Translation

(1) # EU-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Certificate Number** **TÜV 20 ATEX 261707 X** **issue:** 00

(4) for the product: Enclosure with or without display type MD CPAP Ex ...

(5) of the manufacturer: **Officine Orobiche S. r. l.**

(6) Address: Via Serena, 10 - 24010 Ponteranica (BG) - Italy

Order number: 8003014750

Date of issue: 2020-02-19

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 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 ATEX Assessment Report No. 20 203 261707.

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

EN IEC 60079-0:2018 **EN 60079-1:2014** **EN 60079-11:2012** **EN 60079-31:2014**

except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for 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. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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

See item 15 of the schedule

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body

Roder

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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 20 ATEX 261707 X issue 00**

(15) Description of product

The enclosure with or without display type MD CPAP Ex d ... is preferably used in conjunction with a certified flameproof encapsulated safety barrier, e. g. MD BDS1, to connect intrinsically safe sensors (two-wire) to non-intrinsically safe circuits and, if necessary, to visualise the measured value.
The enclosure with display type MD CPAP Ex i D is preferably used in intrinsically safe sensor circuits to visualise a measured value.

The marking is as follows:

Type MD CPAP Ex d ...

⟨Ex⟩ II 2 G	Ex db IIC T6...T4 Gb	resp.	II 1 D	Ex ta IIIC T100 °C Da

Type MD CPAP Ex i D

⟨Ex⟩ II 1 G	Ex ia IIC T6...T4 Ga	resp.	II 1 D	Ex ia IIIC T125 °C Da

Type designation:

MD CPAP Ex d	Housing in flameproof enclosure and protection by enclosure without display
MD CPAP Ex d D	Housing in flameproof enclosure and protection by enclosure with display
MD CPAP Ex i D	Enclosure with intrinsically safe display

Technical data:

Type MD CPAP Ex d

Signal and supply circuit (terminal -, +)

in type of protection flameproof enclosure Ex db IIC and protection by enclosure Ex ta IIIC
U = 12 V_{DC} ... 26 V_{DC}
I = 4 mA ... 20 mA

Type MD CPAP Ex d D

Signal and supply circuit (terminal -, +)

in type of protection flameproof enclosure Ex db IIC and protection by enclosure Ex ta IIIC
U = 16 V_{DC} ... 29 V_{DC}
I = 4 mA ... 20 mA

Type MD CPAP Ex i D

Signal and supply circuit (terminal -, +)

in type of protection intrinsic safety Ex ia IIC/IIIC
Maximum values:
U_i = 30 V
I_i = 200 mA at $T_a \leq +65$ °C resp. 100 mA at $T_a \leq +85$ °C
P_i = 1 W
L_i = 250 µH
C_i = 25 nF

Schedule to EU-Type Examination Certificate No. TÜV 20 ATEX 261707 X issue 00

Permissible ambient temperature range:

Type MD CPAP Ex d ...

Used as category 2G equipment

Temperature class	Ambient temperature
T6	-40 °C to +50 °C
T5	-40 °C to +65 °C
T4	-40 °C to +85 °C
T3	-40 °C to +85 °C
T2	-40 °C to +85 °C
T1	-40 °C to +85 °C

Used as category 1D equipment

Maximum surface temperature		Ambient temperature range
dust layer ≤ 5 mm	immersed in dust	
T_a + 15 °C	T_a + 15 °C	-40 °C to +85 °C

Type MD CPAP Ex i D

Used as category 1G equipment

Temperature class	Ambient temperature range
T6	-40 °C to +40 °C
T5	-40 °C to +55 °C
T4	-40 °C to +60 °C
T3	-40 °C to +60 °C
T2	-40 °C to +60 °C
T1	-40 °C to +60 °C

The process pressure for the media must be between 0.8 bar and 1.1 bar where explosive vapour-air mixtures are present. If no explosive mixtures are present, the equipment may also be operated outside this area according to the manufacturer's specification.

Used as category 2G equipment

Temperature class	Ambient temperature range	
	at I_i ≤ 200 mA	at I_i ≤ 100 mA
T6	-40 °C to +40 °C	-40 °C to +40 °C
T5	-40 °C to +55 °C	-40 °C to +55 °C
T4	-40 °C to +65 °C	-40 °C to +85 °C
T3	-40 °C to +65 °C	-40 °C to +85 °C
T2	-40 °C to +65 °C	-40 °C to +85 °C
T1	-40 °C to +65 °C	-40 °C to +85 °C

Used as category 1D equipment

Maximum surface temperature		Ambient temperature range
dust layer ≤ 5 mm	Immersed in dust	
I_i ≤ 200 mA: T_a + 55 °C I_i ≤ 100 mA: T_a + 40 °C	observe EN 60079-14	I_i ≤ 200 mA: -40 °C ... +65 °C I_i ≤ 100 mA: -40 °C ... +85 °C

(16) Drawings and documents are listed in the ATEX Assessment Report No. 20 203 261707

Schedule to EU-Type Examination Certificate No. TÜV 20 ATEX 261707 X issue 00

(17) Specific Conditions for Use

1. If the type MD CPAP Ex i D is mounted in a plastic enclosure, the danger of ignition by electrostatic generated by friction on the enclosure must be avoided.
2. If the type MD CPAP Ex i D is mounted in an aluminium enclosure, an ignition hazard caused by impact or friction must be avoided.
3. For the electrical connection at type MD CPAP Ex d ..., cable glands certified in the type of protection flameproof enclosure must be used.
4. Repair of flameproof joints of enclosure MD CPAP Ex d ... is not planned.
5. The equipotential bonding connection of a metallic enclosure must be connected to the equipotential bonding of the potentially explosive area (an equipotential bonding must exist for the entire intrinsically safe area).

(18) Essential Health and Safety Requirements

no additional ones

- End of Certificate -