

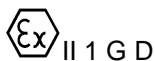


EU Type Examination Certificate CML 18ATEX2091X Issue 2

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **PD4 Series Loop Indicator**
- 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:



II 1 G D

Ex ia IIC T4 Ga

Ex ia IIIC T200°C Da

Ta = -40°C to +75°C





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11 Description

The PD4 Series Loop Indicators are general purpose loop powered process and level meters with liquid crystal displays and internal programming buttons. Models are available with various display and measurement, output, and powering options. The equipment is powered from a dedicated 4-20mA loop power input, and has an additional DC power input for the backlight.

All models have a digital contact (switch) input, two open collector outputs, and a port for wiring to external remote contacts for programming. Optionally, the meters may be fitted with two solid state relay outputs, and/or a 4-20mA loop output which may be HART compatible.

The following models and options are covered by this certificate:

PD4-66XX – L XX – XXXXXX

Cosmetic	X	Cosmetic modifications (not safety related)
Communications	N	No communications
	H	HART enabled 4-20mA output
Output	N	No options
	2	Two solid state relays
	3	Analogue output
	5	Two solid state relays and analogue output
Power	L	Input loop powered with DC powered backlight
Series	07	Feet and inch display
	08	Decimal display
	28	Rate/totalizer

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



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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	30	175	1	0	0			
Open collector pulse outputs (2 off)	30	175	1	0	0			
Switch input	30	175	1	0	0			
4-20mA output	30	175	1	0	0			
Relay output (2 off)	30	1000	1	0.013	0	11.55	1	0.012
Backlight supply input	30	175	1	0	0			
Remote contacts	0	0	0	13.6	0	7.01	193	0.265

Variation 1

This variation introduced the following modifications:

- i. The use of equipment with components removed.
- ii. The use of an alternative PCB layout.

Variation 2

This variation introduced the following modifications:

- i. Correction to typos
- ii. Inclusion of new components

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	13 Oct 2020	R11651C/00	Issue of prime certificate
1	07 Oct 2021	R14253A/00	Issue of variation 1
2	06 Sep 2022	R15412A/00	Introduction of Variation 2

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

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 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.



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14 Specific Conditions of Use (Special Conditions)

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

- i. The equipment loop/power port shall be connected to an intrinsically safe barrier with $U_0 \geq 5.8V$
- ii. The PD4 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.
- iii. All cable entries into the equipment shall be via cable glands or conduit which provide a minimum degree of protection of IP54.
- iv. The equipment shall not be opened when a hazardous atmosphere is present.
- v. The remote contact port shall only be connected to voltage free contacts.

Certificate Annex

Certificate Number CML 18ATEX2091X
Equipment PD4 Series Loop Indicator
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
DW2637	1 to 27	A	13 Oct 2020	PD4 ATEX & IECEX CERTIFICATION DRAWING

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
DW2637	1 to 27	B	07 Oct 2021	PD4 ATEX & IECEX CERTIFICATION DRAWING

Issue 2

Drawing No	Sheets	Rev	Approved date	Title
DW2637	1 to 27	C	06 Sep 2022	PD4 ATEX & IECEX CERTIFICATION DRAWING