



Translation

EC-TYPE EXAMINATION CERTIFICATE

- (1) **EC-TYPE EXAMINATION CERTIFICATE**
- (2) Equipment or Protective System intended for use in potentially explosive atmospheres - **Directive 94/9/EC**
- (3) EC-Type Examination Certificate Number



TÜV 03 ATEX 2312

- (4) Equipment: Transmitter Supply type MK33-**Ex0-**/24VDC and MK33-**Ex0-**/24VDC/K***
- (5) Manufacturer: Hans Turck GmbH & CO KG
- (6) Address: Witzlebenstraße 7
D-45472 Mülheim
- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV NORD CERT GmbH & Co. KG, TÜV Certification Body N° 0032 in accordance with Article 9 of the Council Directive 94/9/EC of March 23, 1994, certifies that this equipment or protective system 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 confidential report N° 03YEX550719.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50 014:1997 + A1 + A2 EN 50 020:2002
- (10) If the sign "X" is placed after the certification number, it indicates that the equipment or protective system 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 or protective system must include the following:

II (1) G D [EEEx ia] IIC

TÜV NORD CERT GmbH & Co. KG
TÜV CERT-Certification Body
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470
Fax: 0511 986-2555

Head of the
Certification Body



Hanover, 2002-11-12



SCHEDULE

(13)

(14) EC-TYPE EXAMINATION CERTIFICATE N° TÜV 03 ATEX 2312

- (15) Description of equipment or protective system

The transmitter supply type MK33-**Ex0-**/24VDC resp. MK33-**Ex0-**/24VDC/K*** is used for the supply of passive two or more terminal devices, for coupling out the measuring signal and for the safe galvanic separation of the intrinsically safe circuit and the non intrinsically safe circuits, as well.

The permissible ambient temperature range is -25°C ... 70°C.

Electrical Data

Supply circuit $U_n = 24V$ d. c. (max. 30 V d. c.)
(Terminals 7[+], 8[-]) $U_m = 250 V$ a. c. resp. 125 V d. c.

Supply and measuring circuit in type of protection Intrinsic Safety EEx ia IIC/IIB
(Terminals 1, 2, 3)

MK33-**Ex0-**/24VDC

Maximum values:

$U_o = 20 V$
 $I_o = 77 mA$
 $R = 408 \Omega$
 $P_o = 560 mW$

Characteristic line: trapezoidal

The effective internal inductance and capacitance are negligibly small.

EEx ia	IIC		IIB	
max. permissible ext. inductance	1 mH	0,5 mH	5 mH	0,5 mH
max. permissible ext. capacitance	85 nF	110 nF	680 nF	830 nF

MK33-**Ex0-**/24VDC/K***

Maximum values:

$U_o = 20 V$
 $I_o = 80 mA$
 $R = 391 \Omega$
 $P_o = 581 mW$

Characteristic line: trapezoidal

The effective internal inductance and capacitance are negligibly small.

EEx ia	IIC		IIB	
max. permissible ext. inductance	1 mH	0,5 mH	5 mH	0,5 mH
max. permissible ext. capacitance	82 nF	110 nF	670 nF	830 nF

The maximum values of the tables are also allowed to be used up to the permissible limits as concentrated capacitances and as concentrated inductances.



Schedule EC-type examination certificate N° TÜV 03 ATEX 2312

Output circuit U ≤ 30 V, 25 mA
(Terminals 7, 8) U_m = 250 V

The intrinsically safe supply and measuring circuit is safely galvanically separated from the non intrinsically safe circuits up to the peak crest value of the voltage of 375 V.

(16) The test documents are listed in the test report no. 03YEX550719.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones

EU-Konformitätserklärung Nr. 5074M
EU Declaration of Conformity No.:

TURCK

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

Transmitter-Speisetrenner MK33-..Ex0-../24VDC..
Isolating transducer

auf die sich die Erklärung bezieht, den Anforderungen der folgenden EU-Richtlinien durch Einhaltung der
folgenden Normen genügen:
to which this declaration relates are in conformity with the requirements of the following EU-directives by compliance with the following standards:

EMV – Richtlinie / EMC Directive 2014 / 30 / EU 26. Feb. 2014
EN 61326-1:2013

Richtlinie / Directive ATEX 2014 / 34 / EU 26. Feb. 2014
EN 60079-0:2012 EN 60079-11:2012

Weitere Normen, Bemerkungen
additional standards, remarks

Das Produkt stimmt mit den Anforderungen der Richtlinie 2014 / 34 / EU überein. Eine oder mehrere in der zugehörigen EG-Baumusterprüfbescheinigung genannten Normen wurden bereits durch neue Ausgaben ersetzt. Der Hersteller erklärt für das Produkt auch die Übereinstimmung mit den neuen Normenausgaben, da die veränderten Anforderungen der neuen Normenausgaben für dieses Produkt nicht relevant sind.

The product complies with the directive 2014 / 34 / EU. One or more norms mentioned in the respective EC type examination certificate were already replaced by new ones. The manufacturer declares that the product complies with the new valid norms, as the changed requirements mentioned there are not relevant for the product.

Zusätzliche Informationen:

Supplementary information:

Angewandtes ATEX-Konformitätsbewertungsverfahren / ATEX - conformity assessment procedure applied:

Modul B + Modul D / E / module B + module D / E

EU-Baumusterprüfbescheinigung (Modul B) TÜV 03 ATEX 2312 /

EC-type examination certificate (module B)

ausgestellt von / issued by: TÜV Hannover / Sachsen-Anhalt e.V.
TÜV Cert- Zertifizierungsstelle, Kenn-Nr. / number 0032
Am TÜV 1, 30519 Hannover

Zertifizierung des QS-Systems gemäß Modul D durch:

certification of the QS-system in accordance with module D by:

Physikalisch Technische Bundesanstalt, Kenn-Nr. / number 0102,
Bundesallee 100, D-38116 Braunschweig

Mülheim, den 20.04.2016


i.V. Dr. M. Linde, Leiter Zulassungen / Manager Approvals

Ort und Datum der Ausstellung /
Place and date of issue

Name, Funktion und Unterschrift des Befugten /
Name, function and signature of authorized person