



EU Type Examination Certificate CML 18ATEX2089X Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **PD69xx Digital Process Indicators**
- 3 Manufacturer **Precision Digital Corporation**
- 4 Address **233 South Street,
Hopkinton,
MA 01748,
USA**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 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 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

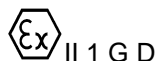
EN IEC 60079-0:2018

EN 60079-11:2012

- 10 The equipment shall be marked with the following:

PD69XX-XX-PL

PD69XX-XX-AL & PD69XX-XX-SS

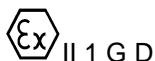


II 1 G D

Ex ia IIC T4 Ga

Ex ia IIIC T200°C Da

Ta = -40°C to +75°C



II 1 G D

Ex ia IIC T4 Ga

Ex ia IIIC T200°C Da

Ta = -55°C to +75°C





11 Description

The 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.

The following models and options are covered by this certificate:

PD69XX – XX – XX – XXX – XXXXXXXXX

| | | | | | | |
|-----------|------------------------|-----------------------------------|--|----------------|---|--|
| | | | | Cosmetic | X | Cosmetic modifications (not safety related) |
| | | | | Communications | N | No communications |
| | | | | | H | HART enabled 4-20mA output |
| | | | | | M | Modbus/RS-485 |
| | | | | | C | Modbus/RS-485 and HART enabled 4-20mA output |
| | | | | Output | N | No options |
| | | | | | 2 | Two solid state relays |
| | | | | | 3 | Analogue output |
| | | | | | 5 | Relays and Analog out |
| | | | | Power | C | Loop Output |
| D | DC | | | | | |
| L | Loop in | | | | | |
| P | 3 x AA Battery Pack/DC | | | | | |
| R | Loop/3xAA Battery Pack | | | | | |
| Enclosure | AL | Plastic | | | | |
| | PL | Aluminium | | | | |
| | SS | Stainless Steel | | | | |
| Approvals | GP | General Area Approved | | | | |
| | HA | Dual Hazardous Approved | | | | |
| | IS | Intrinsic Safe Approved | | | | |
| Series | 07 | Process F&I Meter | | | | |
| | 08 | Process decimal | | | | |
| | 28 | Rate/totalizer | | | | |
| | 38 | Pulse rate/totalizer | | | | |
| | 78 | Rate/totalizer | | | | |
| | 80 | Serial Meter with Pulse Input | | | | |
| | 81 | Serial F&I Meter with Pulse Input | | | | |
| | 88 | Serial Meter | | | | |
| | 89 | Serial F&I Meter | | | | |



CML 18ATEX2089X
Issue 1

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 |

Variation 1

This variation introduces the following modifications:

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

12 Certificate history and evaluation reports

| Issue | Date | Associated report | Notes |
|-------|-------------|-------------------|-----------------------------|
| 0 | 13 Oct 2020 | R11651A/00 | Issue of prime certificate |
| 1 | 06 Sep 2022 | R15412A/00 | Introduction of Variation 1 |

Note: Drawings that describe the equipment or component are listed in the Annex.



CML 18ATEX2089X
Issue 1

13 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 shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

14 Specific Conditions of Use (Special Conditions)

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

- i. Loop powered versions (PD69XX-XX-XX-LXX) - the equipment loop/power port shall be connected to an intrinsically safe barrier with $U_o \geq 5.8V$
- ii. Versions with 4-20mA input (PD69-X) - the 4-20mA input port shall be connected to an intrinsically safe barrier with $U_o \geq 5.1V$
- iii. The Pulse and Mag inputs shall not both be connected to external equipment simultaneously.
- iv. The PD69XX-XX-PL 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 PD69-XX-XX-AL 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. (*PDABAT36AA3-PACK as applicable)
- 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.

Certificate Annex

Certificate Number CML 18ATEX2089X
Equipment PD67xx, PD68xx, and PD69xx Digital Process Indicators
Manufacturer Precision Digital Corporation



The following documents describe the equipment or component defined in this certificate:

Issue 0

| Drawing No | Sheets | Rev | Approved date | Title |
|------------|---------|-----|---------------|---|
| DW2635 | 1 to 60 | A | 13 Oct 2020 | PD6XXX SERIES ATEX/IECEX CERTIFICATION DRAWING |

Issue 1

| Drawing No | Sheets | Rev | Approved date | Title |
|------------|---------|-----|---------------|---|
| DW2635 | 1 to 60 | B | 06 Sep 2022 | PD6XXX SERIES ATEX/IECEX CERTIFICATION DRAWING |