



(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 13 ATEX 2013 X

Issue: 01

(4) Product: Gateway, type GDP-NI...

(5) Manufacturer: Hans Turck GmbH & Co. KG

(6) Address: Witzlebenstraße 7, 45472 Mülheim an der Ruhr, 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 19-26164.

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

EN IEC 60079-0:2018, EN 60079-7:2015, 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 3 G Ex ec ic [ib Gc] IIC T4 Gc**

Konformitätsbewertungsstelle, Sektor Explosionsschutz

Braunschweig, January 9, 2020

On behalf of PTB:


 Dr.-Ing. F. Lienesch
 Direktor und Professor



ZSEX001e c

sheet 1/4

EU-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.

(13)

SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 13 ATEX 2013 X, Issue: 01**

(15) Description of Product

The Gateway, type GDP-NI... is intended as a plug-in module only for use in the remote I/O system excom® from company Turck. Its use is intended for system installation in non-hazardous areas and Zone 2.

The gateway type GDP-NI serves among other things as an interface between the internal intrinsically safe communication lines of the system and the external RS485 standard bus (Profibus DP) and is only operated in connection with the module rack MT...-3G (IECEx PTB 13.0040U) in non-hazardous areas or in Zone 2.

The degree of IP20 according to EN 60529 is provided by plugging the gateway into the module rack MT...-3G.

The permissible ambient temperature range is -20 °C to +70 °C.

Electrical data

I.) AC-supply circuit

type of protection Intrinsic Safety Ex ib IIC

System internal circuit, only for connection to the module rack type MT...-3G according to IECEx PTB 13.0040U

P = 1 W (power consumption)

The intrinsically safe AC supply circuit is electrically isolated from earth and from all other intrinsically safe circuits up to a peak value of the nominal voltage of 50 V.

II.) Signal circuit (CAN-Bus)

type of protection Intrinsic Safety Ex ib IIC

System internal circuit, only for connection to the module rack type MT...-3G according to IECEx PTB 13.0040U

III.) Address coding

type of protection Intrinsic Safety Ex ic IIC

System internal circuit, only for connection to the module rack type MT...-3G according to IECEx PTB 13.0040U

sheet 2/4

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 13 ATEX 2013 X, Issue: 01

IV.) Gateway communication

type of protection Intrinsic Safety Ex ic IIC

System internal circuit, only for connection to the module rack type MT...-3G according to IECEx PTB 13.0040U

V.) Service interface

type of protection Intrinsic Safety Ex ic IIC

System internal circuit, only for connection to the module rack type MT...-3G according to IECEx PTB 13.0040U

VI.) Profibus DP (RS485)

type of protection Increased Safety Ex ec IIC

Rated voltage

5 V

(Connection D-Sub socket pin 3, 5, 6, 8)

safety-related maximum voltage

$U_m = 5.6 \text{ V}$

The Profibus DP (RS485) is electrically isolated from earth and from all other circuits up to a peak value of the nominal voltage of 300 V.

Modifications

The Gateway, type GDP-NI has been evaluated for suitability in Zone 2. A constructive change was not carried out.

(16) Test Report PTB Ex 19-26164

(17) Specific conditions of use

The module rack, type MT...-3G with Gateway, type GDP-NI... shall be mounted into an enclosure that complies with the requirements of EN IEC 60079-0 and provides a minimum degree of protection of IP54.

If the RS485 fieldbus is fed from mains, a safety extra-low voltage (SELV) or functional extra-low voltage (PELV) source is required in accordance with the constructive requirements of EN 60364-4-41.



Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut



SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 13 ATEX 2013 X, Issue: 01

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, January 9, 2020


Dr.-Ing. F. Lienesch
Direktor und Professor

