAW_TOT	Uncorrected Volume Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SVOL_RAW_TOT	Corrected Volume Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MASS_RAW_TOT	Mass Total	DOUBLE		0	Mlb (10.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ENERGY_RAW_TOT	Energy Total	DOUBLE		0	MMBtu (11.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FLWTM_RAW_TOT	Flow Time Total	DOUBLE		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PULSE_RAW_TOT	Pulse Total	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UVOL_TOT_OBJ	Uncorrected Volume Total Object	OBJREF	Total	Total_11		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SVOL_TOT_OBJ	Corrected Volume Total Object	OBJREF	Total	Total_12		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MASS_TOT_OBJ	Mass Total Object	OBJREF	Total	Total_13		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ENERGY_TOT_OBJ	Energy Total Object	OBJREF	Total	Total_14		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FLWTM_TOT_OBJ	Flow Time Total Object	OBJREF	Total	Total_15		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PULSE_TOT_OBJ	Pulse Total Object	OBJREF	Total	Total_16		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PRESS_MULT	Pressure Multiplier	DOUBLE		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TEMP_MULT	Temperature Multiplier	DOUBLE		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
COMP_MULT	Compressibility Multiplier	DOUBLE		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FACTOR_1	K-factor/MF 1	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_1_FLOW	Frequency/Flowrate 1	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_2	K-factor/MF 2	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_2_FLOW	Frequency/Flowrate 2	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FACTOR_3	K-factor/MF 3	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_3_FLOW	Frequency/Flowrate 3	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_4	K-factor/MF 4	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_4_FLOW	Frequency/Flowrate 4	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_5	K-factor/MF 5	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_5_FLOW	Frequency/Flowrate 5	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FACTOR_6	K-factor/MF 6	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_6_FLOW	Frequency/Flowrate 6	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_7	K-factor/MF 7	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_7_FLOW	Frequency/Flowrate 7	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_8	K-factor/MF 8	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_8_FLOW	Frequency/Flowrate 8	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FACTOR_9	K-factor/MF 9	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_9_FLOW	Frequency/Flowrate 9	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_10	K-factor/MF 10	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_10_FLOW	Frequency/Flowrate 10	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_11	K-factor/MF 11	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_11_FLOW	Frequency/Flowrate 11	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FACTOR_12	K-factor/MF 12	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_12_FLOW	Frequency/Flowrate 12	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_13	K-factor/MF 13	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_13_FLOW	Frequency/Flowrate 13	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_14	K-factor/MF 14	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_14_FLOW	Frequency/Flowrate 14	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FACTOR_15	K-factor/MF 15	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_15_FLOW	Frequency/Flowrate 15	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_16	K-factor/MF 16	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_16_FLOW	Frequency/Flowrate 16	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_17	K-factor/MF 17	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_17_FLOW	Frequency/Flowrate 17	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FACTOR_18	K-factor/MF 18	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_18_FLOW	Frequency/Flowrate 18	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_19	K-factor/MF 19	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_19_FLOW	Frequency/Flowrate 19	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_20	K-factor/MF 20	DOUBLE	≥ -100	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FACTOR_20_FLOW	Frequency/Flowrate 20	DOUBLE	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MASS_CORR_PF_OPT	Mass Pressure Effect Option 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PCAL	Calibration Pressure	DOUBLE		0	psi(g) (29.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MASS_CORR_PF_COEFF	Mass Pressure Effect	DOUBLE	≤ 0	-0.0002	%/psi(a) (247.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_CAL_MODE_ENB	Auto Adjust Calibration Mode Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_VOL_RATE_MECH	Auto Adjust Mechanical Rate	DOUBLE		0	MCF/d (12.7)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_KF_MECH	Auto Adjust Mechanical K-factor	DOUBLE	≥ 1E-06	1	pulses/ft³ (27.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AA_KF_MAIN	Auto Adjust Main Rotor K-factor	DOUBLE	≥ 1E-06	1	pulses/ft³ (27.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_KF_SENS	Auto Adjust Sensing Rotor K-factor	DOUBLE	≥ 1E-06	1	pulses/ft³ (27.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_RESET_ALG	Auto Adjust Algorithm Reset Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
PIPE_DIAM	Pipe Diameter	DOUBLE	≥ 1E-06	8	in (7.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_AVG_REL_ADJ	Auto Adjust Relative Adjustment	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_MAX_FREQ	Auto Adjust Maximum Frequency	DOUBLE	≥ 1E-06	1000	Hz (24.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AA_DELTA_A_BASE	Auto Adjust Base Delta A	DOUBLE		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_DELTA_A_CALC	Auto Adjust Calculated Delta A	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_NORMAL_BAND	Auto Adjust Normal Band	DOUBLE	0 → 100	0.2	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_ABNORMAL_BAND	Auto Adjust Abnormal Band	DOUBLE	0 → 100	0.3	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AA_LOAD_CALC	Auto Adjust Calculated Load	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_BLADE_FACTOR	Auto Adjust Blade Factor	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_TEST_TIMER	Auto Adjust Test Timer	DOUBLE		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AA_TEST_PULSE_ACCUM	Auto Adjust Pulse Accum	DOUBLE		0	Pulses (141.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_TEST_FREQ_MAIN	Auto Adjust Main Rotor Frequency	DOUBLE		0	Hz (24.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_TEST_FREQ_SENS	Auto Adjust Sensing Rotor Frequency	DOUBLE		0	Hz (24.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_TEST_RATE_MAIN	Auto Adjust Main Rotor Test Flowrate	DOUBLE		0	ft³/s (12.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_TEST_RATE_SENS	Auto Adjust Sensing Rotor Test Flowrate	DOUBLE		0	ft³/s (12.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_TEST_ACCUM_MAIN	Auto Adjust Main Rotor Test Accum	DOUBLE		0	ft³ (9.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_TEST_ACCUM_SENS	Auto Adjust Sensing Rotor Test Accum	DOUBLE		0	ft³ (9.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_INITIAL_CYCLE	Auto Adjust Initial Cycle Status 0 - Initial Cycle Complete 1 - Initial Cycle In Progress	ENUM16		Initial Cycle In Progress	Auto Adjust Initial Cycle (227)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Linear Meter

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AA_SYSTEM_ALARM	Auto Adjust System Alarm 0 - Normal Flow 1 - No Flow / Loss of Both Pulses 2 - Leakage or Resonant No-Net Flow 3 - No Main Rotor Pulses 4 - No Sensing Rotor Pulses	ENUM16		Normal Flow	Auto Adjust System Alarm (228)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_FLOW_ALARM	Auto Adjust Flow Alarm 0 - Normal Flow 1 - Non-steady Flow	ENUM16		Normal Flow	Auto Adjust Flow Alarm (229)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_DELTA_A_ALARM	Auto Adjust Delta A Alarm 0 - Normal 1 - Low Warning 2 - High Warning 3 - Low Alarm 4 - High Alarm	ENUM16		Normal	Auto Adjust Delta A Alarm (230)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AA_ALARM_LOG_OPT	IP Connection 1 Owner 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.21 Fluid Prop Parameters

Description: The Fluid Prop object provides the parameters for configuring the physical properties of the fluid flowing through each meter.

Number of Instances: 4 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-24: Fluid Properties Parameters

Fluid Properties								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Fluid Prop 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMPONENTS_OBJ	Components Object	OBJREF	Components	Components_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C1_INUSE	In-use Methane	DOUBLE		100	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
N2_INUSE	In-use Nitrogen	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO2_INUSE	In-use Carbon Dioxide	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C2_INUSE	In-use Ethane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C3_INUSE	In-use Propane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2O_INUSE	In-use Water	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2S_INUSE	In-use Hydrogen Sulfide	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
H2_INUSE	In-use Hydrogen	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO_INUSE	In-use Carbon Monoxide	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
O2_INUSE	In-use Oxygen	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IC4_INUSE	In-use i-Butane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC4_INUSE	In-use n-Butane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IC5_INUSE	In-use i-Pentane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC5_INUSE	In-use n-Pentane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C6_INUSE	In-use n-Hexane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C7_INUSE	In-use n-Heptane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C8_INUSE	In-use n-Octane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C9_INUSE	In-use n-Nonane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C10_INUSE	In-use n-Decane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HE_INUSE	In-use Helium	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
AR_INUSE	In-use Argon	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NEOC5_INUSE	In-use Neopentane	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BENZENE_INUSE	In-use Benzene	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TOLUENE_INUSE	In-use Toluene	DOUBLE		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2O_CONTENT_UMODE	Water Content Mode 0 - Measured 1 - Override 2 - Calculated	ENUM16	0 → 3	Calculated	User Mode Selection 1 (79)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_CONTENT_PARAM	Water Content Parameter	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_CONTENT_OVRD	Override Water Content	DOUBLE	≥ 0	0	lb/MMSCF (21.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_CONTENT_CALC	Calculated Water Content	DOUBLE		0	lb/MMSCF (21.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2O_CONTENT_SEL	Selected Water Content	DOUBLE		0	lb/MMSCF (21.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HV_REAL_UMODE	Heating Value Mode 0 - Measured 1 - Override 2 - Calculated	ENUM16	0 → 2	Calculated	User Mode Selection 1 (79)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HV_REAL_PARAM	Heating Value Parameter	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
HV_REAL_OVRD	Override Heating Value	DOUBLE	≥ 0	0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HV_REAL_CALC	Calculated Heating Value	DOUBLE		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HV_REAL_SEL	Selected Heating Value	DOUBLE		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HV_REAL_FAULT	Heating Value Fault Value	DOUBLE	≥ 0	0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HV_REAL_FAULT_MODE	Heating Value Fault Mode 0 - Live 1 - Fault 2 - Last Good	ENUM16	0 → 2	Live	Fault Selection (32)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RD_REAL_UMODE	Relative Density Mode 0 - Measured 1 - Override 2 - Calculated	ENUM16	0 → 2	Calculated	User Mode Selection 1 (79)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
RD_REAL_PARAM	Relative Density Parameter	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
RD_REAL_OVRD	Override Relative Density	DOUBLE	≥ 0.0001	0.573538		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
RD_REAL_CALC	Calculated Relative Density	DOUBLE		0.573538		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
RD_REAL_SEL	Selected Relative Density	DOUBLE		0.573538		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
RD_REAL_FAULT	Relative Density Fault Value	DOUBLE	≥ 0.0001	0.6		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RD_REAL_FAULT_MODE	Relative Density Fault Mode 0 - Live 1 - Fault 2 - Last Good	ENUM16	0 → 2	Live	Fault Selection (32)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ZB_UMODE	Base Compressibility Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ZB_OVRD	Override Base Compressibility	DOUBLE	≥ 0.0001	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ZB_CALC	Calculated Base Compressibility	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ZB_SEL	Selected Base Compressibility	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ZS_UMODE	Standard Compressibility Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ZS_OVRD	Override Standard Compressibility	DOUBLE	≥ 0.0001	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ZS_CALC	Calculated Standard Compressibility	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ZS_SEL	Selected Standard Compressibility	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ZF_UMODE	Flowing Compressibility Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ZF_OVRD	Override Flowing Compressibility	DOUBLE	≥ 0.0001	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ZF_CALC	Calculated Flowing Compressibility	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ZF_SEL	Selected Flowing Compressibility	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ZFPV_SEL	Supercompressibility	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DENSB_UMODE	Base Density Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DENSB_OVRD	Override Base Density	DOUBLE	≥ 0	0.0001	lb/ft³ (4.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DENSB_CALC	Calculated Base Density	DOUBLE		0	lb/ft³ (4.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DENSB_SEL	Selected Base Density	DOUBLE		0	lb/ft³ (4.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DENSF_UMODE	Flowing Density Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DENSF_OVRD	Override Flowing Density	DOUBLE	≥ 0	0.0001	lb/ft³ (4.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DENSF_CALC	Calculated Flowing Density	DOUBLE		0	lb/ft³ (4.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DENSF_SEL	Selected Flowing Density	DOUBLE		0	lb/ft³ (4.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOLAR_MASS	Molar Mass	DOUBLE		0	lb/lb-mol (25.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DYN_VISC_OVRD	Dynamic Viscosity	DOUBLE	≥ 1E-06	6.90E-06	lb/ft-s (6.1)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
JT_OVRD	Override Joule-Thomson	DOUBLE	≥ 0	0	°F/psi (22.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
JT_CALC	Calculated Joule-Thomson	DOUBLE		0	°F/psi (22.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
JT_SEL	Selected Joule-Thomson	DOUBLE		0	°F/psi (22.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
JT_UMODE	Joule-Thomson Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Calculated	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ISENTR_OVRD	Override Isentropic Exponent	DOUBLE	≥ 0.0001	1.3		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ISENTR_CALC	Calculated Isentropic Exponent	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ISENTR_SEL	Selected Isentropic Exponent	DOUBLE		1.3		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ISENTR_UMODE	Isentropic Exponent User Mode 1 - Override 2 - Calculated	ENUM16	1 → 2	Override	User Mode Selection 2 (97)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
WOBBE_INDEX_CALC	Calculated Wobbe Index	DOUBLE		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SOS_CALC	Calculated Speed Of Sound	DOUBLE		0	ft/s (187.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Fluid Properties

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PCALC_ALM	Property Calculation Alarm Code 0 - Normal 1 - Calculation Error	BIN32		Normal	Property Calculation Alarm (207)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.22 Components Parameters

Description: The Components object provides the parameters for configuring fluid components.

Number of Instances: 2 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-25: Components Parameters

Components								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Components 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USER_MODE	Operation Mode 0 - Measured 1 - Override 3 - Remote Download	ENUM16	0 → 3	Override	User Mode Selection 4 (188)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT_MODE	Fault Mode 0 - Live 1 - Fault 2 - Last Good	ENUM16	0 → 2	Live	Fault Selection (32)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ANALYSIS_TIMEOUT_ENB	Analysis Timeout Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ANALYSIS_TIMEOUT	Analysis Timeout Value	FLOAT	0 → 4000000	900	seconds(17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LIVE_ANALYSIS_TIME	Last Good Analysis Time	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NORMALIZATION_OPT	Normalization Option 0 - None 1 - Full Normalization 2 - Methane Adjust	ENUM16	0 → 2	Full Normalization	Normalization Type (67)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMPONENTS_ALM	Components Alarm 0 - Normal 1 - Analysis Timeout 2 - Normalization Failure	BIN32		Normal	Components Alarm (190)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
APPLY_COMP	Apply Composition Values 0 - No Action 1 - Accept Composition	ENUM16	0 → 1	No Action	Live Trigger (82)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
GC_DATA_OBJ	GC Data Object	OBJREF	GC Data	GC Data_1-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C1_LIVE	Live Methane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
N2_LIVE	Live Nitrogen	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO2_LIVE	Live Carbon Dioxide	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C2_LIVE	Live Ethane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C3_LIVE	Live Propane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2O_LIVE	Live Water	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2S_LIVE	Live Hydrogen Sulfide	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2_LIVE	Live Hydrogen	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO_LIVE	Live Carbon Monoxide	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
O2_LIVE	Live Oxygen	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IC4_LIVE	Live i-Butane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC4_LIVE	Live n-Butane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IC5_LIVE	Live i-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC5_LIVE	Live n-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C6_LIVE	Live n-Hexane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C7_LIVE	Live n-Heptane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C8_LIVE	Live n-Octane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C9_LIVE	Live n-Nonane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C10_LIVE	Live n-Decane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HE_LIVE	Live Helium	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AR_LIVE	Live Argon	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NEOC5_LIVE	Live Neopentane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BENZENE_LIVE	Live Benzene	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
TOLUENE_LIVE	Live Toluene	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C1_OVRD	Override Methane	DOUBLE	0 → 100	100	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
N2_OVRD	Override Nitrogen	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CO2_OVRD	Override Carbon Dioxide	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C2_OVRD	Override Ethane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C3_OVRD	Override Propane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_OVRD	Override Water	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2S_OVRD	Override Hydrogen Sulfide	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2_OVRD	Override Hydrogen	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CO_OVRD	Override Carbon Monoxide	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
O2_OVRD	Override Oxygen	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
IC4_OVRD	Override i-Butane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NC4_OVRD	Override n-Butane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
IC5_OVRD	Override i-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NC5_OVRD	Override n-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C6_OVRD	Override n-Hexane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C7_OVRD	Override n-Heptane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C8_OVRD	Override n-Octane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C9_OVRD	Override n-Nonane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C10_OVRD	Override n-Decane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HE_OVRD	Override Helium	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AR_OVRD	Override Argon	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
NEOC5_OVRD	Override Neopentane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
BENZENE_OVRD	Override Benzene	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TOLUENE_OVRD	Override Toluene	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C1_SEL	Selected Methane	DOUBLE	0 → 100	100	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
N2_SEL	Selected Nitrogen	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO2_SEL	Selected Carbon Dioxide	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C2_SEL	Selected Ethane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C3_SEL	Selected Propane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2O_SEL	Selected Water	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2S_SEL	Selected Hydrogen Sulfide	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2_SEL	Selected Hydrogen	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO_SEL	Selected Carbon Monoxide	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
O2_SEL	Selected Oxygen	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IC4_SEL	Selected i-Butane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC4_SEL	Selected n-Butane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IC5_SEL	Selected i-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC5_SEL	Selected n-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C6_SEL	Selected n-Hexane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C7_SEL	Selected n-Heptane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C8_SEL	Selected n-Octane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C9_SEL	Selected n-Nonane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C10_SEL	Selected n-Decane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HE_SEL	Selected Helium	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AR_SEL	Selected Argon	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NEOC5_SEL	Selected Neopentane	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BENZENE_SEL	Selected Benzene	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
TOLUENE_SEL	Selected Toluene	DOUBLE	0 → 100	0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C1_FAULT	Fault Methane	DOUBLE	0 → 100	100	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
N2_FAULT	Fault Nitrogen	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
CO2_FAULT	Fault Carbon Dioxide	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C2_FAULT	Fault Ethane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C3_FAULT	Fault Propane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2O_FAULT	Fault Water	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2S_FAULT	Fault Hydrogen Sulfide	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2_FAULT	Fault Hydrogen	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
CO_FAULT	Fault CO	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
O2_FAULT	Fault Oxygen	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
IC4_FAULT	Fault i-Butane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NC4_FAULT	Fault n-Butane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
IC5_FAULT	Fault i-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NC5_FAULT	Fault n-Pentane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C6_FAULT	Fault n-Hexane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C7_FAULT	Fault n-Heptane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C8_FAULT	Fault n-Octane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C9_FAULT	Fault n-Nonane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C10_FAULT	Fault n-Decane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
HE_FAULT	Fault Helium	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
AR_FAULT	Fault Argon	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

