

FM Approvals
1151 Boston Providence Turnpike
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

Optiflex 2200 C/F Measurement Instrument

Models: VF200abcdefghijklmnpqrst or VF204abcdefghijklmnpqrst or SF209abcdefghijklmnpqrst

IS / I, II, III / 1 / A, B, C, D, E, F, G / T* - F08.210101.17, Entity, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
I / 0, 1 / AEx ia IIC / T*, F08.210101.17, Entity, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
DIP / II, III / 1 / E, F, G / T90°C - F08.210101.17, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
20, 21, 22 / AEx ia / IIC / T90°C - F08.210101.17, Entity, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
XP-AIS / I / 1 / A, B, C, D / T* - F08.210101.17, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
I / 1, 0 / AEx d [ia] / IIC / T* - F08.210101.17, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
20, 21, 22 / AEx tb [ia] / IIC / T90°C, - F08.210101.17, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
NI / I / 2 / A, B, C, D / T* - F08.210101.17, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
I / 2 / AEx nA / IIC / T* - F08.210101.17, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
I / 2 / AEx ic IIC / T* FISCO - F08.210101.17, $-40^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$;
Type 4X (enclosure) and 6P (probe); IP66/67; Dual Seal or Single Seal as applicable.

Parameters:

IS/AEx ia (j=1): Entity: $U_i \leq 30\text{Vdc}$; $I_i \leq 300\text{mA}$; $P_i \leq 1\text{W}$; $C_i = 30\text{nF}$; $L_i = 30\mu\text{H}$
IS/AEx ia (j=A, B): Entity: $U_i \leq 24\text{Vdc}$; $I_i \leq 300\text{mA}$; $P_i \leq 1.2\text{W}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
IS/AEx ia (j=A, B): FISCO: $U_i \leq 17.5\text{Vdc}$; $I_i \leq 380\text{mA}$; $P_i \leq 5.32\text{W}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
XP-AIS/DIP/AEx d[ia]/AEx tb [ia] (j=1): $U_i \leq 36\text{Vdc}$; $U_m = 250\text{Vac}$
XP-AIS/DIP/AEx d[ia]/AEx tb [ia] (j=A, B): Entity: $U_i \leq 24\text{Vdc}$; $I_i \leq 300\text{mA}$; $P_i \leq 1.2\text{W}$; $C_i = 1\text{nF}$;
 $L_i = 4\mu\text{H}$
XP-AIS/DIP/AEx d[ia]/AEx tb [ia] (j=A, B): FISCO: $U_i \leq 17.5\text{Vdc}$; $I_i \leq 380\text{mA}$; $P_i \leq 5.32\text{W}$; $C_i = 1\text{nF}$;
 $L_i = 4\mu\text{H}$
NI/AEx nA (j=1): $U_i \leq 36\text{Vdc}$; $U_m = 250\text{Vac}$
NI/AEx nA (j=A, B); NIFW: $U_i \leq 32\text{Vdc}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
IS/AEx ic (j=A, B): FISCO $U_i \leq 17.5\text{Vdc}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
Outputs for the remote: $U_o \leq 6.6\text{Vdc}$; $I_o \leq 1.36\text{A}$; $P_o \leq 1.02\text{W}$; $C_o = 2.7\mu\text{F}$; $L_o = 65\mu\text{H}$

a Converter/Version (housing material)

