



2nd Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate DMT 01 ATEX E 150

Equipment: Temperature-Transmitter Type TT301 **_**/**
Manufacturer: smar Equipamentos Industriais Ltda.
Address: BR 14170-480 Sertaozinho-SP (Brazil)

Description

The Temperature-Transmitter can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report.

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 60079-0:2006 General requirements
EN 60079-11:2007 Intrinsic safety 'i'

The marking of the equipment shall include the following:

 **II 2G Ex ia IIC T4/T5/T6**
I M2 Ex ia I

Parameters

1. Supply and signal circuit
Designed for the connection to an intrinsically safe 4 to 20 mA current loop

Voltage	U_i	DC	28	V
Current	I_i		93	mA
Effective internal capacitance	C_i	\leq	5	nF
Effective internal inductance	L_i		negligible	

2. Maximum permissible power for certified intrinsically safe supply and signal circuits as a function of ambient temperature and temperature class

Max. ambient-temperature T_a	Temperature-class	Power P_i
85 °C	T 4	700 mW
75 °C	T 4	760 mW
44 °C	T 5	760 mW
50 °C	T 5	700 mW
55 °C	T 5	650 mW
60 °C	T 5	575 mW
65 °C	T 5	500 mW
70 °C	T 5	425 mW
40 °C	T 6	575 mW

3. 2-wire/3-wire/4-wire-measurement circuit in type of protection Ex ia I / IIC for the connection to intrinsically safe thermocouples or resistance temperature indicators .

Voltage	U_o	DC	6.5V
Current	I_o		20 mA
Power	P_o		30 mW
Effective internal capacitance	C_i	\leq	300 nF
Effective internal inductance	L_i		negligible
Maximum external capacitance	C_o	\leq	700 nF
Maximum external inductance	L_o	\leq	20 mH

The 2-wire/3-wire/4-wire-measurement circuit is galvanically separated from the supply- and signal circuit.

4. Ambient temperature range: $-40^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$

Special conditions for safe use

None

Test and assessment report

BVS PP 01.2112 EG as of 03.03.2009

DEKRA EXAM GmbH

Bochum, dated 03. March 2009

Signed:

Simanski

Certification body

Signed:

Dr. Eickhoff

Special services unit

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 03. March 2009
BVS-Scha / Her A 20070686

DEKRA EXAM GmbH



Certification body



Special services unit