Components

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
NEOC5_FAULT	Fault Neopentane	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
BENZENE_FAULT	Fault Benzene	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
TOLUENE_FAULT	Fault Toluene	DOUBLE	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

5.2.23 Total Parameters

Description: The Total object provides the parameters for viewing periodic and cumulative totals, and configuring cumulative rollover values.

Number of Instances: 32 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-26: Total Parameters

Total								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Total_X (where X is the instance number)		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		DP Mtr 1 Uncorr Vol		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Total

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RAW_PARAM	Input to Totalize	PRMREF		1 - DP Mtr_1.UVOL_RAW_TOT 2 - DP Mtr_1.SVOL_RAW_TOT 3 - DP Mtr_1.MASS_RAW_TOT 4 - DP Mtr_1.ENERGY_RAW_TOT 5 - DP Mtr_1.FLWTM_RAW_TOT 6 - DP Mtr_1.IV_RAW_TOT 7 - Station_1.UVOL_RAW_TOT 8 - Station_1.SVOL_RAW_TOT 9 - Station_1.MASS_RAW_TOT 10 - Station_1.ENERGY_RAW_TOT 11 – Linear Mtr_1.UVOL_RAW_TOT 12 - Linear Mtr_1.SVOL_RAW_TOT		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal

Total								
Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
				13 - Linear Mtr_1.MASS_RAW_TOT 14 - Linear Mtr_1.ENERGY_RAW_TOT 15 - Linear Mtr_1.FLWTM_RAW_TOT 16 - Linear Mtr_1.PULSE_RAW_TOT 17 – Station_2.UVOL_RAW_TOT 18 - Station_2.SVOL_RAW_TOT 19 - Station_2.MASS_RAW_TOT 20 - Station_2.ENERGY_RAW_TOT 21 – DP Mtr_2.UVOL_RAW_TOT 22 - DP Mtr_2.SVOL_RAW_TOT 23 - DP Mtr_2.MASS_RAW_TOT 24 - DP Mtr_2.ENERGY_RAW_TOT				

Total

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
				25 - DP Mtr_2.FLWTM_RAW_TOT 26 - DP Mtr_2.IV_RAW_TOT 27 - Linear Mtr_2.UVOL_RAW_TOT 28 - Linear Mtr_2.SVOL_RAW_TOT 29 - Linear Mtr_2.MASS_RAW_TOT 30 - Linear Mtr_2.ENERGY_RAW_TOT 31 - Linear Mtr_2.PULSE_RAW_TOT				
CURRENT	Current Accumulated Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ROLLOVER	Rollover Value	DOUBLE	≥ 0	1E+12		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ROLLOVER_COUNT	Non-resettable Rollover Count	UINT32		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Total

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SNAPSHOT	Value of Input at Last Period End	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SNAP_TIME	Timestamp of Last Period End	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_PER	Current Hour Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_PER	Previous Hour Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_DAY	Current Day Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_DAY	Previous Day Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_WK	Current Week Value	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_WK	Previous Week Value	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Total

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CUR_MNTH	Current Month Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_MNTH	Previous Month Total	DOUBLE		0	MCF (9.2)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.24 Average Parameters

Description: The Average object provides the parameters for configuring which inputs the system uses to calculate averages and viewing the periodic minimum, maximum, and average values.

Number of Instances: 32 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-27: Average Parameters

Average								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Average_X (where X is the instance number)		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		DP Avg		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Average

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SAMPLE_PARAM	Input to Average	PRMREF		1 - DP Mtr_1.DP_OBJ.SELECTED 2 – - PF Mtr_1.DP_OBJ.SELECTED 3 - - DP Mtr_1.TF_OBJ.SELECTED 4 - - DP Mtr_1.IMV_SEL		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SNAPSHOT	Value of Input at Last Period End	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SNAP_TIME	Timestamp of Last Period End	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_PER_AVG	Current Hour Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_PER_AVG	Previous Hour Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_DAY_AVG	Current Day Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Average

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PREV_DAY_AVG	Previous Day Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_WK_AVG	Current Week Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_WK_AVG	Previous Week Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_MNTH_AVG	Current Month Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_MNTH_AVG	Previous Month Average	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_PER_MIN	Current Hour Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_PER_MIN	Previous Hour Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_DAY_MIN	Current Day Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Average

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PREV_DAY_MIN	Previous Day Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_WK_MIN	Current Week Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_WK_MIN	Previous Week Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_MNTH_MIN	Current Month Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_MNTH_MIN	Previous Month Minimum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_PER_MAX	Current Hour Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_PER_MAX	Previous Hour Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_DAY_MAX	Current Day Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

Average

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PREV_DAY_MAX	Previous Day Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_WK_MAX	Current Week Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_WK_MAX	Previous Week Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CUR_MNTH_MAX	Current Month Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PREV_MNTH_MAX	Previous Month Maximum	DOUBLE		0	inH2O (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
WEIGHT_OBJ	Input to Weight	OBJREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.25 GC Config Parameters

Description: The Gas Chromatograph (CG) Config object provides the parameters for configuring gas chromatographs.

Number of Instances: 1 instance may exist.

Storage Location: Saved to internal configuration memory.

Table 5-28: GC Config Parameters

GC Config								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		GC Config		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_PORT_OBJ	Comm Port to GC	OBJREF	Comm	Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
GC_MODBUS_ADDR	GC Device Address	UINT8	1 → 247	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
GC_SERVER_IP_ADDR	GC Server IP Address	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
GC_SERVER_PORT_NUM	GC Server Port Number	UINT16		502		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
POLL_INTERVAL	Polling Interval	UINT16	10 → 65535	60	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LAST_POLL_TIME	Last Poll Time	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
GC_POLL_ALM	GC Polling Alarm 0 - Successful Poll 1 - Error In Poll 2 - Comp Code Match Error	BIN32		Successful Poll	GC Poll Alarm (237)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
COMM_TIMEOUT	Modbus polling timeout	FLOAT	1 → 300	3	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
COMM_RETRIES	Number of Modbus polling retries	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SEL_MAPTABLE_NUM	Maptable number	UINT8	1 → 11	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
GC_TYPE	Chromat Type 0 - American 1 - European	ENUM16	0 → 1	American	GC Type (203)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AUTO_CONFIG	Auto Configure Command 0 - No Action 1 - Auto Configure	ENUM16	0 → 1	No Action	Auto Configure (193)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
POLL_MODE	Enable communication to the GC. 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ALM_1_CHK	Alarm 1 Check 0 - Normal 1 - A/D 0 Low 2 - A/D 0 High 3 - A/D 1 Low 4 - A/D 1 High 5 - A/D 2 Low 6 - A/D 2 High 7 - A/D Cal Low 8 - A/D Cal High 9 - D/A 1 Low 10 - D/A 1 High 11 - D/A 2 Low 12 - D/A 2 High 13 - D/A 3 Low 14 - D/A 3 High 15 - Analyzer Failure 16 - Checksum Failure	BIN16		Normal	GC US Alarm 1 (204)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ALM_2_CHK	Alarm 2 Check 0 - Normal 1 - Power Failure 2 - RF % Deviation 3 - Preamp Failure 4 - Adjust Preamp	BIN16		Normal	GC US Alarm 2 (205)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CX_SPLIT_TYPE	Cx+ Split Type 0 - Hexane Plus Split 1 - Heptane Plus Split 2 - Octane Plus Split 3 - Nonane Plus Split	ENUM16	0 → 3	Hexane Plus Split	Cx Split Type (191)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AUTO_SPLIT_OPT	Split based on Code 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C1_CODE	Methane Component Code	UINT16	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C2_CODE	Ethane Component Code	UINT16	0 → 255	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C3_CODE	Propane Component Code	UINT16	0 → 255	2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
IC4_CODE	i-Butane Component Code	UINT16	0 → 255	3		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
NC4_CODE	n-Butane Component Code	UINT16	0 → 255	4		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NEOC5_CODE	Neopentane Component Code	UINT16	0 → 255	7		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
IC5_CODE	i-Pentane Component Code	UINT16	0 → 255	5		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
NC5_CODE	n-Pentane Component Code	UINT16	0 → 255	6		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C6_CODE	n-Hexane Component Code	UINT16	0 → 255	39		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CX+_CODE	Composite Component Code	UINT16	0 → 255	10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
N2_CODE	Nitrogen Component Code	UINT16	0 → 255	14		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CO2_CODE	Carbon Dioxide Component Code	UINT16	0 → 255	17		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2S_CODE	Hydrogen Sulfide Component Code	UINT16	0 → 255	40		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2O_CODE	Water Component Code	UINT16	0 → 255	44		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
HE_CODE	Helium Component Code	UINT16	0 → 255	13		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
O2_CODE	Oxygen Component Code	UINT16	0 → 255	16		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CO_CODE	Carbon Monoxide Component Code	UINT16	0 → 255	15		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
H2_CODE	Hydrogen Component Code	UINT16	0 → 255	12		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C7_CODE	n-Heptane Component Code	UINT16	0 → 255	45		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C8_CODE	n-Octane Component Code	UINT16	0 → 255	20		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C9_CODE	n-Nonane Component Code	UINT16	0 → 255	19		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C10_CODE	n-Decane Component Code	UINT16	0 → 255	25		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C11_CODE	C11 component Code	UINT16	0 → 255	255		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C12_CODE	C12 component Code	UINT16	0 → 255	255		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AR_CODE	Argon Component Code	UINT16	0 → 255	46		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
BENZENE_CODE	Benzene Component Code	UINT16	0 → 255	255		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TOLUENE_CODE	Toluene Component Code	UINT16	0 → 255	255		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C6_SPLIT	Heavy Gas % n-Hexane	FLOAT	0 → 100	50	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Config

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C7_SPLIT	Heavy Gas % n-Heptane	FLOAT	0 → 100	25	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C8_SPLIT	Heavy Gas % n-Octane	FLOAT	0 → 100	25	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C9_SPLIT	Heavy Gas % n-Nonane	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C10_SPLIT	Heavy Gas % n-Decane	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C11_SPLIT	Heavy Gas % C11	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
C12_SPLIT	Heavy Gas % C12	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.26 GC Stream Parameters

Description: The GC Stream object provides the parameters for viewing the data directly from the most recent gas chromatograph analysis.

Number of Instances: 1 instance may exist.

Storage Location: Saved to internal configuration memory.

Table 5-29: GC Stream Parameters

GC Stream								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		GC Stream		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
GC_OBJ	GC Configuration Object	OBJREF	GC Config	GC Config_1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
CYCLE_STREAM_NUM	Current Stream Number	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DRY_SUPERIOR_HV	Dry Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
DRY_INFERIOR_HV	Dry Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
SAT_SUPERIOR_HV	Saturated Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
SAT_INFERIOR_HV	Saturated Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RD	Relative Density	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
WOBBE_INDEX	Wobbe Index	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
UNNORMAL_SUM	Unnormalized Sum	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMPRESSIBILITY	Compressibility	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
SAMPLE_MINUTE	Sample Minute of Last Analysis	UINT16	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NEW_ANALYSIS_FLAG	New Analysis Flag	UINT16	0 → 1	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
STREAM_LAST_ANALYZED	Stream Last Analyzed	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ALARM_1	Alarm 1 Code 0 - Normal 1 - A/D 0 Low 2 - A/D 0 High 3 - A/D 1 Low 4 - A/D 1 High 5 - A/D 2 Low 6 - A/D 2 High 7 - A/D Cal Low 8 - A/D Cal High 9 - D/A 1 Low 10 - D/A 1 High 11 - D/A 2 Low 12 - D/A 2 High 13 - D/A 3 Low 14 - D/A 3 High 15 - Analyzer Failure 16 - Checksum Failure	BIN16		Normal	GC US Alarm 1 (204)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
ALARM_2	Alarm 2 Code 0 - Normal 1 - Power Failure 2 - RF % Deviation 3 - Preamp Failure 4 - Adjust Preamp	BIN16		Normal	GC US Alarm 2 (205)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CAL_FLAG	Calibration Flag	UINT16	0 → 255	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_1_CODE	Component 1 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_2_CODE	Component 2 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_3_CODE	Component 3 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_4_CODE	Component 4 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_5_CODE	Component 5 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMP_6_CODE	Component 6 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_7_CODE	Component 7 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_8_CODE	Component 8 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_9_CODE	Component 9 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_10_CODE	Component 10 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_11_CODE	Component 11 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMP_12_CODE	Component 12 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_13_CODE	Component 13 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_14_CODE	Component 14 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_15_CODE	Component 15 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_16_CODE	Component 16 Code	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_1_RAW	Component 1 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMP_2_RAW	Component 2 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_3_RAW	Component 3 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_4_RAW	Component 4 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_5_RAW	Component 5 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_6_RAW	Component 6 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_7_RAW	Component 7 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMP_8_RAW	Component 8 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_9_RAW	Component 9 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_10_RAW	Component 10 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_11_RAW	Component 11 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_12_RAW	Component 12 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_13_RAW	Component 13 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Stream

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMP_14_RAW	Component 14 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_15_RAW	Component 15 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_16_RAW	Component 16 Raw	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

5.2.27 GC Data Parameters

Description: The GC Data object provides the parameters for viewing data and configuring validation limits for a specific gas chromatograph stream.

