



(1) **EC-TYPE EXAMINATION CERTIFICATE**

- (2) Equipment or protective system intended for use in potentially explosive atmospheres
- Directive 94/9/EC
- (3) EC-Type Examination Certificate Number: **KEMA 98ATEX2542**
- (4) Equipment or protective system: **Solenoid Valve Operator Type EM-M...**
- (5) Manufacturer: **Asco Controls B.V.**
- (6) Address: **Industrielaan 21, 3925 ZG Scherpenzeel, The Netherlands**


- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) KEMA, notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 report no. 82542.

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

EN 50014 : 1992 + prA1 EN 50019 : 1994 EN50028 : 1987

- (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 EC-Type Examination Certificate relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.
- (12) The marking of the equipment or protective system shall include the following:

 **II 2 G EEx em II T3 ... T6**

Arnhem, 17 February 2000
by order of the Board of Directors of N.V. KEMA

L.M.J. Vries
Certification Manager

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SCHEDULE

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to EC-Type Examination Certificate KEMA 98ATEX2542

(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 ... +90 °C.

Electrical data

Supply: dc or ac
 Rated voltage: 6 ... 250 Vdc
 6 ... 380 Vac, 50/60 Hz
 Rated power (maximum): see table

The relation between maximum ambient and medium temperature, rated power and temperature classification is shown in following table:

Temperature class	ambient/medium temperature (max., °C)	Nominal power (max., W)	Nominal power (max., W)	Nominal power (max., W)	Nominal power (max., W)
		Type EM-M6	Type EM-MXX	Type EM-M12 I	Type EM-M12 II
ac operation only					
T3	40	9,2	11,0	13,6	16,1
	65	7,0	8,4	10,4	12,3
	90	4,3	4,5	6,4	6,6
dc or ac (rectified)					
T3	40	12,5	13,0	16,0	20,1
	65	8,7	9,4	10,9	13,5
	90	4,4	4,6	5,3	7,0
T4	40	7,0	7,7	9,0	11,3
	75	3,7	3,8	4,4	6,0
	90	2,3	2,6	3,0	3,9
T5	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	40	2,3	2,6	3,0	3,9
	60	1,0	1,1	1,3	1,6

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Installation instructions

1. The degree of protection of at least IP 54 to EN 60529 is only achieved if a certified cable entry is used which is suitable for the application and correctly installed.
2. Under the conditions of ambient temperature and rated power as specified in following table, a special heat resistant cable must be used:

Ambient temperature	Rated power			
	Type EM-M6	Type EM-MXX	Type EM-M12 I	Type EM-M12 II
> 55 °C	> 3,7 W	> 3,8 W	> 4,4 W	> 6,0 W
> 60 °C	> 1,0 W	> 1,1 W	> 1,3 W	> 1,6 W
≥ 70 °C	-	-	-	-

Routine tests

1. Each encapsulated coil shall be subjected to the routine test according to clause 7.1 of EN 50 028.
2. Each Solenoid Valve Operator shall be subjected to the routine tests according to clauses 7.2 and 7.3 of EN 50 028.

(16) **Report**

KEMA No. 82542

(17) **Special conditions for safe use**

None

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

Essential Health and Safety Requirements not covered by standards listed at (9)	
Clause	Subject
1.0.5	Marking
1.0.6 (b)	Instructions

These Essential Health and Safety Requirements are examined and positively judged. The results are laid down in the report listed at (16).

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(19) **Test documentation**

1. Certificate of Conformity KEMA No. Ex-93.C.8386, including amendments 1 and 2

signed

2. Drawing No. 127650, rev. D (2 sheets)

14.02.2000

3. Samples