(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 CY 20 ATEX 0206338 X Issue 01**

(4) for the equipment: Magnetic Level Transmitters
Type: TL, TLT

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

(6) Address: Via G. Paglia 22 – 24050 Zanica (BG) - Italy

Order number: 0206338

Date of issue: 2023-01-31

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

(8) TÜV CYPRUS Ltd, notified body No. 2261 in accordance with Article 17 of the Council Directive of 2014/34/EU of February 26, 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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. 23 0206338.

(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 60079-31: 2014**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

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

(12) The marking of the equipment or protective system must include the following:
II 2G Ex db IIC T6 Gb and/or
II 2D Ex tb IIIC T85°C Db

TÜV CYPRUS Ltd (TUV NORD Group),

The head of the notified body,

D. Demosthenous

notified body
TÜV CYPRUS
TÜV NORD GROUP
2261

Accredited by CYS-CYSAB
Certificate No. C 004-2

TÜV CYPRUS (TÜV NORD) Ltd,
2 Papaflessa Str., 2235 Latsia, Nicosia - P.O.Box: 20732, 1663 Nicosia, Cyprus
Tel:+357 22 44 28 40 Fax:+35722 44 28 50 email: info@tuvcyprus.com.cy
www.tuv-nord.com/cy

This certificate may only be reproduced without any change, schedule included.
Excerpts or changes shall be allowed by the TÜV CYPRUS Ltd

(13) SCHEDULE

(14) EU-Type-Examination Certificate No. TÜV CY 20 ATEX 0206338 X Issue 01

(15) Description of equipment
The TLT level transmitters are used for level measuring in vessels.
A float containing a permanent magnet, runs along a stainless steel pipe, inside which there is a resistors and reed switches chain. The magnetic field of the float closes in sequence the various reed switches generating a resistance variation that is proportional to the position of the float itself.
The resistive value read at chain terminals is proportional to the level.
The TL level transmitters are mounted externally on Officine Orobiche magnetic level indicators series 2000 or 2000T. TL transmitters are not in contact with the process fluid.
Similarly to TLT instruments they contain a resistors and reed switches chain, inserted in a stainless steel pipe.
The float of 2000/2000T level indicators has inside a permanent magnet whose magnetic field interacts with the reed switches of the TL instrument changing the total resistive value of the resistive chain.
For both TLT and TL series, the level measure can be resistive at chain terminals or converted in a 4/20 mA or digital signal by an electronic transmitter placed in a separately certified Ex db housing joined on the top of the stainless steel pipe.
The housing of the resistive chain terminals and transmitters is covered by the certificate FTZU 03 ATEX 074U.
Current Issue 01 includes the update of the manufacturer address and the update of the harmonized standard.

Type key:
Magnetic Level Transmitters

Type: **TLT . LLL . Y .K . W . N . M . Z**

-**TLT** = TLT series
- **LLL** = Measuring range (mm)
- **Y** = Housing Material:
  - A: Aluminium
  - J: AISI 316
- **K** = Electrical Connection:
  - M: ISO M20
  - N: ½" NPT-F
  - G: ½" GAS-F
- **W** = Enclosure type C: Close, W: Window
- **N** = Float Material:
  - 2L: AISI 316L
  - TI: Titanium
- **M** = Float Type (Not relevant for certification)
- **Z** = Transmitter type:

- XD: 4-20mA
- HD: 4-20mA with HART® protocol
- FD: Digital protocols

Type: **TL . LLL . Y . K . W . Z**

-**TL** = TL series
- **LLL** = Measuring range (mm)
- **Y** = Housing Material:
  - A: Aluminium
  - J: AISI 316
- **K** = Electrical connection:
  - M: ISO M20
  - N: ½" NPT-F
  - G: ½" GAS-F
- **W** = Enclosure type C: Close, W: Window
- **Z** = Transmitter type:
  - XD: 4-20mA
  - HD: 4-20mA with HART® protocol
  - FD: Digital protocols

Technical data:

Maximum Rated Voltage 50 Vdc,
Maximum Rated Current 0.5 A

The degree of ingress protection is IP 66.

Allowable ambient temperature range: -40°C ÷ +60°C

Warning Markings:
Warning - Do Not Open When Energized

(16) Test documents are listed in the test report No. 23 0206338

(17) Special conditions for safe use
The equipment shall be installed to avoid a risk from propagating brush discharges for application in explosive dust atmosphere.

(18) Essential Health and Safety Requirements

This certificate covers the Essential Health and Safety Requirements related to the Directive 2014/34/EU.