Number of Instances: 2 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-30: GC Data Parameters

GC Data								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		GC Data_1-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
GC_OBJ	GC Configuration Object	OBJREF	GC Config	GC Config_1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
STREAM_NUMBER	Stream Number	UINT16	0 → 65535	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DRY_SUPERIOR_HV	Dry Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DRY_SUPERIOR_HV_HI	High Dry Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
DRY_SUPERIOR_HV_LO	Low Dry Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
SAT_SUPERIOR_HV	Saturated Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SAT_SUPERIOR_HV_HI	High Saturated Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SAT_SUPERIOR_HV_LO	Low Saturated Superior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
DRY_INFERIOR_HV	Dry Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DRY_INFERIOR_HV_HI	High Dry Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
DRY_INFERIOR_HV_LO	Low Dry Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
SAT_INFERIOR_HV	Saturated Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SAT_INFERIOR_HV_HI	High Saturated Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SAT_INFERIOR_HV_LO	Low Saturated Inferior Heating Value	FLOAT		0	Btu/ft³ (5.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
RD	Relative Density	FLOAT		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
RD_HI	High Relative Density	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
RD_LO	Low Relative Density	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
WOBBE_INDEX	Wobbe Index	FLOAT		0	Btu/ft³ (5.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UNNORMAL_SUM	Unnormalized Sum	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
COMP_SUM	Normalized Component Sum	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ALARM_1	Alarm 1 Code 0 - Normal 1 - A/D 0 Low 2 - A/D 0 High 3 - A/D 1 Low 4 - A/D 1 High 5 - A/D 2 Low 6 - A/D 2 High 7 - A/D Cal Low 8 - A/D Cal High 9 - D/A 1 Low 10 - D/A 1 High 11 - D/A 2 Low 12 - D/A 2 High 13 - D/A 3 Low 14 - D/A 3 High 15 - Analyzer Failure 16 - Checksum Failure	BIN16		Normal	GC US Alarm 1 (204)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ALARM_2	Alarm 2 Code 0 - Normal 1 - Power Failure 2 - RF % Deviation 3 - Preamp Failure 4 - Adjust Preamp	BIN16		Normal	GC US Alarm 2 (205)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VALIDATION_ALM	Composition Validation Alarm 0 - Normal 1 - Component Limit Alarm 2 - Heating Value Limit Alarm 3 - Relative Density Limit Alarm 4 - Un-normalized Mole Sum Alarm 5 - Total Mole Sum Alarm 6 - Composition Deviation Alarm 7 - Alarm 1 8 - Alarm 2	BIN32		Normal	GC Validation Alarm (192)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UNNORMAL_DEV_LIM	Unnormalized Deviation Limit	FLOAT	0 → 5	2	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_SUM_DEV_LIM	Component Sum Deviation Limit	FLOAT	0 → 5	2	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
COMP_DEV_LIM	Component Deviation Alarm Limit % of %	FLOAT	≥ 0	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C1_HI_LIM	Methane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C1_LO_LIM	Methane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
N2_HI_LIM	Nitrogen High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
N2_LO_LIM	Nitrogen Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
CO2_HI_LIM	Carbon Dioxide High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
CO2_LO_LIM	Carbon Dioxide Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C2_HI_LIM	Ethane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C2_LO_LIM	Ethane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C3_HI_LIM	Propane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C3_LO_LIM	Propane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2O_HI_LIM	Water High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2O_LO_LIM	Water Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2S_HI_LIM	Hydrogen Sulfide High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
H2S_LO_LIM	Hydrogen Sulfide Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2_HI_LIM	Hydrogen High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
H2_LO_LIM	Hydrogen Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
CO_HI_LIM	Carbon Monoxide High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
CO_LO_LIM	Carbon Monoxide Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
O2_HI_LIM	Oxygen High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
O2_LO_LIM	Oxygen Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
IC4_HI_LIM	i-Butane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
IC4_LO_LIM	i-Butane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NC4_HI_LIM	n-Butane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NC4_LO_LIM	n-Butane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
IC5_HI_LIM	i-Pentane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IC5_LO_LIM	i-Pentane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NC5_HI_LIM	n-Pentane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NC5_LO_LIM	n-Pentane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C6_HI_LIM	n-Hexane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C6_LO_LIM	n-Hexane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C7_HI_LIM	n-Heptane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C7_LO_LIM	n-Heptane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C8_HI_LIM	n-Octane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C8_LO_LIM	n-Octane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C9_HI_LIM	n-Nonane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C9_LO_LIM	n-Nonane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C10_HI_LIM	n-Decane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C10_LO_LIM	n-Decane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
HE_HI_LIM	Helium High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
HE_LO_LIM	Helium Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
AR_HI_LIM	Argon High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
AR_LO_LIM	Argon Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
NEOC5_HI_LIM	Neopentane High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
NEOC5_LO_LIM	Neopentane Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
BENZENE_HI_LIM	Benzene High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
BENZENE_LO_LIM	Benzene Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
TOLUENE_HI_LIM	Toluene High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
TOLUENE_LO_LIM	Toluene Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C11_HI_LIM	C11 High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C11_LO_LIM	C11 Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C12_HI_LIM	C12 High Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C12_LO_LIM	C12 Low Limit	FLOAT	0 → 100	0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
C1_VAL	Methane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
N2_VAL	Nitrogen	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO2_VAL	Carbon Dioxide	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C2_VAL	Ethane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
C3_VAL	Propane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2O_VAL	Water	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2S_VAL	Hydrogen Sulfide	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
H2_VAL	Hydrogen	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CO_VAL	Carbon Monoxide	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
O2_VAL	Oxygen	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IC4_VAL	i-Butane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC4_VAL	n-Butane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IC5_VAL	i-Pentane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NC5_VAL	n-Pentane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C6_VAL	n-Hexane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C7_VAL	n-Heptane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C8_VAL	n-Octane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C9_VAL	n-Nonane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C10_VAL	n-Decane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
HE_VAL	Helium	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AR_VAL	Argon	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NEOC5_VAL	Neopentane	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BENZENE_VAL	Benzene	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
TOLUENE_VAL	Toluene	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C11_VAL	C11	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
C12_VAL	C12	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

GC Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMP_UPDATE	Components Updated by Chromatograph 0 - None 1 - Methane 2 - Nitrogen 3 - Carbon Dioxide 4 - Ethane 5 - Propane 6 - Water 7 - Hydrogen Sulfide 8 - Hydrogen 9 - Carbon Monoxide 10 - Oxygen 11 - i-Butane 12 - n-Butane 13 - i-Pentane 14 - n-Pentane 15 - Hexane 16 - Heptane 17 - Octane 18 - Nonane 19 - Decane 20 - Helium 21 - Argon 22 - neo-Pentane 23 - Benzene 24 - Toluene 25 - Undecane (C11) 26 - Dodecane (C12)	BIN32		None	GC Component Update (189)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.28 Local Parameters

Description: The Local object provides the parameters for configuring localization profiles.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-31: Local Parameters

Local								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Local_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LANGUAGE	Language 0 - English	ENUM16	0 → 0	English	Language Selection (37)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

Local

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TM_DSP_PREF	Time Display Format Pref 0 - 12 Hour 1 - 24 Hour	ENUM16	0 → 8	12 Hour	Time Format Selection (36)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
DT_DSP_PREF	Date Display Format Pref 0 - MM/DD/YY 1 - MM/DD/YYYY 2 - DD/MM/YY 3 - DD/MM/YYYY 4 - YYYY/MM/DD 5 - YY/MM/DD	ENUM16	0 → 8	MM/DD/YY	Date Format Selection (35)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.29 PID Parameters

Description: The PID object provides the parameters for configuring Proportional, Integral, and Derivative control loops.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-32: PID Parameters

PID								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		PID Loop 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
DESC	Description	UC20		PID Loop 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PID

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PID_LOOP_TYPE	PID Loop Type 0 - Primary Only 1 - Override Only 2 - Dual Control	ENUM16	0 → 2	Primary Only	PID Control Type (112)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
PID_ENABLE	PID Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LOOP_PERIOD	Loop Period	FLOAT	1 → 3600	1	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_PV_POINT	Primary Process Variable Input	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_PROCESS_VARIABLE	Primary Process Variable Value	FLOAT		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
P_PV_HIGH_LIMIT	Primary Process Variable High Limit	FLOAT	≥ 0	10000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PID

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
P_PV_LOW_LIMIT	Primary Process Variable Low Limit	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_CONTROL_ACTION	Primary Control Action Direction 0 - Forward 1 - Reverse	ENUM16	0 → 1	Reverse	PID Control Action (114)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_SETPOINT_TRACK_EN	Primary Setpoint Tracking 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_SETPOINT_POINT	Primary Setpoint Input	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_SETPOINT	Primary Setpoint Value	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator **R/O:** Auditor	▪ Log Changes
P_SETPOINT_RAMP	Primary Setpoint Ramp Rate Per Second	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PID

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
P_PROPORTIONAL_G	Primary Proportional Gain	FLOAT	≥ 0	0.5		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_INTEGRAL_GAIN	Primary Integral Gain	FLOAT	≥ 0	4		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_DERIVATIVE_GAIN	Primary Derivative Gain	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
P_CHANGE_IN_OUTPUT	Primary Change In Output	FLOAT		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
P_CONTROL_DEADBAND	Primary Control Deadband	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_PV_POINT	Override Process Variable	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PID								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
O_PROCESS_VARIABLE	Override Process Variable Value	FLOAT		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
O_PV_HIGH_LIMIT	Override Process Variable High Limit	FLOAT	≥ 0	10000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_PV_LOW_LIMIT	Override Process Variable Low Limit	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_CONTROL_ACTION	Override Control Action Direction 0 - Forward 1 - Reverse	ENUM16	0 → 1	Reverse	PID Control Action (114)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_SETPOINT_TRACK_EN	Override Setpoint Tracking 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_SETPOINT_POINT	Override Setpoint Input	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PID								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
O_SETPOINT	Override Setpoint Value	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech; Operator **R/O:** Auditor	▪ Log Changes
O_SETPOINT_RAMP	Override Setpoint Ramp Rate Per Second	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_PROPORTIONAL_G	Override Proportional Gain	FLOAT	≥ 0	0.5		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_INTEGRAL_GAIN	Override Integral Gain	FLOAT	≥ 0	4		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_DERIVATIVE_GAIN	Override Derivative Gain	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
O_CHANGE_IN_OUTPUT	Override Change In Output	FLOAT		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

PID

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
O_CONTROL_DEADBAND	Override Control Deadband	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SWITCH_SELECT	Override Type Select 0 - Low 1 - High	ENUM16	0 → 1	Low	Override Type Select (258)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OVERRIDE_THRESHOLD	Override Threshold Value	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OUTPUT_TYPE	Output Type 0 - Analog 1 - Discrete	ENUM16	0 → 1	Analog	PID Output Type (113)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ANALOG_OUT_POINT	Analog Output Point	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DIGITAL_OUT_POINT 1	Digital Output Point 1 (Raise)	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PID								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
DIGITAL_OUT_POINT 2	Digital Output Point 2 (Lower)	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OUTPUT_SLEW_RATE	Output Ramp Rate Per Second	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
CLAMP_ENABLE	Output Clamping Mode 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
CLAMP_HIGH_LIMIT	Output Clamping High Limit Value	FLOAT	≥ 0	100		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
CLAMP_LOW_LIMIT	Output Clamping Low Limit Value	FLOAT	≥ 0	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OUTPUT_VALUE	Current Output of PID	FLOAT		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

PID

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OUTPUT_MODE	Output Mode 0 - Manual 1 - Auto	ENUM16	0 → 1	Manual	Output Mode (47)	R/W	R/W: Admin; Engineer; Meas. Tech; Operator R/O: Auditor	▪ Log Changes
MANUAL_POSITION	Manual Position % (In Manual Mode)	FLOAT		0	% (18.0)	R/W	R/W: Admin; Engineer; Meas. Tech; Operator R/O: Auditor	▪ Log Changes
RESUME_ON_RESET	Resume PID Control On System Restart 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ACTION_ON_QUALITY	Action Of Output On Data Quality 0 - Continue 1 - Manual Mode	ENUM16	0 → 1	Manual Mode	PID Action On Unhealthy Data (118)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SELECTED_LOOP	Selected Loop 0 - Disabled 1 - Primary 2 - Override	ENUM16		Disabled	PID Selected Loop (116)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

5.2.30 FLTCal Parameters

Description: The FLTCal object provides the parameters for DP, Press, and RTD calibrations.

Number of Instances: 9 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-33: FLTCal Parameters

FLTCal								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - FLTCal_1 2 - FLTCal_2 3 - FLTCal_3 4 - FLTCal_4 5 - FLTCal_5 6 - FLTCal_6 7 - FLTCal_7 8 - FLTCal_8 9 - FLTCal_9		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MOD_LOC	Module Location	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CHANNEL	Channel	UINT8		2		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 - FLTCal_1 2 - FLTCal_2 3 - FLTCal_3 4 - FLTCal_4 5 - FLTCal_5 6 - FLTCal_6 7 - FLTCal_7 8 - FLTCal_8 9 - FLTCal_9		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TIMEOUT	Inactivity Timeout	UINT16	1 → 1440	60	min (17.1)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TO_TIME_REMAINING	Remaining Time Before Timeout	UINT16		0	min (17.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LAST_CAL	Time of Last Calibration	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ZERO_SHIFT	Zero Shift	FLOAT		0	Instance: 1 - (1.0) 2 – (a) (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0) 8 - (2.0) 9 - (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_ZERO_VAL	Calibrated Zero	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0) 8 - (2.0) 9 - (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_SPAN_VAL	Calibrated Span	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0) 8 - (2.0) 9 - (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USER_MID1_VAL	Calibrated Midpoint 1	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0) 8 - (2.0) 9 - (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MID2_VAL	Calibrated Midpoint 2	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0) 8 - (2.0) 9 - (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MID3_VAL	Calibrated Midpoint 3	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0) 8 - (2.0) 9 - (242.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IDEAL_ZERO_VAL	Ideal Zero	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (23.0) 4 - (1.0) 5 - (2.0) 6 - (23.0) 7 - (1.0) 8 - (2.0) 9 - (23.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IDEAL_SPAN_VAL	Ideal Span	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (23.0) 4 - (1.0) 5 - (2.0) 6 - (23.0) 7 - (1.0) 8 - (2.0) 9 - (23.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IDEAL_MID1_VAL	Ideal Midpoint 1	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (23.0) 4 - (1.0) 5 - (2.0) 6 - (23.0) 7 - (1.0) 8 - (2.0) 9 - (23.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IDEAL_MID2_VAL	Ideal Midpoint 2	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (23.0) 4 - (1.0) 5 - (2.0) 6 - 23.0) 7 - (1.0) 8 - (2.0) 9 - (23.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IDEAL_MID3_VAL	Ideal Midpoint 3	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (23.0) 4 - (1.0) 5 - (2.0) 6 - (23.0) 7 - (1.0) 8 - (2.0) 9 - (23.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_DATE	Time of Last Verification	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT1_FOUND	Verification Point 1 As Found	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VER_PT2_FOUND	Verification Point 2 As Found	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT3_FOUND	Verification Point 3 As Found	FLOAT		0	Instance: 1 - (1.0) 2 (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT4_FOUND	Verification Point 4 As Found	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT5_FOUND	Verification Point 5 As Found	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VER_PT6_FOUND	Verification Point 6 As Found	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT7_FOUND	Verification Point 7 As Found	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT1_LEFT	Verification Point 1 As Left	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT2_LEFT	Verification Point 2 As Left	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VER_PT3_LEFT	Verification Point 3 As Left	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 -(242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT4_LEFT	Verification Point 4 As Left	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT5_LEFT	Verification Point 5 As Left	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT6_LEFT	Verification Point 6 As Left	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

FLTCal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VER_PT7_LEFT	Verification Point 7 As Left	FLOAT		0	Instance: 1 - (1.0) 2 - (2.0) 3 - (3.0) 4 - (1.0) 5 - (2.0) 6 - (242.0) 7 - (1.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CAL_STATUS	Calibration Status 0 - Calibration Not in Progress 1 - Input Frozen 2 - Calibration in Progress 3 - Reserved 4 - Set Command Failed 5 - Timeout Occurred 6 - Span Too Small 7 - Excess Correction 8 - Passed Parameter Too Small 9 - Passed Parameter Too Large 10 - Ideal Value Too Small 11 - Ideal Value Too Large 12 - Wrong Command 13 - Verification in Progress	BIN16		Calibration Not in Progress	Calibration Status (150)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.31 AICal Parameters

Description: The AICal object provides the parameters for analog input calibration.

