

Equipment:

4



1 EU-TYPE EXAMINATION CERTIFICATE

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: Sira 10ATEX1116X Issue: 4

5 Applicant: Precision Digital Corporation

6 Address: 233 South Street

Hopkinton

Massachusetts 01748

USA

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

A Range of Explosion Proof Process Meters

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-31:2014

- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.
- This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- 12 The marking of the equipment shall include the following:

When using 8100 or 8066 Enclosures



II 2 G D Ex db IIC T6 Gb Ex tb IIIC T85°C Db IP68 Tamb -40°C to +75°C When using EC200, EX200, EC500 or EX500 Enclosures



II 2 G D Ex db IIC T6 Gb Ex tb IIIC T85°C Db IP68 Ta = -55°C to +75°C

Signed: M Halliwell

Title: Director of Operations



Project Number 80117983

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DQD 544.09 Issue Date: 2022-04-14

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13 DESCRIPTION OF EQUIPMENT

The meters utilise one of 6 component certified flameproof enclosures. 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.

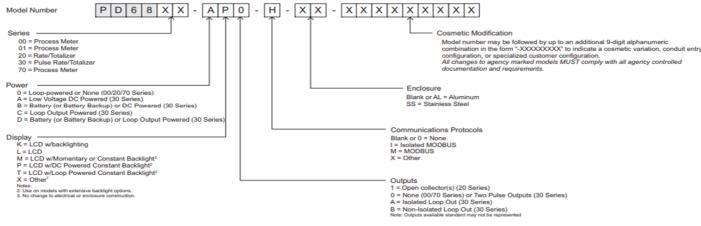
The PD68xx series

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 is a cylindrical single compartment enclosure comprising a base and cover with a maximum internal volume of up to 888cm³, and may be manufactured from cast aluminium or stainless steel depending on enclosure type, which may include 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.











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The PD69xx series

The PD6900 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 is a cylindrical single compartment enclosure comprising a base and cover with a maximum internal volume of up to 888cm³, and may be manufactured from cast aluminium or stainless steel depending on enclosure type, which may include an epoxy paint finish. The enclosure's cover contains a circular tempered glass window. 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 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 is a cylindrical single compartment enclosure comprising a base and cover with a maximum internal volume of up to 298cm³, and may be manufactured from cast aluminium or stainless steel depending on enclosure type, which may include 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.







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PD663 Model Variations:

Model	Series Description	Options	Enclosure Type	
PD663-0L0-00	Explosion-Proof Process Meter	Loop-Powered	Aluminum	
PD663-0L0-SS	Explosion-Proof Process Meter	Loop-Powered	Stainless Steel	
PD663-0K0-00	Explosion-Proof Process Meter	Loop-Powered, Backlight	Aluminum	
PD663-0K0-SS	Explosion-Proof Process Meter	Loop-Powered, Backlight	Stainless Steel	
PD663-0LA-00	Explosion-Proof Process Meter	Loop-Powered, Magnetic Buttons	Aluminum	
PD663-0LA-SS	Explosion-Proof Process Meter	Loop-Powered, Magnetic Buttons	Stainless Steel	
PD663-0KA-00	Explosion-Proof Process Meter	Loop-Powered, Backlight, Magnetic Buttons	Aluminum	
PD663-0KA-SS	Explosion-Proof Process Meter	Loop-Powered, Backlight, Magnetic Buttons	Stainless Steel	

Note: Model number may be followed by up to an additional 9-digit alphanumeric combination in the form "-XXXXXXXXX" to indicate a cosmetic variation, conduit entry configuration, or specialized customer configuration.

All changes to agency marked models MUST comply with all agency controlled documentation and requirements.

The PD310 Series

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.



The instrument enclosure is a cylindrical single compartment enclosure comprising a base and cover with a maximum internal volume of up to 298cm³, and may be manufactured from cast aluminium or stainless steel depending on enclosure type, which may include 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.

