



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

(2) Component Intended for Use in Potentially Explosive Atmospheres
Directive 2014/34/EU

(3) EU-Type Examination Certificate Number:

PTB 00 ATEX 2194 U

Issue: 1

(4) Component: Module rack types MT08-2G., MT16-2G., MT16-2G/MSA,
MT08-3G., MT16-3G., MT24-3G..

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

(6) Address: Witzlebenstr. 7, 45472 Mülheim an der Ruhr, Germany

(7) This component 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 component 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 21-21105.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018, EN IEC 60079-7:2015/A1:2018, EN 60079-11:2012

(10) The sign "U" placed behind the certificate number indicates that this certificate should not be confounded with certificates issued for equipment or protective systems. This partial certification may be used as a basis for certification of an equipment or protective systems.

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

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



II 2 (1) G Ex eb ib [ia Ga] IIC T4 Gb

II 3 (1) G Ex ec ib ic [ia Ga] IIC T4 Gc

Konformitätsbewertungsstelle, Sektor Explosionsschutz

Braunschweig, June 13, 2022

On behalf of PTB:


Dr.-Ing. M. Thedens
Regierungsdirektor



sheet 1/5

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 00 ATEX 21942194 U, Issue: 1**

(15) Description of Product

The excom module rack consist of a backplane and the carrier system mounted in front of it. The backplane is used for power distribution and data transport and contains the connection level for the field devices. The module rack is designed in a combined Ex e and Ex i protection class. On the backplane, the module supply is limited in such a way that sparking is avoided.

Up to two power supply modules, two gateways and 8, 16 or 24 separately certified excom modules may be connected in the module racks. All components of the excom fieldbus system may be plugged or unplugged during operation.

The module rack shall be operated only within this system. The associated gateways and modules shall only be supplied from the power supply units certified for this system.

A system description valid for all components of the system is part of the test documents of the module rack. The basic conditions for connection technique and operation of all components of the excom system in the hazardous area are specified in this system description.

The basic IP protection class of the module rack is IP 20.

The permissible range of the ambient temperature is -40 °C to + 70 °C.
 Associated modules with lower temperature range can lead to a limitation.

Module rack variants:

MT08-2G	Zone 1 module rack to accommodate up to 8 I/O modules, 1 gateway and 1 power supply
MT16-2G	Zone 1 module rack to accommodate up to 16 I/O modules, 2 gateways and 2 power supplies.
MT16-2G /MSA	Zone 1 module rack to accommodate up to 16 I/O modules, 2 gateways and 2 power supplies
MT08-3G	Zone 2 module rack to accommodate up to 8 I/O modules, 2 gateways and 2 power supplies
MT16-3G	Zone 2 module rack to accommodate up to 16 I/O modules, 2 gateways and 2 power supplies
MT24-3G	Zone 2 module rack to accommodate up to 24 I/O modules, 2 gateways and 2 power supplies

SCHEDULE TO EU-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2194 U, Issue: 1

Electrical data

Device types MT08-3G, MT16-3G, MT24-3G:

Supply voltage:

in type of protection Ex ec IIC

Terminals Pwr 1, Pwr 2

Maximum values:

Pins 1,3 (U+), 2,4 (U-)

$$U_m = 60 \text{ V}$$


$$U_{in} \leq 40 \text{ V}$$

$$I_{in} \leq 6 \text{ A}$$

$$P_{in} \leq 100 \text{ W}$$

Potential equalization PA:

for EMC purposes only

Connect the equipotential bonding conductor
(PA) to the ground connecting bolt. 

Profibus coupling:

Power and characteristic depend on the
respective associated by gateway module

SUB-D connector
Terminals GW1 or GW2

Pins 8 (Data Line A), 3 (Data Line B)

Auxiliary voltage:

Power and characteristic depend on the
respective associated by gateway module

SUB-D connector
Terminals GW1 or GW2

Pins 6 (VCC), 5 (GND), 1/ case (PA)

Field circuits:

in type of protection Ex ia IIC

Terminals JF011...JF014 (Module 1) to
JF081...JF084 (Module 8) resp.
JF161...JF164 (Module 16) resp.
JF241...JF164 (Module 24)

Maximum output values:

$$U_o = 30 \text{ V}$$

$$I_o = 200 \text{ mA}$$

Channels 4 Channels each module

Maximum input values:

$$U_i = 30 \text{ V}$$

$$I_i = 200 \text{ mA}$$

Pins 1...4
(Assignment according to associated module)

Power and characteristic depend on the
respective associated module

SCHEDULE TO EU-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2194 U, Issue: 1

Electrical data

Device types MT08-2G, MT16-2G, MT16-2G/MSA:

Supply voltage: in type of protection Ex eb IIC

Terminals Pwr 1, Pwr 2


Maximum values:

Pins 1...2, 7...8 (U+)
3...4, 9...10 (U-)

$U_m = 60 \text{ V}$
 $U_{in} \leq 32 \text{ V}$
 $I_{in} \leq 11 \text{ A}$
 $P_{in} \leq 100 \text{ W}$

Potential equalization PA:

for EMC purposes only

Connect the equipotential bonding conductor
(PA) to the ground connecting bolt. 

Profibus coupling:

Power and characteristic depend on the
respective associated by gateway module

SUB-D connector
Terminals GW1 or GW2

Pins 8 (Data Line A), 3 (Data Line B)

Auxiliary voltage:

Power and characteristic depend on the
respective associated by gateway module

SUB-D connector
Terminals GW1 or GW2

Pins 6 (VCC), 5 (GND), 1/ case (PA)

Field circuits:

in type of protection Ex ia IIC

Terminals J3-M1-A...J3-M1-D (Module 1)
J3-M8-A...J3-M8-D (Module 8)
J3-M16-A...J3-M16-D (Module 16)

Maximum output values:

$U_o = 30 \text{ V}$
 $I_o = 200 \text{ mA}$

Channels 4 Channels each module

Maximum input values:

$U_i = 30 \text{ V}$
 $I_i = 200 \text{ mA}$

Pins 1...4
(Assignment according to associated module)

Power and characteristic depend on the
respective associated module

SCHEDULE TO EU-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2194 U, Issue: 1

(16) Test report PTB Ex 21-2110521-21105

(17) Notes for manufacture, installation and operation

Use of device in safe areas:

- A pollution degree 2 must be maintained
- Alternatively, an enclosure with a degree of protection of IP 54 must be used.

Use of devices in Zone 1 and Zone 2:

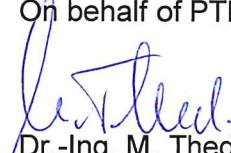
- An external housing must be used which meets at least the IP 54 degree of protection in accordance with EN IEC 60079-0

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, June 13, 2022


Dr.-Ing. M. Thedens
Regierungsdirektor

