

Translation

(1) EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 11 ATEX E 075 X**
- (4) Equipment: **Multibarrier type MBD 4***/Ex**
- (5) Manufacturer: **Hans Turck GmbH & Co. KG**
- (6) Address: **45472 Mülheim/Ruhr, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (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 11.2125 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2009 General requirements
EN 60079-7:2007 Increased safety 'e'
EN 60079-11:2007 Intrinsic safety 'i'
EN 60079-18:2009 Encapsulation 'm'
EN 60079-26:2007 Equipment with EPL Ga
EN 60079-27:2008 Fieldbus systems FISCO
EN 61241-11:2006 Intrinsic safety 'iD'
- (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 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 2(1)G Ex mb eb ib [ia] IIC T4 or II 2(1)G Ex mb e ib [ia Ga] IIC T4 Gb
II (1)D [Ex ia] IIIC or II (1)D [Ex ia Da] IIIC

DEKRA EXAM GmbH
Bochum, dated 23.05.2011

Signed: Simanski

Certification body

Signed: Dr. Eickhoff

Special services unit

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- (13) Appendix to
- (14) **EC-Type Examination Certificate**
BVS 11 ATEX E 075 X
- (15) 15.1 Subject and type

Multibarrier type MBD 4***/Ex
Instead of the *** in the complete denomination letters and numerals inserted which characterize the following modifications:

Type MBD 4***/Ex

Connection
C = Cage clamp
R = Detachable terminals
S = Screw

Number of Channels (4 or 8)

Fieldbus system
0 = FF and PA (standard)
8 = PA
9 = FF

15.2 Description

The multibarrier serves for coupling between a field bus trunk line (TRUNK) and 4 resp. 8 spur lines (SPUR).
The multibarrier must be installed in an appropriate enclosure, certified for that use.
The multibarrier's intrinsically safe output circuits perform level of protection Ex ia and thus can extend into areas requiring Category 1 devices. These output circuits constitute a FISCO Power Supply for connection to field bus systems as per IEC 60079-27. The external cable used for this application has to be in accordance with the specification of EN 60079-27 in respect to its design (cable parameter).
The intrinsically safe output circuits are as well suitable for connection to field bus system as per the Foundation Fieldbus ENTITY model.

15.3 Parameters

15.3.1 Input (terminals TRUNK IN and TRUNK OUT, +, -)			
Nominal voltage	DC	24	V
Range of nominal voltage	DC	16-32	V
Max. voltage	U _m	AC	253 V
Nominal current		2	A
15.3.2 Output circuits (terminals SPUR 1 up to 4 or 1 up to 8: +, -)			
Nominal voltage	Un	DC	13,5 V
Nominal current	In		40 mA
Safety relevant maximum values for each circuit			
Voltage	U _o	DC	15,7 V
Current	I _o		245 mA
Power	P _o		960 mW
Linear output characteristic			
Internal capacitance	Ci		1,1 nF
Internal inductance	Li		negligible

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For maximum values of external inductance and capacitance see the following table:

	IIB	IIC
Lo [mH]	2,9	0,58
Co [nF]	2878	476
Lo/Ro [μ H/ Ω]	148	37

If inductances and capacitances are concentrated, the following values apply:

	IIB				IIC
Lo [mH]	0,5	1,0	2,0	2,9	0,5
Co [nF]	2698	2198	1598	1198	368

15.3.3 Ambient temperature range Ta -40 °C up to +75 °C

(16) Test and assessment report
BVS PP 11.2125 EG as of 23.05.2011

(17) Special conditions for safe use

- 17.1 For use of the multibarrier in areas requiring Category 2G equipment, the multibarrier has to be mounted inside a suitable and certified enclosure type of protection "Increased safety e".
- 17.2 For use of the multibarrier in areas requiring Category 2D equipment, the multibarrier has to be mounted inside a suitable and certified enclosure that is in acc. with EN 61241-1 resp. EN 60079-31.

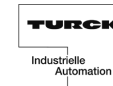
We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 23.05.2011
BVS-Schu/Sch A 20110119


Certification body


Special services unit

Konformitätserklärung Nr. 4069M Declaration of Conformity



Diese Konformitätserklärung entspricht der Europäischen Norm EN ISO/IEC 17050-1:2010 "Allgemeine Kriterien für Konformitätserklärungen von Anbietern".

This "Declaration of Conformity" complies with the European Standard EN ISO/IEC 17050-1:2010 "General criteria for a supplier's declaration of conformity".

Wir/ We **HANS TURCK GMBH & CO KG**
WITZLEBENSTR. 7, D – 45472 MÜLHEIM A.D. RUHR

erklären in alleiniger Verantwortung, dass die Produkte
declare under our sole responsibility that the products

Multibarriere Typ MBD 4*-/Ex,**

auf die sich die Erklärung bezieht, mit den folgenden Normen übereinstimmen
to which this declaration relates are in conformity with the following standards

EN 61326-1:2006
EN 60079-0:2009 EN 60079-7:2007 EN 60079-11:2007 EN 60079-18:2009
EN 60079-26:2007 EN 60079-27:2008 EN 61241-1:2006

und wo anwendbar
and where applicable

Gemäß den Bestimmungen der Richtlinie (falls zutreffend)
Following the provisions of Directive (if applicable)

EMV Richtlinie	/ EMC Directive	2004 / 108 / EG	15. Dez. 2004
Richtlinie ATEX 100a	/ Directive ATEX 100a	94 / 9 / EG	23. März 1994

Weitere Normen, Bemerkungen
additional standards, remarks

Aussteller der EG- Baumusterprüfbescheinigung:

DEKRA EXAM GmbH
Dinnendahlstraße 9, 44809 Bochum
Kenn-Nr. 0158, Registriernummer: BVS 11 ATEX E 075 X Kennzeichnung  II 2 (1) G
II (1) D

Mülheim, den 09.06.2011



(i.V. W. Stoll)

Ort und Datum der Ausstellung /
Place and date of issue

Name und Unterschrift des Befugten /
Name and signature of authorized person