Number of Instances: 8 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-34: AICal Parameters

AICal								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - AICal_1 2 - AICal_2 3 - AICal_3 4 - AICal_4 5 - AICal_5 6 - AICal_6 7 - AICal_7		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AICal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHANNEL	Channel	UINT8		2		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 - AICal_1 2 - AICal_2 3 - AICal_3 4 - AICal_4 5 - AICal_5 6 - AICal_6 7 - AICal_7		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TIMEOUT	Inactivity Timeout	UINT16	1 → 1440	60	min (17.1)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
TO_TIME_REMAINING	Remaining Time Before Timeout	UINT16		0	min (17.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LAST_CAL	Time of Last Calibration	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
ZERO_SHIFT	Zero Shift	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_ZERO_VAL	Calibrated Zero	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AICal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USER_SPAN_VAL	Calibrated Span	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MID1_VAL	Calibrated Midpoint 1	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MID2_VAL	Calibrated Midpoint 2	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MID3_VAL	Calibrated Midpoint 3	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IDEAL_ZERO_VAL	Ideal Zero	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IDEAL_SPAN_VAL	Ideal Span	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IDEAL_MID1_VAL	Ideal Midpoint 1	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
IDEAL_MID2_VAL	Ideal Midpoint 2	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AICal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
IDEAL_MID3_VAL	Ideal Midpoint 3	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CAL_STATUS	Calibration Status 0 - Calibration Not In Progress 1 - Input Frozen 2 - Calibration In Progress 3 - Reserved 4 - Set Command Failed 5 - Timeout Ocurred 6 - Span Too Small 7 - Excess Correction 8 - Passed Parameter Too Small 9 - Passed Parameter Too Large 10 - Ideal Value Too Small 11 - Ideal Value Too Large 12 - Wrong Command 13 - Verification In Progress	BIN16		Calibration Not In Progress	Calibration Status (150)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_DATE	Time of Last Verification	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT1_FOUND	Verification Point 1 As Found	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT2_FOUND	Verification Point 2 As Found	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AICal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VER_PT3_FOUND	Verification Point 3 As Found	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT4_FOUND	Verification Point 4 As Found	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT5_FOUND	Verification Point 5 As Found	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT6_FOUND	Verification Point 6 As Found	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT7_FOUND	Verification Point 7 As Found	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT1_LEFT	Verification Point 1 As Left	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT2_LEFT	Verification Point 2 As Left	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT3_LEFT	Verification Point 3 As Left	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AICal

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VER_PT4_LEFT	Verification Point 4 As Left	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT5_LEFT	Verification Point 5 As Left	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT6_LEFT	Verification Point 6 As Left	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
VER_PT7_LEFT	Verification Point 7 As Left	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.32 System Power Parameters

Description: The System Pwr object provides the parameters for monitoring the health of the batteries and configuring loop power.

Number of Instances: 1 instance may exist.

Storage Location: Saved to internal configuration memory.

Table 5-35: System Power Parameters

System Power								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		System Pwr		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		System Power		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

System Power

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
BATT_TYPE	Battery Type 0 - None 1 - Lithium 2 - Lead Acid 3 - Not Applicable	ENUM16		None	Battery Type (72)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BATT_STATUS	Status of the Battery 0 - Battery Not in Use 1 - Lead Acid Fault 2 - Lead Acid Charging 3 - Lead Acid Standby 4 - Lithium Battery on Reserve C Cell 5 - Lithium Battery Error 6 - Lithium Battery on Main D Cell	ENUM16		Battery Not in Use	Battery Status (152)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BATT_VAL	Voltage of the Battery	FLOAT	≥ 0	0	V (16.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BATT_ALM	Battery Alarm	OBJREF		Alarm_32		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BATT_RUNTIME	Days the Battery has been In Use	UINT16		0	d (17.3)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
EXT_VOLT_VAL	Voltage from External Source	FLOAT		0	V (16.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

System Power

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
EXT_VOLT_ALM	External Voltage Alarm	OBJREF		Alarm_33		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BATT_CHNG	Indicate Battery has been Changed 0 - No Change 1 - Battery Replaced 2 - SRAM Battery Replaced	ENUM16	0 → 2	No Change	Battery Change (154)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OPER_TRIP_POINT	Operating Trip Point 0 - 6 Volts 1 - 12 Volts 2 - 24 Volts	ENUM16	0 → 2	6 Volts	Operational Trip Point (155)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal ▪ Verified
SRAM_BATT_STATUS	Status of the SRAM Battery 0 - Battery Normal 1 - Battery Failure or Removal	ENUM16		Battery Normal	SRAM Battery Status (153)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SRAM_BATT_RUNTIME	Days the SRAM Battery has been In Use	UINT16		0	d (17.3)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BATT_CHNG_TIME	Date the Battery was Changed	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
BATT_CELL_CHNG_TIME	Date the Battery Switched Cells	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

System Power

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SRAM_BATT_CHNG_TIME	SRAM Battery Change Time	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LOOP_POWER	Enable/Disable Loop Power 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.33 Action Block Parameters

Description: The Action Block object provides the parameters for configuring programming components that check a basic logic condition, and use the result to activate effects or perform other actions.

Number of Instances: 30 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-36: Action Block Parameters

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OBJ_NAME	Tag	UC20		Action Block 1		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes
DESC	Description	UC20		Action Block		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ACTION_BLK_ENABLE	Action Block Enable Switch 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
ACTION_BLK_STATUS	Action Block Activation Status 0 - Inactive 1 - Active	ENUM16	0 → 1	Inactive	Action Block Status (166)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
VAR_1_DESC	Variable 1 Param Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
VAR_1_POINT	Input 1 DB point	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
VAR_1_VAL	Variable 1 Live Value	FLOAT		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	
VAR_2_DESC	Variable 2 Param Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
VAR_2_POINT	Input 2 DB point	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
VAR_2_VAL	Variable 2 Live Value Or Entered	FLOAT		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	
OPERATOR	Operator Selection 0 - Greater Than 1 - Less Than 2 - Equal To 3 - Greater Than Or Equal To 4 - Not Equal To 5 - Less Than Or Equal To 6 - AND (Bitwise) 7 - OR (Bitwise) 8 - Watchdog 9 - Soft Timer	ENUM16	0 → 9	Greater Than	Action Block Operators (167)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
RESULT_DEADBAND	Deadband EU	FLOAT		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
TRIP_STATUS	Basic Logic Block Status 0 - Inactive 1 - Active	ENUM16	0 → 1	Inactive	Action Block Status (166)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DELAY_SEC	Activation Delay	UINT16		0	s (17.0)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
ELAPSED_SEC	Elapsed Delay	UINT16		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
BYPASSES_ACTIVE	Current Bypasses Active 0 - Local Latched 1 - Remote Latched 2 - Class B 3 - Class C 4 - Class B/C	BIN8		Local Latched	Action Block Chain To Status (218)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
BYPASS_LOCAL	On Demand Local Bypass 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
REMOTE_BYPASS_BLK_1	Remote Bypass Block Number 1	UINT16	0 → 30	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
REMOTE_BYPASS_TYPE_1	Remote Bypass Type 1 0 - Latched 1 - Class B 2 - Class C 3 - Class B / C	ENUM16	0 → 3	Latched	Action Block Bypass Types (168)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
REMOTE_BYPASS_BLK_2	Remote Bypass Block Number 2	UINT16	0 → 30	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
REMOTE_BYPASS_TYPE_2	Remote Bypass Type 2 0 - Latched 1 - Class B 2 - Class C 3 - Class B / C	ENUM16	0 → 3	Latched	Action Block Bypass Types (168)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
REMOTE_BYPASS_BLK_3	Remote Bypass Block Number 3	UINT16	0 → 30	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
REMOTE_BYPASS_TYPE_3	Remote Bypass Type 3 0 - Latched 1 - Class B 2 - Class C 3 - Class B / C	ENUM16	0 → 3	Latched	Action Block Bypass Types (168)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CLASS_B_DELAY_SEC	Class B Preset Delay Time	UINT16		300	s (17.0)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CLASS_B_ELAPSED_SEC	Class B Elapsed Time	UINT16		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CLASS_C_DEADBAND	Class C Deadband EU Value	FLOAT		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CLASS_C_DELAY_SEC	Class C Preset Delay Time	UINT16		10	s (17.0)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CLASS_C_ELAPSED_SEC	Class C Elapsed Time	UINT16		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
BYPASS_BLK_STATUS	Bypass Block Trip Status 0 - Inactive 1 - Active	ENUM16	0 → 1	Inactive	Action Block Status (166)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CHAIN_BLK	Chain To Action Block Selection	UINT8	0 → 30	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CHAIN_TO_BLK_STATUS	Chain Selected Block Status 0 - Block Status 1 - Chain Status 2 - Output Status	ENUM16	0 → 2	Output Status	Action Block Chain To Status (217)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHAIN_TYPE	Chain Logic Type 0 - AND 1 - OR 2 - NAND	ENUM16	0 → 2	AND	Action Block Chain Type (216)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CHAIN_FIRST_OUT	Chain First Out Block	UINT16		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CHAIN_IS_END	This Block Is The End Of The Chain 0 - No 1 - Yes	ENUM16	0 → 1	No	Yes/No Option (208)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CHAIN_DELAY_SEC	Chain Preset Delay Time	UINT16		0	s (17.0)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
CHAIN_ELAPSED_SEC	Chain Elapsed Delay Time	UINT16		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CHAIN_BLK_STATUS	Chain Block Trip Status 0 - Inactive 1 - Active	ENUM16	0 → 1	Inactive	Action Block Status (166)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
ALARM_LOG_OPTION	Alarm Logging Option 0 - None 1 - Alarm on Active 2 - Alarm on Inactive	BIN8		None	Action Block Alarm Option (169)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ALARM_TYPE	Alarm Type To Log 0 - Low 1 - Low Low 2 - High 3 - High High 4 - Rate of Change	ENUM16	0 → 5	Low	Action Block Alarm Type (215)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
EVENT_LOG_OPTION	Event Logging Option 0 - None 1 - Event on Active 2 - Event on Inactive	BIN8		None	Action Block Event Option (170)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
EVENT_LOG_MESSAGE	Event Log Message To Write	UC40		Action Block 1		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
ACTION_TRIP_EVENT	Condition to Trip Action Block 0 - True If Block True 1 - True If Chain True 2 - True If Either True 3 - True If Both True	ENUM16	0 → 3	True If Block True	Action Block Trip Logic (171)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
ACTION_TRIP_STATUS	Output Block Trip Status 0 - Inactive 1 - Active	ENUM16	0 → 1	Inactive	Action Block Status (166)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ACTION_TYPE	Output Type Triggered 0 - No Action 1 - Effect 2 - Binary Action 3 - Move Value 4 - Load Value 5 - Write Value	ENUM16	0 → 5	No Action	Action Block Action Type (172)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
ACTION_POINT	Output Action Point	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
ACTION_DO_BEHAVIOR	Output Boolean Behavior 0 - Force 1 True & 0 False 1 - Force 0 True & 1 False 2 - Poke 1 True 3 - Poke 0 True 4 - Poke 1 True & 0 False 5 - Poke 0 True & 1 False 6 - Force 1 True & Poke 0 False 7 - Force 0 True & Poke 1 False 8 - Force 1 True 9 - Force 0 True	ENUM16	0 → 9	Force 1 True & 0 False	Discrete Action Type (173)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_1_EFFECT	Selected Effect Link 1 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LINK_2_EFFECT	Selected Effect Link 2 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_3_EFFECT	Selected Effect Link 3 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_4_EFFECT	Selected Effect Link 4 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_5_EFFECT	Selected Effect Link 5 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_6_EFFECT	Selected Effect Link 6 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_7_EFFECT	Selected Effect Link 7 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Action Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LINK_8_EFFECT	Selected Effect Link 8 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_9_EFFECT	Selected Effect Link 9 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
LINK_10_EFFECT	Selected Effect Link 10 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

5.2.34 Math Block Parameters

Description: The Math Block object provides the parameters for configuring mathematical equations using live variables from the system as inputs.

Number of Instances: 10 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-37: Math Block Parameters

Math Block								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Math Block_1		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes
DESC	Description	UC20		Math Block 1		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Math Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MATH_ENABLE	User Enable Switch 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INPUT_VAR_A_DESC	Var A Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INPUT_VAR_A_POINT	Var A Param Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INPUT_VAR_A_VAL	Variable A Value	DOUBLE		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	
INPUT_VAR_B_DESC	Var B Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INPUT_VAR_B_POINT	Var B Param Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Math Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INPUT_VAR_B_VAL	Variable B Value	DOUBLE		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	
INPUT_VAR_C_DESC	Var C Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INPUT_VAR_C_POINT	Var C Param Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INPUT_VAR_C_VAL	Variable C Value	DOUBLE		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	
INPUT_VAR_D_DESC	Var D Desc	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INPUT_VAR_D_POINT	Var D Param Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Math Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INPUT_VAR_D_VAL	Variable D Value	DOUBLE		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	
R1_EQUATION	R1 Math Equation	UC40				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R1_VALIDATE	R1 Validity Check 0 - Invalid 1 - Valid	ENUM16		Invalid	Math Block Equation State (174)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
R2_EQUATION	R2 Math Equation	UC40				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R2_VALIDATE	R2 Validity Check 0 - Invalid 1 - Valid	ENUM16		Invalid	Math Block Equation State (174)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
R3_EQUATION	R3 Math Equation	UC40				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R3_VALIDATE	R3 Validity Check 0 - Invalid 1 - Valid	ENUM16		Invalid	Math Block Equation State (174)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

Math Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
R1_VALUE	Result 1 Value	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
R1_DESC	Result 1 Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R1_OUTPUT_POINT	Result 1 Param Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R2_VALUE	Result 2 Value	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
R2_DESC	Result 2 Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R2_OUTPUT_POINT	Result 2 Param Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R3_VALUE	Result 3 Value	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

Math Block

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
R3_DESC	Result 3 Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
R3_OUTPUT_POINT	Result 3 Param Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

5.2.35 Effect Parameters

Description: The Effect object provides the parameters for configuring custom logic components.

Number of Instances: 10 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-38: Effect Parameters

Effect								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Effect 1		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes
DESC	Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Effect

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
EFFECT_ENABLE	User Enable Switch 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OUT_POINT	Output Variable Param Reference	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OUT_DESC	Output Param Description	UC20				R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
OUT_VALUE	Output Live Value	FLOAT		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
ACTIVE_VALUE	Output Active Value to Write	FLOAT		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
INACTIVE_VALUE	Output Inactive Value to Write	FLOAT		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Effect

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INACTIVE_VAL_SET	Inactive Value Set Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
ASSERT_OUTVAL_TYPE	Assert Output Continuously 0 - Neither State 1 - Active State Only 2 - Inactive State Only 3 - Both States	ENUM16	0 → 3	Both States	Effect Output Assert Type (175)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
EFFECT_TRIP_STATUS	Effect Trip Status 0 - Inactive 1 - Active	ENUM16		Inactive	Action Block Status (166)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
FIRST_OUT_INST	First Out Effect Instance	UINT16		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
FIRST_OUT_TAG	First Out Effect Desc	UC20				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
REQUIRES_RESET	Effect Requires Reset When Tripped 0 - No Reset Required 1 - Reset Required	ENUM16	0 → 1	No Reset Required	Effect Reset Option (176)	R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes
RESET_POINT	Reset Parameter Reference	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

Effect

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RESET_READY	Effect Ready for Reset 0 - No Reset Needed 1 - Ready for Reset	ENUM16	0 → 1	No Reset Needed	Effect Reset Ready Values (177)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
RESET_CMD_VALUE	Reset Command Value	UINT8		0		R/W	**R/W:** Admin; Engineer **R/O:** Meas. Tech; Operator; Auditor	▪ Log Changes

5.2.36 User Data Parameters

Description: The User Data object provides the parameters for configuring the global data storage area.

