



Member of the FM Global Group

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

FSV430abcdefgh – Vortex Flow Transmitter – Integral Sensor– Dual Seal

IS / I, II, III / 1 / ABCDEFG / T6...T4, Entity 3KXF065215U0109, IP66, IP67 Type 4X

I / 0 / Ex ia IIC / T6...T4 Entity 3KXF065215U0109, IP66, IP67 Type 4X

NI / I / 2 / ABCD / T6...T4 IP66, IP67 Type 4X

DIP / II, III / EFG / T6 Ta = -40°C to *; IP66, IP67 Type 4X

I / 2 / Ex nA IIC / T6...T4 IP66, IP67 Type 4X

*See Control drawing

a = Explosion Protection Certification; F3, F4, F8 or F9

b = System Design; C1, or C2.

c = Process Connection Type / Meter Size / Connection Size: W025R0, W040R0, W050R0, W080R0, W100R0, W150R0, F015R0, F015R2, F015R4, F025R0, F025R2, F025R3, F040R0, F040R1, F040R3, F050R0, F050R2, F050R3, F080R0, F080R1, F080R3, F100R0, F100R2, F100R4, F150R0, F150R2, F150R3, F200R0, F200R1, F200R2, F250R0, F250R1, or F300R0.

d = Pressure Rating; D1, D2, D3, D4, D5, D6, D7, E1, E2, E3, A1, A3, A6, A7, A8, A9, J0, J1, J2, J3, or J4.

e = Temperature Range of Measuring Medium; A1, B1, or C1.

f = Housing Material / Cable Glands; A1, B1, S1, or T1.

g = Output Signal; H1, H5 or M4**.

h = Additional Options; (Any of the following) C*, CG*, EG*, G1, G2, G4, L1, L2, M*, N*, P*, R5, S1, SM1, SM2, SM3, SM4, SM5, SM6, SM7, SP0, SP1, SP2, SP3, TC1, TCC, TCS, TCZ, TA4, TA5, U1, U2, NG*, NS*, and/or NL*.

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c = Process Connection Type / Meter Size / Connection Size; W025R0, W040R0, W050R0, W080R0, W100R0, W150R0, F015R0, F015R2, F015R4, F025R0, F025R2, F025R3, F040R0, F040R1, F040R3, F050R0, F050R2, F050R3, F080R0, F080R1, F080R3, F100R0, F100R2, F100R4, F150R0, F150R2, F150R3, F200R0, F200R1, F200R2, F250R0, F250R1, or F300R0.
d = Pressure Rating; D1, D2, D3, D4, D5, D6, D7, E1, E2, E3, A1, A3, A6, A7, A8, A9, J0, J1, J2, J3, or J4.

e = Temperature Range of Measuring Medium; A1, B1, or C1.

f = Housing Material / Cable Glands; A1, B1, S1, or T1.

g = Output Signal; H1, H5 or M4**

h = Additional Options; (Any of the following) C*, CG*, EG*, G1, G2, G4, L1, L2, M*, N*, P*, R5, S1, SC2, SC4, SC6, SM1, SM2, SM3, SM4, SM5, SM6, SM7, SP0, SP1, SP2, SP3, TC1, TCC, TCS, TCZ, TA4, TA5, U1, U2, NG*, NS*, and/or NL*.

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b = System Design; C1, or C2.

c = Process Connection Type / Meter Size / Connection Size; F015R0, F020R0, F025R0, F032R0, F040R0, F050R0, F080R0, F100R0, F150R0, F200R0, F300R0, or F400R0.

d = Pressure Rating; D1, D2, D3, D4, D5, D6, D7, E1, E2, E3, A1, A3, A6, A7, A8, or A9, J0, J1, J2, J3, J4.

e = Temperature Range of Measuring Medium; A1, B1, or C1.

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DIP / II / 2 / EFG / T6 Ta = -40°C to +75°C; IP66, IP67 Type 4X

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d = Pressure Rating; D1, D2, D3, D4, D5, D6, D7, E1, E2, E3, A1, A3, A6, A7, A8, A9, J0, J1, J2, J3, or J4.

e = Temperature Range of Measuring Medium; A1, B1, or C1.

f = Housing Material / Cable Glands; A1, B1, S1, or T1.

g = Output Signal; H1, H5 or M4**.

h = Additional Options; (Any of the following) C*, CG*, EG*, G1, G2, G4, L1, L2, M*, N*, P*, R5,

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S1, SC*, SM1, SM2, SM3, SM4, SM5, SM6, SM7, SP0, SP1, SP2, SP3, TC1, TCC, TCS, TCZ, TA4, TA5, U1, U2 NG*, NS*, and/or NL*.

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d = Pressure Rating; D1, D2, D3, D4, D5, D6, D7, E1, E2, E3, A1, A3, A6, A7, A8, A9, J0, J1, J2, J3 or J4.

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d = Pressure Rating; D1, D2, D3, D4, D5, D6, D7, E1, E2, E3, A1, A3, A6, A7, A8, A9, J0, J1, J2, J3, or J4.

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Equipment Ratings:

Intrinsically safe for Class I, II and III, Division 1 Groups A, B, C, D, E, F and G and Class I, Zone 0, Group IIC Hazardous (Classified) Locations per the Entity Concept when installed in accordance with Control Drawing 3KXF065215U0109. Temperature Class T6...T4 depending on input parameters and process temperature.

Nonincendive for Class I, Division 2 Groups A, B, C and D; Suitable for Class II, III Division 1 and 2 Groups E, F and G; Suitable for Class I, Zone 2 Group IIC Hazardous (Classified) Locations. Temperature Class T6...T4.

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Suitable for indoor and outdoor locations IP66/67 and Type 4X.

Dual Seal in accordance with ANSI/ISA 12.27.01

FM Approved for:

ABB Engineering (Shanghai) Ltd
Shanghai, China



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

CAN/CSA C22.2 No. 142-M1987	2004
CAN/CSA C22.2 No. 213-M1987	2004
CAN C22.2 No.157-92	1992 (2006)
CSA C22.2 No. 1010.1	2004
CSA C22.2 60079-0	2011
CSA C22.2 60079-11	2011
CSA C22.2 60079-15	2012
ANSI/ISA 12.27.01	2003

Original Project ID: 0003048130

Approval Granted: February 27, 2014

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3055129	October 6, 2015		
3054654	April 5, 2016		

FM Approvals LLC

J.E. Marquedant
Group Manager, Electrical

5 April 2016

Date

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