



# 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](http://www.iecex.com)

Certificate No.: **IECEX SIR 10.0056X** issue No.:2

Status: **Current**

Certificate history:  
Issue No. 2 (2016-3-10)  
Issue No. 1 (2012-10-2)  
Issue No. 0 (2010-6-3)

Date of Issue: **2016-03-10** Page 1 of 5

Applicant: **Precision Digital Corporation**  
233 South Street  
Hopkinton  
Massachusetts 01748  
**United States of America**

Electrical Apparatus: **A Range of Explosionproof Process Meters**  
Optional accessory:

Type of Protection: **Flameproof and dust**

Marking: Ex d IIC T6 Gb  
Ex tb IIIC T85°C Db IP68  
Ta = -40°C to +75°C

Approved for issue on behalf of the IECEX Certification Body: **A G Boyes**

Position: Certification Support Officer

Signature:  
(for printed version)

Date:

2016-03-10

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:

**SIRA Certification Service**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden  
Deeside  
CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





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Manufacturer: **Precision Digital Corporation**  
233 South Street  
Hopkinton  
Massachusetts 01748  
**United States of America**

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** Explosive atmospheres - Part 0: General requirements  
Edition: 6.0

**IEC 60079-1 : 2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition: 6

**IEC 60079-31 : 2008** Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'  
Edition: 1

*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:

GB/SIR/ExTR10.0113/00

GB/SIR/ExTR12.0231/00

GB/SIR/ExTR16.0046/00

##### Quality Assessment Report:

GB/SIR/QAR10.0005/00



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The meters utilise one of two flameproof enclosures covered by IECEx SIR 08.0126U or IECEx 07.0111U. the enclosure comprises a cylindrical base with a threaded cover housing a liquid crystal display. Models within the series may be powered by battery, directly from the 4-20 mA loop, or by low voltage DC and accept process inputs such as from a loop transmitter or pulse transmitter. Each enclosure is fitted with up to three conduit openings which may be fitted with suitably certified and dimensioned cable entry devices or stopping plugs. For additional details refer to the Certificate Annexe.

### CONDITIONS OF CERTIFICATION: YES as shown below:

- 1 The battery shall not be recharged, in addition, it shall only be replaced by a Precision Digital battery with the same part number as the one being replaced.



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## EQUIPMENT(continued):

### Conditions of manufacture

The Manufacturer shall comply with the following:

1. The maximum power dissipated within the equipment is set to a maximum of 2.2 Watts
2. The products covered by this certificate incorporate previously certified parts, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these parts, and the manufacturer shall inform Sira of any modifications of the parts that may impinge upon the explosion safety design of their products.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

### Issue 1 – this Issue introduced the following changes:

- 1 As it is no longer manufactured, the PD312 Model was removed, the description was amended accordingly, refer to Issue 0 for details of the PD312 version.
- 2 The introduction of new PD68xx series models, the description was changed to recognise the latest reference details.
- 3 A new battery was introduced, PDABAT36C, this is smaller than the existing PDABAT36D battery and therefore the battery board was modified, a Special Condition for Safe Use relative to the application of the batteries was applied.
- 4 A new circuit for the PD6830 was introduced.
- 5 Minor drawing changes were recognised e.g. the addition of a note about Field Modification, the re-definition of the exterior label material, the push buttons are now defined as optional; these amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.
- 6 Following appropriate assessment to demonstrate compliance with the requirements of the later standards, IEC 60079-0:2007 Ed 5, IEC 60079-1:2003 Ed 5 were replaced by those currently listed.
- 7 The removal of a superfluous Condition of Manufacture.

### Issue 2 – this Issue introduced the following change:

- 1 The company address was changed from 89 October Hill Road, STE 5, Holliston, Massachusetts 01746-1378, USA to 233 South Street, Hopkinton, Massachusetts 01748, USA.

**Annexe to:** IECEx SIR 10.0056X Issue 2  
**Applicant:** Precision Digital Corporation  
**Apparatus:** A Range of Explosionproof Meters



**DESCRIPTION OF APPARATUS**

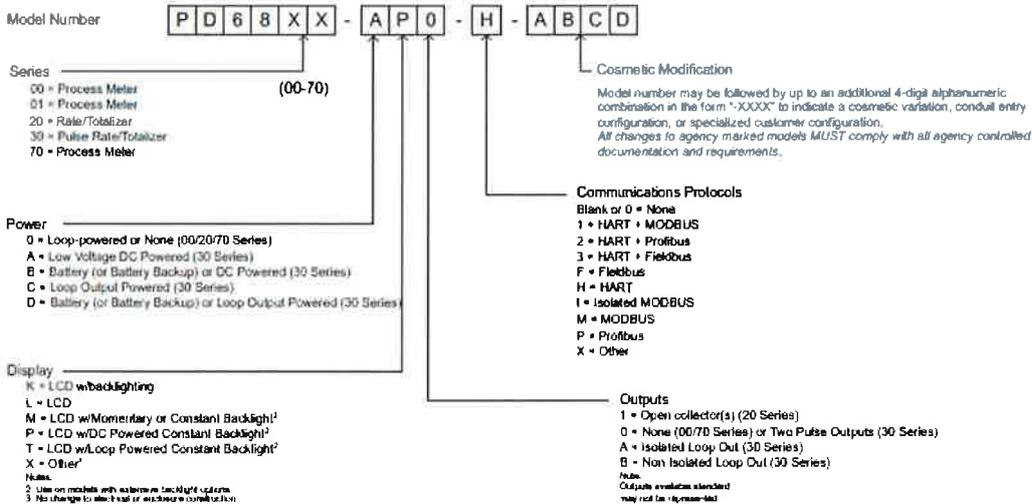
The meters utilise one of two flameproof enclosures covered by IECEx SIR 08.0126U or IECEx SIR 07.0111U. The enclosure comprises a cylindrical base with a threaded cover housing a liquid crystal display. Models within the series may be powered by battery, directly from the 4-20 mA loop, or by low voltage DC and accept process inputs such as from a loop transmitter or pulse transmitter. Each enclosure is fitted with up to three conduit openings which may be fitted with suitably certified and dimensioned cable entry devices or stopping plugs.