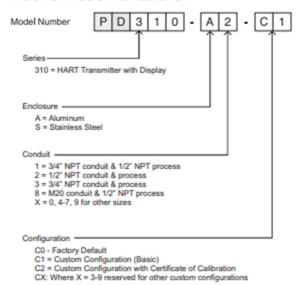




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PD310 Model Variations:



Variation 1 - This variation introduced the following changes:

- i. 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.
- ii. The introduction of new PD68xx series models, the description was changed to recognise the latest reference details.
- iii. 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.
- iv. A new circuit for the PD6830 was introduced.
- v. Minor drawing changes were recognised e.g. the addition of a note about Field Modification, the redefinition 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.
- vi. Following appropriate assessment to demonstrate compliance with the requirements of the later standards, IEC 60079-31:2008 was replaced by EN 60079-31:2009 in section 9.
- vii. The removal of a superfluous Condition of Certification.

Variation 2 - This variation introduced the following change:

i. 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.





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Variation 3 - This variation introduced the following change:

- Following appropriate assessment to demonstrate compliance with the latest technical knowledge: EN 60079-0:2009 was replaced by EN IEC 60079-0:2018, EN 60079-1:2007 was replaced by EN 60079-0:2014,
 - EN 60079-31:2009 was replaced by EN 60079-31:2014.
- ii. To allow the addition of optional enclosures covered by the certificates Sira 19ATEX1252U for use in a low ambient of -55, with the currently certified internal arrangement.
- iii. To allow the introduction of the PD69xx series models which includes alternative electronics and battery arrangements and is for use in the enclosures covered by the certificates Sira 19ATEX1252U only.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	19 May 2010	R20524A/00	The release of prime certificate.
1	25 September 2012	R27676A/00	The introduction of Variation 1.
2	10 March 2016	R70064949A	The introduction of Variation 2.
3	15 October 2019	1390	This Issue covers the following changes:
			Transfer of certificate Sira 10ATEX1116X from Sira
			Certification Service to CSA Group Netherlands B.V
			EC Type-Examination Certificate in accordance with
			94/9/EC updated to EU Type-Examination Certificate
			in accordance with Directive 2014/34/EU. (In
			accordance with Article 41 of Directive 2014/34/EU, EC Type-
			Examination Certificates referring to 94/9/EC that were in
			existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance
			with Directive 2014/34/EU. Variations to such EC Type-
			Examination Certificates may continue to bear the original
			certificate number issued prior to 20 April 2016.)
4	06 January 2023	R80117983A	The introduction of Variation 3.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 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.
- The equipment label and epoxy coating may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment should be done only with a damp cloth.





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- 15.3 Flameproof joints are not intended to be repaired.
- All entry closure devices shall be suitably certified as "Ex d", "Ex t" and "IP66/68" as applicable. Suitable thread sealing compound (non-setting, non-insulating, non-corrosive, not solvent based, suitable for the ambient rating) must be used at the NPT conduit entries to achieve the IPx8 rating while maintaining the Ex protection concept.
- 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

- 17 CONDITIONS OF MANUFACTURE
- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 The maximum power dissipated within the equipment is set to a maximum of 2 Watts.
- 17.4 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 CSA Group of any modifications of the parts that may impinge upon the explosion safety design of their products.
- 17.5 The equipment shall be marked for an ambient temperature range dependent of the enclosure type used in the construction as detailed below:

Model 8066 (Sira 07ATEX1331U) $Ta = -40^{\circ}C$ to $+75^{\circ}C$

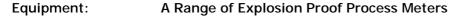
Model 8100 (Sira 08ATEX1325U) $Ta = -40^{\circ}C$ to $+75^{\circ}C$

Model EC/EX200 (Sira 19ATEX1252U) Ta = -55°C to +75°C

Model EC/EX500 (Sira 19ATEX1252U) Ta = -55°C to +75°C

Certificate Annexe

Certificate Number: Sira 10ATEX1116X







Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
DW1867	1 to 8	Α	01 April 10	ATEX/IECEx Certification drawings PD663/310/312
DW1866	1 to 8	Α	01 April 10	ATEX/IECEx Certification drawings PD6800 Series

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
DW1866	1 to 8	В	06 Sep12	ATEX/IECEx Certification drawings PD6800 Series
DW1867	1 to 7	В	06 Sep12	ATEX/IECEx Certification drawings PD663/310 Series

Issue 2 - No new drawings were introduced.

Issue 3 - No new drawings were introduced.

Issue 4

Drawing	Sheets	Rev.	Date (Stamp)	Title
DW1866	1 to 35	С	15 Dec 22	ATEX/IECEx Certification drawings PD6800 Series
DW1867	1 to 17	С	15 Dec 22	ATEX/IECEx Certification drawings PD663/310 Series