Translation

1 # EU-Type Examination Certificate

2 **Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014**

3 EU-Type Examination Certificate Number: **BVS 22 ATEX E 048 X** Issue: **01**

4 Equipment: **excom Gateway type GEN-2G…**

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

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

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

8 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 23.2041/N1 EU.
This issue of the EU-Type Examination Certificate replaces the previous issue of the EU-Type Examination Certificate BVS 22 ATEX E 048 X

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

EN IEC 60079-0:2018	**General requirements**
IEC 60079-11:2023, Edition 7	**Intrinsic Safety "i"**

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

11 This EU-Type Examination Certificate relates only to the technical design 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(1)G Ex ib [ia Ga] IIC T4 Gb
II (1)D [Ex ia Da] IIIC

DEKRA Testing and Certification GmbH
Bochum, 2025-01-20

Signed: Oliver Brumm

Managing Director

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 22 ATEX E 048 X issue 01

15 **Product description**

15.1 **Subject and type**

Gateway type GEN-2G…

In the complete type designation, the dots can be replaced by numbers and letters which characterize variations (e.g. firmware release) or special versions of the device without relevance for explosion protection.

15.2 **Description**

The Gateway type GEN-2G… is a plug-in module for use in the Turck I/O-system excom for installation in non-hazardous areas or in gas-explosive areas up to zone 1.
It is exclusively designed for use in the module rack type MT**-2G*** or MT**-3G*** as certified under PTB 00 ATEX 2194 U / IECEx PTB 13.0040U.

The Gateway is used as an interface between the internal communication circuits of the excom system and an external Ethernet bus.
Via the module rack, the gateway is powered by the power supply modules in the excom system. Additionally, the Gateway contains internal connection facilities for the system-internal communication lines to a second gateway intended for redundant operation, address lines and an internal CAN-Bus.

For Group II applications, the gateway is an intrinsically safe apparatus for installation in zone 1. The Ethernet circuits can be led into zone 0.
For Group III applications, the gateway is an associated apparatus for installation outside explosive areas without additional measures. The Ethernet circuits can be led into zone 20.

The Ethernet circuits are galvanically separated from the supply lines and the internal data lines.

When used inside gas-explosive areas, the excom system has to be installed into an enclosure that provides at least IP54 in accordance with EN IEC 60079-0.
When used outside explosive areas, the excom system has to be installed in areas with pollution degree 2 or better. Alternatively, it has to be installed into an enclosure with at least IP54 in accordance with EN IEC 60079-0.

Reason for this issue

Testing according to EN IEC 60079-0:2018 and IEC 60079-11:2023.

Component changes to the connections for the Ethernet circuit.

Listing of all components used referring to older standards

The gateway includes no components

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15.3 **Parameters**

Electrical data

I.) **System-internal circuits**

Connectors X1, X2	Type of protection Intrinsic Safety Ex ib IIC Only for connection to the module rack of Turck excom system certified under PTB 00 ATEX 2194 U / IECEx PTB 13.0040U

II.) **IS-100BASE-TX Ethernet Interfaces**

RJ45 sockets X3 (ETH1), X4 (ETH2)	Type of protection Intrinsic Safety Ex ia IIC resp. Ex ia IIIC
Maximum output voltage	U_o = 4.1 V
Maximum output current	I_o = 277 mA (each port)
Maximum output power	P_o = 283 mW (each port)
Linear output characteristics	
Effective internal capacitance	C_i negligible
Effective internal inductance	L_i negligible

The Ethernet-ports shall only be connected to devices with identically constructed interfaces, i.e. only to Turck IS-100BASE-TX Ethernet-interfaces or interfaces authorized by Turck.

For the connection cable, the following values shall apply:

Maximum cable length	100 m
Cable inductance	$L_c \leq 0{,}4$ mH/km
Cable capacitance	$C_c \leq 52$ nF/km

No concentrated external inductances or capacitances are permitted in the Ethernet-System.

The Ethernet-interfaces are safely galvanically isolated from earth and from all other circuits in the Gateway.

Thermal data

Permissible temperature range at the place of installation of the gateway:	T_a: -40 °C… 70 °C

16 **Report Number**

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17 **Specific Conditions of Use**

17.1 The gateway shall only be used as specified by the manufacturer.
It shall only be used with module rack MT-**2G*** or MT-**3G***
(according to PTB 00 ATEX 2194 U / IECEx PTB 13.0040U) in excom system of company Turck.

17.2 If a redundant gateway is used in the excom system, it must be of identical type.

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17.3 For use inside gas-explosive areas:
The excom system has to be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN IEC 60079-0.

For use outside explosive areas:
The excom system has to be installed in areas with pollution degree 2 or better.
Alternatively, it has to be installed into an enclosure with min. IP54 according to EN IEC 60079-0.

18 Essential Health and Safety Requirements

Met by compliance with the requirements mentioned in item 9.

The IEC 60079-11:2023, Edition 7 standard is equivalent to the harmonised EN 60079-11:2012 standard in terms of safety.

19 Remarks and additional information

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, 2025-01-20
BVS-Alh/Mu A 20240667 / 343526400

Managing Director

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