



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX CML 22.0051X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2022-09-22

Applicant: **Pulsar Process Measurement Limited**  
Cardinal Building  
Enigma Commercial Centre  
Sandy's Road  
Malvern  
Worcestershire WR14 1JJ  
**United Kingdom**

Equipment: **Reflect**

Optional accessory:

Type of Protection: **Intrinsic Safety Ex "ia"**

Marking: Ex ia IIC T4 Ga  
Ex ia IIIC T100°C Da  
Tamb = -40°C to +80°C

Approved for issue on behalf of the IECEx  
Certification Body:

**L A Brisk**

Position:

**Certification Officer**

Signature:  
(for printed version)

Date:  
(for printed version)

2022-09-22

1. This certificate and schedule may only be reproduced in full.
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Certificate issued by:

**Eurofins E&E CML Limited**  
Unit 1, Newport Business Park  
New Port Road  
Ellesmere Port, CH65 4LZ  
**United Kingdom**





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Enigma Commercial Centre  
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Worcestershire WR14 1JJ  
**United Kingdom**

Manufacturing locations: **Pulsar Process Measurement Limited**  
Cardinal Building  
Enigma Commercial Centre  
Sandy's Road, Malvern  
Worcestershire WR14 1JJ  
**United Kingdom**

**Pulsar Process Measurement Limited**  
Unit 5, Lancaster Way  
Earls Colne Business Park  
Earls Colne  
Essex CO6 2NS  
**United Kingdom**

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

This Certificate **does not** indicate compliance with 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:

[GB/CML/ExTR22.0118/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0030/14](#)



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**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Reflect is a two-wire DC powered level measurement sensor utilising radar technology. The sensor is housed in a non-metallic enclosure with integral two core cable which connects, via a suitably certified barrier, to control equipment located in the safe area. The enclosure incorporates a threaded boss which allows the equipment to be mounted on a suitable bracket or flange, and LED indicators mounted in the enclosure wall.

**See Annex for full description and Condition of Manufacture.**

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

**See Annex for Specific Conditions of Use.**

**Annex:**

[IECEX CML 22.0051X Annex Issue 0.pdf](#)

**Annexe to:** IECEx CML 22.0051X Issue 0  
**Applicant:** Pulsar Process Measurement Limited  
**Apparatus:** Reflect

## Description

The Reflect is a two-wire DC powered level measurement sensor utilising radar technology. The sensor is housed in a non-metallic enclosure with integral two core cable which connects, via a suitably certified barrier, to control equipment located in the safe area. The enclosure incorporates a threaded boss which allows the equipment to be mounted on a suitable bracket or flange, and LED indicators mounted in the enclosure wall.

Intrinsic safety is achieved by connecting to the non-hazardous area via an intrinsically safe interface device, and by encapsulation of the electronics and sensor.

The equipment has the following safety description:

U<sub>i</sub> = 28V  
 I<sub>i</sub> = 162mA  
 P<sub>i</sub> = 0.85W  
 C<sub>i</sub> = 0  
 L<sub>i</sub> = 0

## Conditions of Manufacture

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.

## Specific Conditions of Use

The following relate to the installation and/or safe use of the equipment:

- i. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth
- ii. When installing the equipment, the installer shall consider the length of the integral cable attached to the equipment, in addition to any externally installed cable. The integral cable shall be considered to have parameters of 200pF/m, and 1µH/m or 30µH/Ω



Certificate Annex IECEx  
 Version: 9.0 Approval: Approved

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