IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx TUN 16.0006	Issue No: 0	Certificate history: Issue No. 0 (2016-02-18)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2016-02-18**		
Applicant:	**Officine Orobiche S.p.A.** Via Serena, 10 24010 Ponteranica (BG) **Italy**		
Electrical Apparatus:	**Liquid Level Transmitter Type TLT, TL, LSR**		
Optional accessory:			
Type of Protection:	**Ex db, Ex tb**		
Marking:	Ex db IIC T6 Gb Ex tb IIIC T 85 °C Db		

Approved for issue on behalf of the IECEx Certification Body: Karl-Heinz Schwedt

Position: Head of the Certification Body

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

TÜV NORD CERT GmbH
Hanover Office
Am TÜV 1
30519 Hannover
Germany

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Manufacturer:	**Officine Orobiche S.p.A.** Via Serena, 10 24010 Ponteranica (BG) **Italy**	
Additional Manufacturing location(s):		

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

DE/TUN/ExTR15.0062/00

Quality Assessment Report:

IT/CES/QAR16.0002/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Liquid Level Transmitter Type TLT, TL, LSR

See Attachment to IECEx TUN 16.0006_ Issue 0 for details.

CONDITIONS OF CERTIFICATION: NO

Annex:

Attachment to IECEx TUN 16.0006_ Issue 0 .pdf

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Attachment to IECEx TUN 16.0006 Issue 0

The TLT level transmitters for fluids are used for measuring with remote re-transmission in a 4/20 mA loop current two wires. The float containing a permanent magnet, runs along a rod, inside which a potentiometer chain made up of reed contacts and resistances is found.
The magnetic field of the float closes in a sequence the various reed bulbs so as to create a resistance variation that is proportional to the position of the float itself.
A converter, located in the instrument's head transforms the resistance variation into a 4/20 mA current variation.

The TL family instruments are probe that allow to transmit remotely level measurement using a 4-20 mA signal linear and proportional to the range of the instrument. The probe is laterally mounted to a magnet level indicator series 2000 or 2000T so it is not in touch with process fluid.
It is composed by a resistances chain and reed contacts, inserted in a stainless steel pipe connected to a converter placed in the enclosure.
Magnet placed in the float of the series 2000/2000T indicator close reeds near to the magnet itself and the movement of the magnet change the total resistive value of the chain. Level turn in to a resistance value that it is converted in a 4-20 mA linear signal proportional to the range of the level indicator.

The LSR "ON-OFF" magnetic level switch are based on the principle of the reed proximity. Hermetically sealed reed switch is placed in a guide pipe and it is actuated when the float intercepts it, float stroke is limited by two stoppers positioned where needed. The electrical contacts can be used as simple type "SPST", or changeover contact "SPDT".

Permissible range of ambient temperature: -40°C to +60°C.

Electrical data:

Maximum Rated voltage:	350 Vac
Maximum Rated power:	50 W
Maximum Rated current:	2.5 A