IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx PTB 16.0002X	Issue No: 0	Certificate history: Issue No. 0 (2016-03-03)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2016-03-03**		

Applicant: **Hans Turck GmbH & Co.KG**
Witzlebenstraße 7
45472 Mülheim
Germany

Equipment: **Fiber-optic coupler type OC11Ex/3G...**

Optional accessory:

Type of Protection: **Type of protection non-sparking low power apparatus, Intrinsic Safety, Protection of equipment and transmission systems using optical radiation**

Marking:

Ex nA [op is Gb] IIC T4 Gc

Ex nAc [op is Gb] IIC T4

Approved for issue on behalf of the IECEx Certification Body: Dr.-Ing. T. Horn

Position: Head of Working Group "Intrinsic Safety"

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

IECEx Certificate of Conformity

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Manufacturer:	**Hans Turck GmbH & Co.KG** Witzlebenstraße 7 45472 Mülheim **Germany**	

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

DE/PTB/ExTR16.0003/00

Quality Assessment Report:

DE/PTB/QAR06.0013/04

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

See the attachement to this certificate.

SPECIFIC CONDITIONS OF USE: YES as shown below:

See the attachement to this certificate.

Annex:

CoCA16_0002X-0.pdf

Applicant: Hans Turck GmbH & Co.KG
Witzlebenstraße 7, 45472 Mülheim an der Ruhr, Germany

Electrical Apparatus: Fiber-optic coupler type OC11Ex/3G...

Description of equipment

The fiber-optic coupler type OC11Ex/3G... is intended for data exchange by Profibus participants between fiber-optic couplers using optical waveguides. The wire bound Profibus is splitted in the fiber-optic coupler into two optical waveguides (input, output), and is re-converted in a wire bound Profibus by means of a second remote fiber-optic coupler. The optical radiation is limited by an internal intrinsically safe circuit with the category ib.
The permissible ambient temperature range is: -20 °C to +70 °C

Electrical data

Supply circuit (Terminal L+, L-)	Type of protection non-sparking low power apparatus Ex nA IIC U_{max} = 32 VDC I_{max} = 100 mA P_{max} = 2 W maximum safety related voltage U_m = 60V
Profibus RS485 (D-Sub plug, 9-pin)	Type of protection non-sparking low power apparatus Ex nA IIC $U_{max.}$ = 5 V maximum safety related voltage U_m = 60V
Communication interface RS485 (M8-round plug, 4-pin)	Type of protection non-sparking low power apparatus Ex nA IIC $U_{max.}$ = 5 V maximum safety related voltage U_m = 60V or Interconnection with a second fiber-optic coupler type OC11Ex/3G…
Optical interface	Protection of equipment and transmission systems using optical radiation op is IIC Gb; maximum value: $P_{opt.}$ = 2.3 mW Only for connection to the optical interface of the fiber-optic coupler type OC11Ex/2G...

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100, 38116 Braunschweig, Germany
Postfach 33 45, 38023 Braunschweig, Germany
Telephone +49 531 592-0, Telefax +49 531 592-3605

or type OC11Ex/3G...

Special conditions for safe use

For installation and operation in hazardous areas the fiber-optic coupler type OC11Ex / 3G… has to be installed in a separate enclosure with the degree of protection by enclosure IP54 in accordance with IEC 60529.

The optical waveguide has to be electrically insulated and used without screening and shall not be armoured.

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