

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 13 ATEX E 066**

(4) Equipment: **Ring Detect Relay type mTAR**

(5) Manufacturer: **FHF Funke + Huster Fernsig GmbH**

(6) Address: **Gewerbeallee 15-19, 45478 Mülheim an der Ruhr**

(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 13.2143-EG.


(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 60079-0:2012 General requirements
EN 60079-7:2007 Increased Safety "e"
EN 60079-11:2012 Intrinsic Safety "i"
EN 60079-18:2009 Encapsulation "m"
EN 60079-31:2009 Protection by Enclosure "t"

(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 2G Ex e ib mb IIC T4 Gb**
II 2D Ex tb IIIC T135°C Db

DEKRA EXAM GmbH
Bochum, dated 25th July 2013

Signed: Dr. Eickhoff

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate**
BVS 13 ATEX E 066
- (15) 15.1 Subject and type

Ring Detect Relay type mTAR

15.2 Description

The ring detect relay type mTAR is used for the connection to the telephone network and branch exchanges. The ring detect relay consist of a separately certified empty enclosure (Sira 99 ATEX 3173 resp. Sira 99 ATEX 3172 U / IECEx SIR 06.0087 X resp. IECEx SIR 06.0086 U) in type of protection "e" - Increased safety resp. "t" - Protection by enclosure. The enclosure contains separately certified terminals (KEMA 01 ATEX 2130 U / IECEx KEM 07.0019 U) in type of protection "e" - Increased safety, encapsulated circuit board in type of protection "m" – Equipment protection by encapsulation and configuration switches in type of protection "i" - Intrinsic safety.

15.3 Parameters

15.3.1 Telephone network (non-intrinsic safety)
terminals X1.1/X1.2 to X2.1/X2.2 according circuit plan or
terminals no. 7/8 to 9/10 according connection plan
 $U_n = AC 90 V / f = 25 Hz$
 $U_{m_AC} = AC 100 V / f = 20 \dots 68 Hz$
 $U_{m_DC} = DC 66 V$
 $U_m = 120 V_{eff}$
Alternating- and direct voltage parts could be superimposed

15.3.2 Potential less relay contacts (non-intrinsic safety)
terminals X3.1/2/3 resp. X4.1/2/3 according circuit plan or
terminal no. 1/3 resp. no. 4/6 according connection plan
 $U_{max} = AC 250 V$
 $I_{max} = 5 A$
 $P_{max} = 100 VA$
bzw.
 $U_{max} = DC 230 V$
 $I_{max} = 0.5 A$
 $P_{max} = 100 W$
bzw.
 $U_{max} = DC 50 V$
 $I_{max} = 1 A$
bzw.
 $U_{max} = DC 30 V$
 $I_{max} = 5 A$
 $P_{max} = 100 W$
Terminal no. 2 and 5 according connection plan must not be connected and has not been used.

15.3.3 Configuration switch (intrinsic safety)
4-pole switch S1 according circuit plan
 $U_n = 3.3 V$
 $U_o = 10.6 V$
The configuration switch is not accessible by closed enclosure. To pulling the switch the enclosure must be opened. Always switch off the equipment and wait 5 minutes before opening the enclosure.

15.3.4 Ambient temperature range $-40 \text{ }^\circ\text{C} \leq T_{amb} \leq +70 \text{ }^\circ\text{C}$

