



(1) **EU-TYPE EXAMINATION CERTIFICATE**  
(Translation)

(2) Equipment or Protective Systems Intended for Use in  
Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

**PTB 02 ATEX 2063**

**Issue: 1**

(4) Product: Supply and isolating unit, passive, type WG 25 A7 resp.  
isolator without auxiliary power, type IsoTrans 37 A7

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

(6) Address: Beuckestr. 22, 14163 Berlin, Germany

(7) This product and any acceptable variation thereto is 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 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 18-26209.

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

**EN 60079-0:2012 + A11:2013**

**EN 60079-11:2012**

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

 **II (2) G [Ex ib Gb] IIC**

Konformitätsbewertungsstelle, Sektor Explosionsschutz  
On behalf of PTB

Braunschweig, April 24, 2018



Dr.-Ing. F. Lienesch  
Direktor und Professor



(13)

## SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 02 ATEX 2063, Issue: 1**

(15) Description of Product

The Supply and isolating unit, passive, type WG 25 A7 resp. the isolator without auxiliary power, type IsoTrans 37 A7 are associated apparatus intended for the installation outside of the hazardous area.

The supply and isolating unit, type WG 25 A7 is preferably used as a passive supply and isolating unit for 2-wire measuring transducers.

When designed as isolator without auxiliary power, type IsoTrans 37 A7 it is preferably used as an isolating converter for 4 ... 20 mA signal circuits.

The permissible temperature range is  $-10\text{ }^{\circ}\text{C}$  up to  $+50\text{ }^{\circ}\text{C}$ .

### Electrical data

#### **WG 25 A7**

Output circuit .....	Operating values:
(terminals 5,8 and 6,7)	$U = 30\text{ V}$ , $I = 22\text{ mA}$
	$U_m = 253\text{ V}$

Input/supply measuring circuit .....	type of protection Intrinsic Safety Ex ib IIC/IIB
(terminals 1,4 and 2,3)	Maximum values:
	$U_o = 23.1\text{ V}$
	$I_o = 28\text{ mA}$
	$P_o = 647\text{ mW}$
	rectangular characteristic
	$C_i$ negligibly low
	$L_i$ negligibly low

#### **IsoTrans 37 A7**

Input circuit .....	Operating values:
(terminals 1,4 and 2,3)	$U = 30\text{ V}$ , $I = 22\text{ mA}$
	$U_m = 253\text{ V}$

Output circuit .....	type of protection Intrinsic Safety Ex ib IIC/IIB
(terminals 5,8 and 6,7)	Maximum values:
	$U_o = 23.1\text{ V}$
	$I_o = 28\text{ mA}$
	$P_o = 647\text{ mW}$
	rectangular characteristic
	$C_i$ negligibly low
	$L_i$ negligibly low

sheet 2/4

**SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 02 ATEX 2063, Issue: 1**

**WG 25 A7 and IsoTrans 37 A7**

For relationship between explosion group and permissible external reactances reference is made to the following table:

	Ex ib IIC				Ex ib IIB		
C <sub>o</sub>	76 nF	97 nF	130 nF	140 nF	460 nF	520 nF	940 nF
L <sub>o</sub>	1 mH	0.5 mH	0.2 mH	0.1 mH	10 mH	1 mH	0.1 mH

The values have been calculated by the ISPARK-program, version 6.2 and apply to the simultaneous occurrence of both types of reactances.

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

Modifications with respect to previous editions

- Adaption to the current state of the standards
- Adaption of the marking on the type labels and of the circuits specified in the electrical data
- Revision of the type labels
- Revision of the electronic circuitry
- Re-calculation of the pairs of values for the permissible external reactances
- Revision of the documentation
- Introduction of a partial protective coating in the area of the components for the electronic current limitation
- Introduction of an optional casting compound (not safety-relevant)
- Change of the corporate form of the manufacturer

(16) Test Report PTB Ex18-26209

(17) Specific conditions of use

None

**SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 02 ATEX 2063, Issue: 1**

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz  
On behalf of PTB:

Braunschweig, April 24, 2018



Dr.-Ing. F. Lienesch  
Direktor und Professor

