OBAC

Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o.
44-121 Gliwice, ul. Łabędzka 21

PCA Polskie Centrum Akredytacji – Certyfikacja Wyrobów AC 099

(1) EU-TYPE EXAMINATION CERTIFICATE

(2) Equipment, products and protective systems intended for use in Potentially Explosive Atmospheres. Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014.

(3) EU type examination certificate No: **OBAC 23 ATEX 0282X, Issue 0**

(4) Equipment: **9415-x0001 Radar Sensor**

(5) Manufacturer: **Rochester Sensors LLC**

(6) Address: 1025 S Belt Line Road Suite 100 Coppell, TX 75019
United States of America

(7) This equipment, product or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Institute for Research and Certification „OBAC" Ltd., notified body No.1461 in accordance with Article 17 and Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment, product or protective system 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 and the list of agreed technical documentation are recorded in the confidential report No. OBAC/23/ATEX/0282.

(9) Compliance with the 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 equipment, product or protective system is subject to the Specific Conditions of Use specified in the schedule to this certificate.

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

(12) The marking of the equipment, product or protective system shall include the following:

II 1G Ex ia IIA T3 Ga

NOTIFIED BODY Ośrodek Badań, Atestacji i Certyfikacji OBAC Sp. z o.o. 1461

Head of Certification Body

Piotr Tarnawski M. Com.

Gliwice, 26 October 2023

(13)
(14)

SCHEDULE

to the EU-Type Examination Certificate No. OBAC 23 ATEX 0282X, Issue 0

(15) Ex Product description:

Radar Sensor 9415-x0001 is an intrinsically safe telemetry device designed for measuring liquid level in a tank. The device is mounted on the top of the tank with the use of a special glued or threaded adapter. As a sensor of fluid level radar chip is used. Information related to the measured level is presented on an LCD and can be read via 2,4GHz radio interface.
The device is powered by two non-replaceable lithium primary cells or through an external cable connection. All components are located on one printed board inside a plastic enclosure.
The version with primary cells has no external connections. The second version has a permanently connected cable with two circuits – power supply and 0…5V analog signal output.

Marking:

9415-x0001

9415-B0001-00 battery version (no external connections)
9415-C0001-xx cable version (power supply and voltage output)
└ cable length in feet (up to 50ft)

Rated data:

Power supply 9415-B0001-00	Two primary cells 3,6V
Power supply 9415-C0001-xx	External via cable, Un = 5V
Ambient temperature	$-40°C \leq T_a \leq +85°C$
Radio frequency range	2,4GHz band
Maximum radio power	≤ 4mW
Data output interface 9415-C0001-xx	Analog signal 0...5V
Housing material	Plastic
Degree of protection	Not less than IP20 (IEC 60529)
Maximum allowable cable capacity	60pF/ft
Maximum allowable cable inductivity	0,2µH/ft

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Parameters related to intrinsic safety (cable version 9415-C0001-xx)
- power source and 0...5V output interface (if used)
$U_i = 6,6V$, $I_i = 0,45A$, $P_i = 0,7W$,
$L_i = L_c$, $C_i = 430\mu F + C_c$
where C_c, L_c means total capacitance and inductance of connected cable.
Only cables with parameters not higher than 60pF/ft and 0,2µH/ft can be used (max length 50ft).
Maximum allowable cable capacitance and inductance is 3nF and 10µH.

Wires:
RED – power supply
WHITE – data – 0…5V output interface
BLACK – ground

(16) Report:
- OBAC/23/ATEX/0282.

(17) Specific conditions of use:
- Ambient temperature range: $-40°C \leq T_a \leq +85°C$.
- Warning – Potential electrostatic charging hazard – see instructions.
- White wire in 9415-C0001 cable device version is active 0...5V output interface.
  In case of use this data output following intrinsically safe parameters (resulting from device power source) shall to be respected:
  $U_o = 5,88V$; $I_o = 0,131A$; $P_o = 0,193W$; $L_o = 150\mu H - L_c$; $C_o = 1000\mu F - C_c$,
  where L_c, C_c are total inductance and capacitance of connected cable.

(18) Essential health and safety requirements:
Met by compliance with the requirements mentioned in item 9.

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