



Member of the FM Global Group

FM Approvals
1151 Boston Providence Turnpike
P.O. Box 9102 Norwood, MA 02062 USA
T: 781 762 4300 F: 781-762-9375 www.fmaprovals.com

CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

Series PX5 and Series PXM5 Pressure Transmitters

PX5a-bcde. Pressure Transmitter

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for a = 09C and 09CW
I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
IP65

Entity parameters: Ui = 28V, Ii = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = model variant: 09, 09C, 09CP, 09CW, 09CWP, 19, 29, 39, 49, 59

b = pressure range: 10W, 001, 2.5, 005, 015, 030, 050, 100, 150, 250, 500, 750, 1.0K, 1.5K, 2.5K, 3.5K, 32, 16, 26

c = pressure type: G, A, B, HB, V, CG, SG

d = output type: C2, BC2

e = Approvals: IS

Special Conditions of Use

1. *The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
2. *The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

PXM5a-bcde. Pressure Transmitter

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for a = 09C and 09CW
I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity

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

IP65

Entity parameters: $U_i = 28V$, $I_i = 110 \text{ mA}$, $P_i = 0.77W$, $C_i = 48 \text{ nF}$, $L_i = 0$

a = model variant: 09, 09C, 09CP, 09CW, 09CWP, 19, 29, 39, 49, 59

b = pressure range: 025H, 070H, 170H, 350H, 001B, 002B, 3.5B, 007B, 010B, 17.5B, 035B, 050B, 070B, 100B, 175B, 245B, 1100, 550, 880

c = pressure type: G, A, B, HB, V, CG, SG

d = output type: C2, BC2

e = Approvals: IS

Special Conditions of Use

1. *The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
2. *The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

Series PX51 and Series PXM51 Pressure Transmitters

PX51ab-cdefg. Pressure Transmitter

IS / I,II,III / 1 / ABCDEFG / T4, $T_a = -40^\circ\text{C}$ to $+75^\circ\text{C}$ – Drawing #A031432; Entity

NI / I / 2 / ABCD / T4, $T_a = -40^\circ\text{C}$ to $+75^\circ\text{C}$ - Only applicable for b = 0, GW

I / 0 / Ex ia / IIC / T4, $T_a = -40^\circ\text{C}$ to $+75^\circ\text{C}$ – Drawing #A031432; Entity

IP65

Entity parameters: $U_i = 28V$, $I_i = 110 \text{ mA}$, $P_i = 0.77W$, $C_i = 48 \text{ nF}$, $L_i = 0$

a = pressure connection: T, C, D, K, J, S

b = electrical connections: 0, GW, 1, 5, 6

c = pressure range: 10, 15, 25, 30, 50, 75, 100, 200, 300, 500, 750, 1.0K, 1.5K, 2K, 2.5K, 3.0K, 3.5K, 5K, 7.5K, 10K, 15K, 20K, 30K

d = pressure type: G, A, SG

e = output type: C2

f = Approvals: IS

g = options not affecting safety: BLANK, NP, ZXX

Special Conditions of Use

1. *The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
2. *The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

PXM51ab-cdefg. Pressure Transmitter

IS / I,II,III / 1 / ABCDEFG / T4, $T_a = -40^\circ\text{C}$ to $+75^\circ\text{C}$ – Drawing #A031432; Entity

NI / I / 2 / ABCD / T4, $T_a = -40^\circ\text{C}$ to $+75^\circ\text{C}$ - Only applicable for b = 0, GW

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

I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity IP65

Entity parameters: Ui = 28V, li = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = pressure connection: MA, MB, MC, MD

b = electrical connections: 0, GW, 1, 5, 6

c = pressure range: 0.7, 001, 1.60, 2.50, 004, 006, 010, 016, 025, 040, 060, 100, 160, 250, 400

d = pressure type: G, A, SG

e = output type: C2

f = Approvals: IS

g = options not affecting safety: BLANK, NP, ZXX

Special Conditions of Use

1. *The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
2. *The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

Series FMM series and Series CFMM Pressure Transmitters

FMMabcdehijkl. Pressure Transmitter

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity

NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for h = 2, 4, 8, 9

I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity IP65

Entity parameters: Ui = 28V, li = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = pressure type: A, G, SG, CG, B, V

b = pressure range: 10W, 001, 2.5, 005, 015, 030, 050, 100, 150, 250, 500, 750, 1.0K, 1.5K, 2.5K, 3.5K, 32, 16, 26

c = output type: C2, BC2

d = Approvals: IS

e = units: P, B, H, K, W, M, T, F

f = static accuracy: 1, 2, 3, 4, 5

g = pressure port: A, B, C, D, J, K, L, M, MA, MB, MC, MD, ME, MF

h = electrical connector backend: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

i = compensated temperature range: T1, T2, T3, T4

j = thermal temperature shift: A1, A2, A3, A4, A5, A6, A7, A8

k = options not affecting safety: BLANK, NP

Special Conditions of Use

1. *The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
2. *The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

