

CERTIFICATE OF CONFORMITY




- HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- Certificate No:** FM18US0180X
- Equipment:** D30 DIGITAL VALVE CONTROL POSITIONER
(Type Reference and Name)
- Name of Listing Company:** PMV Automation AB
- Address of Listing Company:** Korta Gatan 9
SE-171 54 Solna
Sweden
- The examination and test results are recorded in confidential report number:

PR449734 dated 26th September 2019
- FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2018, FM Class 3610:2018, FM Class 3611:2018, FM Class 3810:2018,
ANSI / ISA 61010-1 (82.02.01) ANSI / UL 61010-1:2015, ANSI / ISA 60079-0:2013,
ANSI / ISA 60079-11:2014, UL 50:2015, UL 50E:2015, ANSI / IEC 60529:2004
- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
- This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
- Equipment Ratings:**

Intrinsically safe for Class I , Division 1, Groups A, B, C, and D, Class I, Zone 0, AEx ia IIC; Nonincendive for Class I, Division 2, Groups A, B, C and D when supplied with nonincendive field wiring parameters, Class I, Zone 2, IIC when supplied with nonincendive field wiring parameters with an ambient temperature rating of -40°C to +85°C.

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

26 September 2019

Date

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

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

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US Certificate Of Conformity No: FM18US0180X

11. The marking of the equipment shall include:

Class I Division 1, Groups A, B, C, D; T4 Ta = -40°C to +85°C*

Class I, Zone 0, AEx ia IIC T4 Ga Ta = -40°C to +85°C*

Class 1, Division 2, Groups A, B, C, D; T4 Ta = -40°C to +85°C*

Class I, Zone 2, IIC T4 Ta = -40°C to +85°C*

***Temperature Code**

Feedback option model code K	SWITCH Type	Min. temp °C	T4 (*)°C
5	SJ2-SN NAMUR	-40	85
6	SJ2-N NAMUR	-25	85
G	Mechanical switch gold Mec.	-40	78
N	NJ2-V3-N NAMUR	-25	85
P	Hamlin Proximity Reed	-40	80
S	Mechanical switch Mec.	-40	78
U	NCN4-V3-N0 NAMUR	-25	85
X	No feedback option	-40	85

12. **Description of Equipment:**

General - The D30 Transmitter is a two wire loop powered position transmitter. The transmitter outputs a HART digital signal and a 4-20 mA analog signal.

Construction - The D30 HART Transmitter Positioner consists of a two piece single compartment electronics housing of painted aluminium.

Ratings - The transmitter is rated for use in an ambient temperature range of -40°C to +85°C.

a b c d e - f g h - i j k l m n, DIGITAL VALVE CONTROL POSITIONER

where

- a = Model number
D30 = Full 5 button LCD menu, LED status
- b = Approval, Certificate
F = FM
- c = Function
H = DA (High Flow)
- d = Connections Air, Electrical
G = 1/4" G air, M20 x 1,5 electrical
M = 1/4" NPT air, M20x1,5 electrical
N = 1/4" NPT air, 1/2"NPT electrical

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- e = Connection feature
 - 2 = 2 Electrical conduits
 - 4 = 4 Electrical conduits
 - T = 2 Electrical conduits, threaded Aux. ventilation
 - F = 4 Electrical conduits, threaded Aux ventilation
- f = Housing material/ Surface treatment
 - x = Material (always Aluminium) and treatment Powder epoxy different colours or Tuffram
- g = Mounting options / Spindle
 - R x = Unit prepared for remote mounting (x any other character)
 - x x = Any other combination are with different spindle shafts
- h = Cover and Indicator
 - x x x = Combination indicates lid colour and indicator type
- i = Temperature/seals
 - x = (Any character not S and V) ambient working temperature range NBR seals
 - S = ambient working temperature range Silicone seals
 - V = ambient working temperature range FPM seals
- j = Input signal/Protocol
 - 4 = 4-20 mA / none
 - 5 = 4-20 mA / HART
- k = Feedback option, switches
 - X = No feedback option
 - T = 4-20 mA transmitter, no switches
 - 5 = Slot type Namur sensor, P+F SJ2-SN
 - 6 = Slot type Namur sensor, P+F SJ2-N
 - G = Limit switches Mechanical SPDT, Gold
 - N = Namur V3 type sensor, P+F NJ2-V3-N
 - P = Limit switches Proximity SPDT
 - S = Limit switches Mechanical SPDT
 - U = Namur V3 type sensor, P+F NCN4-V3-N0
- l = Options, Add in electronics
 - 0 = No pressure sensor board
 - 3 = Added pressure sensors
 - 2 = Added pressure sensors (alternative code)
- m = Accessories
 - x = External accessories not effecting ia certification
- n = Special Options
 - x = Special options not effecting ia certification

***Temperature Code**

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Feedback option model code K	SWITCH Type	Min. temp °C	T4 (*)°C
5	SJ2-SN NAMUR	-40	85
6	SJ2-N NAMUR	-25	85
G	Mechanical switch gold Mec.	-40	78
N	NJ2-V3-N NAMUR	-25	85
P	Hamlin Proximity Reed	-40	80
S	Mechanical switch Mec.	-40	78
U	NCN4-V3-N0 NAMUR	-25	85
X	No feedback option	-40	85

Entity Parameters

4-20mA Input $U_i = 28$ Vdc, $I_i = 93$ mA, $P_i = 0.653$ W, $L_i = 11.3$ μ H, $C_i = 11.3$ nF

Feedback option model code K	Function	U_i	I_i	P_i	L_i	C_i
T	4-20 mA transmitter	28 V	93 mA	653 mW	11.3 μ H	22 nF
5	SJ2-SN NAMUR	16 V	25 mA	34 mW	30 nF	100 μ H
6	SJ2-N NAMUR	16 V	25 mA	34 mW	30 nF	100 μ H
G	Mechanical switch gold Mec.	28 V	45 mA	315 mW	1 nF	1 μ H
N	NJ2-V3-N NAMUR	16 V	25 mA	34 mW	40 nF	50 μ H
P	Hamlin Proximity Reed	28 V	45 mA	315 mW	1 nF	1 μ H
S	Mechanical switch Mec.	28 V	45 mA	315 mW	1 nF	1 μ H
U	NCN4-V3-N0 NAMUR	16 V	25 mA	34 mW	40 nF	50 μ H

13. Specific Conditions of Use:

For IS applications: Use linear barrier only.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

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15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
26 th September 2019	Original Issue.

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