0: Without

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

0003045558

- 1: OPTIFLEX 2200 C/Compact (aluminium)
- 2: OPTIFLEX 2200 C/Compact (stainless steel)
- 3: OPTIFLEX 2200 F/Sensor (aluminium) with remote Converter (aluminium)
- 4: OPTIFLEX 2200 F/Sensor (stainless steel) with remote Converter (aluminium)
- 5: OPTIFLEX 2200 F/Sensor (stainless steel) with remote Converter (aluminium)
- b Approval
 - A: cFMus IS Cl. I/II/III DIV 1 GPS A-G; CL I Zone 0/20, AEx ia IIC/IIIC; T2...T6
 - B: cFMus XP-AIS/DIP CL I/II/III DIV 1 GPS A-G; CL I Zone 0/20 AEx d/tb IIC/IIIC; T2...T6
 - C: cFMus NI CL I DIV 2 GPS A-G; CL I, Zone 2, AEx nA IIC; T2...T6
- c Other approval (one digit, not safety relevant)
- d Pressure/Temperature/Sealing
 - 0: Without
 - 1: 40 Bar/-40°C...+150°C/FKM
 - 2: 40 Bar/-20°C...+150°C/Kalrez 6375
 - 3: 40 Bar/-50°C...+150°C/EPDM
 - 6: 40 Bar/-40°C...+300°C (HT)/FKM
 - 7: 40 Bar/-20°C...+300°C(HT)/Kalrez 6375
 - 8: 40 Bar/-50°C...+250°C (HT)/EPDM
 - C: 300 Bar (HP)/-40°C...+150°C/FKM
 - D: 300 Bar (HP)/-20°C...+150°C/Kalrez 6375
 - E: 300 Bar (HP)/-50°C...+150°C/EPDM
 - H: 300 Bar (HP)/-40°C...+300°C (HT)/FKM
 - K: 300 Bar (HP)/-20°C...+300°C(HT)/Kalrez 6375
 - L: 300 Bar (HP)/-50°C...+250°C (HT)/EPDM
- e Material/Probe
 - 0: Without
 - 1: 316L/Single rod O8mm max. 4m
 - 2: 316L/Single rod O8mm segmented max. 6m
 - 3: 316L/Single cable O2mm max. 40m (liquid only)
 - 4: 316L/Single cable O4mm max. 40m (liquid) or 20m (solid)
 - 6: 316L/Double rod O8mm max. 4m
 - 7: 316L/Double cable O4mm max. 40m (liquid only)
 - A: 316L/Coax O22mm max. 6m
 - B: 316L/Coax O22mm segmented max. 6m
 - D: Hastelloy C22/Single cable O2mm max. 40m (liquid only)
 - E: Hastelloy C22/Coax O22mm
 - G: FEP/Single cable full coated including counterweight (IIB)
 - K: 316L/No probe (Single - rod O8mm or cable O4mm)
 - L: 316L/No probe (Double - rod O8mm or cable O4mm)
- f Material/Probe end type (one digit, not safety relevant)
- g Process connection size
 - 0: Without
 - C: DN15 -1/2" -15A
 - D: DN20 -3/4" -20A
 - E: DN25 -1" -25A
 - F: DN32 -1 1/4" -32A
 - G: DN40 -1 1/2" -40A
 - H: DN50 -2" -50A
 - K: DN65 -2 1/2" -65A
 - L: DN80 -3" -80A
 - M: DN100 -4" -100A
 - N: DN125 -5" -125A
 - P: DN150 -6" -150A
 - R: DN200 -8" -200A
- h Process connection pressure class
 - 0: Without