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

CFMMabcdehijk. Pressure Transmitter

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for h = 2, 4, 8, 9
I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
IP65
Entity parameters: Ui = 28V, Ii = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = pressure type: A, G, SG, CG, B, V
b = pressure range: 10W, 001, 2.5, 005, 015, 030, 050, 100, 150, 250, 500, 750, 1.0K, 1.5K, 2.5K, 3.5K, 32, 16, 26
c = output type: C2, BC2
d = Approvals: IS
e = units: P, B, H, K, W, M, T, F
f = static accuracy: 1, 2, 3, 4, 5
g = pressure port: A, B, C, D, J, K, L, M, MA, MB, MC, MD, ME, MF
h = electrical connector backend: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
i = compensated temperature range: T1, T2, T3, T4
j = thermal temperature shift: A1, A2, A3, A4, A5, A6, A7, A8
k = options not affecting safety: BLANK, NP, ZXX

Special Conditions of Use

1. *The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
2. *The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

Series LC412 and Series LCM412 Load Cells

LC412-abcde. Load Cell

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for b = 0, GW
I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
IP65
Entity parameters: Ui = 28V, Ii = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = load range: 50, 100, 250, 500, 1K, 2K, 3K, 5K, 10K, 15K, 20K, 25K, 50K, 75K, 100K, 200K, 300K, 400K, 500K, 750K
b = electrical connections: 0, 1, GW, 5, 6
c = output type: C2, BC2
d = Approvals: IS
e = Options not affecting safety: BLANK, NP, ZXX

Special Conditions of Use

1. *The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is*

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

required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.

- 2. The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

LCM412-abcde. Load cell

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity

NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for b = 0, GW

I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity

IP65

Entity parameters: Ui = 28V, li = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = load range: 25, 50, 100, 250, 500, 1K, 1.5K, 2.5K, 5K, 7.5K, 10K

b = electrical connections: 0, 1, GW, 5, 6

c = output type: C2, BC2

d = Approvals: IS

e = Options not affecting safety: BLANK, NP, ZXX

Special Conditions of Use

- 1. The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
- 2. The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

Series LCHD and Series Load Cells

LCHD-abcde. Load Cell

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity

NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for b = 0, GW

I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity

IP65

Entity parameters: Ui = 28V, li = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = load range: 7.5K, 10K, 15K, 20K, 30K, 50K, 75K, 100K, 150K, 200K, 300K, 400K, 500K

b = electrical connections: 0, 1, GW, 5, 6

c = output type: C2, BC2

d = Approvals: IS

e = options not affecting safety: BLANK, NP, ZXX

Special Conditions of Use

- 1. The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in*

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



Member of the FM Global Group

Classification for the entire transmitter, and the customer's process control engineer must properly account for this.

- 2. The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

LCMHD-abcde. Load Cell.

IS / I,II,III / 1 / ABCDEFG / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
NI / I / 2 / ABCD / T4, Ta = -40°C to +75°C - Only applicable for b = 0, GW
I / 0 / Ex ia / IIC / T4, Ta = -40°C to +75°C – Drawing #A031432; Entity
IP65

Entity parameters: Ui = 28V, Ii = 110 mA, Pi = 0.77W, Ci = 48 nF, Li = 0

a = load range: 5K, 7.5K, 10K

b = electrical connections: 0, 1, GW, 5, 6

c = output type: C2, BC2

d = Approvals: IS

e = options not affecting safety: BLANK, NP, ZXX

Special Conditions of Use

- 1. The Ingress Protection rating of all customer-supplied connectors must match the requirements of the site where the Transmitter is to be installed. If hosedown cleaning is required the connector hardware must be rated IPX5; alternately, if dust protection is required, IP6X is required. Lower levels of ingress protection may cause a reduction in Classification for the entire transmitter, and the customer's process control engineer must properly account for this.*
- 2. The equipment may present a risk of electrostatic sparking. Cleaning shall only be performed with a damp cloth.*

Equipment Ratings:

The PX5 series, PXM5 series, PX51 series, PXM51 series, FMM series, and CFMM series pressure transmitters, and the LC412 series, LCM412 series, LCHD series and LCMHD series load cells are rated as Intrinsically Safe for Class I, II and III, Division 1, Groups A, B, C, D, E, F and G, Ex ia for Class I, Zone 0, Group IIC, T4, for $-40^{\circ}\text{C} \leq \text{Ta} \leq +75^{\circ}\text{C}$, Class I, Division 2, Groups A, B, C and D, T4, for $-40^{\circ}\text{C} \leq \text{Ta} \leq +75^{\circ}\text{C}$ - Only applicable for specific model variants which have provision for conduit connections, as defined above; IP65.

FM Approved for:

Omega Engineering Inc.
Sunbury, OH
USA

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

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

CSA C22.2 No. 1010.1	1992 (Reaffirmed 1999)
CSA C22.2 No. 213	1987 (Reaffirmed 2013)
CSA C22.2 No. 60079-0	2011
CSA C22.2 No. 60079-11	2011
CSA C22.2 No. 60529	2010

Original Project ID: 3047973C

Approval Granted: August 20, 2014

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
RR201067	May 13, 2015		

FM Approvals LLC



J.E. Marquedant
Manager, Electrical Systems

13 May 2015

Date

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