

CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **KEMA 98ATEX2542 X** Issue Number: **8**

(4) Product: **Solenoid Valve Operator, Type EM-M*****

(5) Manufacturer: **ASCO Controls B.V.**

(6) Address: **Neonstraat 3, 6718 WX Ede, The Netherlands**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/KEM/ExTR08.0002/02

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2012 + A11 : 2013
EN 60079-18 : 2015

EN 60079-7 : 2015
EN 60079-31 : 2014

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 2 G Ex eb mb IIC T3 ... T6 Gb
II 2 D Ex tb IIIC T85 °C ... T200 °C Db

Date of certification: 1 December 2017

DEKRA Certification B.V.

R. Schuller
Certification Manager



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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 98ATEX2542 X**

Issue No. **8**

(15) **Description**

Solenoid Valve Operator Type EM-M... to be used for pushing or pulling valve action with mounted valve. Differences in models concern size, rated voltage and power.

Equipment protection provided: Ex mb for the internal bobbin assembly and Ex eb for the outer enclosure and connection compartment. The equipment is also Ex tb for use in dust environments.

Ambient temperature range -40 °C to +75 °C.

Medium temperature range -40 °C to +75 °C.

The actual ambient temperature range is within these limits, is depending on the type and power rating and will be marked when it differs from -20 °C to +40 °C.

The apparatus enclosure provides a degree of protection of at least IP64 in accordance with EN 60529 and EN 60079-0.

Electrical data and type designation

The relation between temperature class, the maximum surface temperature "T" of the enclosure, the ambient and medium temperature and the rated power is shown in the following table:

		Type	EM-M6	EM-MXX	EM-M12 I	EM-M12 II
Temperature class	Maximum surface temperature "T" [°C]	Ambient / medium temperature [max., °C]	Nominal power [max., W]			
ac operation only						
T3	200	40	9,2	11,0	13,2	13,5
		65	7,0	8,4	8,6	7,7
dc or ac (rectified)						
T3	200	40	12,5	13,0	16,0	19,9
		65	8,7	9,4	9,2	10,2
T4	135	40	7,0	7,7	9,0	11,3
		75	3,7	3,8	4,4	6,0
T5	100	40	3,7	3,8	4,4	6,0
		55	2,3	2,6	3,0	3,9
		75	1,0	1,1	1,3	1,6
T6	85	40	2,3	2,6	3,0	3,9
		60	1,0	1,1	1,3	1,6

Max. voltage: 250 Vdc or ac.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 98ATEX2542 X**

Issue No. **8**

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/KEM/ExTR08.0002/02

(17) **Specific conditions of use**

The Solenoid shall be protected by a suitably rated fuse (1,5 x I nom, mentioned on the nameplate), capable of interrupting the prospective short circuit current.

If the solenoid is used in a dust environment, the risk of electrostatic discharge shall be avoided.

Ex eb protection is provided by an integrated junction box with, internal, Ex eb compliant field wiring connections. The enclosure provides protection degree IP64.

Tighten screws and cable gland with the correct torque, see torque chart in manual. Strip the outer insulation of the cable over approx. 30 mm and the insulation from the leads over 8 mm.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/KEM/ExTR08.0002/02

(20) **Certificate history**

Issue 0 - 938431	initial certificate Ex-93.C.8386
Issue 1 - 82542	Conversion of Ex-93.C.8386 into KEMA 98ATEX2542 X
Issue 2 - 2023713	Addition of dust protection
Issue 3 - 2078963	Correction on details
Issue 4 - 2101527	Standard upgrade
Issue 5 - 2108829	Change of coil construction
Issue 6 -	Text change resulting from audit
Issue 7 - 210962800	Standard update
Issue 8 - 221702800	Standard update to latest editions
	Change of address

CERTIFICATE

(1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 98ATEX2542 X** Issue Number: **7**

(4) Equipment: **Solenoid Valve Operator Type EM-M...**

(5) Manufacturer: **ASCO Controls B.V.**

(6) Address: **Industrielaan 21, 3925 BD Scherpenzeel,
The Netherlands**

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential assessment report number 210962800.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0 : 2012 + A11
EN 60079-31 : 2009**

EN 60079-7 : 2007

EN 60079-18 : 2009

(10) 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 schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:



**II 2 G Ex e mb IIC T3 ... T6 Gb
II 2 D Ex tb IIIC T85 °C ... T200 °C Db**

This certificate is issued on 17 October 2014 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.


R. Schuller
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate DEKRA 98ATEX2542 X**

Issue No. 7

(15) **Description**

Solenoid Valve Operator Type EM-M... to be used for pushing or pulling valve action with mounted valve. Differences in models concern size, rated voltage and power.

Ambient temperature range -40 °C to +75 °C.

Medium temperature range -40 °C to +75 °C.

The actual ambient temperature range is within these limits, is depending on the type and power rating and will be marked when it differs from -20 °C to +40 °C.

The apparatus enclosure provides a degree of protection of at least IP64 in accordance with EN 60529 and EN 60079-0.

Electrical data

The relation between temperature class, the maximum surface temperature "T" of the enclosure, the ambient and medium temperature and the rated power is shown in the following table:

		Type	EM-M6	EM-MXX	EM-M12 I	EM-M12 II
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dc or ac (rectified)						
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		60	1,0	1,1	1,3	1,6

Max. voltage: 250 Vdc or ac.

Installation instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate DEKRA 98ATEX2542 X**

Issue No. 7

(16) **Test Report**

No. 210962800.

(17) **Specific Conditions of Use**

The Solenoid shall be protected by a suitably rated fuse (1,5 x I nom, mentioned on the nameplate), capable of interrupting the prospective short circuit current.

If the solenoid is used in a dust environment, the risk of electrostatic discharge shall be avoided.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 210962800.