



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.: IECEx DEK 16.0032X

Issue No: 1

Certificate history:

Issue No. 1 (2018-11-16)

Issue No. 0 (2016-07-20)

Status: **Current**

Page 1 of 5

Date of Issue: **2018-11-16**

Applicant: **Emerson Process Management Valve Automation Inc.**
19200 Northwest Freeway,
Houston, Texas, 77065
United States of America

Equipment: **Valve Actuator Control Module, Series Bettis Q QC54**

Optional accessory:

Type of Protection: **Ex i, n, t**

Marking:

Ex ia IIC T4 Ga
Ex ia IIIC T80 °C Da
Ex tb IIIC T80 °C Db
Ex nA IIC T4 Gc
Ex ic IIC T4 Gc

*Approved for issue on behalf of the IECEx
Certification Body:*

R. Schuller

Position:

Certification Manager

*Signature:
(for printed version)*

Date:

2018-11-16

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:

DEKRA Certification B.V.
Meander 1051,
6825 MJ Arnhem
The Netherlands





IECEX Certificate of Conformity

Certificate No: IECEx DEK 16.0032X Issue No: 1

Date of Issue: 2018-11-16 Page 2 of 5

Manufacturer: **Emerson Process Management Valve Automation Inc.**
19200 Northwest Freeway,
Houston, Texas, 77065
Shenzhen, 51810
United States of America

Additional Manufacturing location(s):
Emerson Process Management Valve Automation (M) Sdn Bhd
Lot 13112, Mukim Labu
Kawasan Perindustrian Nilai
Nilai, Negeri
Malaysia

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 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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/DEK/ExTR16.0009/01](#)

Quality Assessment Report:

[GB/SIR/QAR06.0045/10](#)



IECEX Certificate of Conformity

Certificate No: IECEx DEK 16.0032X

Issue No: 1

Date of Issue: 2018-11-16

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

Valve Actuator Control Module, Series Bettis Q QC54 is used to control a pneumatic actuator by means of, up to two, piezotronic pneumatic pilot valves, and gives feedback about the end positions ("open" or "close") of the actuator/valve combination by means of a position feedback sensor.

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

The enclosure provides a degree of protection of at least IP66 as per IEC 60079-0.

The maximum surface temperature T80 °C is based on an ambient temperature of +50 °C and maximum 5 mm layer of dust.

Electrical data

Apparatus in type of protection intrinsic safety "i"

Supply and output circuit, J1 bus connector (terminals + and -):

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

$U_i = 30 \text{ V}$; $I_i = 380 \text{ mA}$; $P_i = 1.5 \text{ W}$; $C_i = 5 \text{ nF}$; $L_i = 10 \text{ }\mu\text{H}$; (linear power supply)

Supply and output circuit, J1 bus connector (terminals + and -):

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

$U_i = 17.5 \text{ V}$; $I_i = 380 \text{ mA}$; $P_i = 5.32 \text{ W}$; $C_i = 5 \text{ nF}$; $L_i = 10 \text{ }\mu\text{H}$.

Apparatus in type of protection "nA" and "tb"

$U_n = 32 \text{ V}$

SPECIFIC CONDITIONS OF USE: YES as shown below:

Electrostatic charging of the painted enclosure and plastic label shall be avoided.

Because the enclosure is made of aluminium, if it is mounted in an area where the use of equipment with EPL Ga is required, it must be installed such, that, even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.



IECEX Certificate of Conformity

Certificate No: IECEx DEK 16.0032X

Issue No: 1

Date of Issue: 2018-11-16

Page 4 of 5

EQUIPMENT (continued):

Model codes

Control Module, Series Bettis Q QC40abcdefg

a = Conduit connections

M : Metric

U : Imperial

bc = Protection method

P1: Intrinsically safe

P4: Non Sparking/Incendive

d = Control module switch type

S: Standard

e = Action (pilot valves)

S: Single acting

D: Double acting

F: Double acting fail in last position

f = Enclosure color

Not Ex relevant

g = Language code

1 : English



IECEX Certificate of Conformity

Certificate No: IECEx DEK 16.0032X

Issue No: 1

Date of Issue: 2018-11-16

Page 5 of 5

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Change of manufacturer