



## EU Type Examination Certificate    CML 17ATEX2113X    Issue 0

- 1    Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2    Equipment        **PD685/686 Loop Powered 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    Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, 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 60079-0:2012+A11:2013

EN 60079-11:2012

- 10    The equipment shall be marked with the following:



II 1 GD

Ex ia IIC T4 Ga

Ex ia IIIC T135°C Da

-40°C ≤ Ta ≤ +75°C

*A Snowden*



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## 11 Description

The PD685/686 Loop Powered Indicators are general purpose loop powered indicators with liquid crystal displays. The equipment is powered from the 4-20mA signal being measured. Connection terminals are provided inside the equipment and the external cable enters the enclosure via conduit or a suitable cable gland.

The electronics assembly is housed in a non-metallic enclosure and the equipment is suitable for both gases and combustible dusts.

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

The equipment has the following safety description:

U<sub>i</sub> = 30 V  
I<sub>i</sub> = 175 mA  
P<sub>i</sub> = 1 W  
C<sub>i</sub> = 0  
L<sub>i</sub> = 0

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	24 Jul 2017	R2017A/00	Report for the prime certificate issue.

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

## 13 Conditions of manufacture

None

## 14 Special Conditions for Safe Use (Conditions of Certification)

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

- 14.1 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth.
- 14.2 The cable entry into the enclosure shall be by means of conduit or cable gland and shall provide a minimum degree of protection of IP5X.

## Certificate Annex



**Certificate Number** CML 17ATEX2113X  
**Equipment** PD685/686 Loop Powered 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
DW2414	1 to 7	A	24 Jul 2017	PD685/686 ATEX Certification Drawing