



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

Certificate No.: **IECEX CML 18.0050X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2020-10-13)

Status: **Current** Issue No: 1

Date of Issue: 2022-09-06

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

Equipment: **PD67xx, PD68xx, and PD69xx Digital Process Indicators**

Optional accessory:

Type of Protection: **Intrinsic safety Ex "i"**

Marking: Ex ia IIC T4 Ga
Ex ia IIIC T200°C Da
Ta = -40°C to +75°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)

2022-09-06

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.
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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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Certificate No.: **IECEX CML 18.0050X**

Page 2 of 4

Date of issue: 2022-09-06

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

Manufacturing locations: **Precision Digital Corporation**
233 South Street
Hopkinton
MA 01748
United States of America

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 Reports:

[GB/CML/ExTR18.0063/00](#)

[GB/CML/ExTR22.0113/00](#)

Quality Assessment Report:

[GB/SIR/QAR10.0005/13](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX CML 18.0050X**

Page 3 of 4

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The PD67xx, PD68xx, and PD69xx Digital Process Indicators are general purpose loop powered process and level meters with liquid crystal displays and programming buttons. Models are available with various display and measurement, input and output, and powering options. The equipment may be powered from either a dedicated 4-20mA loop power input, a DC power input, an integral battery, or from the 4-20mA output.

See Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex for Specific Conditions of Use.



IECEX Certificate of Conformity

Certificate No.: **IECEX CML 18.0050X**

Page 4 of 4

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) Issue 1

This issue introduces the following changes:

1. Change to model numbers (PD67xx and PD68xx no longer used)
2. Change to lower ambient from -40°C to -55°C
3. Change to battery protection components
4. Addition of alternative cells and battery packs

Annex:

[IECEX CML 18.0050X Iss. 1 Annex \(1\).pdf](#)

Description

The PD67xx, PD68xx, and PD69xx Digital Process Indicators product description is changed as follows:

The PD69xx Digital Process Indicators are general purpose loop powered process and level meters with liquid crystal displays and programming buttons. Models are available with various display and measurement, input and output, and powering options. The equipment may be powered from either a dedicated 4-20mA loop power input, a DC power input, an integral battery, or from the 4-20mA output.

All models have a digital contact (switch) input and two open collector outputs. Optionally, the meters may be fitted with two solid state relay outputs, a 4-20mA loop output which may be HART compatible, an RTD input, a 4-20mA loop input, and/or a Modbus/RS-485 connection.



