FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT
PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

QNabcdef-g. Valve Position Monitor.
NI / I /2 / ABCD /T5 Ta* = -40ºC to +80°C; S / II /2 / FG /T5 Ta* = -40ºC to +80°C; Type 4, 4X, 6
*When a = 2E, 4E, 5E, 7E, BE, CE, 2F, 4F, 5F, 7F, BF or CF, Ta = -25°C to +70°C
a = Function 2P, 4P, 5P, 7P, BP, CP, 2L, 4L, 5L, 7L, BL, CL, 2H, 4H, 5H, 7H, 8H, BH, CH, 2S, 4S, 5S, 7S, BS, CS, 8Y, 2G, 4G, 5G, 7G, BG, CG, 2X, 4X, 5X, 6X, 7X, BX, CX, 2E, 4E, 5E, 7E, BE, CE, 2F, 4F, 5F, 7F, BF, CF, 33, 53, 73, B3, C3, 35, 5T, 7T, BT, CT, 92, 93, 96, 97, 82, 83, 86 or 87.
b = Enclosure C, E, P, B, Y, S, U or J
c = Junction 02 or 03
d = Output X, S, N, or H
e = Visual Indication X, G, R, C, 1, 2, 3, 4, 5, 0, N, D, A, S, T, U, V or W
f = Branding A, or M
g = Options 'Special Unit Digits'
Note: 'Special Unit Digits' do not affect the integrity of the housing, the electrical safety, or the title plate.

QNabcdef-g. Valve Position Monitor.
IS / I, II, III / 1 / ADBCDEFG / T5 Ta* - 105196, 105197, 105199, 105201, 105202,105203, 105208; Entity*; Type 4, 4X, 6
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

*When a = 2J, 4J, 5J, 7J, BJ, CJ, 2K,4K, 5K, 7K, BK, CK, 2M, 4M, 5M, 7M, BM, CM, 5O, 7O
For T5 Ta* = -40ºC to +80ºC; For T6 Ta* = -40°C to +65°C
Entity Parameters: Ui = 30 Vdc, Ii = 100 mA, Ci = 66 nF, Li = 0.8 mH, Pi = 2.0 W

*When a = BO, CO
For T5 Ta* = -40ºC to +80ºC; For T6 Ta* = -40°C to +65°C
Energy Limitation Parameters: Ui = 26 V, Ii = 14 mA, Pi = 50mW, Ci = 0 nF, Li = 0 mH

*When a = 44, 54, 74, B4, C4
For T5 Ta* = -40ºC to +80ºC; For T6 Ta* = -40°C to +65°C
Energy Limitation Parameters:
Sensor Module: Ui = 22V, Ii = 120 mA, Pi = 2W, Ci = 98 nF, Li = 0.8 mH
Solenoid Connection Terminals: Ui = 30V, Ii = 120mA

*When a = 45, 5R, 7R, BR, CR
For T5 Ta* = -40ºC to +80ºC; For T6 Ta* = -40°C to +65°C

Energy Limitation Parameters:

Sensor Module: Ui = 22V, Ii = 120 mA, Pi = 0.4 W, Ci = 3 nF, Li = 0 mH

Solenoid Connection Terminals: Ui = 30V, Ii = 120mA

* When a = 2N, 4N, 5N,6N, 7N, BN, CN

For T6, Ta*=	For T5, Ta*=	For T4…T1, Ta*=	Ui V	Ii mA	Pi mW	Ci nF	Li mH
-25°C to +56°C	-25°C to +68°C	-25°C to +80°C	16	25	34	40	0.05
-25°C to +49°C	-25°C to +61°C	-25°C to +80°C	16	25	64	40	0.05
-25°C to +28°C	-25°C to +40°C	-25°C to +68°C	16	52	169	40	0.05
-25°C to +13°C	-25°C to +25°C	-25°C to +53°C	16	76	242	40	0.05

* When a = 2A, 4A, 5A, 7A, BA, CA

For T6, Ta*=	For T5, Ta*=	For T4…T1, Ta*=	Ui V	Ii mA	Pi mW	Ci nF	Li mH
-40°C to +57°C	-40°C to +69°C	-40°C to +80°C	16	25	34	50	0.15
-40°C to +52°C	-40°C to +64°C	-40°C to +80°C	16	25	64	50	0.15
-40°C to +34°C	-40°C to +46°C	-40°C to +74°C	16	52	169	50	0.15
-40°C to +22°C	-40°C to +34°C	-40°C to +61°C	16	76	242	50	0.15

a = Function 2J, 4J, 5J, 7J, BJ, CJ, 2K, 4K, 5K, 7K, BK, CK, 2M, 4M, 5M, 7M, BM, CM, 5O, 7O, BO, CO, 2N, 4N, 5N, 6N, 7N, BN, CN, 2A ,4A, 5A, 7A, BA, CA, 44 54, 74 B4, C4, 45, 5R, 7R, BR or CR
b = Enclosure C, E, P, B, Y, S, U or J
c = Junction 02 or 03.
d = Output X, S, N, or H.
e = Visual Indication X, G, R, C, 1, 2, 3, 4, 5, 0, N, D, A, S, T, U, V or W.
f = Branding A, or M
g = Options 'Special Unit Digits'
Note: 'Special Unit Digits' do not affect the integrity of the housing, the electrical safety, or the title plate.

Special Conditions of Use:
1. Part of the enclosure is constructed from plastic. To prevent the risk of electrostatic sparking the plastic surface should only be cleaned only with a damp cloth.
2. The apparatus enclosure may contain aluminum which is considered to constitute 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, II, III, Division 1, Groups A, B, C, D, E, F & G; Nonincendive for Class I, Division 2, Groups A, B, C & G with Nonincendive Field Wiring; Suitable for Class II, III, Division 2, Groups F & G indoor/outdoor Type 4, 4X, 6 hazardous locations

FM Approved for:

StoneL
2671 US Hwy 59
Fergus Falls MN 56537

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

CSA C22.2 No.142	2014
CSA C22.2 No. 157	2012
CSA C22.2 No. 94	2011
CSA C22.2 No. 213	2013

Original Project ID: 3032853
Canadian Project ID: 3033392C Approval Granted: September 5, 2008

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
RR201207	June 15, 2015		
3055582	February 19, 2016		

FM Approvals LLC

J.E. Marquedant
Manager, Electrical Systems

19 February 2016
Date