- 1: 150LBS ASME B 16.5
- 2: 300LBS ASME B 16.5
- 3: 600LBS ASME B 16.5
- 4: 900LBS ASME B 16.5
- A: NPT threaded – B1.20.1
- B: NPTF threaded – B1.20.6 (Dryseal)
- D: PN10 EN 1092-1
- E: PN16 EN 1092-1
- F: PN25 EN 1092-1
- G: PN40 EN 1092-1
- H: PN63 EN 1092-1
- K: PN100 EN 1092-1
- P: GA threaded ISO228
- U: JIS 10K B 2220
- V: JIS 20K B 2220
- W: JIS 40K B 2220
- i Process connection sealing face/sanitary
 - 0: Without
 - 1: Standard Form B1 EN1092-1
 - 2: Standard Form B2 EN1092-1
 - 3: Form C EN1092-1(tongue)
 - 4: Form D EN1092-1(groove)
 - 5: Form E EN1092-1(male)
 - 6: Form F EN1092-1(female)
 - A: RF ASME B16.5 (raised face)
 - B: FF ASME B16.5 (flat face)
 - C: LG ASME B16.5 (large groove)
 - D: LF ASME B16.5 (large female)
 - E: LT ASME B16.5 (large tongue)
 - F: LM ASME B16.5 (large male)
 - G: SG ASME B16.5 (small groove)
 - H: SF ASME B16.5 (small female)
 - K: ST ASME B16.5 (small tongue)
 - L: SM ASME B16.5 (small male)
 - M: RJ ASME B16.5 (ring joint)
 - P: RF JIS 2220 (raised face)
- j Output
 - 0: Without
 - 1: 2 wires - 4...20mA passive HART
 - A: Foundation Fieldbus (2 wire)
 - B: PROFIBUS PA (2 wire)
- k Cable entry/Cable gland
 - 0: Without
 - 1: M20x1.5/Without
 - 2: M20x1.5/Plastic (non-Ex: black, Ex i: blue)
 - 3: M20x1.5/Brass (only for Ex d devices)
 - 4: M20x1.5/Stainless Steel (only for Ex d devices)
 - A: 1/2 NPT (Brass)/Without
 - B: 1/2 NPT (Stainless Steel)/Without
- l Housing option/Display
 - 0: Without
 - 1: Horizontal housing / No Display
 - 2: Horizontal housing / Display
 - 3: Horizontal housing / No display + Weather protection
 - 4: Horizontal housing / Display + Weather protection
 - A: Vertical housing / No display

- B: Vertical housing / Display top
- C: Vertical housing / Display side
- D: Vertical housing / No display + Weather protection
- E: Vertical housing / Display top + Weather protection
- F: Vertical housing / Display side + Weather protection
- m Operating language (one digit, not safety relevant)
- n Version
 - 0: KROHNE (RAL9006/RAL5005)
 - 6: KROHNE USA (RAL9006/RAL5005)
- o Module Option
 - 0: Without
- p Remote option
 - 0: Without
 - 6: Signal cable 10m (OPTIFLEX 2200F only)
 - 7: Signal cable 25m (OPTIFLEX 2200F only)
 - 8: Signal cable 50m (OPTIFLEX 2200F only)
 - A: Signal cable 75m (OPTIFLEX 2200F only)
 - B: Signal cable 100m (OPTIFLEX 2200F only)
- q Adaptors
 - 0: Without
 - 1: BM100A Adaptor
 - 2: BM102 Adaptor
 - 3: Optiflex 1300C Adaptor
- r Calibration certificate (one digit, not safety relevant)
- s Drawing / TAG Number (one digit, not safety relevant)
- t Other constructions (one digit, not safety relevant)

Optiwave 5200 C/F Measuring Instrument

Models: VF500abcdefghijklmnpqrst or VF504abcdefghijklmnpqrst or
SF509abcdefghijklmnpqrst

IS / I, II, III / 1 / A, B, C, D, E, F, G / T* - F08.210101.18, Entity, -40°C < Ta < +80°C;
I / 0, 1 / AEx ia IIC / T* - F08.210101.18, Entity, -40°C < Ta < +80°C;
DIP / II, III / 1 / E, F, G / T90°C - F08.210101.18, -40°C < Ta < +80°C;
20, 21, 22 / AEx ia IIIC / T90°C, F08.210101.18, Entity, -40°C < Ta < +80°C;
XP-AIS / I / 1 / A, B, C, D / T* - F08.210101.18/ -40°C < Ta < +80°C;
I / 1, 0 / AEx d [ia] IIC / T* - F08.210101.18, -40°C < Ta < +80°C;
20, 21, 22 / AEx tb [ia] IIIC / T90°C, - F08.210101.18, -40°C < Ta < +80°C;
NI / I / 2 / A, B, C, D / T* - F08.210101.18, -40°C < Ta < +80°C;
I / 2 / AEx nA IIC / T* - F08.210101.18, -40°C < Ta < +80°C;
IS / I / 2 / AEx ic IIC / T* FISCO – F08.210101.18, -40°C < Ta < +80°C;
Type 4X (enclosure) and 6P (antenna); IP66/67; Dual Seal or Single Seal as applicable

