

FM Approvals
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# CERTIFICATE OF COMPLIANCE

# HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

## 5a37-bcdefg-hi-jklm. Digital Positioner.

IS/I/1/ABCD/T4 Ta = -20°C to 85°C, T6 Ta = -52°C to 45°C; - 291780; Entity I/0/AEx ia IIC/T4 Ta = -20°C to 85°C, T6 Ta = -52°C to 45°C; - 291780; Entity NI/I/2/ABCD/ T4 Ta = -20°C to 85°C, T6 Ta = -52°C to 45°C Type 4X, IP66

**Entity Parameters:** 

	4-20	MFC Card	Limit Switch
	Input		-02
Ui (V)	30	30	10.6
li (mA)	100	100	29.7
Pi	800	800	79
(mW)			
Ci (nF)	0	0	1
Li (µF)	47	0	1

Remote Mount Terminals			
Uo (V)	5		
lo (mA)	79		
Po (mW)	129		
Co (µF)	2		
Lo (µH)	100		

a = Communication and Diognostics: 05+, 10+, 20MD+, 21MD+ or 22MD+.

b = Housing: W, Y, B or A.

c = Threaded Connection: 1, 2 or 3.

d = Shaft: D or R. e = Action: 1, 2 or 3.

f = Position Indicator: 0, F or D.

g = Special Options: 0 or 1.

h = Manifold: 00 or GM.

i = Pressure Gauge: 0, 1, 2, 3, 4, A or B.

i = LCD: 0 or 1.

k = Auxiliary Card slot 1: 0 or 2 1. I = Auxiliary Card slot 2: 0 or 1.

m = Limit Switch or Remote Mount: 2 or 7.

Special Conditions of Use:

1. To prevent the risk of electrostatic sparking the enclosure shall only be cleaned with a damp cloth.

To verify the availability of the Approved product, please refer to www.approvalguide.com

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Member of the FM Global Group

2. The Digital Positioner enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.

## 420-40-abc-de. Digital Positioner.

IS/I/1/ABCD/T4 Ta =  $-20^{\circ}$ C to  $85^{\circ}$ C, T6 Ta =  $-52^{\circ}$ C to  $45^{\circ}$ C - 314746; Entity I/0/AEx ia IIC/T4 Ta =  $-20^{\circ}$ C to  $85^{\circ}$ C, T6 Ta =  $-52^{\circ}$ C to  $45^{\circ}$ C - 314746; Entity Type 4X, IP66

Entity Parameters:

	4-20
	Input
Ui (V)	30
li (mA)	100
Pi (mW)	800
Ci (nF)	0
Li (µH)	47

a = General Option: W or N.

b = Threaded Connection: 1, 2 or 3.

c = Feedback Shaft: D or R.

d = Gauge: 0, 1, 2, 3, 4, A or B.

e = Display: 0, 1 or 2.

Special Conditions of Use:

- 1. To prevent the risk of electrostatic sparking the enclosure shall only be cleaned with a damp cloth.
- 2. The Digital Positioner enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.

#### Equipment Ratings:

Intrinsically Safe for Class I, Division 1, Groups A, B, C and D indoor and outdoor (Type 4X and IP66) hazardous (Classified) locations in accordance with drawing 291780 and 314746, Intrinsically Safe for Class I, Zone 0, Group IIC indoor and outdoor (Type 4X and IP66) hazardous (Classified) locations in accordance with Control Drawing 291780 and 314746, Nonincendive for Class I, Division 2, Groups A, B, C and D indoor and outdoor (Type 4X and IP66) hazardous (Classified) Locations.

#### FM Approved for:

Flowserve US Inc Springville, UT United States

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This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3610	2010
FM3611	2004
FM3810	2005
ANSI/NEMA 250	2003
ANSI/IEC 60529	2004
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-11	2011

Original Project ID: 3044377

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Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3047577	November 21, 2012		
130104	January 11, 2013		
3049443	January 20, 2014		
140124	March 12,201	4	

FM Approvals LLC

Group Manager, Electrical

17. March 2014
Date

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