



(1) **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 02 ATEX 2134



(4) Equipment: Loop-Powered Isolator Model IsoTrans 36 A7/1 Opt ...

(5) Manufacturer: Knick Elektronische Messgeräte GmbH & Co.

(6) Address: Beuckestr. 22, 14163 Berlin, 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 report PTB Ex 02-22175.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 + A1 + A2

EN 50020:1994

(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 (1) G [EEx ia] IIC

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, September 25, 2002

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor



SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 2134**

(15) Description of equipment

The loop-powered isolator model IsoTrans 36 A7/1 Opt ... is used for the electrical isolation of intrinsically safe from non-intrinsically safe 0 ... 20 mA-signal circuits as well as for the transmission of digital data in accordance with HART[®]-specification.

The apparatus is installed outside hazardous areas.

The permissible range of the ambient temperature is -10 °C ... 50 °C.

Electrical data

Input circuit type of protection Intrinsic Safety EEx ia IIC
(terminals 1, 2) for connection to a certified intrinsically safe circuit only

Maximum values:

$$I_i = 100 \text{ mA}$$

$$P_i = 1.1 \text{ W}$$

Operating values: 0...20 mA; 15 V

C_i negligibly low

L_i negligibly low

Output circuit
(terminals 5, 6)

Operating values:

$$I = 0...20 \text{ mA}$$

$$U = 10 \text{ V}$$

$$U_m = 253 \text{ V AC}$$

The input circuit is safely electrically isolated from the output circuit up to a peak value of the nominal voltage of 375 V.

(16) Test report PTB Ex 02-22175

(17) Special conditions for safe use

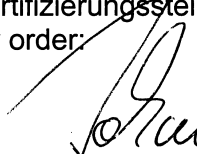
none

(18) Essential health and safety requirements

met by the standards quoted

Zertifizierungsstelle Explosionsschutz

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