



Member of the FM Global Group

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

810RabcC1de9E. Classic 810 Threaded.

XP//I/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Material of Construction – Sensor A, G, J, M, O, T or X.

b = Process Connection – MNPT C, D, E, F, G or H.

c = Insertion 'U' Lengths 0012, 0020, 0040, 0060, 0090, 0120, 0180 0240, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).

d = Cover – For Local Electronics / Sensor Enclosure B or G.

e = Remote Enclosure & Cover 0A, 1B or 1G.

812RabcdeC1fg9E. Classic 812 Flanged.

XP//I/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+ H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Material of Construction – Sensor A, G, J, M, O, T or X.

b = Process Connection – Flange A or B.

c = Flange 112,113,114,115,116, 121, 122, 123, 124, 125, 126, 131, 132, 133, 134, 135, 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165, 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195, 196, 201, 202, 203, 204, 205 or 206.

d = Flange Material A, E, G, J, M, O, R, T or X.

e = Insertion Length Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).

f = Cover – For Local Electronics / Sensor Enclosure B or G.

g = Remote Enclosure & Cover 0A, 1B or 1G.

814RabcdefC1gh9E. Classic 814 Flanged Retractable Packing Gland.

XP//I/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+ H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Material of Construction – Sensor A, G, J, M, O, T or X.

b = Process Connection – Flange A or B.

c = Flange 131, 132, 133, 134, 135, 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165, 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195, 196, 201, 202, 203, 204, 205 or 206.

d = Flange Material A, E, G, J, M, O, R, T or X.

e = Pressure Rating J, T, or X.

f = Insertion Length Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).

g = Cover – For Local Electronics / Sensor Enclosure B or G.

h = Remote Enclosure & Cover 0A, 1B or 1G.

816RabcdC1ef9E. Classic 816 Threaded Retractable Packing Gland.

XP//1/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+ H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Material of Construction – Sensor A, G, J, O, M, T or X.

b = Process Connection – MNPT E or F.

c = Pressure Rating – Retractable Packing Gland J, T or X.

d = Insertion 'U' Lengths 0060, 0120, 0180, 0240, 0360, 0480, 0600, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).

e = Cover – For Local Electronics / Sensor Enclosure B or G.

f = Remote Enclosure & Cover 0A, 1B or 1G.

821RAabC1cd9E. Classic 821 Threaded (Single Probe).

XP//1/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+ H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Process Connection – MNPT A, B, C, D, E, F, G or H.

b = Insertion 'U' Lengths 0020, 0040, 0060, 0090, 0120, 0180 0240, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).

c = Cover – For Local Electronics / Sensor Enclosure B or G.

d = Remote Enclosure & Cover 0A, 1B or 1G.

823RAabcdC1ef9E. Classic 823 Flanged (Single Probe).

XP//1/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Process Connection – Flange A or B.

b = Flange 111, 112, 113, 114, 115, 116, 121, 122, 123, 124, 125, 126, 131, 132, 133, 134, 135, 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165, 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195, 196, 201, 202, 203, 204, 205 or 206.

c = Flange Material A, E, G, J, M, O, R, T or X.

d = Insertion Length Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).

e = Cover – For Local Electronics / Sensor Enclosure B or G.

f = Remote Enclosure & Cover 0A, 1B or 1G.

828RA6abC1cd9E. Classic 828 Sanitary Flanged.

XP//1/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+ H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Process Connection – Sanitary Flange (Tri-Clamp) E, G, H, J, K or L.

b = Insertion 'U' Lengths 0012, 0020, 0040, 0060, 0090, 0120, 0180, 0240, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).

c = Cover – For Local Electronics / Sensor Enclosure B or G.

d = Remote Enclosure & Cover 0A, 1B or 1G.

830RA3D0035abcdC1ef9E. Classic 830 InLine Threaded.

XP//1/BCD/T2D Ta = 75°C; T3 Ta= 65°C;

I/1/AEx d IIB+ H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55

a = Bleed Port A.

b = Sensor Orientation H or V.

c = Injection Tubes 0, 1 or 2.

d = Mounting Bracket Kit A or B.

e = Cover – For Local Electronics / Sensor Enclosure B or G.
 f = Remote Enclosure & Cover 0A, 1B or 1G.

