



Certificate of Compliance

Certificate: 1125003

Master Contract: 206947

Project: 80005719

Date Issued: 2019-06-20

Issued to: PR Electronics A/S
Lerbakken 10
Ronde, 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: *Semyon Baum*
Semyon Baum

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
Ex ia IIC, Ga
Class I, Zone 0, AEx ia IIC, Ga

Models 5331D, 5332D, 5333D, 5335D, 5336D, 5337D, 6331B2a, 6332B1a, 6333B1a, 6335D2a and 6337D2a temperature transmitters; input rated 8-30V dc, 4-20mA; Input entity parameters for 5331D, 5333D, 5335D, 5336D, 5337D, 6331B2a, 6335D2a, and 6337D2a: $U_i(V_{max})=30V$, $I_i(I_{max})=120mA$, $P_i=0.84W$, $L_i=10\mu H$, $C_i=1nF$; Output entity parameters for models 5335D, 5336D, 5337D, 6335D2a and 6337D2a: $U_o(V_{oc})=9.6V$, $I_o(I_{sc})=28mA$, $P_o(P_{max})=67.2mW$, $C_o(C_a)=3.5\mu F$, $L_o(L_a)=35mH$; Input entity parameters for 6333B1a: $U_i(V_{max})=30V$, $I_i(I_{max})=120mA$, $P_i=0.84W$, $L_i=10\mu H$, $C_i=6.2nF$ and Output for models for 5331D, 5333D, 6331B2a and 6333B1a: Connect to passive or non-energy storing devices such as RTD's Resistors and Thermocouples only.

Intrinsically safe when connected according to Installation Drawings:
5331D, 5333D, 5335D, 5336D, 5337D: 533XQC03
5332D: 5332QC01
6331B2a: 6331QC01



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6332B1a:6332QC01
6333B1a: 6333QC01
6335D2a and 6337D2a: 6335QC02

Temperature Code: T6 for maximum ambient temperature of 60°C and T4 for maximum ambient temperature of 85°C.

Where: a = A (Single Channel) or B (Double Channel)

Note: The units are certified as a component for use within an enclosure where the suitability of the final combination is to be determined by authority having jurisdiction.

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

Class I, Division I, Groups A, B, C and D:

Model 5333Z input rated 8-28V dc and Model 5335Z, input rated 8-30V dc, 4-20mA temperature transmitters, intrinsically safe when connected according to Installation Drawing No. 5333ZQC01 and Installation Drawing No. 5335ZQC02; Temperature Code: T6 for maximum ambient temperature of 60°C and T4 for maximum ambient temperature of 85°C.

Note: The units are certified as a component for use within an enclosure where the suitability of the final combination is to be determined by authority having jurisdiction.

Class 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Class 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards

Class I, Division 2, Groups A, B, C, D T6...T4

Class I Zone 2, Ex nA[ic] IIC T6...T4 Gc

NIFW, Class I, Division2 Group A,B,C,D

Class I Zone 2, AEx nA[ic] IIC T6...T4

Model 5331A, 5332A, 5333A, 5335A, 5337A and 6331A2a, 6332A2a, 6333A1a, 6335A2a, 6337A2a Series of Temperature Transmitters Suitable for Class I, Division 2, Groups ABCD & Class I, Zone 2, Ex nA IIC and with Class I, Division 2 & Class I, Zone 2, Ex nA IIC. Wiring Practices and with Non-Incendive Field Wiring Outputs for Class I, Division 2 & Class I, Zone 2, Ex nA [ic] IIC. Ambient temperature -40C to +85C. Install per Non-Incendive Installation drawings:

5331A, 5332A -	5331QC02
5333A -	5333QC02
5335A, 5337A -	5337QC02
6331A2A, 6331A2B -	6331QC02
6333A1A, 6333A1B -	6333QC02
6337A2A, 6337A2B -	6337QC02

Where: a = A (Single Channel) or B (Double Channel)



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Model 6331, 6332, 6333, 6335 and 6337 are DIN rail versions of the sensor head mounted 5331, 5332, 5333, 5335 and 5337 versions

5331a, 6331abc: 2-wire programmable transmitter
 5332a, 6332abc: 2-wire programmable RTD transmitter
 5333a, 6333abc: 2-wire programmable transmitter
 5335a, 6335abc: 2-wire transmitter with HART 5 protocol
 5337a, 6337abc: 2-wire transmitter with HART 7 protocol

a: A = Zone 2 / Div2 approved
 b: 1 = Standard, 2 =Galvanic isolated
 c: A = One Channel, B= Two Channel

53xx: Terminal 1,2 Vmax= 35VDC
 63xx: Terminal 11,13 / 21,23 Vmax= 35VDC

T4: $-40^{\circ}\text{C} \leq T_a \leq 85^{\circ}\text{C}$
 T6: $-40^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$

