

Translation

(1) 3rd Supplement to the EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC Supplement accordant with Annex III number 6
- (3) No. of EC-Type Examination Certificate: **DMT 01 ATEX E 150**
- (4) Equipment: **Temperature Transmitter type TT301 **_**/****
- (5) Manufacturer: **smar Equipamentos Industriais Ltda.**
- (6) Address: **Av. Dr. Antonio Furlan Jr., 1028, 14170 -480 Sertaozinho-SP, Brazil**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.
- (8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the Test and Assessment Report BVS PP 01.2112 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
EN 60079-0:2012 + A11:2013 General requirements
EN 60079-11:2012 Intrinsic safety "i"
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment component. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:



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

DEKRA EXAM GmbH
Bochum, dated 2015-04-08

Signed: Dr. Eickhoff

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **3rd Supplement to the EC-Type Examination Certificate DMT 01 ATEX E 150**
- (15) 15.1 Subject and type

Temperature Transmitter type TT301 **-*/**
 Type code: no change

15.2 Description

The status of applied standards in the certificate has been subjected to update as listed in item (9). Previous electronic assemblies of the temperature transmitter may be replaced optionally by new variants.

Safety-relevant constructive details and parameters remain unchanged.

15.3 Parameters

- 15.3.1 Supply- and signal-circuit intended for 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	

- 15.3.2. 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	T4 and Group I	700 mW
75 °C	T4 and Group I	760 mW
44 °C	T5	760 mW
50 °C	T5	700 mW
55 °C	T5	650 mW
60 °C	T5	575 mW
65 °C	T5	500 mW
70 °C	T5	425 mW
40 °C	T6	575 mW

- 15.3.3 2-wire / 3-wire / 4-wire-measurement circuit in type of protection Ex/ia/II/C for the connection to intrinsically safe thermocouples or resistance temperature indicators.

Voltage	U_o	DC	6.5	V
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 provides galvanic separated from the supply- and signal circuit.

- 15.3.3. Ambient temperature range: $-40\text{ °C} \leq T_a \leq +85\text{ °C}$

- (16) Test and Assessment Report

BVS PP 01.2112 EG as of 2015-04-08

- (17) Special conditions for safe use

None

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.

DEKRA EXAM GmbH
44809 Bochum, 2015-04-08
BVS-Scha/Mu A 20121118



Certification body



Special services unit