Certificate of Compliance

Certificate: 70024231 **Master Contract:** 206947

Project: 80063169 **Date Issued:** 2021-06-21

Issued To: **PR Electronics A/S**
Lerbakken 10, Lerbakken 2
Ronde, South Denmark, DK-8410
Denmark

Attention: Peter Bergmann

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: Joshua Burdeshaw

C US

PRODUCTS
CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations - Certified to US Standards

Class I, Division 1, Groups A, B, C, and D T6…T4; Class II, Division 1, Groups E, F, and G; Class III
Ex ia IIC T6...T4 Ga
Class I, Zone 0, AEx ia IIC T6...T4 Ga
Ex ic IIC T6…T4 Gc
Class I, Zone 2 AEx ic IIC T6...T4 Gc

Temperature transmitter component. Models 7501Xab2d12 may be followed by additional alphanumeric characters.

Where:

X = A (aluminum housing) or B (stainless steel housing)
a = 1 (no display), 2 (display), or 3 (keypad and display)
b = SEAL
A (silicone, rated -40°C to 85°C),
B (FKM, rated -20°C to 85°C)
d = A (epoxy paint), or B (epoxy + polyurethane paint)

Supply Terminal: 1,2 - Um = 35V. Ui: 30 VDC; Ii: 120 mA; Pi: 0.84 W; Li: 0 µH; Ci: 2 nF
Sensor Terminal: 3,4,5,6 - Uo: 9.6 VDC; Io: 28 mA; Po: 67 mW; Lo: 35 mH; Co: 3.5µF
Intrinsically safe when installed per PR Electronics control drawing #7501QC01.
Enclosure rated: IP68, Type 4X

Ambient Temperature Ratings:
-nn˚C to +85˚C for temperature class T4 or maximum surface temperature T100˚C (7501A only)
-nn˚C to +80˚C for temperature class T4 or maximum surface temperature T100˚C (7501B only)
-nn˚C to +60˚C for temperature class T5 or maximum surface temperature T75˚C;
-nn˚C to +45˚C for temperature class T6 or maximum surface temperature T60 ˚C;
Where -nn = -40°C when b = A, and -20°C when b = B

Conditions of Acceptability:

1. This is a partial assembly certified as a component and is intended to be assembled with a third-party sensor where the final assembly is subject to investigation by CSA and the local Authority Having Jurisdiction at the time of installation.
2. For Class II (dust) installations, electrostatic charging of the paint layer shall be avoided.
3. Must be installed such that ignition sources due to impact and friction sparks are excluded.
4. Third party sensors shall be rated with enclosure type rating 4X and IP rating of at least IP68 to maintain the ratings of this equipment.
5. Third party sensors shall be rated Class I, Division 1, Groups A, B, C, and D T6…T4; Class II, Division 1, Groups E, F, and G; Class III; Ex ia IIC T6...T4 Ga; Class I, Zone 0, AEx ia IIC T6...T4 Ga; Ex ic IIC T6…T4 Gc; Class I, Zone 2 AEx ic IIC T6...T4 Gc, as appropriate for the application, and be connected using the entity parameters defined on control drawing 7501QC01.

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Class I, Division 1, Groups A, B, C and D T6...T4; Class II, Division 1, Groups E, F and G; Class III:
Ex db IIC T6…T4 Gb
Class I, Zone 1, AEx db IIC T6…T4 Gb

Temperature transmitter component. Models 7501X1a2d12 may be followed by additional alphanumeric characters.
Rated 10 - 35 VDC, 23mA. Enclosure rated Type 4X, IP68.

Where

a = sealing material
A = -40˚C to +85˚C (silicone, rated -40°C to 85°C),
B = -20˚C to +85˚C (FKM rubber, rated -20°C to 85°C)
d = A or B

Ambient Temperature Ratings:
-nn˚C to +85˚C for temperature class T4 and T5 (7501A only)
-nn˚C to +80˚C for temperature class T4 and T5 (7501B only)
-nn˚C to +70˚C for temperature class T6;
Where -nn = -40°C when b = A, and -20°C when b = B

Conditions of Acceptability:

1. This partial assembly is certified as a component and is intended to be assembled with a sensor where the final assembly is subject to investigation by CSA and the local Authority Having Jurisdiction at the time of installation.
2. May only be used with sensors that are Certified Class I, Division 1, Groups A, B, C D; Class II, Division 1, Groups E, F, G, and Ex db IIC, with enclosure type rating 4X and IP rating of at least IP68. Sensors installed at the enclosure shall be demonstrated to withstand a Peak Explosion Pressure 3.62 bar (52.5 psi / 362 kPa).
3. The Maximum Power Dissipation of the complete assembly of transmitter and sensor shall not exceed 1W.
4. When installed with remote sensor and cable in conduit a seal must be installed at the enclosure.
5. For Class II (dust) installations, electrostatic charging of the paint layer shall be avoided.
6. Must be installed such, that ignition sources due to impact and friction sparks are excluded.
7. Only Blind Plugs type 8550-xxx and 8551-xxx supplied with the 7501, or third party certified Blind Plugs suitable for Class I, Division 1, Groups A, B, C D; Class II, Division 1, Groups E, F, G, and Ex db IIC, with enclosure type rating 4X and IP rating of at least IP68 and correctly installed may be used.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 0-10	General Requirements-Canadian Electrical Code, Part II
CAN/CSA C22.2 No. 94.2-15	Enclosures for Electrical Equipment, Environmental Considerations
CAN/CSA C22.2 No. 60529:05	Degree of Protection Provided by Enclosures (IP Code)
CSA C22.2 No. 142-M1987(R2009)	Process Control Equipment
CSA C22.2 No. 25-1966	Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
CSA C22.2 No. 30-M1986	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA C22.2 No. 60079-0:11	Explosive atmospheres — Part 0: Equipment — General requirement
CAN/CSA C22.2 No. 60079-1:16 Third Edition	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
CAN/CSA C22.2 No. 60079-11:11	Electrical Apparatus for Explosive Gas Atmospheres – Part 11: Intrinsic Safety "i"

ANSI/IEC 60529-2004	Degrees of Protection Provided by Enclosures (IP Code)
ANSI/UL 50E-15	Enclosures for Electrical Equipment, Environmental Considerations
UL Std No. 916, Ed. 4	Energy Management Equipment
ANSI/UL 913, Ed. 8	Intrinsically Safe Apparatus and for use in Class Associated Apparatus I, II, and III, Division 1, Hazardous (Classified) Locations
ANSI/UL 60079-0, Ed 5	Explosive atmospheres — Part 0: Equipment — General requirement
ANSI/UL 60079-11, Ed. 6	Electrical Apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"
FM 3600 – 1998	Electrical Equipment for Use in Hazardous (Classified) Locations General Requirements.
FM 3611 – 2004	Nonincendive Electrical Equipment for Use in Class I and II, Division 2, and Class III, Division 1 and 2, Hazardous (Classified) Locations
FM 3615 – 2006	Explosionproof Electrical Equipment for Hazardous (Classified) Locations
FM 3616 – 2011	Approval Standard for Dust-Ignitionproof Electrical Equipment General Requirements

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Markings information as shown below and appear on a metal nameplate or adhesive aluminum foil which is secured to enclosure by screws. Separate labels markings are required for Division and Zone.

- Manufacturer's name: "PR Electronics", or CSA Master Contract Number "206947", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model number: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.