Type	Terminal	Sensor
5331	3,4,5,6	Uo: 9.6VDC, Io:25mA, Po:60mW, Lo:33mH, Co:2.4μF
5332	3,4,5,6	Uo: 9.6VDC, Io:25mA, Po:60mW, Lo:33mH, Co:2.4μF
5333	3,4,6	Uo: 5.0VDC, Io:4mA, Po:20mW, Lo:900mH, Co:1000μF
5335	3,4,5,6	Uo: 9.6VDC, Io:28mA, Po:67mW, Lo:45mH, Co:28μF
5337	3,4,5,6	Uo: 9.6VDC, Io:28mA, Po:67mW, Lo:45mH, Co:28μF
6331	41,42,43,44 / 51,52,53,54	Uo: 9.6VDC, Io:25mA, Po:60mW, Lo:33mH, Co:2.4μF
6332	41,42,43,44 / 51,52,53,54	Uo: 9.6VDC, Io:25mA, Po:60mW, Lo:33mH, Co:2.4μF
6333	41,42,43 / 51,52,53	Uo: 5.0VDC, Io:4mA, Po:20mW, Lo:900mH, Co:1000μF
6335	41,42,43,44 / 51,52,53,54	Uo: 9.6VDC, Io:28mA, Po:67mW, Lo:45mH, Co:28μF
6337	41,42,43,44 / 51,52,53,54	Uo: 9.6VDC, Io:28mA, Po:67mW, Lo:45mH, Co:28μF

Notes:

Div 2 / Zone 2 (Ex nA) and Non-Incendive Field Wire Wiring Practices Installation instructions:

See Installation drawings:

5331A, 5332A - 5331QC02
 5333A - 5333QC02
 5335A, 5337A - 5337QC02
 6331A2A, 6331A2B - 6331QC02
 6333A1A, 6333A1B - 6333QC02



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6337A2A, 6337A2B - 6337QC02

The transmitter must be installed in an enclosure providing a degree of protection of at least IP54 according to IEC60529 that is suitable for the application and is correctly installed. Cable entry devices and blanking elements shall fulfil the same requirements.

If the enclosure is made of non-metallic materials or of painted metal, electrostatic charging shall avoided.

Use supply wires with a rating of at least 5 K above the ambient temperature.

The Temperature transmitters require connecting to Class 2 Power Supply with Transient protection or equivalent.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 0-10	General Requirements-Canadian Electrical Code, Part II
CSA Std C22.2 No. 142-M1987(R2009)	Process Control Equipment
CSA Std C22.2 No. 157-92 (R2012)	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
CAN/CSA C22.2 No. 60079-0:11	Explosive atmospheres — Part 0: Equipment — General requirement
CAN/CSA C22.2 No. 60079-11:11	Electrical Apparatus for Explosive Gas Atmospheres – Part 11: Intrinsic Safety "i"
CAN/CSA C22.2 No. 60079-15	Explosive atmospheres — Part 15: Equipment protection by type of protection "n"
UL Std No. 913, Ed. 8	Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, and III, Division 1, Hazardous (Classified) Locations
UL Std No. 916, Ed. 4	Energy Management Equipment
UL 60079-0, Ed 5	Explosive atmospheres — Part 0: Equipment — General requirement
UL Std No. 60079-11, Ed. 6	Electrical Apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"
UL 60079-15 Ed 4	Explosive atmospheres — Part 15: Equipment protection by type of protection "n"

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.

Nameplate adhesive label material approval information:

Markings are on CSA accepted adhesive labels. Refer to the Descriptive Documents for details.



Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80005719	2019-06-20	Evaluation to update report 1125003 to add Ex nA IIC T4...T6 Gc and Class I, Division 2, Groups A, B, C, D; Vmax: 35VDC to existing ratings. Add applicable standards. Add new class number. Add new models. Evaluate related drawings. Evaluate national differences between IECEx and UL/CSA.
70200926	2018-10-05	Follow up for 70197608 to correct typos in report 1125003.
70197608	2018-09-28	Evaluation to update report 1125003 (last project 70125202) to included new type numbers 5332D and 6332B1a and add potting compound SILGEL 612.
70125202	2017-05-22	Evaluation to update Report 1125003; per only a paperwork review. Additional funds to be requested for any testing determined required.
70071303	2016-04-28	Evaluation to update report 1125003 to include PB5010 terminal blocks as replacement of PB5001. PB5010 can be SMD installed on 6331-1-07 and 6333-1-02 and 6335-1-02 PCB's. No changes are required to critical components.
70054592	2016-01-15	Evaluation to update Report 1125003 to include the update of PCB and change of supplier of enclosure. Revision update of the Descriptive Documents. No Ex components in parts list apart from the PCB and enclosure has been changed.
70012457	2014-10-21	Evaluation for update of report 1125003 to update to include an update to the existing listing to include 1 and 2 Channel versions and add the 6331B and 6333B which is the DIN rail version of the CSA approved 5331D and 5333D . Quote assumes only an evaluation to the submitted New and Revised Drawings. Additional funds and samples may be requested if testing is determined required.
2708500	2014-03-11	Update to report 1125003 to update labels with IECEx and Inmetro approvals, update pcb layouts and schematics to reflect components changes.
2643173	2013-08-22	Update to report 1125003 to add alternate enclosure for 63xx.
2327767	2011-09-14	Update of report 1125003 to include 4 new models, drawing and other minor report updates.
2243864	2009-12-09	Update of report 1125003 to include revised Label Drawing, minor component change and removal of old model number.
2057809	2008-07-11	Update report to include revised drawings.
1800201	2006-06-15	Update report to include revised drawings per project 5331-1-15.



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1785800	2006-04-28	Alternate enclosure material Witcom-PC/2S-FR-ECO-S
1754524	2006-01-23	Update Report to include revised Entity Parameter of 30 Volts
1553888	2004-05-11	Update to add alternate potting compound
1501857	2003-12-02	Report update to include Division 1 Listing for D Models.