Parameters:

IS/AEx ia (j=1): Entity: $U_i \leq 30\text{Vdc}$; $I_i \leq 300\text{mA}$; $P_i \leq 1\text{W}$; $C_i = 30\text{nF}$; $L_i = 30\mu\text{H}$
IS/AEx ia (j=A, B): Entity: $U_i \leq 24\text{Vdc}$; $I_i \leq 300\text{mA}$; $P_i \leq 1.2\text{W}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
IS/AEx ia (j=A, B): FISCO: $U_i \leq 17.5\text{Vdc}$; $I_i \leq 380\text{mA}$; $P_i \leq 5.32\text{W}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
XP-AIS/DIP/AEx d[ia]/AEx tb [ia] (j=1): $U_i \leq 36\text{Vdc}$; $U_m = 250\text{Vac}$
XP-AIS/DIP/AEx d[ia]/AEx tb [ia] (j=A, B): Entity: $U_i \leq 24\text{Vdc}$; $I_i \leq 300\text{mA}$; $P_i \leq 1.2\text{W}$; $C_i = 1\text{nF}$;
 $L_i = 4\mu\text{H}$
XP-AIS/DIP/AEx d[ia]/AEx tb [ia] (j=A, B): FISCO: $U_i \leq 17.5\text{Vdc}$; $I_i \leq 380\text{mA}$; $P_i \leq 5.32\text{W}$; $C_i = 1\text{nF}$;
 $L_i = 4\mu\text{H}$
NI/AEx nA (j=1): $U_i \leq 36\text{Vdc}$; $U_m = 250\text{Vac}$
NI/AEx nA (j=A, B): NIFW: $U_i \leq 32\text{Vdc}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
IS/AEx ic (j=A, B): FISCO: $U_i \leq 17.5\text{Vdc}$; $C_i = 1\text{nF}$; $L_i = 4\mu\text{H}$
Outputs for the remote: $U_o \leq 6.6\text{Vdc}$; $I_o \leq 1.36\text{A}$; $P_o \leq 1.02\text{W}$; $C_o = 2.7\mu\text{F}$; $L_o = 65\mu\text{H}$

a Converter/Version (housing material)

- 0: Without
- 1: OPTIWAVE 5200 C/Compact (aluminium)
- 2: OPTIWAVE 5200 C/Compact (stainless steel)
- 3: OPTIWAVE 5200 F/Sensor (aluminium) with remote Converter (aluminium)
- 4: OPTIWAVE 5200 F/Sensor (stainless steel) with remote Converter (aluminium)
- 5: OPTIWAVE 5200 F/Sensor (stainless steel) with remote Converter (aluminium)

b Approval

- A: cFMus IS CL I/II/III DIV 1 GPS A-G; CL I Zone 0/20, AEx ia IIC/IIIC; T2...T6
- B: cFMus XP-AIS/DIP CL I/II/III DIV 1 GPS A-G; CL I Zone 0/20 AEx d/tb IIC/IIIC; T2...T6
- C: cFMus NI CL I DIV 2 GPS A-G; CL I, Zone 2, AEx nA IIC; T2...T6

c Other approval (one digit, not safety relevant)

d Pressure/Temperature/Sealing

- 0: Without
- 1: V96; 40 Bar / -40°C...+150°C / FKM, FPM
- 5: V96; 40 Bar / -50°C...+130°C / EPDM
- 6: V96; 40 Bar / -20°C...+150°C / Kalrez 6375
- A: V96; 40 Bar / -60°C...+130°C / PFA
- D: V96 HT; 40 Bar / -40°C...+200°C / FKM FPM
- K: V96 HT; 40 Bar / -20°C...+250°C / Kalrez 6375
- R: Wave Horn; 16 Bar / -20°C...+100°C / PP
- T: Wave horn; 40 Bar / -50°C...+150°C / PTFE

e Material/Antenna

- 0: Without
- 1: 316 L / Metallic horn (sheet metal) DN80 (3")