Number of Instances: 8 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-39: User Data Parameters

User Data								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		User Data_1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status	BIN32				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪
DESC	Description	UC40		User Data 1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_1	Floating Point 1	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FLOAT_2	Floating Point 2	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_3	Floating Point 3	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_4	Floating Point 4	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_5	Floating Point 5	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_6	Floating Point 6	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_7	Floating Point 7	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FLOAT_8	Floating Point 8	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_9	Floating Point 9	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_10	Floating Point 10	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_11	Floating Point 11	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_12	Floating Point 12	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_13	Floating Point 13	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FLOAT_14	Floating Point 14	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_15	Floating Point 15	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_16	Floating Point 16	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_17	Floating Point 17	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_18	Floating Point 18	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FLOAT_19	Floating Point 19	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FLOAT_20	Floating Point 20	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_1	Double Floating Point 1	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_2	Double Floating Point 2	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_3	Double Floating Point 3	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_4	Double Floating Point 4	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_5	Double Floating Point 5	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DOUBLE_6	Double Floating Point 6	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_7	Double Floating Point 7	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_8	Double Floating Point 8	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_9	Double Floating Point 9	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DOUBLE_10	Double Floating Point 10	DOUBLE		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_1	Long Integer 1	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LONG_2	Long Integer 2	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_3	Long Integer 3	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_4	Long Integer 4	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_5	Long Integer 5	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_6	Long Integer 6	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_7	Long Integer 7	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LONG_8	Long Integer 8	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_9	Long Integer 9	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LONG_10	Long Integer 10	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_1	Short Integer 1	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_2	Short Integer 2	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_3	Short Integer 3	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SHORT_4	Short Integer 4	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_5	Short Integer 5	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_6	Short Integer 6	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_7	Short Integer 7	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_8	Short Integer 8	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SHORT_9	Short Integer 9	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SHORT_10	Short Integer 10	UINT16		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_1	Byte Integer 1	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_2	Byte Integer 2	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_3	Byte Integer 3	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_4	Byte Integer 4	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_5	Byte Integer 5	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

User Data

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
BYTE_6	Byte Integer 6	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_7	Byte Integer 7	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_8	Byte Integer 8	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_9	Byte Integer 9	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
BYTE_10	Byte Integer 10	UINT8		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
EVENT_LOG_OPT	Event Logging 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.37 AI Parameters

Description: The AI object provides the parameters for configuring analog inputs.

Number of Instances: 8 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-40: AI Parameters

AI								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - AI_1-1 2 - AI_1-2 3 - AI_1-3 4 - AI_1-4 5 - AI_1-5 6 - AI_1-6 7 - AI_1-7 8 - AI_1-8		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHANNEL	Channel	UINT8		Instance: 1 – 1 2 – 2 3 – 3 4 – 4 5 – 5 6 – 6 7 – 7 8 – 8		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 - AI_1-1 2 - AI_1-2 3 - AI_1-3 4 - AI_1-4 5 - AI_1-5 6 - AI_1-6 7 - AI_1-7 8 - AI_1-8		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
UNITS	Units 0 - %	ENUM16	0 → 23	%	Percentage (18)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

AI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
UNITS_TYPE	Unit Enumeration Selection 0 - Unitless 2 - Absolute Pressure 3 - Temperature 4 - Density 5 - Volume Heating Value 6 - Dynamic Viscosity 7 - Linear (Short) 8 - Linear (Long) 12 - Volume Rate 13 - Mass Rate 14 - Energy Rate 15 - Current 16 - Voltage 18 - Percentage 19 - Acceleration 21 - Water Content 23 - Resistance 26 - Differential Pressure 29 - Gauge Pressure 225 - Mass Heating Value	ENUM16	0 → 225	Percentage	AI Units Type (178)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CONV_TYPE	Current/Voltage Selection 0 - Current 1 - Voltage 2 - Disabled	ENUM16	0 → 2	Disabled	AI Resistor Selection (124)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
RAW	Raw Value	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LIVE	Live Value	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
OVRD	Override Value	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT	Fault Value	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LAST_GOOD	Last Good Value	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SELECTED	Selected Value	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
USER_MODE	Operation Mode 0 - Live 1 - Override	ENUM16	0 → 1	Live	User Selection (31)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FAULT_MODE	Fault Mode 0 - Fault 1 - Last Good	ENUM16	0 → 1	Fault	IO Fault Selection (136)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

AI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ACTUAL_MODE	Actual Mode 0 - Live 1 - Auto 2 - Auto Read 3 - Override 4 - Calibration 5 - Fault 6 - Last Good	ENUM16		Live	Actual Mode (125)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DAMPING_FACTOR	Damping Time	FLOAT	0 → 60	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CLIP_MODE	Clipping Mode 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CLIP_HIGH_LIMIT	High Clipping Limit	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal ▪ Verified
CLIP_LOW_LIMIT	Low Clipping Limit	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal ▪ Verified

AI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AVG_PERIOD	Averaging Period	FLOAT	0.25 → 60	1	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ALM_OBJ	Alarm Reference	OBJREF		Instance: 1 - Alarm_14 2 - Alarm_15 3 - Alarm_16 4 - Alarm_17 5 - Alarm_18 6 - Alarm_19 7 - Alarm_20 8 - Alarm_21		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
URL	Upper Range Limit	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LRL	Lower Range Limit	UINT32		0	A/D Counts (127.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LOW_EU	Low Reading EU	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal ▪ Verified
HIGH_EU	High Reading EU	FLOAT		100	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal ▪ Verified

AI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AI_RAW_0_PERCENT	Adjusted A/D 0 Percent	UINT32		0	A/D Counts (127.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
AI_RAW_100_PERCENT	Adjusted A/D 100 Percent	UINT32		0	A/D Counts (127.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
MFG_STATUS	Factory Calibration Status 0 - Invalid 1 - Valid	ENUM16		Invalid	Factory Calibration Status (128)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MFG_DATE_TIME	Factory Calibration Date	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
SCALE_MODE	EU Scaling Mode 0 - Multi-Point Calibration 1 - EU Scaling	ENUM16	0 → 1	Multi-Point Calibration	EU Scaling Mode (221)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CAL_OBJ	Calibration Reference	OBJREF		Instance: 1 - AICal_1 2 - AICal_2 3 - AICal_3 4 - AICal_4 5 - AICal_5 6 - AICal_6 7 - AICal_7 8 - AICal_8		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

AI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INPUT_STATUS	Input Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail 7 - Above URL 8 - Below LRL 9 - Input Frozen 10 - Input Clipped 11 - Factory Calibration Invalid 12 - User Calibration Invalid 13 - Disabled	BIN16		Normal	AI Status (129)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.38 AO Parameters

Description: The AO object provides the parameters for configuring analog outputs.

Number of Instances: 8 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-41: AO Parameters

AO								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - AO_1-1 2 - AO_1-2 3 - AO_1-3 4 - AO_1-4 5 - AO_1-5 6 - AO_1-6 7 - AO_1-7 8 - AO_1-8		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

AO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHANNEL	Channel	UINT8		Instance: 1 – 1 2 – 2 3 – 3 4 – 4 5 – 5 6 – 6 7 – 7 8 – 8		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
DESC	Description	UC20		Instance: 1 - AO_1-1 2 - AO_1-2 3 - AO_1-3 4 - AO_1-4 5 - AO_1-5 6 - AO_1-6 7 - AO_1-7 8 - AO_1-8		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNITS	Units 0 - %	ENUM16	0 → 23	%	Percentage (18)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
UNITS_TYPE	Unit Enumeration Selection 0 - Unitless 2 - Absolute Pressure 3 - Temperature 4 - Density 5 - Volume Heating Value 6 - Dynamic Viscosity 7 - Linear (Short) 8 - Linear (Long) 12 - Volume Rate	ENUM16	0 → 225	Percentage	AO Units Type (179)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

AO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	13 - Mass Rate 14 - Energy Rate 15 - Current 16 - Voltage 18 - Percentage 19 - Acceleration 23 - Resistance 26 - Differential Pressure 29 - Gauge Pressure 225 - Mass Heating Value							
RAW	Raw Value	UINT32		0	D/A Counts (127.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
AUTO	Auto Value	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
OVRD	Override Value	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
AUTO_READ_VAL	Auto Read Value	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

AO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AUTO_READ_PARAM	Auto Read Parameter Reference	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FAULT	Fault Value	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LAST_GOOD	Last Good Value	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SELECTED	Selected Value	FLOAT		0	% (18.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
USER_MODE	Operation Mode 0 - Auto 1 - Override 2 - Auto Read	ENUM16	0 → 2	Auto	IO Output User Selection (131)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FAULT_MODE	Fault Mode 0 - Fault 1 - Last Good	ENUM16	0 → 1	Last Good	IO Fault Selection (136)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

AO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ACTUAL_MODE	Actual Mode 0 - Live 1 - Auto 2 - Auto Read 3 - Override 4 - Calibration 5 - Fault 6 - Last Good	ENUM16		Live	Actual Mode (125)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CLIP_MODE	Clipping Mode 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
CLIP_HIGH_LIMIT	High Clipping Limit	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Verified
CLIP_LOW_LIMIT	Low Clipping Limit	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Verified
ALM_OBJ	Alarm Reference	OBJREF		Instance: 1 - Alarm_14 2 - Alarm_15 3 - Alarm_16 4 - Alarm_17 5 - Alarm_18 6 - Alarm_19 7 - Alarm_20 8 - Alarm_21		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

AO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
URL	Upper Range Limit	UINT32		0	D/A Counts (127.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
LRL	Lower Range Limit	UINT32		0	D/A Counts (127.1)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
LOW_EU	Low Reading EU	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Verified
HIGH_EU	High Reading EU	FLOAT		0	% (18.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Verified
AO_RAW_0_PERCENT	Adjusted D/A 0 Percent	UINT32		0	D/A Counts (127.1)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
AO_RAW_100_PERCENT	Adjusted D/A 100 Percent	UINT32		0	D/A Counts (127.1)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
MFG_STATUS	Factory Calibration Status 0 - Invalid 1 - Valid	ENUM16		Invalid	Factory Calibration Status (128)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

AO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MFG_DATE_TIME	Factory Calibration Date	TIME				R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SCALE_MODE	EU Scaling Mode 0 - Multi-Point Calibration 1 - EU Scaling	ENUM16	0 → 1	Multi-Point Calibration	EU Scaling Mode (221)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OUTPUT_STATUS	Output Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail 7 - Above URL 8 - Below LRL 9 - Output Frozen 10 - Output Clipped 11 - Factory Calibration Invalid 12 - Auto Read Parameter Invalid 13 - AO Readback Failure	BIN16		Normal	AO Status (130)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
RESET_MODE	Action on Power Cycle 0 - Fault 1 - Last Good	ENUM16	0 → 1	Last Good	IO Fault Selection (136)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.39 DI Parameters

Description: The DI object provides the parameters for configuring digital inputs.

Number of Instances: 10 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-42: DI Parameters

DI								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - DI_1-1 2 - DI_1-2 3 - DI_1-3 4 - DI_1-4 5 - DI_1-5 6 - DI_1-6 7 - DI_1-7 8 - DI_1-8 9 - DI_1-9 10 - DI_1-10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

DI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CHANNEL	Channel	UINT8		Instance: 1 – 1 2 – 2 3 – 3 4 – 4 5 – 5 6 – 6 7 – 7 8 – 8 9 – 9 10 – 10		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
DESC	Description	UC20		Instance: 1 - DI_1-1 2 - DI_1-2 3 - DI_1-3 4 - DI_1-4 5 - DI_1-5 6 - DI_1-6 7 - DI_1-7 8 - DI_1-8 9 - DI_1-9 10 - DI_1-10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ZERO_DESC	Description of Off State	UC10		OFF		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ONE_DESC	Description of On State	UC10		ON		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
USER_MODE	Operation Mode 0 - Live 1 - Override	ENUM16	0 → 1	Live	User Selection (31)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FAULT_MODE	Fault Mode 0 - Fault 1 - Last Good	ENUM16	0 → 1	Fault	IO Fault Selection (136)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ACTUAL_MODE	Actual Mode 0 - Live 1 - Auto 2 - Auto Read 3 - Override 4 - Calibration 5 - Fault 6 - Last Good	ENUM16		Live	Actual Mode (125)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
DI_TYPE	Digital Input Type 0 - Normal 1 - Latched	ENUM16	0 → 1	Normal	DI Type (132)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INVERT	Digital Input Inversion Mode 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FILTER_TIME	Digital Input Filter Time	FLOAT	0 → 300	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Verified
LOGIC_LEVEL	Logic Level 0 - 66 microamps 1 - 2 milliamps	ENUM16	0 → 1	66 microamps	Logic Level (133)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LIVE	Live Value 0 - Off 1 - On	ENUM16	0 → 1	Off	Digital Status (134)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SELECTED	Selected Value 0 - Off 1 - On	ENUM16		Off	Digital Status (134)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
OVRD	Override Value 0 - Off 1 - On	ENUM16	0 → 1	Off	Digital Status (134)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DI								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
FAULT	Fault Value 0 - Off 1 - On	ENUM16	0 → 1	Off	Digital Status (134)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LAST_GOOD	Last Good Value 0 - Off 1 - On	ENUM16		Off	Digital Status (134)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
ALARM_MODE	Digital Input Alarm Mode 0 - Off 1 - On	ENUM16	0 → 1	Off	Digital Status (134)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OFF_ON_COUNT	Digital Input Off-On Transition Count	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
ACCUM_ONTIME	DI Accumulated On Time	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
ACCUM_OFFTIME	DI Accumulated Off Time	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	

DI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INPUT_STATUS	Input Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail	BIN16		Normal	DI Status (135)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
RESET_LATCH	Reset Latch 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	

5.2.40 DO Parameters

Description: The DO object provides the parameters for configuring digital outputs.

Number of Instances: 10 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-43: DO Parameters

DO								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - DO_1-1 2 - DO_1-2 3 - DO_1-3 4 - DO_1-4 5 - DO_1-5 6 - DO_1-6 7 - DO_1-7 8 - DO_1-8 9 - DO_1-9 10 - DO_1-10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

DO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
CHANNEL	Channel	UINT8		Instance: 1 - 1 2 -2 3 -3 4 -4 5 -5 6 -6 7 - 7 8 -8 9 -9 10 -10		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
DESC	Description	UC20		Instance: 1 - DO_1-1 2 - DO_1-2 3 - DO_1-3 4 - DO_1-4 5 - DO_1-5 6 - DO_1-6 7 - DO_1-7 8 - DO_1-8 9 - DO_1-9 10 - DO_1-10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DO_TYPE	Digital Output Type 0 - Latching 1 - Momentary 2 - Toggle 3 - Time Duration Output Momentary 4 - Time Duration Output Toggle 5 - Scaled Pulse Output	ENUM16	0 → 5	Latching	Discrete Output Type (46)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
USER_MODE	Operation Mode 0 - Auto 1 - Override 2 - Auto Read	ENUM16	0 → 2	Auto	IO Output User Selection (131)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FAULT_MODE	Fault Mode 0 - Fault 1 - Last Good	ENUM16	0 → 1	Last Good	IO Fault Selection (136)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ACTUAL_MODE	Actual Mode 0 - Live 1 - Auto 2 - Auto Read 3 - Override 4 - Calibration 5 - Fault 6 - Last Good	ENUM16		Live	Actual Mode (125)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SELECTED	Selected Value 0 - Off 1 - On	ENUM16		Off	Digital Status (134)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

DO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
AUTO	Auto Value 0 - Off 1 - On	ENUM16	0 → 1	Off	Digital Status (134)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
AUTO_EU	Auto EU Value	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
AUTO_READ_VAL	Auto Read Value	UINT8		0	Off (134.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
AUTO_READ_PARAM	Auto Read Parameter Reference	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OVRD	Override Value 0 - Off 1 - On	ENUM16	0 → 1	Off	Digital Status (134)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ZERO_DESC	Description of Off State	UC10		OFF		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ONE_DESC	Description of On State	UC10		ON		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
FAULT	Fault Value 0 - Off 1 - On	ENUM16	0 → 1	Off	Digital Status (134)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_ON	Time On	FLOAT	0 → 3600	1	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
TIME_OFF	Time Off	FLOAT	0 → 3600	1	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
ACCUM	Number of Off-On Transitions	UINT32		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	
TDO_CYCLE_TIME	Time Duration Output Cycle Time	FLOAT	1 → 3600	15	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

DO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TDO_LOW_EU	Time Duration Output Low EU	FLOAT		0	seconds	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TDO_HIGH_EU	Time Duration Output High EU	FLOAT		100		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TDO_0%_TIME	Time Duration Output 0% Time	FLOAT		3	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Verified
TDO_100%_TIME	Time Duration Output 100% Time	FLOAT		12	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Verified
TDO_TIME_ON	TDO Time On	FLOAT		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
TDO_TIME_OFF	TDO Time Off	FLOAT		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	

DO

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SPO_INPUT_PRM	Scaled Pulse Output Parameter Reference	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
SPO_INPUT_VAL	Scaled Pulse Output Value	DOUBLE		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
SPO_ACCUM_LIMIT	Pulse Output Significance	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OUTPUT_STATUS	Output Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail 7 - Auto Read Parameter Invalid 8 - SPO Parameter Invalid	BIN16		Normal	DO Status (137)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
RESET_MODE	Action on Power Cycle 0 - Fault 1 - Last Good	ENUM16	0 → 1	Last Good	IO Fault Selection (136)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.41 PI Parameters

Description: The PI object provides the parameters for configuring pulse inputs.

