

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 261706 X **issue:** 00

(4) for the product: Filling Level Sensor type MD SDLM Ex ...

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

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

Order number: 8003014746

Date of issue: 2020-04-21

(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 261706.

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

EN IEC 60079-0:2018

EN 60079-11:2012


EN 60079-26:2015

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

Hanover office, Am TÜV 1, 30519 Hannover, Tel. +49 511 998-61455, Fax +49 511 998-61590

(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 20 ATEX 261706 X issue 00**

(15) Description of product

The filling level sensors are used for continuous measurement of liquid levels within potentially explosive areas. Floaters are used to detect the fluid levels. These slide on a sensor tube. For interface or water detection, a second float can be mounted on the sensor tube.

The marking is as follows:

Type MD SDLM Ex ...

Ex	II 1 G Ex ia IIC T6...T4 Ga	resp.	II 1/2 G Ex ia IIC T6...T4 Ga/Gb	resp.
	II 2 G Ex ia IIC T6...T4 Gb	resp.	II 1 D Ex ia IIIC T160 °C Da	

Type MD SDLM Ex ...-A resp. MD SDLM Ex ... Flex resp. MD SDLM Ex ... PL

Ex	II 1 G Ex ia IIB T6...T4 Ga	resp.	II 1/2 G Ex ia IIB T6...T4 Ga/Gb	resp.
	II 2 G Ex ia IIB T6...T4 Gb	resp.	II 1 D Ex ia IIIC T160 °C Da	

Type MD SDLM Ex C...

Ex	II 1 G Ex ia IIC T6...T4 Ga	resp.	II 1/2 G Ex ia IIC T6...T4 Ga/Gb	resp.
	II 2 G Ex ia IIC T6...T4 Gb	resp.	II 1 D Ex ia IIIC T125 °C Da	

Type MD SDLM Ex C...-A resp. MD SDLM Ex C... Flex resp. MD SDLM Ex C... PL

Ex	II 1 G Ex ia IIB T6...T4 Ga	resp.	II 1/2 G Ex ia IIB T6...T4 Ga/Gb	resp.
	II 2 G Ex ia IIB T6...T4 Gb	resp.	II 1 D Ex ia IIIC T125 °C Da	

Type designation:

MD SDLM Ex ...	4...20 mA interface (with configuration buttons) optionally with HART protocol
MD SDLM Ex C...	4...20 mA interface (without configuration buttons) optionally with HART protocol
MD SDLM Ex ...-A	Advanced precision of measurement and temperature sensors
MD SDLM Ex ... Flex	Flexible sensor tube
MD SDLM Ex ... PL	With plastic coating against very aggressive media

Technical data:

Signal- and power circuit

(terminals +, -, A, B resp. +, -) in type of protection "Intrinsic Safety" Ex ia IIC/IIB/IIIC only for the connection to a certified intrinsically safe circuit

Maximum values: $U_i = 30 \text{ V}$
 $I_i = 200 \text{ mA at } T_a \leq +70 \text{ °C resp.}$
 $I_i = 100 \text{ mA at } T_a \leq +85 \text{ °C}$
 $P_i = 1 \text{ W}$
 $L_i = 20 \text{ } \mu\text{H}$
 $C_i = 10 \text{ nF}$

The types MD SDLM Ex ...-A, MD SDLM Ex ... Flex and MD SDLM Ex ... PL are only for gas group IIB allowed.

Schedule to EU-Type Examination Certificate No. TÜV 20 ATEX 261706 X issue 00

Permissible ambient temperature range:

Use as category 1G apparatus

Temperature class	Ambient and Medium temperature range
T6	$I_i \leq 100 \text{ mA: } -20 \text{ °C to } +40 \text{ °C}$ $I_i \leq 200 \text{ mA: } -20 \text{ °C to } +25 \text{ °C}$
T5	$I_i \leq 100 \text{ mA: } -20 \text{ °C to } +55 \text{ °C}$ $I_i \leq 200 \text{ mA: } -20 \text{ °C to } +40 \text{ °C}$
T1 to T4	-20 °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.

Use as category 1/2G apparatus

Temperature class	Ambient temperature range	Medium temperature range
T6	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +40 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +25 \text{ °C}$	$I_i \leq 100 \text{ mA: } -20 \text{ °C to } +40 \text{ °C}$ $I_i \leq 200 \text{ mA: } -20 \text{ °C to } +25 \text{ °C}$
T5	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +55 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +40 \text{ °C}$	$I_i \leq 100 \text{ mA: } -20 \text{ °C to } +55 \text{ °C}$ $I_i \leq 200 \text{ mA: } -20 \text{ °C to } +40 \text{ °C}$
T1 to T4	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +85 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +70 \text{ °C}$	-20 °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.

Use as category 2G apparatus

Temperature class	Ambient temperature range	Medium temperature range
T6	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +40 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +25 \text{ °C}$	-40 °C to +85 °C
T5	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +55 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +40 \text{ °C}$	-40 °C to +100 °C
T4	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +85 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +70 \text{ °C}$	-40 °C to +135 °C
T3	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +85 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +70 \text{ °C}$	-40 °C to +200 °C
T2	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +85 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +70 \text{ °C}$	-40 °C to +300 °C
T1	$I_i \leq 100 \text{ mA: } -40 \text{ °C to } +85 \text{ °C}$ $I_i \leq 200 \text{ mA: } -40 \text{ °C to } +70 \text{ °C}$	-40 °C to +450 °C

Use as category 1D apparatus

Type MD SDLM Ex ...

Maximum surface temperature		Ambient temperature T_a
Dust layer $\leq 5 \text{ mm}$	Immersed in dust	-40 °C bis +85 °C
$T_a + 75 \text{ °C}$	Observe EN 60079-14	

Type MD SDLM Ex C...

Maximum surface temperature		Ambient temperature T_a
Dust layer $\leq 5 \text{ mm}$	Immersed in dust	-40 °C to +85 °C
$I_i \leq 100 \text{ mA: } T_a + 40 \text{ °C}$	Observe EN 60079-14	
$I_i \leq 200 \text{ mA: } T_a + 55 \text{ °C}$	Observe EN 60079-14	

Schedule to EU-Type Examination Certificate No. TÜV 20 ATEX 261706 X issue 00

(16) Drawings and documents are listed in the ATEX Assessment Report No. 20 203 261706

(17) Specific Conditions for Use

1. When using Titanium Floats, the risk of ignition due to impact or friction shall be avoided.
2. When using plastic floats, there is a danger of ignition due to electrostatic discharge. The manufacturer's instructions must be observed.

(18) Essential Health and Safety Requirements

no additional ones

- End of Certificate -