



## 1<sup>st</sup> Supplement

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

### to the EC-Type Examination Certificate DMT 00 ATEX E 085

**Equipment:** Position-Transmitter type TP290-\*\*-\*\*-\*\* / TP301-\*\*-\*\*-\*\*  
**Manufacturer:** smar Equipamentos Industriais Ltda.  
**Address:** BR 14170-480 Sertaozinho-SP (Brazil)


#### Description

The Position-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. With regard to explosion protection requirements the Position-Transmitter is suitable for operation in the following 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 00.2079 EG as of 03.03.2009

**DEKRA EXAM GmbH**

Bochum, dated 03. March 2009

Signed: Simanski  
Certification body

Signed: Dr. Eickhoff  
Special services unit

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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 20070675

**DEKRA EXAM GmbH**



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Certification body



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Special services unit