



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: issue No.:

Status:

Date of Issue: **2008-02-15** Page 1 of 4

Applicant: **Emerson Process Management Valve Automation Division**
Asveldweg 11
7556 BR Hengelo
The Netherlands

Electrical Apparatus: **Control Modules for FieldQ series Type QC03 ...P1..., Type QC04...P1... and Type QC34...P1...**
Optional accessory:

Type of Protection: **Intrinsically Safe, Dust protection**

Marking: **Ga Ex ia IIC T4
Ex iaD 20 IP65 T80 °C**

Approved for issue on behalf of the IECEx Certification Body: C.G. van Es

Position: Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

KEMA Quality B.V.
Utrechtseweg 310
6812 AR Arnhem
The Netherlands





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Certificate No.: IECEx KEM 07.0045X

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Issue No.: 0

Page 2 of 4

Manufacturer: **Emerson Process Management Valve Automation Division**
Asveldweg 11
7556 BR Hengelo
The Netherlands

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-27 : 2005-04 Edition: 1.0	Electrical apparatus for explosive atmospheres- Part 27: Fieldbus intrinsically safe concept (FISCO) and Fieldbus non-incendive concept (FINCO)
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-11 : 2005 Edition: 1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety 'iD'

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[NL/KEM/ExTR07.0067/00](#)

Quality Assessment Report:

[NL/KEM/QAR07.0003/00](#)



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Issue No.: 0

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

The Control Modules Type QC03...P1... , Type QC04...P1... and Type QC34...P1... are used with FieldQ series pneumatic valve actuators for control and position feedback of a valve:

- Control modules Type QC03...P1... and Type QC04...P1... with on/off control have an external supply, a control input and two solid state output switches for position feedback (for Type QC04...P1..., the switches are according to NAMUR);

- Control module Type QC34...P1... connected to a Foundation Fieldbus system for supply, control and position feedback.

The enclosure of the Control Modules for FieldQ series valve actuators provides a degree of protection of at least IP65 in accordance with IEC 60529.

Ambient temperature range -20 °C to +50 °C.

The maximum surface temperature T80 °C is referred to the maximum ambient temperature of 50 °C and is determined for a dust layer with a thickness of maximum 5 mm.

CONDITIONS OF CERTIFICATION: YES as shown below:

Because the enclosure of the Control Module is made of aluminium alloy, when used in a potentially explosive atmosphere in which the use of equipment of EPL Ga is required (zone 0), the Control Module must be installed so, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.



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Page 4 of 4

EQUIPMENT(continued):

Electrical data

Control Modules QC03 ...P1... and QC04...P1...

Supply circuit (terminals 7 and 8):

in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 30 \text{ V}$; $I_i = 300 \text{ mA}$; $P_i = 1,2 \text{ W}$; $C_i = 15 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Control circuit (terminals 5 and 6):

in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 30 \text{ V}$; $I_i = 300 \text{ mA}$; $P_i = 1,2 \text{ W}$; $C_i = 15 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Switched output circuits (terminals 1 and 2, 3 and 4):

in type of protection intrinsic safety Ex ia IIC, only for connection to certified intrinsically safe circuits, with the following maximum values for each circuit:

$U_i = 30 \text{ V}$; $I_i = 300 \text{ mA}$; $P_i = 1,2 \text{ W}$; $C_i = 18 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Control Module QC34...P1...

Fieldbus circuit (terminals 1 and 3):

in type of protection intrinsic safety Ex ia IIC, for connection to a certified intrinsically safe fieldbus system, e.g. according to FISCO, with the following maximum values:

$U_i = 17,5 \text{ V}$; $I_i = 380 \text{ mA}$; $P_i = 5,32 \text{ W}$; $C_i = 5 \text{ nF}$; $L_i = 10 \text{ }\mu\text{H}$,

or for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 30 \text{ V}$; $I_i = 380 \text{ mA}$; $P_i = 1,5 \text{ W}$; $C_i = 5 \text{ nF}$; $L_i = 10 \text{ }\mu\text{H}$.