

# Certificate of Compliance

**Certificate:** 1110996 (LR 99673-4)

**Master Contract:** 183951

**Project:** 2052433

**Date Issued:** 2008/12/19

**Issued to:** Smar Equipamentos Industriais Ltda.

Rua Dr Pio Dufles 1350  
Sertaozinho  
Estado de Sao Paulo, São Paulo .  
Brazil  
Attention: Mr. Ricardo Leite

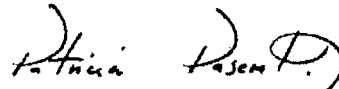
*The products listed below are eligible to bear the CSA Mark shown*



**Issued by:** Ron Wildish



**Authorized by:** Patricia Pasemko, Operations  
Manager



**PRODUCTS**

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

**Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1:**

Model TT301, TT302, TT303 and TMT165 Series Temperature Transmitters; supply 12-42V dc, 4-20mA;  
Enclosure Type 4/4X; Conduit Seal Not Required.

**Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups E, F and G; Class III:**

Model TT301, TT302, TT303 and TMT165 Series Temperature Transmitters, supply 12-42V dc, 4-20mA;  
Enclosure Type 4/4X.



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

**Class I, Div. 1, Groups A, B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1:**

Model TT301 Series Temperature Transmitters, supply 12-42V dc, 4-20mA; Enclosure Type 4/4X; intrinsically safe when connected through CSA Certified Diode Safety Barrier, 28V max, 300 ohms min, per SMAR Installation drawing 102A0436.

**Class I, Div. 2, Groups A, B, C and D:**

Model TT301 Series Temperature Transmitters, supply 12-42V dc, 4-20mA; Enclosure Type 4/4X; non-incendive with Entity parameters at terminals "+" and "-" of,  $V_{max} = 28V$ ,  $I_{max} = 110mA$ ,  $C_i = 5 nF$ ,  $L_i = 0$ , when connected through CSA Certified devices as per SMAR Installation drawing 102A0436.

Model TT302 and TT303 Series Temperature Transmitters, supply 12-42V dc, 4-20mA; Enclosure Type 4/4X; non-incendive with Fieldbus / FNICO Entity parameters at terminals "+" and "-" of,  $V_{max} = 24V$ ,  $I_{max} = 570 mA$ ,  $P_{max} = 9.98 W$ ,  $C_i = 5 nF$ ,  $L_i = 0$ ; having output terminals ("1, 2, 3 & 4") with output Entity parameters of:  $V_{oc} = 8.25V$ ,  $I_{sc} = 85.6 mA$ ,  $C_a = 5.5\mu F$ ,  $L_a = 4.8 mH$ ; when connected as per SMAR Installation drawing 102A0553; T-Code T3C @ Max Ambient 40 Deg C.

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

**Class I, Div. 1, Groups A, B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1:**

Model TT301 Series Temperature Transmitters, supply 12-42V dc, 4-20mA; Enclosure Type 4/4X; intrinsically safe with Entity parameters at terminals "+" and "-" of,  $V_{max} = 28V$ ,  $I_{max} = 110mA$ ,  $C_i = 5 nF$ ,  $L_i = 0$ , when connected through CSA Certified Safety Barriers as per SMAR Installation drawing 102A0436.

Model TT302 and TT303 Series Temperature Transmitters, supply 12-42V dc, 4-20mA; Enclosure Type 4/4X; intrinsically safe with Fieldbus/FISCO Entity parameters at terminals "+" and "-" of,  $V_{max} = 24V$ ,  $I_{max} = 380mA$ ,  $P_{max} = 5.32W$ ,  $C_i = 5 nF$ ,  $L_i = 0$ ; having output terminals (A1, 2, 3 & 4") with entity parameters of:  $V_{oc} = 8.25V$ ,  $I_{sc} = 85.6 mA$ ,  $C_a = 5.5FF$ ,  $L_a = 4.8 mH$ ; when connected as per SMAR Installation drawing 102A0553; T-Code T3C @ Max Ambient 40 Deg C.

Note: Only models with stainless steel external fittings are Certified as Type 4X.

#### **APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 0-M91 - General Requirements – Canadian Electrical Code, Part II

CSA Std C22.2 No.25-1966 - Enclosures for Use in Class II, Groups , F and G Hazardous Locations

CSA Std C22.2 No.30-M1986 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations



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CAN/CSA-C22.2 No.94-M91 - Special Purpose Enclosures

CSA Std C22.2 No.142-M1987 - Process Control Equipment

CAN/CSA-C22.2 No.157-92 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Std C22.2 No.213-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations



## *Supplement to Certificate of Compliance*

**Certificate:** 1110996

**Master Contract:** 183951

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

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
2052433	2008/12/19	Update to include; addition of FISCO parameters, addition of Non-Incendive versions, alternative enclosure material alloys and numerous drawing and report text revisions.
1515084	2004/04/06	Alternate drawings to cover separation of Bill of Materials from Schematics and revised pwb.

### **History**

1078546 Oct. 22, 2001 Original Certification - Models FY290, FY301, FY302, FY303, TP290, TP301, TP302, TP303, FP302 and FP303.

1279802 Jan 30/2002 Update to cover revised drawings.

1165307 Mar 29/2001 Update to include wording 'Seal not Required' for Exp. Proof versions of models TT301 and TT302; and addition of model TT303.

1139177 Oct. 27, 2000 Update to include 'Output Entity' parameters for the model TT302; and to include Private Label, model TMT165.

1110996 July 25, 2000 Update to include revised drawings.

LR 99673?12 July 21, 1999 Update to include Model TT302.

LR 99673?11 March 4, 1999 Update to include revised drawings, and coverage for Entity Certification.

LR 99673?10 Apr. 18, 1997 Modifications to Report drawings.

LR 99673-4 Feb. 10, 1995 Original Certification - Model TT301.