

TYPE EXAMINATION CERTIFICATE



[1]

[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

[3]

Type Examination Certificate Number: **DEMKO 13 ATEX 1203X Rev. 0**

[4]

Equipment: **ControlWave Micro Series, Model 396560-02-4 (4 Slot Chassis), Model 396560-01-6 (8 Slot Chassis), Model 396563-16-3 (CPU Module with Gas), Model 396581-06-4 (4 Port Communication Card), Model 396567-02-8 (Internal Power Supply), Model 396686-01-0 (Isolated Digital Input), Model 396897-02-9 (Mixed 6 Digital Input/Output)**

[5]

Manufacturer: **Bristol Inc.**

[6]

Address: **1100 Buckingham Street, Watertown, CT 06795-6602, USA**

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This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of **Category 3** equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to the European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential report no. **4786084549**

[9]

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to Standards:

EN 60079-0:2012+A11:2013

EN 60079-15:2010

[10]

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11]

This Type examination certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

[12]

The marking of the equipment or protective system shall include the following:



II 3 G Ex nA IIC T4 Gc

Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2014-06-30



Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Schedule
TYPE EXAMINATION CERTIFICATE No.
DEMKO 13 ATEX 1203X Rev. 0
Report: 4786084549

[15]

Description of Equipment:

ControlWave Micro Series, consisting of the following modules: Model 369560-02-4 (4 Slot Chassis), Model 396560-01-6 (8 Slot Chassis), Model 396563-16-3 (CPU Module with Gas), Model 396581-06-4 (4 Port Communication Card), Model 396567-02-8 (Internal Power Supply), Model 396686-01-0 (Isolated Digital Input), Model 396897-02-9 (Mixed 6 Digital Input/Output). These are open-type devices that employ a scalable, modular design. Units contain a base backplane that supports 4 I/O Modules. Each ControlWave Micro process automation controller is comprised of a Backplane Board (mounted in the chassis), a Power Supply Module, a CPU Module and I/O modules. All system modules plug into the 4-slot Backplane Board. The ControlWave Micro Series are open-type products intended for installation in a suitable enclosure.

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 94/9/EC is covered in this certificate.

The subject models utilize the non-sparking “nA” protection method.

Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range	Temperature class
-40 °C to +70 °C	T4

Electrical data

Model	Rating
396560-02-4	Backplane: 3.3Vdc, 2mA
396560-01-6	Backplane: 3.3Vdc, 2mA
396657-02-8	24Vdc, 2A; 12Vdc, 4A
396563-16-3	Backplane: 3.3Vdc, 240mA
396897-02-9	Backplane: 3.3Vdc, 46mA; Input/Output Communications: 24.3mA@Vext (11-30Vdc)
396581-06-4	Backplane: 3.3Vdc, 145mA
396686-01-0	Backplane: 3.3Vdc, 40mA; Input Communications: 96mA@120Vac

Routine tests

No Routine Tests are necessary.

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Descriptive Documents

Project Report No.: 4786084549 (Hazardous Location Testing)

Drawings:

Description:	Drawing No.:	Rev. Level:	Date:
396560-02-4, 4-Port Base Backplane Schematic (2 pages)	400041-00-6	1	2003-05-12
396560-02-4, 4-Port Base Backplane BOM	400041-01-4	D	2003-07-10
396560-01-6, 8-Port Base Backplane Schematic (2 pages)	400044-00-5	1	2003-05-12
396560-01-6, 8-Port Base Backplane BOM (2 pages)	400044-01-3	D	2003-07-10
396563-16-3, CPU Module w/ Gas, Schematic (10 pages)	400161-00-1	B	2011-10-25
396563-16-3, CPU Module w/ Gas, BOM (5 pages)	400161-01-0	E	2011-11-08
396581-06-4, 4 Port Comm Card, Schematic (7 pages)	400109-00-1	A	2006-11-27
396581-06-4, 4 Port Comm Card, BOM (3 pages)	400109-02-6	B	2007-03-06
396657-02-8, Internal Power Supply, Schematic (2 pages)	400105-00-4	A	2006-03-07
396657-02-8, Internal Power Supply, BOM (5 pages)	400105-02-0	E	2007-08-24
396686-01-0, Isolated AC DI, Schematic	400072-00-9	0	2004-10-29
396686-01-0, Isolated AC DI, BOM (2 pages)	400072-01-7	C	2008-01-03
396681-01-0, Isolated AC DI, PCB Layers (8 pages)	400072-50-5	1	-
396681-01-0, Isolated AC DI, PCB Fabrication Drawing	400072-50-5	1	-
396681-01-0, Isolated AC DI, PCB Assembly	400072-75-0	B	-

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396897-02-9, Mixed 6 DIO, Schematic (MIO Board w/MT) (3 pages)	400130-00-9	A	2007-08-03
396897-02-9, Mixed 6 DIO, Schematic (MIO Daughter Board)	400064-00-6	1	2004-04-22
396897-02-9, Mixed 6 DIO, BOM (MIO Board w/MT) (4 pages)	400130-01-7	C	2008-03-26
396897-02-9, Mixed 6 DIO, BOM (MIO Daughter Board) (3 pages)	400064-01-4	D	2006-02-03
ControlWave Micro System Safe Use Instructions (5 pages)	D301761X012	-	2014-06
ControlWave Micro System Installation Instructions (170 pages)	D301392X012	-	2013-06
ControlWave Micro electrical ratings labels	721692-00-1	BD	2013-02-04
ControlWave Micro ATEX labels	721691-00-5	T	2014-02-06
ATEX Parts List	721730-10-8	A	2014-03-18
Fuse Marking	721730-01-9	A	-

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Special conditions for safe use:

- Device is to be installed in an ATEX certified IP54 enclosure and accessible only with use of a tool.
- Devices are for use in an area of not more than pollution degree 2 in accordance with EN/IEC 60664-1.
- Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140% of the rated voltage.

[18]

Essential Health and Safety Requirements

Met by compliance with the standards EN 60079-0:2012+A11:2013 and EN 60079-15:2010.