**The PD68xx series**

The PD6800 series are explosion-proof meters with a liquid crystal display. The backlight option allows the display to be visible under any lighting condition. Models within the series may be powered by battery, directly from the 4-20 mA loop, or by low voltage DC and accept process inputs such as from a loop transmitter or pulse transmitter. The instrument enclosure covered by IECEx SIR 08.0126U is a cylindrical single compartment enclosure comprising a base and cover with a maximum internal volume of 700 cm<sup>3</sup>. The enclosure is manufactured from cast aluminium with an epoxy paint finish. The enclosure's cover contains a circular tempered glass window. Each enclosure is fitted with up to three conduit openings which may be fitted with suitably certified and dimensioned cable entry devices or stopping plugs.



**Model Variations:**



**Annexe to:** IECEx SIR 10.0056X Issue 2  
**Applicant:** Precision Digital Corporation  
**Apparatus:** A Range of Explosionproof Meters



**The PD663 Series**

The PD663 derives all its power from 4-20 mA loop. The PD663's series is scaled using four push buttons or through the explosion-proof enclosure with optional reed switches and a magnetic key. Scaling can be done without applying an actual calibration signal. The loop-powered backlighting option allows the display to be visible under any lighting condition. The instrument enclosure covered by IECEx SIR 07.0111U is a cylindrical single compartment enclosure comprising a base and cover with a maximum internal volume of 250 cm<sup>3</sup>. The enclosure is manufactured from cast aluminium with an epoxy paint finish. The enclosure cover contains a circular tempered glass window. Each enclosure is fitted with up to 3 conduit openings which may be fitted with suitably certified and dimensioned cable entry devices or stopping plugs.



Model Series	Description	Options
PD663-OL0-00	Explosion Proof Process Meter	Loop-Powered
PD663-OK0-00	Explosion Proof Process Meter	Loop-Powered, Backlight
PD663-OLA-00	Explosion Proof Process Meter	Loop-Powered, Magnetic Button
PD663-OKA-00	Explosion Proof Process Meter	Loop-Powered, Backlight, Magnetic Button

Note: Model number may be followed by up to an additional 4-digit alphanumeric combination in the form "-XXXX" to indicate a cosmetic variation and/or conduit entry configuration.

**PD310** The ExSense T Series is a line of smart temperature transmitters with HART® communication capabilities. They can be configured using a HART modem and a PC, running the free HART software provided, or using a handheld HART communicator. The PD310 model does not include a sensor. The backlit LCD provides the user with information such as the process variable, input type, and engineering units. The display can be programmed to show the PV, mA output, or %. The loop-powered backlight is standard on all models and allows the display to be visible under any lighting condition.



**Sira Certification Service**

Unit 6, Hawarden Industrial Park,  
Hawarden, CH5 3US, United Kingdom

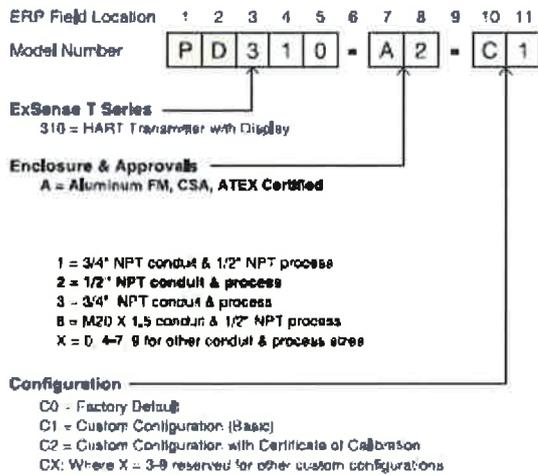
Tel: +44 (0) 1244 670 900  
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Email: [ukinfo@csagroup.org](mailto:ukinfo@csagroup.org)  
Web: [www.csagroupuk.org](http://www.csagroupuk.org)

**Annexe to:** IECEx SIR 10.0056X Issue 2  
**Applicant:** Precision Digital Corporation  
**Apparatus:** A Range of Explosionproof Meters



The instrument enclosure covered by IECEx SIR 07.0111U, is a cylindrical single compartment enclosure comprising a base and cover with a maximum internal volume of 250 cm<sup>3</sup>. The enclosure is manufactured from cast aluminium with an epoxy paint finish. The enclosure cover contains a circular tempered glass window. Each enclosure is fitted with up to 3 conduit openings with one utilised as a process sensor connection port. For remote mounting applications the PD310 may be ordered without the process sensor connection port.

**PD310 Model Variations:**



**Sira Certification Service**

Unit 6, Hawarden Industrial Park,  
 Hawarden, CH5 3US, United Kingdom

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