[1] # EU-Type-Examination Certificate

[2] Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere – **Directive 2014/34/EU**

[3] **EU-Type-Examination Certificate**

PTZ 16 ATEX 0017 X

Rev. 1

[4] **Applicant:** **ABB Automation Products GmbH**

[5] **Address:** Schillerstraße 72
32425 Minden
Germany

[6] **Equipment:** Electrical valve actuators and linear actuators

[7] **Types:**

RHDE250-10	RHDE500-10	RHDE800-10	RHDE1250-12	RHDE2500-10
RHDE2500-25	RHDE4000-10	RHDE4000-40	RHDE8000-15	RHDE8000-80
RHDE16000-30	RSDE10-5	RSDE10-10	RSDE20-5	RSDE20-7,5
RSDE50-3	RSDE50-10			

[8] This Equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents referred to.

[9] Primara Test- und Zertifizier GmbH, Notified Body No. 2572 in accordance with the Council Directive, dated 26th February 2014 (2014/34/EG), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements related to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the directive. The examination and test results are recorded in the confidential report ZELM Ex 07016011082.

[10] Compliance with the Essential Health and Safety Requirements has been assured by compliance with to following standards:

EN 60079-0:2012+A11:2013	**EN 60079-11:2012**	**EN 13463-1:2009**
EN 60079-1:2014	**EN 60079-31:2014**	**EN 13463-5:2011**
EN 60079-7:2015		**EN 13463-8:2003**

[11] If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

[12] This EU-Type-Examination Certificate relates only to the design, examination and tests of specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

[13] The marking of the equipment shall include the following:

II 2G ck Ex d e [ib] ib IIB T4 Gb

II 2D ck Ex tb IIIC T130 °C

Kaufbeuren, 2017-10-17

Andreas Aufmuth
Certification body

Horst Haug
ATEX department

[14] Annex

[15] EU-Type-Examination Certificate PTZ 16 ATEX 0017 X Rev. 1

[16] Description of the equipment

The electromechanical valve actuators contain of the following main components: motor, gear, locator with evalutation electronics and a connection box. They are designed to control valves, covers and other mechanical acutators. The motor is driven exclusively by the corresponding drive and temperature control device (with separate EU-Type-Examiation Certificate).
The linear actuators transform the rotating movement of a spindle to a linear movement. They are available in two different lengths, 100mm RSDE10/20 and 120mm RSDE50. The hardware is the same but the difference is the used software.

[17] Technical data valve actuator

Rated voltage	115 V (94 V - 127 V)	47,5 Hz - 63 Hz
Rated current	1,8 A to 5,2 A depending on configuration	
Or		
Rated voltage	230 V (190 V - 253 V)	47,5 Hz - 63 Hz
Rated current	2,0 A to 10,2 A depending on configuration	
Ingress protection	IP 6X	
Ambient temperature	-25°C to +60°C or -30°C to +40°C	

[18] Technical data linear actuator

Rated voltage	115 V (94 V - 127 V)	47,5 Hz - 63 Hz
Rated current	3,4 A to 4,8 A depending on configuration, except RSDE50-10	
Or		
Rated voltage	230 V (190 V - 253 V)	47,5 Hz - 63 Hz
Rated current	1,7 A to 6,4 A depending on configuration	
Ingress protection	IP 6X	
Ambient temperature	-20°C to +60°C	

[19] Test report no.:

ZELM Ex 07016011082

[20] Special conditions:

1. The electrical connexion of the part turn actuators may only be realised by the labelled, resp. in the instruction manual mentioned frequency converter.

2. The electrical and mechanical installation instructions have to be observed. Particularly the different ambient temperature ranges of the part turn actuators as well as the associated frequeny converter and ptc thermistor temperature monitor unit components.

3. The construction of the system components may only be made by consideration of the wiring plan included in the instruction manual.

4. The electrical part turn actuators may only be used in combination with the motor temperature monitoring unit SD 241B. Alternatively the temperature monitoring unit may be conveniently used in combination with a seperat EC – type – examination Certificate if authorised by the manufacturer.

5. The instruction manual has to be observed in particluar the stipulations made concerning the maximum thickness of dust layers in explosion hazardous areas of category 2D.

6. If the equipment is used in dust atmospheres it has to be secured that the constructive default level of protection IP 6x for the housing and the cable glands is maintained.

7. Temparatures at the contact between actuator body and actuator drive are approved up to 100°C. Using the linear actuator in such applications, the maintenance intervals for the seals in this area are reduced, see manual.

8. If the load conditions in certain applications are not clear, the maintenance intervals according to the manual may be reduced. Mounting the linear actuators in horizontal position in case of oscillating loads is not allowed.

9. The bending range is 35°…140°.

10. The manual must be considered. Especially care shall be taken in regards of electrostatic discharge. Cleaning is allowed with wet cloth only. The influence of HV sources to the equipment must be avoided due to ESD

11. Alternative servos are allowed under considering the instructions in the manual.

12. The min. fill level has to be considered based on the mounting position of the equipment. Only approved oils are allowed as written in the manual. Maintenance must be according to the manual.

[21] Essential Health and Safety Requirements:
Covered by the standards.