832RA3abcdefgC1hi9E. Classic 832 InLine Flanged.

XP//1/BCD/T2D Ta = 75°C; T3 Ta= 65°C;
 I/1/AEx d IIB+ H₂/T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
 a = Process Connection – Flange A or B.
 b = Flange 111, 112, 113, 114, 115, 116, 121, 122, 123, 124, 125, 126, 131, 132, 133, 134, 135, 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165, 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195, 196, 201, 202, 203, 204, 205 or 206.
 c = Flange Material A, E, G, J, M, O, R, T or X.
 d = Assembly Body Length 0070, 0080, 0090, 0100, 0110, 0120, 0130, 0140, 0150, 0160, 0170, 0180, 0190, 0200, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 180 cm or 72 inches).
 e = Bleed Port A.
 f = Sensor Orientation H or V.
 g = Pipe Schedule 0, 1 or 2.
 h = Cover – For Local Electronics / Sensor Enclosure B or G.
 i = Remote Enclosure & Cover 0A, 1B or 1G.

410Rabcd1ef9E. Basic 410 Threaded.

XP//1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
 I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
 a = Material of Construction – Sensor A, G, J, M, O, T or X.
 b = Process Connection – MNPT D, E, F, G or H.
 c = Insertion 'U' Lengths 0012, 0020, 0040, 0060, 0090, 0120, 0180 0240, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).
 d = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
 e = Cover – For Local Electronics / Sensor Enclosure B or G.
 f = Remote Enclosure & Cover 0A, 1B or 1G.

412Rabcdef1gh9E. Basic 412 Flanged.

XP//1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
 I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
 a = Material of Construction – Sensor A, G, J, M, O, T or X.
 b = Process Connection – Flange A or B.
 c = Flange 121, 122, 123, 124, 125, 126 131, 132, 133, 134, 135, 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165, 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195, 196, 201, 202, 203, 204, 205 or 206.
 d = Flange Material A, E, G, J, M, O, R, T or X.
 e = Insertion Length Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).
 f = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
 g = Cover – For Local Electronics / Sensor Enclosure B or G.
 h = Remote Enclosure & Cover 0A, 1B or 1G.

414Rabcdefg1hi9E. Basic 414 Flanged Retractable Packing Gland.

XP//1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
 I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
 a = Material of Construction – Sensor A, X or T.
 b = Process Connection – Flange A or B.

c = Flange 131, 132, 133, 134, 135, 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165, 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195, 196, 201, 202, 203, 204, 205 or 206.
d = Flange Material A, E, G, J, M, O, R, T or X.
e = Pressure Rating J, T or X.
f = Insertion Length Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).
g = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
h = Cover – For Local Electronics / Sensor Enclosure B or G.
i = Remote Enclosure & Cover 0A, 1B or 1G.

416Rabcde1fg9E. Basic 416 Threaded Retractable Packing Gland.

XP//1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
a = Material of Construction – Sensor A, G, J, M, O, T or X.
b = Process Connection MNPT E or F.
c = Pressure Rating – Retractable Packing Gland J, T or X.
d = Insertion 'U' Lengths 0060, 0120, 0180, 0240, 0360, 0480, 0600, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).
e = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
f = Cover – For Local Electronics / Sensor Enclosure B or G.
g = Remote Enclosure & Cover 0A, 1B or 1G.

421RAabc1de9E. Basic 421 Threaded (Single Probe).

XP//1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
a = Process Connection – MNPT A, B, C, D, E, F, G or H.
b = Insertion 'U' Lengths 0020, 0040, 0060, 0090, 0120, 0180 0240, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).
c = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
d = Cover – For Local Electronics / Sensor Enclosure B or G.
e = Remote Enclosure & Cover 0A, 1B or 1G.

423RAabcde1g9E. Basic 423 Flanged (Single Probe).

XP//1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
a = Process Connection – Flange A or B.
b = Flange 121, 122, 123, 124, 125, 126, 131, 132, 133, 134, 135, 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165, 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195, 196, 201, 202, 203, 204, 205 or 206.
c = Flange Material A, E, G, J, M, O, R, T or X.
d = Insertion Length Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).
e = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
f = Cover – For Local Electronics / Sensor Enclosure B or G.
g = Remote Enclosure & Cover 0A, 1B or 1G.

