

Translation

EU-Type Examination Certificate

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 19 ATEX E 066**

Product: **Ethernet-Gateway type GEN-3G**

Manufacturer: **Hans Turck GmbH & Co. KG**

Address: **Witzlebenstr. 7, 45472 Mülheim/Ruhr, Germany**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of 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 Report No. BVS PP 19.2143 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018	General requirements
EN IEC 60079-7:2015 + A1:2018	Increased Safety "e"
EN 60079-11:2012	Intrinsic Safety "i"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 3(2)G Ex ec ib [ib Gb] IIC T4 Gc**

DEKRA Testing and Certification GmbH
Bochum, 2019-11-08

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**
14 **EU-Type Examination Certificate**
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15 **Product description**

15.1 **Subject and type**

Ethernet-Gateway type GEN-3G

15.2 **Description**

The equipment is intended as a plug-in module for use in the Turck I/O system excom® in non-hazardous areas and for Zone 2. As a gateway, the device represents the interfaces between the internal communication lines of the I/O system excom® and the external Ethernet bus (Profinet, EtherNet/IP or Modbus/TCP).

The Ethernet interfaces with the corresponding circuit parts are designed in ignition protection type ec and the other circuit parts in ignition protection type ib.

The GEN-3G plug-in module is designed exclusively for use in the MT module carrier....

(PTB 00 ATEX 2194 U). The module carrier MT... with its associated excom power supply units and I/O modules is used in a housing according to EN 60079-0 and the protection class at least IP54 for use in Zone 2.

15.3 **Parameters**

Ambient temperature range T_A -40 °C...+70 °C

AC-supply circuit

Terminals J1, 15/16

Type of protection intrinsically safe Ex ib IIC
Only for connection to the intrinsically safe circuit according to PTB 00 ATEX 2194 U

Maximum values:

$U = 20$ V AC (amplitude)

$f = 300$ kHz ... 314 kHz

$C_i =$ negligible

$L_i =$ negligible

The intrinsically safe AC supply circuit is galvanically safe from earth and to at a peak value of the nominal voltage of 50 V from all other intrinsically safe circuits. For the Ethernet circuit, the safe isolation is designed for 300 V.

Signal circuit (CAN BUS)

Terminals CAN BUS A: J1, 9/10

Terminals CAN BUS B: J1, 11/12

Type of protection Ex ib IIC
system-internal circuit
without external connection options

Address coding, power supply monitoring

Terminals J2, 4 to 16

Type of protection Ex ib IIC
system-internal circuit
without external connection options

Internal Gateway communication

Terminals J1, 1 to 6

Type of protection Ex ib IIC
system-internal circuit
without external connection options

Service interface

Terminals J2, 1 to 3

Type of protection Ex ib IIC
system-internal circuit
without external connection options

Reserve (Spare)

Terminals J2, 17/18

Type of protection Ex ib IIC
system-internal circuit
without external connection options

Ethernet interface

RJ45 connectors: ETH1, ETH2

Type of protection Ex ec IIC
Rated voltage $U = 3,3 \text{ V}$
Maximum Voltage $U_m = 30 \text{ V}$

The Ethernet interfaces are galvanically safe from earth and all other intrinsically safe circuits to an RMS value of the nominal voltage of 300 V.

16 **Report Number**

BVS PP 19.2143 EU, as of 2019-11-08

17 **Special Conditions for Use**

None

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2019-11-08
BVS-AIh/Mu A 20190404



Managing Director