

Translation

(1) **2nd 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 00 ATEX E 065**
- (4) Equipment: **Fieldbus-To-Current Converters type FI302/303 **-*_****
- (5) Manufacturer: **smar Equipamentos Industriais Ltda.**
- (6) Address: **Av. Dr. Antonio Furlan Jr. 1028, 14170-480 Sertãozinho-SP, Brasil**
- (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 00.2057 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. 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 2015-10-22.

Signed: Simanski

Signed: Dr. Wittler

Certification body

Special services unit

- (13) Appendix to
- (14) **2nd Supplement to the EC-Type Examination Certificate
DMT 00 ATEX E 065**
- (15) 15.1 Subject and type

Fieldbus-To-Current Converter type FI302/303 **-*-*

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 Fieldbus-To-Current Converter may be replaced optionally by new variants.
 Applicable requirements of EN 60079-27:2008 (FISCO Model) are included in the updated Standards. Safety-relevant constructive details and parameters remain unchanged.

15.3 Parameters

15.3.1 Supply circuit for the connection to an intrinsically safe FISCO fieldbus-circuit

| | | | | |
|--------------------------------|-------|--------|------------|----|
| Voltage | U_i | DC | 24 | V |
| Current | I_i | | 380 | mA |
| Power | P_i | | 5.32 | W |
| Effective internal capacitance | C_i | \leq | 5 | nF |
| Effective internal inductance | L_i | | negligible | |

Parameters of the supply circuit comply with FISCO model according to Annex G EN 60079-11:2012, replacing EN 60079-27:2008.

15.3.2 Output-signal-circuits:
three 4 - 20 mA current sinks with common ground for external intrinsically safe supply

| | | | | |
|--------------------------------|-------|--------|------------|----|
| Effective internal capacitance | C_v | \leq | 15 | nF |
| Effective internal inductance | L_v | | negligible | |

Safety-relevant maximum values for certified intrinsically safe 4 - 20 mA current loop circuits as a function of ambient temperature and temperature class

| Maximum ambient temperature T_a | Temperature class | Voltage DC U_i | Current I_i | Power P_i |
|--------------------------------------|-------------------|---------------------|------------------|----------------|
| $\leq 60^\circ\text{C}$ | T4 | 28 V | 93 mA | 750 mW |
| $\leq 50^\circ\text{C}$ | T5 | 28 V | 93 mA | 750 mW |
| $\leq 40^\circ\text{C}$ | T6 | 28 V | 93 mA | 570 mW |

The signal outputs are galvanically separated from the fieldbus circuit.

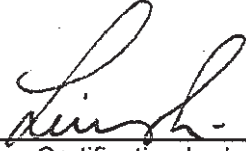
15.3.3 With regard to explosion protection requirements the Fieldbus-To-Current Converter is suitable for operation in the following ambient temperature range: $-40^\circ\text{C} \leq T_a \leq +60^\circ\text{C}$

- (16) Test and Assessment Report
BVS PP 00.2057 EG as of 2015-10-22

- (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, 2015-10-22
BVS-Scha/Mu A20121110



Certification body



Special services unit

