



Certificate of Compliance

Certificate: 2489009

Master Contract: 174756

Project: 70030622

Date Issued: December 9, 2016


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

Attention: Jort Zorgdrager

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



Issued by:


Herbert Peters

PRODUCTS

CLASS – 2258 02 PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Ex d IIB+H2 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 TA 80°C
Type 4X

The Actuator Control Module, Series FieldQ and Bettis Q 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 and respectively Bettis Q-series 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 or Bettis Q valve actuator with minimum IP66 / Type 4X.

The ambient temperature range for all types is -25 °C to +60 °C for T4 and T6.



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Electrical data

Signal input:

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 at next page.

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



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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 K | FieldQ Bettis Q |
| 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, Fasson type Matte Chrome Polyester, on the enclosure of the FieldQ and Bettis Q 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 designation;
7. Electrical ratings
8. $-25\text{ °C} \leq T_a \leq 60\text{ °C}$

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

| Project | Date | Description |
|----------------|-------------|--|
| 70030622 | 2016-12-09 | Addition of the Bettis Q-series. |
| 2489009 | 2012-05-22 | Original Certification of Actuator Control Module Series FieldQ QC41..., QC42... and QC43... |