

# Certificate of Compliance

**Certificate:** 2489009

**Master Contract:** 174756

**Project:** 2551360

**Date Issued:** August 16, 2012

**Issued to:** Emerson Process Management Valve Automation  
Asveldweg 11  
7556 BR HENGELO  
The Netherlands

*The products listed below are eligible to bear the CSA Mark shown*



*E. Giusti*

**Issued by:** E. Giusti

## **PRODUCTS**

CLASS – 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Ex d IIB+H<sub>2</sub> T4/T6

Class I, Division 1, Groups C, D, Temperature class T4, T6

Class II, Division 1, Groups E, F, G

Class III, Division 1

DIP A21 T<sub>A</sub> 80°C

Type 4X

The Actuator Control Module, Series FieldQ QC41..., QC42... and QC43... is used to control an actuator to its open or closed position and is intended to be mounted to a FieldQ valve actuator. The position feedback is achieved by switches. The control module has a degree of protection IP66 / Type 4X when mounted to a FieldQ valve actuator with minimum IP66 / Type 4X.

Ambient temperature range for types M and G is -30 °C to +60 °C for T4 and T6.

Ambient temperature range for types O, C, N and H is -25 °C to +60 °C for T4 and T6.

## **Electrical data**

Signal input:

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QC 41xxxxxx 24 V DC, 1.8 W or 3.6 W

QC 42xxxxxx 115 V AC, 3.6 W or 7.2 W

QC 43xxxxxx 230 V AC, 3.6 W or 7.2 W

Power dissipation depends on valve configuration, see type designation table below.

Signal output:

The following configurations of switches can be used:

- Potential free contact switches M-Type:
  - 250VAC / 10A (3A inductive load)
  - 125VAC / 10A (3A inductive load)
  - 250VDC / 0.25A
  - 125VDC / 0.5A
  - 30VDC / 0.5A
- Potential free contact switches G-Type:
  - 125VAC / 1A
  - 30VDC / 1A
- 2 wire NAMUR proximity switches:
  - 8VDC / 3mA
- 2 wire proximity H-type switches:
  - 250VAC /100mA
  - 300VDC /100mA
- 3 wire proximity switches NPN or PNP:
  - 10 - 30VDC / 100mA

Type designation

**QC42 . U P5 H S A 1**  
 I II III IV V VI VII

Designation	Explanation	Value	Explanation
I	Control Module	QC41 QC42 QC43	24 VDC Integrated XP Control modules 115 VAC Integrated XP Control modules 230 VAC Integrated XP Control modules
II	Conduit connections	U	NPT/UNC
III	Protection Method	P5	Flame Proof Ex d or Explosion proof approval
IV	Control module options	M G O C N H	Mechanical switch (250 Vac / 250 Vdc) Mechanical switch gold plated (125 Vac / 30 Vdc) 3-wire proximity switch PNP (10 – 30 Vdc) 3-wire proximity switch NPN (10 – 30 Vdc) 2-wire proximity switch (NAMUR) (8 Vdc) 2-wire proximity switch (230 Vac)
V	Action	S D F	Single acting Double acting Double acting Fail In Last Position
VI	Future Expansions Code	A	Standard
VII	Language Code	1	English, German, French & Spanish

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### **APPLICABLE REQUIREMENTS**

CAN/CSA C22.2 No. 60079-0:07	Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
CAN/CSA C22.2 No. 60079-1:07	Electrical Apparatus for Explosive Gas Atmospheres – Part 1: Flameproof Enclosures "d"
CAN/CSA-C22.2 No.0-M91	General Requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No.30-M1986	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA-C22.2 No.94-M91	Special Purpose Enclosures
CAN/CSA-E61241-1-1 -02	Electrical apparatus for use in the presence of combustible dust - Electrical apparatus protected by enclosures and surface temperature limitation
CAN/CSA E60529	Degrees of protection provided by enclosures (IP code)
CAN/CSA 61010-1 (second edition)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements (with US/CSA national deviations)

### **MARKINGS**

The following marking is marked with an adhesive label, Avery Dennison type Matte Chrome Polyester, on the enclosure of the FieldQ unit.

1. Submitter's identification (company name and/or file number and/or registered tradename);
2. Model designation;
3. Date of manufacture (or traceable serial number);
4. The CSA Monogram;
5. CSA certificate Number: CSA12.2489009
5. Hazardous area:
7. Electrical ratings

Note - Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".

## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
2489009	May 22, 2012	Original Certification of Actuator Control Module Series FieldQ QC41..., QC42... and QC43...
2551360	August 16, 2012	Editorial correction in certification documents