

## (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 03ATEX2128 X**

(4) Equipment or protective system: **Electric actuators, types ELQ 100, ELQ 200, ELQ 300, ELQ 500 and ELQ 800, Local Control Station and Option Box**

(5) Manufacturer: **El-o-matic B.V.**

(6) Address: **Asveldweg 11, 7556 BR Hengelo, 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 Quality 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 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. 2018038.

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

**EN 50014 : 1997**

**EN 50018 : 2000**

(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, examination and tests of the specified equipment or protective system according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

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



**II 2 G EEx d IIB T4**

Arnhem, 11 June 2003  
KEMA Quality B.V.



T. Pijker  
Certification Manager

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## SCHEDULE

### to EC-Type Examination Certificate KEMA 03ATEX2128 X

#### Description

The Electric actuators, types ELQ 100, ELQ 200, ELQ 300, ELQ 500 and ELQ 800 are used to actuate valves. The aluminium alloy housing contains the motor, gear reduction, a heater and the electronic control unit. The cover of the enclosure is provided with a viewing window. The actuators can be provided with the Local Control Station, an Option Box and some built-in options.

The options are used to provide control and position indication of electric actuators.

The options Q-XS2, Q-PNP, Q-POT, Q-SC, Q-PT, Q-MOD, Q-STM, Q-C... , Q-LT, and Q-MT are mounted in the actuator housing.

The options Q-CFF, Q-CDPS, Q-RB, Q-ASI, Q-LC-Ex, Q-CPAS are partially mounted in the actuator housing and partly in an additional housing, the Option Box.

The Local Control Station is an additional housing provided with a 5-pole switch.

The Local Control Station and the Option Box are optional screwed on the actuator housing. The flameproof compartments are separated by bushings. With the option Q-LT the valve actuator including options is suitable for the low temperature range.

#### Electrical data

##### ELQ 100, 200, 300, 500 and 800 with the options included

Supply voltage : 115/230/400 (+10% / -6%) Vac, 50/60 Hz or 24 Vdc (+10%)

Power : max. 120 VA (ELQ 100, 200 and 300) max. 200 VA (ELQ 500, 800)

#### Installation instructions

The cable entry device and the closing elements of unused apertures shall be of a certified flameproof type, suitable for the conditions of use and correctly installed.

Heat resistant cable and cable glands shall be used, suitable for temperatures of at least 95 °C on the valve actuator or 80°C on the option box.

#### Routine tests

For the standard version the routine overpressure test according to Clause 16 of EN 50018 must be carried out on each electronics compartment of types ELQ 500 and 800 at a pressure of 10,2 bar. Routine overpressure tests on the electronics compartments of types ELQ 100, 200, 300, the supply compartment and the control signal compartment are not required since the type test has been made at a static pressure of four times the reference pressure.

For the low temperature version the following routine overpressure tests according to Clause 16 of EN 50018 must be carried out:

- Electronics + supply compartment of types ELQ 100, 200 and 300 at a pressure of 14,5 bar.
- Electronics + supply compartment of types ELQ 500 and 800 at a pressure of 13,5 bar.
- Control signal compartment at a pressure of 33 bar.

Routine overpressure tests are not required for the Local Control Station and Option Box since the type test has been made at a static pressure of four times the reference pressure.

#### Report

KEMA No. 2018038.

## SCHEDULE

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

Ambient temperature range (standard version) -20 °C ... +70 °C.

Ambient temperature range (low temperature range) -40 °C ... +70 °C.

**Essential Health and Safety Requirements**

Covered by the standards listed at (9).

**Test documentation**

Drawing No.		<u>dated</u>
	C0006-02	10.02.2000
	C0306-01	12.05.2003
	C0306-02	09.05.2003
	C0306-04	12.05.2003
	C0306-05	12.05.2003
	C9905-01	02.1999
	C9905-02	02.1999
	C9905-03	02.1999
	C9905-04	02.1999
	C9905-05	02.1999
	C9905-06	02.1999
	C9905-07	02.1999
	C9905-08b	05.1999
	C9905-09	02.1999
	C9905-11	02.1999
	C9905-12	02.1999
	C9905-13 Rev. A	05.2003
	C9905-14 Rev. A	05.2003
	C9905-16	03.2000
	C9905-17	06.2001