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

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- 2: 316 L / Metallic horn (sheet metal) DN100 (4")
- 3: 316 L / Metallic horn (sheet metal) DN150 (6")
- 4: 316 L / Metallic horn (sheet metal) DN200 (8")
- G: PP / Wave Horn L=317mm
- H: PTFE / Wave Horn L=300mm
- L: 316 L / Metallic wave guide ≤ 1 m (3.28 ft)
- M: 316 L / Metallic wave guide ≤ 1.5 m (4.92 ft)
- N: 316 L / Metallic wave guide ≤ 2 m (6.56 ft)
- P: 316 L / Metallic wave guide ≤ 2.5 m (8.2 ft)
- R: 316 L / Metallic wave guide ≤ 3 m (9.84 ft)
- S: 316 L / Metallic wave guide ≤ 3.5 m (11.48 ft)
- T: 316 L / Metallic wave guide ≤ 4 m (13.12 ft)
- U: 316 L / Metallic wave guide ≤ 4.5 m (14.76 ft)
- V: 316 L / Metallic wave guide ≤ 5 m (16.4 ft)
- W: 316 L / Metallic wave guide ≤ 5.5 m (18.04 ft)
- X: 316 L / Metallic wave guide ≤ 6 m (19.68 ft)

f Material/Antenna extension

- 0: Without
- 6: PTFE / 100 mm (4")
- 7: PTFE / 200 mm (8")
- 8: PTFE / 300 mm (12")
- E: 316 L / 100 mm (4")
- F: 316 L / 200 mm (8")
- G: 316 L / 300 mm (12")
- H: 316 L / 400 mm (16")
- K: 316 L / 500 mm (20")
- R: 316 L / 1000 mm (40")
- W: 316 L / S-shaped extension
- X: 316 L / 90° bended

g Process connection size

- 0: Without
- G: DN40 -1 1/2" -40A
- H: DN50 -2" -50A
- K: DN65 -2 1/2" -65A
- L: DN80 -3" -80A
- M: DN100 -4" -100A
- N: DN125 -5" -125A
- P: DN150 -6" -150A
- R: DN200 -8" -200A

h Process connection pressure class

- 0: Without
- 1: 150LBS ASME B 16.5
- 2: 300LBS ASME B 16.5
- 3: 600LBS ASME B 16.5
- 4: 900LBS ASME B 16.5
- A: NPT threaded – B1.20.1
- D: PN10 EN 1092-1
- E: PN16 EN 1092-1
- F: PN25 EN 1092-1
- G: PN40 EN 1092-1
- H: PN63 EN 1092-1
- K: PN100 EN 1092-1
- P: GA threaded ISO228
- U: JIS 10K B 2220

i Process connection sealing face/sanitary

- 0: Without

- 1: Standard Form B1 EN1092-1
- 2: Standard Form B2 EN1092-1 (acc. to customer requirement)
- 3: Form C EN1092-1(tongue)
- 4: Form D EN1092-1(groove)
- 5: Form E EN1092-1(male)
- 6: Form F EN1092-1(female)
- A: RF ASME B16.5 (raised face)
- B: FF ASME B16.5 (flat face)
- C: LG ASME B16.5 (large groove)
- D: LF ASME B16.5 (large female)
- E: LT ASME B16.5 (large tongue)
- F: LM ASME B16.5 (large male)
- G: SG ASME B16.5 (small groove)
- H: SF ASME B16.5 (small female)
- K: ST ASME B16.5 (small tongue)
- L: SM ASME B16.5 (small male)
- M: RJ ASME B16.5 (ring joint)
- P: RF JIS 2220 (raised face)
- j Output
 - 0: Without
 - 1: 2 wires - 4...20mA passive HART
 - A: Foundation Fieldbus (2 wire)
 - B: PROFIBUS PA (2 wire)
- k Cable entry/Cable gland
 - 0: Without
 - 1: M20x1.5/Without
 - 2: M20x1.5/Plastic (non-Ex: black, Ex i: blue)
 - 3: M20x1.5/Brass (only for Ex d devices)
 - 4: M20x1.5/Stainless Steel (only for Ex d devices)
 - A: 1/2 NPT (Brass)/Without
 - B: 1/2 NPT (Stainless Steel)/Without
- l Housing option/Display
 - 0: Without
 - 1: Horizontal housing / No Display
 - 2: Horizontal housing / Display
 - 3: Horizontal housing / No display + Weather protection
 - 4: Horizontal housing / Display + Weather protection
 - A: Vertical housing / No display
 - B: Vertical housing / Display top
 - C: Vertical housing / Display side
 - D: Vertical housing / No display + Weather protection
 - E: Vertical housing / Display top + Weather protection
 - F: Vertical housing / Display side + Weather protection
- m Operating language (one digit, not safety relevant)
- n Version
 - 0: KROHNE (RAL9006/RAL5005)
 - 6: KROHNE USA (RAL9006/RAL5005)
- o Module Option
 - 0: Without
- p Remote Option
 - 0: Without
 - 6: Signal Cable 10m (OPTIWAVE 5200F only)
 - 7: Signal Cable 25m (OPTIWAVE 5200F only)
 - 8: Signal Cable 50m (OPTIWAVE 5200F only)
 - A: Signal Cable 75m (OPTIWAVE 5200F only)
 - B: Signal Cable 100m (OPTIWAVE 5200F only)