Certificate Annex IECEx
Version: 9.0 Approval: Approved

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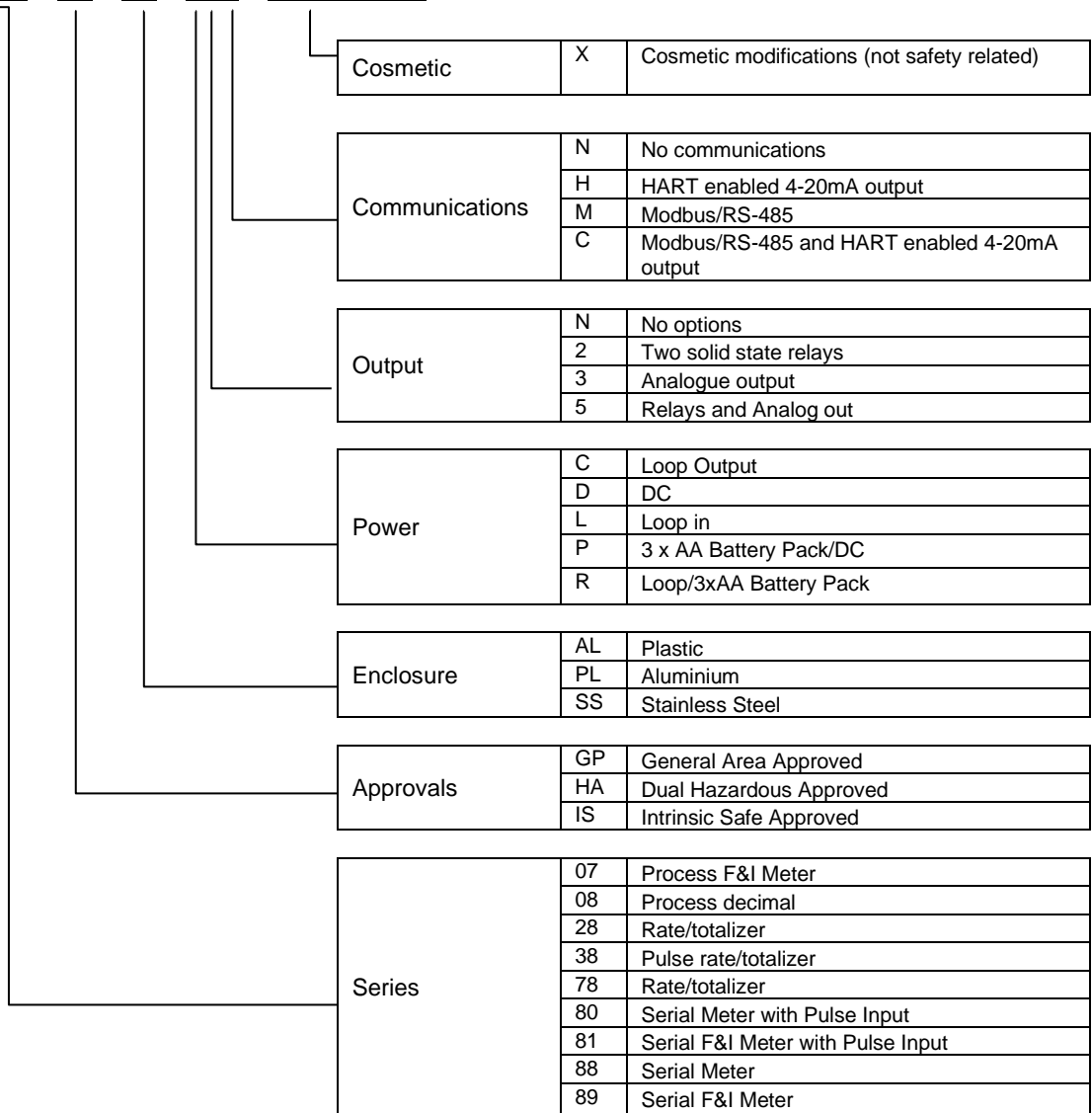
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The following models and options are covered by this certificate:

PD69XX – XX – XX – XXX – XXXXXXXXX



Intrinsic safety is achieved by limiting energy storage and discharge, and by connecting to the non-hazardous area via intrinsically safe interface devices.

The equipment has the following safety description for each port (where fitted):

Port	Ui (V)	Ii (mA)	Pi (W)	Ci (µF)	Li	Uo (V)	Io (mA)	Po (W)
Loop/power connection (BN2466) LOOP_P to LOOP_N or BL_N	30	175	1	0	0			
Open collector pulse outputs	30	175	1	0	0			
Switch input	30	175	1	0	0			
4-20mA output	30	175	1	0	0			
Relay output	30	1000	1	0.013	0	11.55	1	0.012
DC power input	30	175	1	0	0			
Pulse/Mag input	30	175	1	0	0			
4-20mA input	30	175	1	0	0			
RTD input				12.83	0	6.93	136	0.165
RS485 MODBUS output	5.9	225	0.3	0	0	5.88	54	0.08
Sensor port				2.2	0	6.93	132	0.19

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 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 conditions relate to safe installation and/or use of the equipment:

- i. Loop powered versions (PD6xxx-L-) - the equipment loop/power port shall be connected to an intrinsically safe barrier with $U_0 \geq 5.8V$
- ii. Versions with 4-20mA input (PD6x58-xxxx) - the 4-20mA input port shall be connected to an intrinsically safe barrier with $U_0 \geq 5.1V$
- iii. The Pulse and Mag inputs shall not both be connected to external equipment simultaneously.
- iv. The PD67xx enclosure is non-metallic. Under certain extreme circumstances, the plastic enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism (such as wind-blown dust) is unlikely to be present and clean with a damp cloth.
- v. The PD68xx enclosure is manufactured from aluminium. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a zone 0 location.
- vi. All cable entries into the equipment shall be via cable glands or conduit which provide a minimum degree of protection of IP54.
- vii. The battery pack shall not be replaced when an explosive atmosphere is present. Only battery pack type PDA-BAT36AA3 shall be used.
- viii. For versions with metal cases – the equipment may not have 500V isolation between the circuit and earth. This shall be taken into account when installing the equipment.