

a1)

EU - Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres – **Directive 2014/34/EU**
- (3) EU - Type Examination Certificate Number

EPS 21 ATEX 1 058 X

Revision 0

- (4) Equipment: Media Converter types FOC12Ex-2G, FOC11Ex-2G, FOC12-3G and FOC11-3G
- (5) Manufacturer: Hans Turck GmbH & Co. KG
- (6) Address: Witzlebenstr. 7
45472 Mülheim
Germany
- (7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.
- (8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, 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 of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 19TH0344.
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

**EN IEC 60079-0:2018
EN 60079-18:2015/A1:2017**

EN IEC 60079-7:2015/A1:2018

**EN 60079-11:2012
EN 60079-28:2015**

- (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 annex to this certificate.
- (11) This EU - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.
- (12) The marking of the equipment shall include the following:



II 2 (1) G Ex eb mb ib [op is Ga] IIC T4 Gb and
II (2)(1) D [Ex ib Db] [Ex op is Da] IIIC

FOC12Ex-2G and FOC11Ex-2G

or



II 3 (1) G Ex ec mc ic [op is Ga] IIC T4 Gc and
II (1) D [Ex op is Da] IIIC

FOC12-3G and FOC11-3G



Certification department of explosion protection

Hamburg, 2021-07-01



H. Schaffer

(13)

Annex

(14) **EU - Type Examination Certificate EPS 21 ATEX 1 058 X**

Revision 0

(15) Description of equipment:

The media converter types FOC12Ex-2G, FOC11Ex-2G, FOC12-3G and FOC11-3G converts signals from an RS485-interface into intrinsically safe optical signals or signals of the intrinsically safe optical interfaces into signals for the RS485 interface.

The media converters have one RS485-IS interface (...-2G) respective one RS485-interface (...-3G) and one (FOC11..) respective two (FOC12..) inherently safe optical interfaces (each transmitter and receiver).

The permissible ambient temperature range conducts to -40°C to +70°C for all versions.

Electrical data:

Supply: 24VDC (18...32VDC), $I \leq 100 \text{ mA}$, $P \leq 3,2 \text{ W}$
maximum voltage $U_m = 40\text{VDC}$

Optical interface: in kind of protection inherently safe optical radiation „op is“

RS485-IS-Interface: Types FOC11Ex-2G and FOC12Ex-2G
in kind of protection intrinsically safety Ex ib IIC resp. Ex ib IIIC

Maximum values: $U_i = 4,2 \text{ V}$
 $U_o = 4,2 \text{ V}$
 $I_o = 131 \text{ mA}$
 $P_o = 124 \text{ mW}$

Linear output characteristic

Maximum effective internal capacitance $C_i = 35,7 \text{ }\mu\text{F}$

The effective internal inductance is negligible small

resp.

RS485-Interface: Types FOC11-3G and FOC12-3G

$U_{nom} = 5 \text{ V}$

maximum voltage $U_m = 40\text{VDC}$

Fault signal output: Types FOC11Ex-2G and FOC12Ex-2G
in kind of protection intrinsically safety Ex ib IIC resp. Ex ib IIIC

Maximum values: $U_i = 10 \text{ V}$

Maximum effective internal capacitance $C_i = 0,03 \text{ }\mu\text{F}$

The effective internal inductance is negligible small

resp.

Types FOC11-3G and FOC12-3G

$U_{nom} = 24 \text{ V}$

maximum voltage $U_m = 40\text{VDC}$

(16) Reference number: 19TH0344



EU - Type Examination Certificate EPS 21 ATEX 1 058 X

Revision 0

(17) Special conditions for safe use:

The manual has to be recognized, especially in regard of the installation references and the data of the appropriate versions.

When used in potentially explosive gas atmospheres according the category given in the marking of the device, the media converters shall only be installed in an enclosure that provides a minimum protection of IP54 in accordance to EN 60079-0 and where applicable in accordance to the EN 60079-7.

When used in potentially explosive dust atmospheres according the category given in the marking of the device, the media converters shall only be installed in an enclosure in accordance to EN 60079-31.

(18) Essential health and safety requirements:

Met by compliance with standards.



Certification department of explosion protection

H. Schaffer

Hamburg, 2021-07-01