- q Adaptor
 - 0: Without
 - 1: Adaptor for BM70X
- r Calibration certificate (one digit, not safety relevant)
- s Drawing / TAG Number (one digit, not safety relevant)
- t Other constructions
 - 0: Without
 - 1: NACE MR 0175/MR 0103
 - 3: Heating / Cooling (for metallic Horn antenna only)
 - 5: Purging (for metallic Horn antenna only)

Equipment Ratings:

Intrinsically safe for Class I, II & III, Division 1, Group A, B, C, D, E, F & G, $T^* -40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$; alternatively intrinsically safe for Class I, Zone 0, 1, Group IIC $T^* -40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$ in accordance with entity and FISCO requirements when installed per Installation Drawing F08.210101.17 (Optiflex 2200 C/F) or F08.210101.18 (Optiwave 5200 C/F)

Nonincendive for Class I, Division 2, Group A, B, C & D, $T^* -40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$; alternatively for Class I, Zone 2, Group IIC $T^* -40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$; per installation Drawing F08.210101.17 (Optiflex 2200 C/F) or F08.210101.18 (Optiwave 5200 C/F)

Explosionproof with intrinsically safe outputs for Class I, Division 1, Groups A, B, C and D, T^* , $-40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$ alternatively Class I, Zone 1, Group IIC $T^* -40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$ per installation Drawing F08.210101.17 (Optiflex 2200 C/F) or F08.210101.18 (Optiwave 5200 C/F); and

Dust-ignitionproof for use in Class II/III, Division 1, Groups E, F and G, alternatively Zone 20, 21, 22, Group IIIC T90C for hazardous (classified) locations, indoors and outdoors (Type 4X/6P/IP66/IP67), with T^* rating for an ambient temperature range of -40°C to $+80^{\circ}\text{C}$ with Dual Seal or Single Seal as applicable.

FM Approved for:

Krohne SAS
F-26103 ROMANS Cedex, France

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

Class 3610	2010
Class 3611	2004
Class 3615	2006
Class 3616	2011
Class 3600	2011
Class 3810	2005
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-1	2009
ANSI/ISA 60079-11	2011
ANSI/ISA 60079-15	2009
ANSI/ISA 60079-31	2009
ANSI/ISA 12.27-01	2003
ANSI/IEC 60529	2004
ANSI/NEMA 250	2008
ANSI/ISA 61010-1(82.02.01)	2004

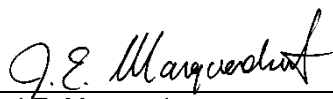
Original Project ID: 0003045558

Approval Granted: November 15, 2012

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3048803	February 17, 2014		

FM Approvals LLC



J.E. Marquedant
Group Manager, Electrical

17 February 2014

Date