CERTIFICATE OF CONFORMITY



- 1. HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS
- 2. Certificate No:

4.

3. Equipment: (Type Reference and Name) FM17CA0123

StoneL

Model EN and EG Series Valve Position Montiors

5. Address of Listing Company:

Name of Listing Company:

26271 US Hwy 59 Fergus Falls, MN 56537, USA

6. The examination and test results are recorded in confidential report number:

3002488C dated 18th February 1999

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

CSA-C22.2 No. 157:1991, CSA-C22.2 No. 142:1987 CSA-C22.2 No. 213M:1988, CSA-C22.2 No. 94:1991

- 8. 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.
- 9. 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.
- 10. Equipment Ratings:

Intrinsically Safe with Entity Parameters and FISCO Parameters for use in Class I, II, III, Division 1, Group A, B, C, D, E, F, and G T5 Ta = -40° C to 80° C, Nonincendive for use in Class I, Division 2, Group A, B, C, D T5 Ta = -40° C to 80° C, Suitable for Class II, Division 2, Groups F, G T5 Ta = -40° C, to 80° C Type 4, 4X and 6 Hazardous Indoor and Outdoor Locations.

Certificate issued by:

Marquerch

J/E. Marquedant VP, Manager, Electrical Systems

31 July 2017 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: <u>information@fmapprovals.com</u> <u>www.fmapprovals.com</u>





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11. The marking of the equipment shall include:

Class I Division 1, Groups A, B, C, D, E, F and G; T5 Ta = -40°C to 80°C;

Class I, Division 2, Groups A, B, C and D T5 Ta = -40°C to 80°C;

Class II, Division 2, Groups F, G T5 Ta = -40°C to 80°C;

Type 4, 4X and 6

12. Description of Equipment:

General - The EN and EG Series Valve Position Monitors consist of dual solid-state sensors to detect and transmit valve positions. They are available as non-incendive and intrinsically safe version (EN) for hazardous areas with a removable module and in a general purpose, completely sealed micro-connector version (EN).

Construction – All mechanical parts of the EN and EG Series Valve Position Monitors are made of Lexan or Stainless steel and are corrosion resistant. The valve position monitors are fully sealed, submersible and capable of withstanding high pressure washdown.

ENabcde-f. Valve Position Monitor.

IS* / I,II,III / 1 / ABCDEFG / T5 Ta = -40°C, to 80°C - 105073; Entity**; FISCO***; NI / I / 2 / ABCD / T5 Ta = -40°C, to 80°C;

S / II / 2 / FG / T5 Ta = -40°C, to 80°C; Type 4, 4X, 6

- a = Function 33, 34, 44, 92, 93, 94, 95, 96 and 97.
- b = Enclosure C and P.

c = Junction 02, 05, 11 and 12.

d = Visual Indication X, G, R, F, 1, 2, 0, N, D, L, S and T.

e = Branding A or M.

f = Options 1-5 alpha or numeric digits for special and marketing identification (not affecting safety). *Intrinsically Safe only when a = 44 and 93.

Entity Parameters when a = 44, U_i = 22 V dc, I_i = 120 mA, C_i = 98 nF, L_i = 1.56 mH, P_i = 2.0 W *FISCO Parameters when a = 93, U_i = 30 V dc, I_i = 380 mA, C_i = 0.0 nF, L_i = 0.0 mH, P_i = 5.32 W

EGabcde-f. Valve Position Monitor.

IS* / I,II,III / 1 / ABCDEFG / T5 Ta = -40°C, to 80°C - 105149; Entity**; FISCO***;

 $NI/1/2/ABCD/T5Ta = 80^{\circ}C$

S / II / 2/FG/T5 Ta = 80°C Type 4, 4X, 6

a = Function 33, 34, 44, 92, 93, 94, 95, 96 and 97.

- b = Enclosure C and P.
- c = Junction 23, 24, 25 and 26.
- d = Visual Indication X, G, R, F, 1, 2, 0, N, D, L, S and T.
- e = Branding A or M.

f = Options 1-5 alpha or numeric digits for special and marketing identification (not affecting safety). *Intrinsically Safe only when a = 44 and 93.

Entity Parameters when a = 44, U_i = 22 V dc, I_i = 120 mA, C_i = 98 nF, L_i = 1.56 mH, P_i = 2.0 W *FISCO Parameters when a = 93, U_i = 30 V dc, I_i = 380 mA, C_i = 0.0 nF, L_i = 0.0 mH, P_i = 5.32 W

13. Specific Conditions of Use:

None

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Canadian Certificate Of Conformity No: FM17CA0123

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

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
18 th February 1999	Original Issue.
31 st July 2017	Supplement 6: Report Reference: RR210256 dated 31 st July 2017 Description of the Change: Minor drawing updates and removal of "Branding: N". Removal of ENabcS and EGabcS models.

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HVI Approvals

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