



EC-TYPE-EXAMINATION CERTIFICATE

(Translation)

- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**
- (3) EC-type-examination Certificate Number:
PTB 09 ATEX 1069
- (4) Equipment: Switching devices with multibarrieres, type MBD4.-.../Ex/.../....
- (5) Manufacturer: Hans Turck GmbH & Co.KG
- (6) Address: Witzlebenstraße 7, 45472 Mülheim an der Ruhr, Germany
- (7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC 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 confidential assessment and test report PTB Ex 09-19124.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2006 EN 60079-1:2007 EN 60079-7:2007 EN 60079-11:2007, EN 60079-18:2004
- (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 schedule to this certificate.
- (11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the 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(1G/D)G Ex e d mb [ia] IIC T4

Zertifizierungssektor Explosionsschutz

Braunschweig, July 30, 2009

By order:

Dr.-Ing. M. Thedens
Oberregierungsrat



sheet 1/2

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

SCHEDULE

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 09 ATEX 1069**

(15) Description of equipment

The switching devices with multibarrier(s), type MBD4.-.../Ex/.../...., consist of a stainless-steel or polyester enclosure designed to Increased Safety "e" type of protection which can be fitted with the multibarriers of types MBD 40-4/Ex, MBD 48-4/Ex and MBD 49-4/Ex, terminals and switching terminals for intrinsically safe and non-intrinsically safe circuits. The connection elements for intrinsically safe circuits are marked, e.g. with a light-blue colour. Ex-type cable glands are provided for electrical connection.

The multibarrier has been type approved with EC-Type-Examination Certificate No. PTB 09 ATEX 2022 U.

The empty enclosures and any attached or installed components are tested and certified with separate examination certificates.

Technical data

Ambient temperatures: -20 °C to +70 °C

Protection against solid foreign objects, water and contact IP 54

The electrical data are listed in EC-Type-Examination Certificate PTB 09 ATEX 2022 U.

The composition of the protection symbol depends on the types of protection of the components actually used.

(16) Assessment and test report PTB Ex 09-19124

(17) Special conditions for safe use

None

(18) Essential health and safety requirements

Met by compliance with the afore-mentioned Standards.

Zertifizierungssektor Explosionsschutz

Braunschweig, July 30, 2009

By order:

Dr.-Ing. M. Thedens
Oberregierungsrat



sheet 2/2

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1st SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 09 ATEX 1069

(Translation)

Equipment: Switching devices with multibarriers of type MBD4-.../Ex/.../....

Marking:  II 2(1G/D)G Ex e d mb [ia] IIC T4

Manufacturer: Hans Turck GmbH & Co.KG

Address: Witzlebenstraße 7, 45472 Mülheim an der Ruhr, Germany

Description of supplements and modifications

The switching devices with multibarrier(s), type MBD4-.../Ex/.../...., are modified in the following respects:

- 1) The switching devices may optionally be fitted with MBD ...multibarriers (BVS 11 ATEX E 075 X).
- 2) A - separately approved - stainless-steel enclosure (161 mm deep) may optionally be used for the switching devices.
- 3) A - separately approved - enclosure made from aluminium may optionally be used for the switching devices.
- 4) The switching devices have been re-examined on the basis of standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007, EN 60079-11:2007 and EN 60079-18:2009

The marking therefore changes to:

 II 2(1G/D)G Ex eb db ib [ia] mb IIC T4

Technical data

Ambient temperatures: -20 °C to +70 °C

Protection against solid foreign objects, water and contact: IP54

The electrical data are shown in EC-Type-Examination Certificates PTB 09 ATEX 2022 U and BVS 11 ATEX E 075 X.

The composition of the protection symbol depends on the types of protection of the components actually used.

Notes for manufacturing and operation

Attached or installed components must be of a technical standard that complies with the specifications on the cover sheet. They must be suited for the operating conditions and have a separate examination certificate.

Equipment of Intrinsic Safety "i" type of protection shall be installed so that the clearances and creepage distances between intrinsically safe and non-intrinsically safe circuits, which are specified in EN 60079-14, section 12.2.3, are maintained.

If the clearance requirements specified in EN 60079-11, section 6.3, are not complied with, terminals and wiring of Increased Safety "e" quality standard must also be used for intrinsically safe circuits.

When connecting more than one intrinsically safe circuit, the rules and regulations for interconnection must be observed.

Applied standards

EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007, EN 60079-11:2007, EN 60079-18:2009

Assessment and test report: PTB Ex 11-11154

Zertifizierungssektor Explosionsschutz

Braunschweig, September 19, 2011

On behalf of PTB:


Dipl.-Phys. U. Völkel



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 61241-11:2006

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