Number of Instances: 10 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-44: PI Parameters

PI								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - PI_1-1 2 - PI_1-2 3 - PI_1-3 4 - PI_1-4 5 - PI_1-5 6 - PI_1-6 7 - PI_1-7 8 - PI_1-8 9 - PI_1-9 10 - PI_1-10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

PI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
CHANNEL	Channel	UINT8		Instance: 1 -1 2 -2 3 -3 4 -4 5 -5 6 -6 7 -7 8 -8 9 -9 10 -10		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 - PI_1-1 2 - PI_1-2 3 - PI_1-3 4 - PI_1-4 5 - PI_1-5 6 - PI_1-6 7 - PI_1-7 8 - PI_1-8 9 - PI_1-9 10 - PI_1-10		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SCAN_PERIOD	PI Scan Period	FLOAT	1 → 86400	1	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

PI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
LOGIC_LEVEL	Logic Level 0 - 66 microamps 1 - 2 milliamps	ENUM16	0 → 1	66 microamps	Logic Level (133)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
FILTER	Filter Mode 0 - Low Speed Filter 1 - High Speed Filter	ENUM16	0 → 1	High Speed Filter	PI Filter Mode (138)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
USER_MODE	Operation Mode 0 - Live 1 - Override	ENUM16	0 → 1	Live	User Selection (31)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ACTUAL_MODE	Actual Mode 0 - Live 1 - Auto 2 - Auto Read 3 - Override 4 - Calibration 5 - Fault 6 - Last Good	ENUM16		Live	Actual Mode (125)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
UNITS	Units 0 - ft^3 1 - m^3 2 - MCF 3 - $(k)m^3$ 4 - MMCF 5 - BCF	ENUM16	0 → 5	ft^3	Volume Total (9)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

PI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
UNITS_TYPE	Unit Enumeration Selection 0 - Unitless 9 - Volume Total 10 - Mass Total 24 - Frequency	ENUM16	0 → 24	Volume Total	PI Units Type (180)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CONV_FACTOR	Conversion Factor	FLOAT	≥ 0.001	1	Pulses/EU (139.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CONTRACT_HR	Contract Hour	UINT8	0 → 23	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LIVE_FREQ	Live Frequency	FLOAT		0	Hz (24.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
OVRD_FREQ	Override Frequency	FLOAT	≥ 0	0	Hz (24.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
SELECTED_FREQ	Selected Frequency	FLOAT		0	Hz (24.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PERIOD	Period	FLOAT		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

PI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RATE_PERIOD	Rate Period 0 - Seconds 1 - Minutes 2 - Hours 3 - Days	ENUM16	0 → 3	Seconds	PI Rate Period (140)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
RATE	Rate	FLOAT		0	ft³/s (12.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PULSE_ACCUM	Accumulated Pulses	UINT32		0	Pulses (141.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PULSE_DAY_ACCUM_32	Today's Accumulated Pulses (32-bit)	UINT32		0	Pulses (141.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
PULSE_DAY_ACCUM_64	Today's Accumulated Pulses (64-bit)	UINT64		0	Pulses (141.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
TODAYS_TOTAL	Today's Total	DOUBLE		0	ft³ (9.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
YESTERDAYS_TOTAL	Yesterday's Total	DOUBLE		0	ft³ (9.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

PI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RESET_TOTAL_COUNTS	Reset the PI Counts 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal ▪ Verified
URL	Upper Range Limit	FLOAT		0	Hz (24.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LRL	Lower Range Limit	FLOAT		0	Hz (24.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FREQ_ALM_OBJ	Frequency Alarm Reference	OBJREF		Instance: 1 - Alarm_22 2 - Alarm_23 3 - Alarm_24 4 - Alarm_25 5 - Alarm_26 6 - Alarm_27 7 - Alarm_28 8 - Alarm_29 9 - Alarm_30 10 - Alarm_31		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

PI

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INPUT_STATUS	Input Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Override Active 5 - In Alarm 6 - Point Fail 7 - Above URL 8 - Below LRL	BIN16		Normal	PI Status (142)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.42 SlaveConf Parameters

Description: The SlaveConf object provides the parameters for Modbus slave configuration.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-45: SlaveConf Parameters

SlaveConf								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Slave Config		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
T_MODE	Modbus Transmission Mode 0 - ASCII 1 - RTU	ENUM16	0 → 1	RTU	Modbus Mode Selection (60)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

SlaveConf

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
BYTE_ORD	Byte Order 0 - LSB 1 - MSB	ENUM16	0 → 1	LSB	Modbus Byte Order Selection (61)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
EFM_ENB	EFM Modbus Option 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DATE_REG	EFM Date Register	UINT16		7046		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_REG	EFM Time Register	UINT16		7047		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
EVT_REG	Alarm/Event Register	UINT16		32		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DAY_IDX_1	Station 1 - Day Idx Reg	UINT16		7160		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

SlaveConf

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HR_IDX_1	Station 1 - Hr Idx Reg	UINT16		7161		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DAY_REG_1	Station 1 - Day Hist Reg	UINT16		703		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
HR_REG_1	Station 1 - Hr Hist Reg	UINT16		704		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
EFM1_HIST1	Station 1 - EFM Hist Val 1	OBJREF	Hist	Hist_4-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
EFM1_NUM_HIST	Station 1 - Num of Hist Points	UINT16	1 → 60	8		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DAY_IDX_2	Station 2 - Day Idx Reg	UINT16		7211		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

SlaveConf

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
HR_IDX_2	Station 2 - Hr Idx Reg	UINT16		7212		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
DAY_REG_2	Station 2 - Day Hist Reg	UINT16		705		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
HR_REG_2	Station 2 - Hr Hist Reg	UINT16		706		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
EFM2_HIST1	Station 2 - EFM Hist Val 1	OBJREF	Hist	Hist_5-1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
EFM2_NUM_HIST	Station 2 - Num of Hist Points	UINT16	1 → 60	8		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
MODBUS_ADDR	Modbus Slave Address	UINT8	1 → 247	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

SlaveConf

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TCP_ENABLE	Modbus TCP Enable/Disable 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TCP_PORT_NUM	Modbus TCP Port Num	UINT16		502		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.43 MasterConf Parameters

Description: The MasterConf object provides the parameters for Modbus master configuration.

Number of Instances: 4 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-46: MasterConf Parameters

MasterConf								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Master Config		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	
COMM_PORT_TYPE	Comm Port Type	UC20		Instance: 1 - Serial Port 1 2 – Serial Port 2 3 – Serial Port 3 4 – Ethernet Port		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
COMM_PORT_NUM	Comm Port Number	ENUM16		Instance:	Comm Port	R/O	**R/O:**	

MasterConf

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	0 - Serial Port 1 1 - Serial Port 2 2 - Serial Port 3 3 - Wi-Fi Port 4 - Ethernet Port			1 – Serial Port 1 (0) 2 – Serial Port 2 (1) 3 – Serial Port 3 (2) 4 – Ethernet (4)	Instance (163)		Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
MASTER_COMM_MODE	Modbus Transmission Mode 0 - RTU 1 - ASCII	ENUM16	0 → 1	RTU	Master Comm Mode (164)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_BYTE_ORD	Byte Order 0 - LSB 1 - MSB	ENUM16	0 → 1	LSB	Modbus Byte Order Selection (61)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_POLL	Start Modbus Poll 0 - Cancel 1 - Start	ENUM16	0 → 1	Cancel	Start Poll (158)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	

MasterConf

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
START_REQ_NUM	Starting Request Number	UINT8	1 → 50	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REQ	Number of Requests	UINT8	0 → 50	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RX_TIMEOUT	Receive Timeout	UINT16	1 → 300	30	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RETRIES_NUM	Number of Retries	UINT8	0 → 255	2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MasterConf

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CONT_POLL	Enable Continuous Polling 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REQ_DELAY	Delay Between Individual Requests	FLOAT	0 → 86400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
POLL_DELAY	Delay after a Single Sequence of Polls	UINT32	1 → 86400	1	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
TCP_CONN_TIMEOUT	TCP Connection Timeout	UINT16	1 → 600	3	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_TCP_ENABLE	Enable TCP for Modbus Master 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.44 PollTable Parameters

Description: The PollTable object provides the parameters for configuring Modbus poll tables.

Number of Instances: 8 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-47: PollTable Parameters

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OBJ_NAME	Tag	UC20		Polling Table		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	
COMM_PORT_TYPE	Comm Port Type	UC20		Instance: 1/2 – Serial Port 1 3/4 – Serial Port 2 5/6 – Serial Port 3 7/8 – Ethernet		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_PORT_NUM	Comm Port Number 0 - Serial Port 1 1 - Serial Port 2 2 - Serial Port 3 3 - Wi-Fi Port 4 - Ethernet Port	ENUM16		Instance: 1/2 – Serial Port 1 (0) 3/4 – Serial Port 2 (1) 5/6 – Serial Port 3 (2) 7/8 – Ethernet (4)	Comm Port Instance (163)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
POLL_TABLE_TAG	Poll Table Identification Tag	UC20		Instance: 1 - PollTbl1 (Comm 1) 2 - PollTbl2 (Comm 1) 3 - PollTbl3 (Comm 2) 4 - PollTbl4 (Comm 2) 5 - PollTbl5 (Comm 3) 6 - PollTbl6 (Comm 3) 7 - PollTbl7 (Ethernet) 8 - PollTbl8 (Ethernet)		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_IP_ADD_1	Slave Server IP Address for Request 1	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SERVER_PORT_NO_1	Slave Server Port Number for Request 1	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_1	Slave Address for Request 1	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
FUNC_CODE_1	Function code for Request 1 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_1	Starting Slave Register in Request 1	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
NUM_REG_1	Number of Registers for Request 1	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_1	Starting Master Register for Request 1	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
COMM_STATUS_1	Comm Status for Request 1	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_2	Slave Server IP Address for Request 2	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_2	Slave Server Port Number for Request 2	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
RTU_ADD_2	Slave Address for Request 2	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
FUNC_CODE_2	Function code for Request 2 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_2	Starting Slave Register in Request 2	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_2	Number of Registers for Request 2	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MASTER_REG_2	Starting Master Register for Request 2	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
COMM_STATUS_2	Comm Status for Request 2	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_3	Slave Server IP Address for Request 3	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_3	Slave Server Port Number for Request 3	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_3	Slave Address for Request 3	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_3	Function code for Request 3 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_3	Starting Slave Register in Request 3	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_3	Number of Registers for Request 3	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_3	Starting Master Register for Request 3	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_3	Comm Status for Request 3	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_4	Slave Server IP Address for Request 4	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_4	Slave Server Port Number for Request 4	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_4	Slave Address for Request 4	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_4	Function code for Request 4 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_4	Starting Slave Register in Request 4	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_4	Number of Registers for Request 4	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_4	Starting Master Register for Request 4	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_4	Comm Status for Request 4	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_5	Slave Server IP Address for Request 5	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_5	Slave Server Port Number for Request 5	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_5	Slave Address for Request 5	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_5	Function code for Request 5 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_5	Starting Slave Register in Request 5	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_5	Number of Registers for Request 5	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_5	Starting Master Register for Request 5	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_5	Comm Status for Request 5	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_6	Slave Server IP Address for Request 6	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_6	Slave Server Port Number for Request 6	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_6	Slave Address for Request 6	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_6	Function code for Request 6 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_6	Starting Slave Register in Request 6	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_6	Number of Registers for Request 6	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_6	Starting Master Register for Request 6	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_6	Comm Status for Request 6	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_7	Slave Server IP Address for Request 7	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_7	Slave Server Port Number for Request 7	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_7	Slave Address for Request 7	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_7	Function code for Request 7 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_7	Starting Slave Register in Request 7	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_7	Number of Registers for Request 7	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_7	Starting Master Register for Request 7	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_7	Comm Status for Request 7	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_8	Slave Server IP Address for Request 8	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_8	Slave Server Port Number for Request 8	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_8	Slave Address for Request 8	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_8	Function code for Request 8 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_8	Starting Slave Register in Request 8	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_8	Number of Registers for Request 8	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_8	Starting Master Register for Request 8	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_8	Comm Status for Request 8	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_9	Slave Server IP Address for Request 9	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_9	Slave Server Port Number for Request 9	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_9	Slave Address for Request 9	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_9	Function code for Request 9 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_9	Starting Slave Register in Request 9	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_9	Number of Registers for Request 9	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_9	Starting Master Register for Request 9	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_9	Comm Status for Request 9	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_10	Slave Server IP Address for Request 10	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_10	Slave Server Port Number for Request 10	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_10	Slave Address for Request 10	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_10	Function code for Request 10 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_10	Starting Slave Register in Request 10	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_10	Number of Registers for Request 10	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_10	Starting Master Register for Request 10	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_10	Comm Status for Request 10	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_11	Slave Server IP Address for Request 11	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_11	Slave Server Port Number for Request 11	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_11	Slave Address for Request 11	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_11	Function code for Request 11 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_11	Starting Slave Register in Request 11	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_11	Number of Registers for Request 11	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_11	Starting Master Register for Request 11	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_11	Comm Status for Request 11	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_12	Slave Server IP Address for Request 12	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_12	Slave Server Port Number for Request 12	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_12	Slave Address for Request 12	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_12	Function code for Request 12 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_12	Starting Slave Register in Request 12	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_12	Number of Registers for Request 12	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_12	Starting Master Register for Request 12	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_12	Comm Status for Request 12	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_13	Slave Server IP Address for Request 13	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_13	Slave Server Port Number for Request 13	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_13	Slave Address for Request 13	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_13	Function code for Request 13 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_13	Starting Slave Register in Request 13	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_13	Number of Registers for Request 13	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_13	Starting Master Register for Request 13	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_13	Comm Status for Request 13	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_14	Slave Server IP Address for Request 14	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_14	Slave Server Port Number for Request 14	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_14	Slave Address for Request 14	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_14	Function code for Request 14 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_14	Starting Slave Register in Request 14	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_14	Number of Registers for Request 14	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_14	Starting Master Register for Request 14	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_14	Comm Status for Request 14	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_15	Slave Server IP Address for Request 15	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_15	Slave Server Port Number for Request 15	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_15	Slave Address for Request 15	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_15	Function code for Request 15 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_15	Starting Slave Register in Request 15	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_15	Number of Registers for Request 15	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_15	Starting Master Register for Request 15	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_15	Comm Status for Request 15	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_16	Slave Server IP Address for Request 16	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_16	Slave Server Port Number for Request 16	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_16	Slave Address for Request 16	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_16	Function code for Request 16 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_16	Starting Slave Register in Request 16	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_16	Number of Registers for Request 16	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_16	Starting Master Register for Request 16	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_16	Comm Status for Request 16	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_17	Slave Server IP Address for Request 17	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_17	Slave Server Port Number for Request 17	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_17	Slave Address for Request 17	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_17	Function code for Request 17 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_17	Starting Slave Register in Request 17	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_17	Number of Registers for Request 17	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_17	Starting Master Register for Request 17	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_17	Comm Status for Request 17	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_18	Slave Server IP Address for Request 18	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_18	Slave Server Port Number for Request 18	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_18	Slave Address for Request 18	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_18	Function code for Request 18 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_18	Starting Slave Register in Request 18	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_18	Number of Registers for Request 18	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_18	Starting Master Register for Request 18	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_18	Comm Status for Request 18	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_19	Slave Server IP Address for Request 19	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_19	Slave Server Port Number for Request 19	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_19	Slave Address for Request 19	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_19	Function code for Request 19 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_19	Starting Slave Register in Request 19	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_19	Number of Registers for Request 19	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_19	Starting Master Register for Request 19	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_19	Comm Status for Request 19	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_20	Slave Server IP Address for Request 20	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_20	Slave Server Port Number for Request 20	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_20	Slave Address for Request 20	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_20	Function code for Request 20 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_20	Starting Slave Register in Request 20	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_20	Number of Registers for Request 20	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_20	Starting Master Register for Request 20	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_20	Comm Status for Request 20	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	▪
SERVER_IP_ADD_21	Slave Server IP Address for Request 21	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_21	Slave Server Port Number for Request 21	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_21	Slave Address for Request 21	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_21	Function code for Request 21 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_21	Starting Slave Register in Request 21	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_21	Number of Registers for Request 21	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_21	Starting Master Register for Request 21	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_21	Comm Status for Request 21	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_22	Slave Server IP Address for Request 22	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_22	Slave Server Port Number for Request 22	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_22	Slave Address for Request 22	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_22	Function code for Request 22 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_22	Starting Slave Register in Request 22	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_22	Number of Registers for Request 22	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_22	Starting Master Register for Request 22	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_22	Comm Status for Request 22	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_23	Slave Server IP Address for Request 23	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_23	Slave Server Port Number for Request 23	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_23	Slave Address for Request 23	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_23	Function code for Request 23 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_23	Starting Slave Register in Request 23	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_23	Number of Registers for Request 23	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_23	Starting Master Register for Request 23	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_23	Comm Status for Request 23	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
SERVER_IP_ADD_24	Slave Server IP Address for Request 24	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_24	Slave Server Port Number for Request 24	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_24	Slave Address for Request 24	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_24	Function code for Request 24 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_24	Starting Slave Register in Request 24	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_24	Number of Registers for Request 24	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_24	Starting Master Register for Request 24	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_24	Comm Status for Request 24	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	▪
SERVER_IP_ADD_25	Slave Server IP Address for Request 25	BYTE4				R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SERVER_PORT_NO_25	Slave Server Port Number for Request 25	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
RTU_ADD_25	Slave Address for Request 25	UINT8	0 → 255	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
FUNC_CODE_25	Function code for Request 25 0 - Polling Disabled 1 - Read Coil Status 2 - Read Input Status 3 - Read Holding Registers 4 - Read Input Registers 5 - Force Single Coil 6 - Set Single Register 15 - Force Multiple Coils 16 - Set Multiple Registers	ENUM16		Polling Disabled	Function Code (161)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SLAVE_REG_25	Starting Slave Register in Request 25	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
NUM_REG_25	Number of Registers for Request 25	UINT16	1 → 120	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
MASTER_REG_25	Starting Master Register for Request 25	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

PollTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
COMM_STATUS_25	Comm Status for Request 25	UINT8		0	Inactive or Start of Transmission (162.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	▪

5.2.45 MapTable Parameters

Description: The MapTable object provides the parameters for configuring Modbus map tables.

Number of Instances: 12 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-48: MapTable Parameters

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
OBJ_NAME	Tag	UC20		Register Table		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TABLE_NO	Table Number / Register Mapping	UINT8		Instance: 1 – 1 2 -2 3 – 3 4 – 4 5 – 5 6 – 6 7 – 7 8 – 8 9 – 9 10 – 10 11 – 11 12 – 12		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator **N/A:** Auditor	
REG_TABLE_TAG	Reg Table Identification Tag	UC20		Instance: 1 - Reg Map 1 2 - Reg Map 2 3 - Reg Map 3 4 - Reg Map 4 5 - Reg Map 5 6 - Reg Map 6 7 - Reg Map 7 8 - Reg Map 8 9 - Reg Map 9 10 - Reg Map 10 11 - Reg Map 11 12 - Reg Map 12		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
START_REG_1	Starting Register 1	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_1	Ending Register 1	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_1	Starting Parameter 1	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_1	Point/Param Index Option 1 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_1	Remote Data Type 1 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:**	▪ Log Changes

MapTable								
Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	4 - INT16						Auditor	
	5 - UINT32 (2 Registers 0-1-2-3)							
	6 - UINT32 (2 Registers 1-0-3-2)							
	7 - UINT32 (2 Registers 2-3-0-1)							
	8 - UINT32 (2 Registers 3-2-1-0)							
	9 - INT32 (2 Registers 0-1-2-3)							
	10 - INT32 (2 Registers 1-0-3-2)							
	11 - INT32 (2 Registers 2-3-0-1)							
	12 - INT32 (2 Registers 3-2-1-0)							
	13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7)							
	14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5)							
	15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3)							
	16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1)							
	17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6)							
	18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4)							
	19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2)							
	20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0)							
	21 - INT64 (4 Registers 0-1-2-3-4-5-6-7)							
	22 - INT64 (4 Registers 2-3-0-1-6-7-4-5)							
	23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)							
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4)							
	39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2)							
	40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0)							
	41 - SINGLE REGISTER FLOATING POINT							
	42 - SINGLE REGISTER DOUBLE							
	43 - SINGLE REGISTER INT32							
	44 - SINGLE REGISTER UINT32							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_2	Starting Register 2	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_2	Ending Register 2	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_2	Starting Parameter 2	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_2	Point/Param Index Option 2 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_2	Remote Data Type 2 0 - No Conversion 1 - UINT8	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)						**R/O:** Operator **N/A:** Auditor	

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4)							
	39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2)							
	40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0)							
	41 - SINGLE REGISTER FLOATING POINT							
	42 - SINGLE REGISTER DOUBLE							
	43 - SINGLE REGISTER INT32							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_3	Starting Register 3	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_3	Ending Register 3	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_3	Starting Parameter 3	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_3	Point/Param Index Option 3 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_3	Remote Data Type 3 0 - No Conversion	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer;	▪ Log Changes

MapTable								
Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-						Meas. Tech **R/O:** Operator **N/A:** Auditor	

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	3) 24 - INT64 (4 Registers 6-7-4-5-2-3-0-1) 25 - INT64 (4 Registers 1-0-3-2-5-4-7-6) 26 - INT64 (4 Registers 3-2-1-0-7-6-5-4) 27 - INT64 (4 Registers 5-4-7-6-1-0-3-2) 28 - INT64 (4 Registers 7-6-5-4-3-2-1-0) 29 - FLOAT (2 Registers 0-1-2-3) 30 - FLOAT (2 Registers 1-0-3-2) 31 - FLOAT (2 Registers 2-3-0-1) 32 - FLOAT (2 Registers 3-2-1-0) 33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7) 34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5) 35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3) 36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1) 37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6) 38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING POINT 42 - SINGLE REGISTER DOUBLE							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_4	Starting Register 4	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_4	Ending Register 4	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_4	Starting Parameter 4	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_4	Point/Param Index Option 4 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_4	Remote Data Type 4	ENUM16	0 → 46	No Conversion	Remote Data Types	R/W	**R/W:**	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5)				(66)		Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)							
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4)							
	39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2)							
	40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0)							
	41 - SINGLE REGISTER FLOATING POINT							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_5	Starting Register 5	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_5	Ending Register 5	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_5	Starting Parameter 5	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_5	Point/Param Index Option 5 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
REM_DTYPE_5	Remote Data Type 5 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-3) 24 - INT64 (4 Registers 6-7-4-5-2-3-0-1) 25 - INT64 (4 Registers 1-0-3-2-5-4-7-6) 26 - INT64 (4 Registers 3-2-1-0-7-6-5-4) 27 - INT64 (4 Registers 5-4-7-6-1-0-3-2) 28 - INT64 (4 Registers 7-6-5-4-3-2-1-0) 29 - FLOAT (2 Registers 0-1-2-3) 30 - FLOAT (2 Registers 1-0-3-2) 31 - FLOAT (2 Registers 2-3-0-1) 32 - FLOAT (2 Registers 3-2-1-0) 33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7) 34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5) 35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3) 36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1) 37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6) 38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	POINT 42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_6	Starting Register 6	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_6	Ending Register 6	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_6	Starting Parameter 6	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INDEXING_6	Point/Param Index Option 6 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_6	Remote Data Type 6 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4)	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2)							
	20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0)							
	21 - INT64 (4 Registers 0-1-2-3-4-5-6-7)							
	22 - INT64 (4 Registers 2-3-0-1-6-7-4-5)							
	23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)							
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING POINT 42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_7	Starting Register 7	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_7	Ending Register 7	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
START_PARAM_7	Starting Parameter 7	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_7	Point/Param Index Option 7 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_7	Remote Data Type 7 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-3) 24 - INT64 (4 Registers 6-7-4-5-2-3-0-1) 25 - INT64 (4 Registers 1-0-3-2-5-4-7-6) 26 - INT64 (4 Registers 3-2-1-0-7-6-5-4) 27 - INT64 (4 Registers 5-4-7-6-1-0-3-2) 28 - INT64 (4 Registers 7-6-5-4-3-2-1-0) 29 - FLOAT (2 Registers 0-1-2-3) 30 - FLOAT (2 Registers 1-0-3-2) 31 - FLOAT (2 Registers 2-3-0-1) 32 - FLOAT (2 Registers 3-2-1-0) 33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7) 34 - DOUBLE (4 Registers 2-3-0-1-6-							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	7-4-5) 35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3) 36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1) 37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6) 38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING POINT 42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_8	Starting Register 8	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
END_REG_8	Ending Register 8	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_8	Starting Parameter 8	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_8	Point/Param Index Option 8 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_8	Remote Data Type 8 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2)	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	11 - INT32 (2 Registers 2-3-0-1)							
	12 - INT32 (2 Registers 3-2-1-0)							
	13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7)							
	14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5)							
	15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3)							
	16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1)							
	17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6)							
	18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4)							
	19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2)							
	20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0)							
	21 - INT64 (4 Registers 0-1-2-3-4-5-6-7)							
	22 - INT64 (4 Registers 2-3-0-1-6-7-4-5)							
	23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)							
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4)							
	39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2)							
	40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0)							
	41 - SINGLE REGISTER FLOATING POINT							
	42 - SINGLE REGISTER DOUBLE							
	43 - SINGLE REGISTER INT32							
	44 - SINGLE REGISTER UINT32							
	45 - SINGLE REGISTER INT64							
	46 - SINGLE REGISTER UINT64							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
START_REG_9	Starting Register 9	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_9	Ending Register 9	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_9	Starting Parameter 9	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_9	Point/Param Index Option 9 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_9	Remote Data Type 9 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:**	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	4 - INT16						Auditor	
	5 - UINT32 (2 Registers 0-1-2-3)							
	6 - UINT32 (2 Registers 1-0-3-2)							
	7 - UINT32 (2 Registers 2-3-0-1)							
	8 - UINT32 (2 Registers 3-2-1-0)							
	9 - INT32 (2 Registers 0-1-2-3)							
	10 - INT32 (2 Registers 1-0-3-2)							
	11 - INT32 (2 Registers 2-3-0-1)							
	12 - INT32 (2 Registers 3-2-1-0)							
	13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7)							
	14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5)							
	15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3)							
	16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1)							
	17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6)							
	18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4)							
	19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2)							
	20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0)							
	21 - INT64 (4 Registers 0-1-2-3-4-5-6-7)							
	22 - INT64 (4 Registers 2-3-0-1-6-7-4-5)							
	23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)							
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4)							
	39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2)							
	40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0)							
	41 - SINGLE REGISTER FLOATING POINT							
	42 - SINGLE REGISTER DOUBLE							
	43 - SINGLE REGISTER INT32							
	44 - SINGLE REGISTER UINT32							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_10	Starting Register 10	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_10	Ending Register 10	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_10	Starting Parameter 10	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_10	Point/Param Index Option 10 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_10	Remote Data Type 10 0 - No Conversion 1 - UINT8	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech	▪ Log Changes

MapTable								
Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)						**R/O:** Operator **N/A:** Auditor	

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4)							
	39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2)							
	40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0)							
	41 - SINGLE REGISTER FLOATING POINT							
	42 - SINGLE REGISTER DOUBLE							
	43 - SINGLE REGISTER INT32							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_11	Starting Register 11	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_11	Ending Register 11	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_11	Starting Parameter 11	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_11	Point/Param Index Option 11 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_11	Remote Data Type 11 0 - No Conversion	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer;	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-						Meas. Tech **R/O:** Operator **N/A:** Auditor	

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	3) 24 - INT64 (4 Registers 6-7-4-5-2-3-0-1) 25 - INT64 (4 Registers 1-0-3-2-5-4-7-6) 26 - INT64 (4 Registers 3-2-1-0-7-6-5-4) 27 - INT64 (4 Registers 5-4-7-6-1-0-3-2) 28 - INT64 (4 Registers 7-6-5-4-3-2-1-0) 29 - FLOAT (2 Registers 0-1-2-3) 30 - FLOAT (2 Registers 1-0-3-2) 31 - FLOAT (2 Registers 2-3-0-1) 32 - FLOAT (2 Registers 3-2-1-0) 33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7) 34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5) 35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3) 36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1) 37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6) 38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING POINT 42 - SINGLE REGISTER DOUBLE							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_12	Starting Register 12	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_12	Ending Register 12	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_12	Starting Parameter 12	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_12	Point/Param Index Option 12 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_12	Remote Data Type 12	ENUM16	0 → 46	No Conversion	Remote Data Types	R/W	**R/W:**	▪ Log Changes

MapTable								
Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5)				(66)		Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)							
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4)							
	39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2)							
	40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0)							
	41 - SINGLE REGISTER FLOATING POINT							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_13	Starting Register 13	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_13	Ending Register 13	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_13	Starting Parameter 13	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_13	Point/Param Index Option 13 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
REM_DTYPE_13	Remote Data Type 13 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-3) 24 - INT64 (4 Registers 6-7-4-5-2-3-0-1) 25 - INT64 (4 Registers 1-0-3-2-5-4-7-6) 26 - INT64 (4 Registers 3-2-1-0-7-6-5-4) 27 - INT64 (4 Registers 5-4-7-6-1-0-3-2) 28 - INT64 (4 Registers 7-6-5-4-3-2-1-0) 29 - FLOAT (2 Registers 0-1-2-3) 30 - FLOAT (2 Registers 1-0-3-2) 31 - FLOAT (2 Registers 2-3-0-1) 32 - FLOAT (2 Registers 3-2-1-0) 33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7) 34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5) 35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3) 36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1) 37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6) 38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	POINT 42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_14	Starting Register 14	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_14	Ending Register 14	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
START_PARAM_14	Starting Parameter 14	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
INDEXING_14	Point/Param Index Option 14 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_14	Remote Data Type 14 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4)	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2)							
	20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0)							
	21 - INT64 (4 Registers 0-1-2-3-4-5-6-7)							
	22 - INT64 (4 Registers 2-3-0-1-6-7-4-5)							
	23 - INT64 (4 Registers 4-5-6-7-0-1-2-3)							
	24 - INT64 (4 Registers 6-7-4-5-2-3-0-1)							
	25 - INT64 (4 Registers 1-0-3-2-5-4-7-6)							
	26 - INT64 (4 Registers 3-2-1-0-7-6-5-4)							
	27 - INT64 (4 Registers 5-4-7-6-1-0-3-2)							
	28 - INT64 (4 Registers 7-6-5-4-3-2-1-0)							
	29 - FLOAT (2 Registers 0-1-2-3)							
	30 - FLOAT (2 Registers 1-0-3-2)							
	31 - FLOAT (2 Registers 2-3-0-1)							
	32 - FLOAT (2 Registers 3-2-1-0)							
	33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7)							
	34 - DOUBLE (4 Registers 2-3-0-1-6-7-4-5)							
	35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3)							
	36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1)							
	37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6)							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING POINT 42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							
START_REG_15	Starting Register 15	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
END_REG_15	Ending Register 15	UINT16	0 → 65535	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
START_PARAM_15	Starting Parameter 15	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
INDEXING_15	Point/Param Index Option 15 0 - Point 1 - Parameter	ENUM16	0 → 1	Point	Indexing Used (160)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
REM_DTYPE_15	Remote Data Type 15 0 - No Conversion 1 - UINT8 2 - INT8 3 - UINT16 4 - INT16 5 - UINT32 (2 Registers 0-1-2-3) 6 - UINT32 (2 Registers 1-0-3-2) 7 - UINT32 (2 Registers 2-3-0-1) 8 - UINT32 (2 Registers 3-2-1-0) 9 - INT32 (2 Registers 0-1-2-3) 10 - INT32 (2 Registers 1-0-3-2) 11 - INT32 (2 Registers 2-3-0-1) 12 - INT32 (2 Registers 3-2-1-0) 13 - UINT64 (4 Registers 0-1-2-3-4-5-6-7) 14 - UINT64 (4 Registers 2-3-0-1-6-7-4-5) 15 - UINT64 (4 Registers 4-5-6-7-0-1-	ENUM16	0 → 46	No Conversion	Remote Data Types (66)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	2-3) 16 - UINT64 (4 Registers 6-7-4-5-2-3-0-1) 17 - UINT64 (4 Registers 1-0-3-2-5-4-7-6) 18 - UINT64 (4 Registers 3-2-1-0-7-6-5-4) 19 - UINT64 (4 Registers 5-4-7-6-1-0-3-2) 20 - UINT64 (4 Registers 7-6-5-4-3-2-1-0) 21 - INT64 (4 Registers 0-1-2-3-4-5-6-7) 22 - INT64 (4 Registers 2-3-0-1-6-7-4-5) 23 - INT64 (4 Registers 4-5-6-7-0-1-2-3) 24 - INT64 (4 Registers 6-7-4-5-2-3-0-1) 25 - INT64 (4 Registers 1-0-3-2-5-4-7-6) 26 - INT64 (4 Registers 3-2-1-0-7-6-5-4) 27 - INT64 (4 Registers 5-4-7-6-1-0-3-2) 28 - INT64 (4 Registers 7-6-5-4-3-2-1-0) 29 - FLOAT (2 Registers 0-1-2-3) 30 - FLOAT (2 Registers 1-0-3-2) 31 - FLOAT (2 Registers 2-3-0-1) 32 - FLOAT (2 Registers 3-2-1-0) 33 - DOUBLE (4 Registers 0-1-2-3-4-5-6-7) 34 - DOUBLE (4 Registers 2-3-0-1-6-							

