



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 FMG 16.0039X Issue No: 3 Certificate history:
Status: **Current** Issue No. 3 (2018-02-07)
Date of Issue: **2018-02-07** Issue No. 2 (2017-12-04)
Page 1 of 6 Issue No. 1 (2017-10-17)
Issue No. 0 (2017-04-27)

Applicant: **Flowsolve US Inc.**
1350 North Mountain Springs Parkway
Springville, UT 84663
United States of America

Equipment: **Logix 3800 Series Digital Valve Positioner**
Optional accessory:

Type of Protection: **Flameproof "d", Dust-Ignitionproof Enclosure "t", Intrinsically Safe "i", Type of Protection "n"**

Marking:

Ex db IIC T6...T4 Gb
T4 Ta = -55°C to +85°C
T5 Ta = -55°C to +55°C
T6 Ta = -55°C to +45°C

Ex tb IIIC T105°C Db Ta = -55°C to +85°C

Ex ia IIC T6...T4 Ga
Ex ib IIC T6...T4 Gb
T4 Ta = -55°C to +85°C
T5 Ta = -55°C to +55°C
T6 Ta = -55°C to +45°C

Ex ia IIIC T105°C Da Ta = -55°C to +85°C

Ex ic IIC T6...T4 Gc
Ex nA IIC T6...T4 Gc
T4 Ta = -55°C to +85°C
T5 Ta = -55°C to +55°C
T6 Ta = -55°C to +45°C

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Approved for issue on behalf of the IECEx
Certification Body:

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

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).



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Certificate issued by:

FM Approvals LLC
1151 Boston-Providence Turnpike
Norwood, MA 02062
United States of America





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Manufacturer: **Flowsolve US Inc.**
1350 North Mountain Springs Parkway
Springville, UT 84663
United States of America

Additional 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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:

[US/FMG/ExTR16.0043/00](#) [US/FMG/ExTR16.0043/01](#) [US/FMG/ExTR16.0043/02](#)
[US/FMG/ExTR16.0043/03](#)

Quality Assessment Report:

[GB/FME/QAR16.0006/00](#) [GB/FME/QAR16.0006/01](#) [GB/FME/QAR16.0006/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Functionality

The Logix 3800 Series Digital Positioner is an electro-pneumatic positioner designed to control a variety of pneumatic actuators. Positioning is based on a balance of two signals; one proportional to the command input signal and the other proportional to the valve stem position.

Electrical

The Logix 3800 Positioner operates from a two wire 10Vdc, 4-20mA source or 9-30V, 18mA foundation fieldbus on terminals 8 and 9. There are also options for two discrete digital outputs, one analog input, and one digital input. These circuits are all isolated from one another and from the main circuitry. The circuitry is contained on two printed circuit boards which are completely encapsulated except for the LCD display side of the main board. Refer to Annex A to this certificate for additional description of electrical ratings, including Intrinsically Safe Entity and FISCO parameters.

Mechanical

The Logix 3800 electronics are housed in a painted Aluminum enclosure assembly consisting of the main enclosure containing all electronics, attached to a manifold enclosure containing the process connections. The main enclosure has three access openings to the terminal facility which accommodate suitably certified cable entry devices. The entries can be either M20-1.5 or ½ - 14 NPT entries. In addition to the wiring entries, the enclosure incorporates two flanged joints that are secured by fasteners: one between the enclosure cover and base and one between the enclosure cover and viewing window. The bottom of the main enclosure has means to secure itself to a valve stem and inductively measure its position.

Operation Temperature Ranges:

The ambient operating temperature ranges of the Model Logix 3800 Series Digital Positioner vary between -55°C to +85°C depending on the type of protection. Refer to the label marking, certificates and manual for the allowed ambient temperature ranges.

38ab-cde-fghi-jklm. Series Digital Positioner.

a = Communication: 2 or 4
b = Housing: 1 or 2.
c = Certifications: 43.
d = Threaded Connections: E, M or G.
e = Actuation Medium: A or G.
f = Relay Type: D or L.
g = Action: 3 or 4.
h = Pressure Gauges: 0, 1, 2, 3, 4, 5, A or B.
i = Gauge Orientation: O, R or L.
j = Diagnostics: 0 or 1.
k = Display: 0 or 1.
l = Feedback Shaft: 0, 1, 2, 3 or 4.
m = Mounting: 0, D, V or R.

38ab-cde-fghi-jklm. Series Digital Positioner.

a = Communication: 2 or 4.
b = Housing: 0
c = Certifications: 37.
d = Threaded Connections: E, M or G.
e = Actuation Medium: A or G.
f = Relay Type: D or L.
g = Action: 3 or 4.
h = Pressure Gauges: 0, 1, 2, 3, 4, A or B.
i = Gauge Orientation: O, R or L.
j = Diagnostics: 0 or 1.
k = Display: 0 or 1.
l = Feedback Shaft: 0, 1, 2, 3 or 4.
m = Mounting: 0, D or V.



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38ab-cde-fghi-jklm. Series Digital Positioner.

a = Communication: 2 or 4.

b = Housing: 1 or 2.

c = Certifications: 28.

d = Threaded Connections: E, M or G.

e = Actuation Medium: A or G.

f = Relay Type: D or L.

g = Action: 3 or 4.

h = Pressure Gauges: 0, 1, 2, 3, 4, A or B.

i = Gauge Orientation: O, R or L.

j = Diagnostics: 0 or 1.

k = Display: 0 or 1.

l = Feedback Shaft: 0, 1, 2, 3 or 4.

m = Mounting: 0, D or V.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Contact Flowserve for flame path information.
2. Discontinue use of equipment if the fasteners securing the enclosure cover or the cover window are damaged. Contact Flowserve for repair.
3. The Model 3800 Positioner enclosure contains Aluminium and is considered to present a potential risk of ignition by impact or friction. For EPL Ga Installations, care must be taken into account during installation and use to prevent impact or friction.
4. Using the box provided on the nameplate, the User shall permanently mark the type of protection chosen for the specific installation. Once the type of protection has been marked it shall not be changed.
5. Potential electrostatic charging hazard. Clean only with a damp cloth.

Note: Special Condition of Use #3 is not applicable for model code "c = Certifications: 43".



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

Minor documentation revisions not affecting safety.

Annex:

[Annex to IECEx cert - IS FISCO ratings.pdf](#)

Annex A to IECEx FMG 16.0039X Electrical Ratings

In type of protection intrinsic safety, connections can only be made to a certified intrinsically safe associated apparatus. The connections to the main terminals can be entity or FISCO as shown below.

Entity Connection:

Terminals	Label	Ui (Vmax)	Ii (Imax)	Pi (Pmax)	Ci	Li
8 & 9	Main Input	≤30V	≤380mA	≤5.32W	0	0
1 & 2	DO1 Input	≤30V	≤500mA	≤2.5W	10.34nF	0
6 & 7	DI IN 1	≤30V	≤380mA	≤5.32W	0	0
10 & 11	AO IN 1	≤30V	≤250mA	≤2W	0	0
12 & 13	AI IN	≤30V	≤250mA	≤3.8W	0	0
14 & 15	DO2 IN	≤30V	≤500mA	≤2.5W	10.34nF	0

FISCO Connection:

Terminals	Label	Ui (Vmax)	Ii (Imax)	Pi (Pmax)	Ci	Li
8 & 9	Main Input	≤30V	≤380mA	≤5.32W	0	0