SIA CE-TEST
Notified body No. 2861

EN ISO/IEC 17065
S1-622

[1] **EU-TYPE EXAMINATION CERTIFICATE**

[2] Equipment or protective system intended for use in potentially explosive atmospheres – Directive 2014/34/EU

[3] EU-type examination certificate Number: **CETS 24 ATEX 058 X** **Issue:0**

[4] Product: **Fuel level sensor Omnicomm LLS-Ex 5**

[5] Manufacturer: **OMNICOMM VIETNAM LIMITED LIABILITY COMPANY**
[6] Address: **126 Dong Van Cong Street, Thanh My Loi Ward, Thu Duc City, Ho Chi Minh City, Vietnam,**
Factory: B2-3, B2-4 Lot A, N5B Street, Le Minh Xuan 3 Industrial Park, Binh Chanh District, Ho Chi Minh City, Vietnam
[7] This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
[8] The Certification body SIA «CE-Test», notified body number 2861 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 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 confidential Evaluation report number 058/2024 from 22.03.2024.
[9] Compliance with Essential Health and Safety Requirements has been assured by compliance with: EN IEC 60079-0:2018, EN 60079-11:2012
[10] If the sign «X» is placed after the certificate number, it indicates that the product is subject to Specified Conditions of Safe 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 in accordance to the Directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
[12] The marking of the equipment or protective system shall include the following:

Ex II 1 G Ex ia IIB T6 Ga

-40 °C ≤ Ta ≤ +80 °C

SIA "CE-Test" * Nr/ 42103087208 * CE-TEST

Date of certification: 01.04.2024

Responsible person: Ing. Pavlo Khorunzhyy
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[13] SCHEDULE

[14] EU-TYPE EXAMINATION CERTIFICATE: **CETS 24 ATEX 058 X** **Issue: 0**

[15] Description of Product:

Omnicomm LLS-Ex 5 fuel level sensors are designed to measure fuel level in tanks of vehicles and stationary fuel storages. Fuel level sensors also measure the temperature. RS-485 or RS-232 interfaces are used to exchange information with the device. The Omnicomm LLS-Ex 5 fuel level sensor is installed on special types of equipment or on stationary fuel tanks and storages, which require equipment explosion protection and have the "II 1G Ex ia IIB T6 Ga" explosion protection label. The sensor calibration is adjusted automatically when fuel composition or properties change. The types of fuel in which the sensor can operate: gasoline, summer fuel and winter diesel fuel and other liquid light petroleum products.

Different versions of Omnicomm LLS-Ex 5 are available depending on the length of the measuring probe: 700 mm, 1000 mm, 1500 mm, 2000 mm, 2500 mm and 3000 mm. Any measuring probe longer than 3000 mm is composite. The following lengths 4000 mm, 5000 mm and 6000 mm are used when using a composite measuring probe. The Omnicomm LLS-Ex 5 fuel level sensor is installed together with the BIS-MX spark protection unit manufactured by Omnicomm.

The product is intended for level measurement in zone 0, with the presence of gases of group IIB with temperature class T6.

Table 1 Technical data of Fuel level sensor Omnicomm LLS-Ex 5

Parameter	Value
Level measurement range depending on the version	0...700, 1000, 1500, 2000, 2500, 3000 mm
Measuring length when using a composite measuring probe	4000, 5000, 6000 mm
Limit of the allowed main reduced error of level measurement	± 0,5%*
Interface for measured values output	RS-232, RS-485
Programmable interface transmission rate	1200, 2400,4800, 7200, 9600, 14 400, 19 200, 38 400, 57 600, 115 200 bit/sec
Power supply voltage (BIS-MX)	8... 50 V
Absorbed current, not more than	60mA
Body protection rating	IP69K
Terms of Use:	
Ambient temperature	From - 40 to +80 °C
Extreme temperatures	- 60 and + 80 °C
Maximum humidity	100 %
Digital code range corresponding to the maximum level measurement value	1...4095
Digital code range corresponding to the minimum level measurement value	0...4094
Temperature measuring range	From - 40 to +80 °C
Measurement time period	1 sec
Automatic data output interval	From 1 to 255 sec

Operating mode	Continuous
Overall dimensions	87,3 x 83,5 x (22+lenght of the measuring probe) mm
Weight, not more than	2kg
*The reported accuracy is guaranteed when working with the fuel for which the calibration was performed or when using the auto-tuning function when filling the tank to the full	

Table 2 Electrical parameters of intrinsic safety

Parameter name	Value
Maximum input voltage Ui	6,95 V
Maximum input current Ii	0,46 A
Maximum internal capacity Ci	10 µF
Maximum internal inductance Li	50 µH

For a more detailed description of the design, please refer to the relevant instruction manual.

[16] Test Report

The examination and test results are recorded in confidential Evaluation Report number 058/2024 from 22.03.2024

[17] Specific conditions of use

- The Fuel level sensors, Omnicomm type LLS-Ex 5 must be connected only to Spark protection unit, Omnicomm, Type: BIS-MX.

[18] Essential health and safety requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information: None.

[19] Drawings and Documents

The documents are listed in the Evaluation report number 058/2024 from 22.03.2024

Title Technical Documents	Decimal number	Date
Operation Manual	User manual for LLS-Ex 5	2024
Passport	Passport LLS-Ex 5	2024
Evaluation of Intrinsically Safe Circuits	Evaluation of Intrinsically Safe Circuits LLS-Ex 5	2024
Drawing	VN20530.18 Dim Dwg	-
Drawing	VN81130	-