

Certificate of Compliance

Certificate: 1878089

Master Contract: 235214

Project: 2207391

Date Issued: August 24, 2009


Issued to: **Rosemount Tank Radar AB**
Gamlestadsvagen 18B
Goteborg, 402 51
Sweden

Attention: Per-Olof Hagglund

The products listed below are eligible to bear the CSA Mark shown



Issued by: K. Atkins

Authorized by: 
Stephen Morley
Product Group Manager

PRODUCTS

SECTION A

CLASS 2252 05 - PROCESS CONTROL EQUIPMENT

Two Wire Ultrasonic Level Transmitter, Models 3102 Level transmitter with 2 integral relays, 4-20mA/HART, 11m range 4-20mA/HART communication, 3101 Entry level transmitter, 4-20mA, 8m range 4-20mA output Input Rated 12-40Vdc, 4-20mA, maximum, Relay Contacts Rated 2A, 30Vdc Resistive, 1A, 30Vdc Inductive, Working Pressure 15PSI, -40°C to 70°C Ambient; Pollution Degree 2, Installation Category I. Enclosure Type 4X.

2120, 2130 Vibrating Fork Point Level Switch; Input Rated 20 - 264Vac maximum, 2VA, 50/60Hz, 20- 60Vdc maximum, 500mA max, Relay Contacts Rated 250Vac/30Vdc, 5Amps, Working Pressure 1668psi, Enclosure Type 4X, -40 to 80C ambient; Temperature Code for H version: -40 to 80C ambient; Pollution Degree 4, Installation Category II; Single Seal.

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APPLICABLE REQUIREMENTS

- CAN/CSA-C22.2 No 61010-1-04 - Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use, Part 1: General Requirements
- CAN/CSA C22.2 No. 94-M91 (R2006) - Special Purpose Enclosures
- ANSI/ISA - 12.27.01-2003 - Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids

MARKINGS

The following markings shall appear in a visible and permanent manner on the units.

- CSA Monogram;
- Company's identification - Company name, trade name and/or CSA Master Contract No. 235214;
- Factory identifier; [if required]
- Model name /number
- Serial Number /date of manufacturing
- Complete electrical ratings
- Enclosure Type 4X
- CSA certificate number

Method of Marking: CSA Certified adhesive polyester film pressure sensitive label by Brady Worldwide Inc., type B-432 or B422 or Brady NV type B7536. Alternatively the markings may be etched or engraved or stamped on metallic nameplates mechanically secured on enclosure by welding, drive screws or rivets, or secured to the integral cable.

SECTION B

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity – For Hazardous Locations

Class 1, Division 1, Groups A, B, C, D
Ex ia IIC

- Two-Wire Ultrasonic Level Transmitter, Model 3105, Intrinsically Safe when installed with certified barrier meeting transmitter Entity Parameters $U_i=30V$, $I_i=120mA$, $P_i=0.82W$, $C_i=0$, $L_i=108\mu H$. When connected per installation drawing 71097/1218. Temperature Code T4 at $T_a=-40^\circ C$ to $60^\circ C$ or T6 at $T_a=-40^\circ C$ to $55^\circ C$. Enclosure Type 4X.

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Class I, Division 1, Groups A, B, C, D:

Ex ia IIC T3, T4, T5

2120, 2130 Vibrating Fork Point Level Switch, input rated 20mA maximum, 12Vdc maximum, intrinsically safe with entity parameters $V_{max}, U_i=15V$, $I_{max}, I_i=32mA$, $P_i=0.1W$, $C_i=211nF$, $L_i=0.06mH$ when connected per installation drawing 71097/1177; Maximum Working Pressure 1668psi; Temperature Code for T version: T3 (-40<Tamb<+50°C; Tproc<150°C), T4 (-40<Tamb<+60°C; Tproc<115°C), T5 (-40<Tamb<+80°C; Tproc<60°C); Temperature Code for H version: T2 (-50<Tamb<+65°C; Tproc<260°C), T3 (-50<Tamb<+71°C; Tproc<185°C), T4 (-50<Tamb<+77°C; Tproc<115°C), T5 (-50<Tamb<+80°C; Tproc<80°C); Single Seal.

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

Class I, Division 2 Groups A, B, C, D

Ex nL IIC

- Two-Wire Ultrasonic Level Transmitter, Model 3105, Non-Incendive device and wiring when connected per installation drawing 71097/1218 with Entity Parameters $U_i=30V$, $I_i=120mA$, $P_i=0.82W$, $C_i=0$, $L_i=108uH$. Temperature Code T4 at $T_a=-40^{\circ}C$ to $60^{\circ}C$ or T6 at $T_a=-40^{\circ}C$ to $55^{\circ}C$. Enclosure Type 4X.

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Class I, Division 1, Groups A, B, C, D:

2120, 2130 Vibrating Fork Point Level Switch, input rated 264Vac maximum, 60Vdc maximum, 500mA max. Maximum Working Pressure 1668psi; Enclosure Type 4X; Temperature Code for T version: T3 (-40<Tamb<+50°C; Tproc<150°C), T4 (-40<Tamb<+65°C; Tproc<125°C), T5 (-40<Tamb<+70°C; Tproc<90°C), T6 (-40<Tamb<+75°C; Tproc<75°C); Temperature Code for H version: T2 (-50<Tamb<+65°C; Tproc<260°C), T3 (-40<Tamb<+69°C; Tproc<185°C), T4 (-50<Tamb<+73°C; Tproc<125°C), T5 (-50<Tamb<+74°C; Tproc<95°C), T6 (-50<Tamb<+75°C; Tproc<80°C); Single Seal.

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APPLICABLE REQUIREMENTS

CAN/CSA-E60079-0:02 - Electrical Apparatus for Explosive Gas Atmospheres--Part 0: General Requirements
CAN/CSA-E60079-11:02 - Electrical Apparatus for Explosive Gas Atmospheres--Part 11: Intrinsic Safety "i"
CSA C22.2 No. 142-M1987 - Process Control Equipment
CSA Std C22.2 No.213-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CSA C22.2 No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous locations.
CAN/CSA E60079-15:02 - Electrical Apparatus for Explosive Gas Atmospheres - Part 15: Type of protection "n"
CAN/CSA C22.2 No. 0-M91 (R2001) - General Requirements - Canadian Electrical Code, Part II
CSA Std C22.2 No. 30-M1986 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations
ANSI/ISA - 12.27.01-2003 - Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids

MARKINGS

Markings are done on CSA accepted adhesive polyester film pressure sensitive label by Brady Worldwide Inc., type B-432 or B422 or Brady NV type B7536. Alternatively the markings may be etched or engraved or stamped on metallic nameplates mechanically secured on enclosure by welding, drive screws or rivets, or secured to the integral cable.

- CSA Monogram
- Company name, trade name and/or CSA Master Contract No.235214;
- Model name / number
- Serial number or Date of manufacturing
- Entity Parameters (As Applicable)
- Maximum Working Pressure
- Hazardous Location Designations with Temperature Code
- Ex ia IIC T3, T4, T5 (as applicable)
- CSA certificate number (as applicable)
- Reference to installation drawing (as applicable)
- Ambient temperature range
- Maximum Working Pressure
- Enclosure Type 4X rating (as applicable)
- Caution re substitution of components (as applicable)
- Warning: Do not open when an explosive atmosphere may be present (as applicable)