428RA6abc1de92E. Basic 428 Sanitary Flanged.

XP//1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
a = Process Connection – Sanitary Flange (Tri-Clamp) E, G, H, J, K or L.
b = Insertion 'U' Lengths: 0012, 0020, 0040, 0060, 0090, 0120, 0180 0240, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 730cm or 288 inches).
c = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.

d = Cover – For Local Electronics / Sensor Enclosure B or G
 e = Remote Enclosure & Cover 0A, 1B or 1G.

430RA3D0035Aabcde1fg9E. Basic 430 InLine Threaded.

XP/II/1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
 I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
 a = Bleed Port A.
 b =Sensor Orientation H or V.
 c = Injection Tubes 0, 1 or 2.
 d = Mounting Bracket Kit A or B.
 e = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
 f = Cover – For Local Electronics / Sensor Enclosure B or G.
 g = Remote Enclosure & Cover 0A, 1B or 1G.

432RA3abcde1fg9E. Basic 432 InLine Flanged.

XP/II/1/CD/ T2D Ta = 75°C; T3 Ta= 65°C;
 I/1/AEx d IIB/ T2 Ta = 75°C; T3 Ta= 65°C; Type 4/IP55
 a = Process Connection – Flange A or B.
 b = Flange 111, 112, 113, 114, 115, 116, 121, 122, 123, 124, 125, 126, 131, 132, 133, 134, 135,
 136, 141, 142, 143, 144, 145, 146, 151, 152, 153, 154, 155, 156, 161, 162, 163, 164, 165,
 166, 171, 172, 173, 174, 175, 176, 181, 182, 183, 184, 185, 186, 191, 192, 193, 194, 195,
 196, 201, 202, 203, 204, 205 or 206.
 c = Flange Material A, E, G, J, M, O, R, T or X.
 d = Assembly Body Length 0070, 0080, 0090, 0100, 0110, 0120, 0130, 0140, 0150, 0160, 0170,
 0180, 0190, 0200, Mxxxx or lxxxx (xxxx = custom length up to a maximum of 180 cm or 72
 inches).
 e = Bleed Port A.
 f = Sensor Orientation H or V.
 g = Pipe Schedule 0, 1 or 2.
 h = Input Power 12/24 VDC & 115/230 VAC or 12/24 VDC C or D.
 i = Cover – For Local Electronics / Sensor Enclosure B or G.
 j = Remote Enclosure & Cover 0A, 1B or 1G.

Equipment Ratings:

Classic 800 Series Thermal Switch as Explosionproof for Class I, Division 1, Groups B, C and D, T2D Ta = 75°C; T3 Ta= 65°C; Flameproof for use in Class I, Zone 1, AEx d IIB+H₂, T2 Ta = 75°C; T3 Ta= 65°C; Hazardous (Classified) Locations, indoors and outdoors (Type 4/IP55).

Basic 400 Series Thermal Switch as Explosionproof for Class I, Division 1, Groups C and D, T2D Ta = 75°C; T3 Ta= 65°C; Flameproof for use in Class I, Zone 1, AEx d IIB, T2 Ta = 75°C; T3 Ta= 65°C; Hazardous (Classified) Locations, indoors and outdoors (Type 4/IP55).

Approved for:

Kayden Instruments, Inc.
 Calgary, AB Canada



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

Class 3600	1998
Class 3615	1989
Class 3810	2005
ANSI/NEMA 250	1991
ANSI/IEC 60529	2004
ANSI/ISA-12.00.01	2002
ANSI/ISA-12.22.01	2002

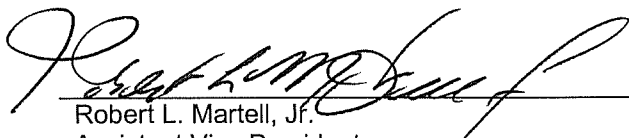
Original Project ID: 3021488

FM Approval Granted: *Dec. 14, 2005*

Subsequent Revision Reports / Date FM Approval Amended

Report Number	Date	Report Number	Date
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FM Global Technologies LLC



 Robert L. Martell, Jr.
 Assistant Vice President
 FM Approvals

Dec 14, 2005

 Date