MapTable

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	7-4-5) 35 - DOUBLE (4 Registers 4-5-6-7-0-1-2-3) 36 - DOUBLE (4 Registers 6-7-4-5-2-3-0-1) 37 - DOUBLE (4 Registers 1-0-3-2-5-4-7-6) 38 - DOUBLE (4 Registers 3-2-1-0-7-6-5-4) 39 - DOUBLE (4 Registers 5-4-7-6-1-0-3-2) 40 - DOUBLE (4 Registers 7-6-5-4-3-2-1-0) 41 - SINGLE REGISTER FLOATING POINT 42 - SINGLE REGISTER DOUBLE 43 - SINGLE REGISTER INT32 44 - SINGLE REGISTER UINT32 45 - SINGLE REGISTER INT64 46 - SINGLE REGISTER UINT64							

5.2.46 BSAP Parameters

Description: The BSAP object provides the parameters for configuring BSAP protocol communications.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-49: BSAP Parameters

BSAP								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		BSAP		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 – Normal 1 - In Alarm 2 – Failure 3 – Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	
BSAP_ADDR	BSAP Local Address	UINT8	1 → 127	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

BSAP

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
BSAP_GROUP	BSAP Group Address	UINT8	0 → 127	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
ALARM_FORMAT	Alarm Format 0 - Standard Alarm Format 1 - Extended Alarm Format	ENUM16	0 → 1	Extended Alarm Format	Alarm Format (251)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
TIME_SYNCH	Time Synch 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
SIG_NAME_FORMAT	Signal Name Format 0 - Accol3 1 - Native	ENUM16	0 → 1	Native	Signal Name Format (252)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
LOGIN_TMOUT	Inactivity Timeout	UINT16	30 → 1440	120	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.47 ROC Parameters

Description: The ROC object provides the parameters for configuring ROC protocol communications.

Number of Instances: 5 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-50: ROC Parameters

ROC								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		ROC		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech **N/A:** Operator; Auditor	
ROC_ADDR	ROC Device Address	UINT8	1 → 255	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes

ROC

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ROC_GROUP	ROC Group Number	UINT8	1 → 255	1		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
ROC_SECURITY_EN	ROC Security Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
ROC_SECURITY_TIME	ROC Security Time out	UINT16	0 → 65535	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator **N/A:** Auditor	▪ Log Changes
ROC_TCP_ENABLE	Enable TCP for ROC 0 - Disable 1 - Enable	ENUM16	0 → 1	Instance: 1 – Disable (0) 2 – Disable (0) 3 – Disable (0) 4 – Disable (0) 5 – Enable (1)	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
ROC_TCP_PORT_NUM	ROC TCP/IP Port	UINT16		4000		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

5.2.48 4088 Parameters

Description: The 4088 object provides the parameters for configuring 4088B multivariable transmitters.

Number of Instances: 2 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-51: 4088 Parameters

4088								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 – 4088B_1-1 2 – 4088B_1-2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_LOC	Module Location	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHANNEL	Channel	UINT8		2		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
DESC	Description	UC20		Instance: 1 – 4088B_1-1 2 – 4088B_1-2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
SENSOR_OBJ	Transmitter Sensor	OBJREF	Sensor	Instance: 1 - Sensor_1-2 1 – Sensor_1-3		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
4088_ADDR	4088 Modbus Address	UINT8	1 → 240	Instance: 1 – 1 2 - 2		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
LCD_BMASK	LCD Bit masks 0 - None 1 - Differential Pressure 2 - Absolute Pressure 3 - Temperature 4 - Baud Rate 5 - Gage Pressure 6 - Sensor Temperature 7 - Reserved 8 - Slave Address 9 - Host Parameter 1 10 - Host Parameter 2 11 - Host Parameter 3	BIN32		None	LCD Bit masks (196)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
	12 - Host Parameter 4 13 - Host Parameter 5 14 - Host Parameter 6 15 - Reserved 16 - Reserved 17 - Host Variable 1 18 - Host Variable 2 19 - Host Variable 3							
LCD_SCROLL_TM	LCD Scroll Time	UINT8	1 → 10	3	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
4088_TAG	4088 Tag	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
4088_DESC	4088 Description	UC20		????????????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
4088_MSG	4088 Message	UC40		????????????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USR_DEF_TXT1	User Defined Text 1	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_VAL1	User Defined Value 1	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_UNIT1	User Defined Unit 1	UC10		??????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_TXT2	User Defined Text 2	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_VAL2	User Defined Value 2	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_UNIT2	User Defined Unit 2	UC10		??????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

4088								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
USR_DEF_TXT3	User Defined Text 3	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_VAL3	User Defined Value 3	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_UNIT3	User Defined Unit 3	UC10		??????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_LABEL1	User Defined Label 1	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PRM1	User Defined Parameter 1	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PUNT1	User Defined Unit of Parameter 1	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USR_DEF_LABEL2	User Defined Label 2	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PRM2	User Defined Parameter 2	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PUNT2	User Defined Unit of Parameter 2	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_LABEL3	User Defined Label 3	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PRM3	User Defined Parameter 3	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PUNT3	User Defined Unit of Parameter 3	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USR_DEF_LABEL4	User Defined Label 4	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PRM4	User Defined Parameter 4	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PUNT4	User Defined Unit of Parameter 4	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_LABEL5	User Defined Label 5	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PRM5	User Defined Parameter 5	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PUNT5	User Defined Unit of Parameter 5	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
USR_DEF_LABEL6	User Defined Label 6	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PRM6	User Defined Parameter 6	FLOAT		0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
USR_DEF_PUNT6	User Defined Unit of Parameter 6	UC10		??????????		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
STAT_OPTN	Transmitter Status Option 0 - None 1 - DP Sensor Present 2 - AP Sensor Present 3 - GP Sensor Present 4 - PT Sensor Present 5 - LCD Available	BIN8		None	Transmitter Status Option (197)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MODBUS_REV	Transmitter Modbus Version	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
FIRM_VER	Firmware Version	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
SCAN_ENABLE	Transmitter Scanning enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
ON_DEMAND_CMD	User commands 0 - No Command 1 - On Demand Connect 2 - On Demand Synchronize 3 - Transmitter Reset 4 - On Demand Write 5 - On Demand Read	ENUM16	0 → 5	No Command	User Commands (198)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
DP_VAR_STATUS	DP Variable Status 0 - Good - Not Limited 1 - Poor Accuracy-Low Limited 2 - Poor Accuracy-High Limited 3 - Poor Accuracy-No Limited 4 - Manual/Fixed - Constant 5 - Bad -Constant 6 - Unknown	ENUM16		Good - Not Limited	Variable Status (202)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal ▪ Verified
SP_VAR_STATUS	SP Variable Status 0 - Good - Not Limited 1 - Poor Accuracy-Low Limited 2 - Poor Accuracy-High Limited 3 - Poor Accuracy-No Limited 4 - Manual/Fixed - Constant 5 - Bad -Constant 6 - Unknown	ENUM16		Good - Not Limited	Variable Status (202)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal ▪ Verified

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PT_VAR_STATUS	PT Varibale Status 0 - Good - Not Limited 1 - Poor Accuracy-Low Limited 2 - Poor Accuracy-High Limited 3 - Poor Accuracy-No Limited 4 - Manual/Fixed - Constant 5 - Bad -Constant 6 - Unknown	ENUM16		Good - Not Limited	Variable Status (202)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal ▪ Verified
ST_VAR_STATUS	ST Variable Status 0 - Good - Not Limited 1 - Poor Accuracy-Low Limited 2 - Poor Accuracy-High Limited 3 - Poor Accuracy-No Limited 4 - Manual/Fixed - Constant 5 - Bad -Constant 6 - Unknown	ENUM16		Good - Not Limited	Variable Status (202)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal ▪ Verified
4088_CAL_STAT	Calibration status of 4088 0 - No Measurement In Calibration 1 - DP Measurement In Calibration 2 - SP Measurement In Calibration 3 - PT Measurement In Calibration	BIN8		No Measurement In Calibration	Calibration status of 4088 (199)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
COMM_STATUS	Modbus Communication Health 0 - Success 1 - Failure	ENUM16		Success	Status (200)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal ▪ Verified

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
ACTUAL_SCAN_TIME	Actual 4088 Scan Time	FLOAT		0	s (17.0)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal ▪ Verified
CONFIG_CHANGE_CNT	Configuration Change Counter	UINT16		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal ▪ Verified
INPUT_STATUS	Input Health Status 0 - Normal 1 - Not Licensed 2 - Instance Inactive 3 - Comm Fail 4 - Write Protect Lock 5 - Config. Issue Due To Write Protect 6 - Config. Issue Due To Comm. Fail 7 - Config. Issue 8 - Transmitter Failed 9 - Synchronization In Progress 10 - Scan Disabled 11 - Config. Issue Due To Invalid Value 12 - Write On Demand Failed 13 - Scanning Baud Rate 14 - EMV in Mode A 15 - Reading Device 16 - Writing Device 17 - Baud Too Low	BIN32		Normal	4088 Input Status (201)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

4088

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
XMTR_SER_NUM	Transmitter Serial Number	UINT32		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

5.2.49 IoConfig Parameters

Description: The IoConfig object provides the parameters for configuring Input and output types.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-52: IoConfig Parameters

IoConfig								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Instance: 1 - IoConfig1 2 – IoConfig2 3 – IoConfig3		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MOD_LOC	Module Location	UINT8		1		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

IoConfig

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
DESC	Description	UC20		Instance: 1 - On-Board I/O 2 – Optional I/O 3 – Expanded I/O		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Legal
AUX_REF	Auxiliary System Reference	OBJREF		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Log Changes ▪ Legal
INSTALLED	Installed 0 - No 1 - Yes	ENUM16		No	Yes/No Option (208)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
LICENSED	Module Licensed 0 - No 1 - Yes	ENUM16		No	Yes/No Option (208)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
MODULE_MODE	Module Mode 0 - Not Installed 1 - Boot 2 - Normal 3 - Not Licensed 4 - Communication Failure 5 - Module Failure 6 - Power Off	ENUM16		Not Installed	Module Mode (143)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal

IoConfig

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
MODULE_TYPE	Module Type 0 - Unknown 1 - HMI 2 - On-Board I/O 3 - Optional I/O 4 - Expanded I/O 255 - Main CPU	ENUM16		Unknown	Module Type (209)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NUM_CHANNELS	Number of Channels	UINT8		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NUM_GOOD_MSG	Number of Good Messages	UINT32		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
NUM_BAD_MSG	Number of Bad Messages	UINT32		0		R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	▪ Legal
RESET_MSG_COUNT	Reset Message Counters 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal ▪ Verified
POWER_CONTROL	Module Power Control 0 - Disable 1 - Enable	ENUM16	0 → 1	Enable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

IoConfig

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHAN_1_SELECT	Channel 1 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_2_SELECT	Channel 2 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_3_SELECT	Channel 3 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_4_SELECT	Channel 4 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_5_SELECT	Channel 5 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_6_SELECT	Channel 6 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

IoConfig

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHAN_7_SELECT	Channel 7 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_8_SELECT	Channel 8 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_9_SELECT	Channel 9 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_10_SELECT	Channel 10 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_11_SELECT	Channel 11 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_12_SELECT	Channel 12 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

IoConfig

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
CHAN_13_SELECT	Channel 13 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_14_SELECT	Channel 14 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_15_SELECT	Channel 15 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal
CHAN_16_SELECT	Channel 16 Selected IO Type 0 - None	ENUM16	0 → 2	None	Channel Type Select None (145)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes ▪ Legal

5.2.50 PowerCtrl Parameters

Description: The PowerCtrl object provides the parameters for configuring power control to allow scheduled radio or SCADA operations.

Number of Instances: 3 instances may exist.

Storage Location: Saved to internal configuration memory.

Table 5-53: PowerCtrl Parameters

PowerCtrl								
Name	**Description of functionality and meaning of values**	**Data Type**	**Range**	**Default**	**Default Measurement Type (Table #)**	**Access**	**Role Access**	**Other Attributes**
OBJ_NAME	Tag	UC20		Power Control		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_AREA	Area Assignment	UINT8	0 → 5	0		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OBJ_STATUS	Status 0 - Normal 1 - In Alarm 2 - Failure 3 - Override 4 - Inactive	BIN32		Normal	Object Status (80)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
DESC	Description	UC20		Power Control		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PowerCtrl

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
PWR_CTRL_ENABLE	Power Control Enable 0 - Disable 1 - Enable	ENUM16	0 → 1	Disable	Enable/Disable Selection (30)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
PWR_CTRL_STATUS	Power Control Status 0 - Power Control Inactive 1 - Power Control Active 2 - Power Control Low Voltage 3 - Power Control Held By Comms	ENUM16		Power Control Inactive	Power Control Status (259)	R/O	**R/O:** Admin; Engineer; Meas. Tech; Operator; Auditor	
COMM_ENABLE_OPTION	Communication Port Enable Option 3 - All Comm Ports Enabled	ENUM16	3 → 3	All Comm Ports Enabled	Power Control Comm Port Option (257)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
OUT_REF	Output Ref	PRMREF		Undefined		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
START_TIME_1	Power Control Timer 1 Start Time	UINT16	0 → 9999	9999		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_ON_1	Power Control Timer 1 Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PowerCtrl

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TIME_OFF_1	Power Control Timer 1 Off Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
START_TIME_2	Power Control Timer 2 Start Time	UINT16	0 → 9999	9999		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_ON_2	Power Control Timer 2 Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_OFF_2	Power Control Timer 2 Off Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
START_TIME_3	Power Control Timer 3 Start Time	UINT16	0 → 9999	9999		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_ON_3	Power Control Timer 3 Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

PowerCtrl

Name	Description of functionality and meaning of values	Data Type	Range	Default	Default Measurement Type (Table #)	Access	Role Access	Other Attributes
TIME_OFF_3	Power Control Timer 3 Off Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
START_TIME_4	Power Control Timer 4 Start Time	UINT16	0 → 9999	9999		R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_ON_4	Power Control Timer 4 Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
TIME_OFF_4	Power Control Timer 4 Off Duration	UINT16	0 → 14400	0	s (17.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LOW_BAT_SHUTOFF	Low Battery Shutoff	FLOAT		0	V (16.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes
LOW_BAT_DEADBAND	Low Battery Deadband	FLOAT		0	V (16.0)	R/W	**R/W:** Admin; Engineer; Meas. Tech **R/O:** Operator; Auditor	▪ Log Changes

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