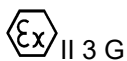




Type Examination Certificate **CML 17ATEX3144X Issue 1**

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Smart Transmitter Power Supplies Type HiD2022 and HiD2022SK**
- 3 Manufacturer **Pepperl+Fuchs GmbH**
- 4 Address **Lilienthalstrasse 200
68307 Mannheim
Germany**
- 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, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of equipment intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU.
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 certification (affecting correct installation or safe use). These are specified in Section 14.
- 8 This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Annex VIII apply to the manufacture of the equipment or component.
- 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 60079-7:2015
- 10 The equipment shall be marked with the following:



II 3 G

Ex ec IIC T4 Gc

Ta = -20°C to +70°C

Note: An upper ambient temperature within the range +40°C to +70°C may be marked.

R C Marshall
Certification Officer



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11 Description

The Smart Transmitter Power Supplies type HiD2022 and HiD2022SK are Intrinsically Safe associated apparatus transmitter power supplies that transfer monitoring signals from a hazardous area to a safe area and communication signals in both directions. The safe area connections are the power supply and output. The hazardous area connections (input circuit) are for sink input, source input or three wire input.

The input circuit is galvanically isolated from the output circuit by transformers. The voltage and current limitation for the input circuit is achieved with component selection of zener diodes and current limiting resistors. The circuits are located on a single printed circuit board (PCB).

The Smart Transmitter Power Supplies are suitable for mounting on a suitably certified P+F H-System backplane which incorporates an appropriate mechanical retaining system and connections for field wiring. The enclosure provides an environmental rating of IP 20 and is required to be installed in an enclosure or area with a control of pollution access. When installed in a Zone 2 area the Transmitter Power Supplies shall also be installed in a suitably certified enclosure providing an ingress protection of IP54 minimum.

Intrinsically safe connections are provided for current or voltage signals and these are covered by a separate certificate.

Nomenclature:

Smart Transmitter Power Supplies Type HiD2022 and HiD2022SK

HiD2022 Smart Transmitter Power Supplies

Input 2-wire and 3-wire SMART transmitters and 2-wire SMART current sources

Followed by one of the options:

Blank Output 0/4 mA ... 20 mA current source

SK Output 0/4 mA ... 20 mA current sink

Ratings

Power Supply	HiD2022 and HiD2022SK
Connection(s):	20 pin connector SL1: 2a(+), 2b(+); 1a(-), 1b(-)
Operating Supply Voltage:	18 Vdc to 30 Vdc
Maximum Power (HiD2022):	≤ 2.6 W
Maximum Power (HiD2022SK):	≤ 2.0 W
Maximum Voltage (Um):	250 Vac



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12 Certificate history and evaluation Reports

Issue	Date	Associated report	Notes
0	09 Aug 2017	R2218A/00	Issue of Prime Certificate
1	07 Mar 2019	R12226A/00	Transfer of Certificate to CML BV

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 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 Special Conditions for Safe Use (Conditions of Certification)

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

- i. The equipment shall be installed in an enclosure that provides a degree of protection not less than IP54 in accordance with the requirements of EN 60079-0, unless the equipment is intended to be afforded an equivalent degree of protection by location. In addition, the pollution level shall be limited to pollution degree 2 or better as defined in IEC 60664-1 (Pollution degree 2 can be achieved when the installation is in a controlled environment with suitably controlled condensation or airborne pollution).
- ii. For some types of enclosure, additional certification will be required to permit the installation of the module within the enclosure. Reference shall be made to the enclosure certificate. The installer shall ensure that the maximum ambient temperature of the module when installed is not exceeded.
- iii. The equipment shall be installed on a suitably certified P+F H-System backplane which incorporates an appropriate mechanical retaining system. When the device is mounted in a zoned area, connection and disconnection whilst live is only permitted when a potentially explosive atmosphere is not present.
- iv. There are no significant sources of heating inside the equipment, therefore the service temperature inside the equipment is considered to be the same as the ambient temperature. However, when installed in a hazardous area, the equipment shall be installed in a suitable enclosure that requires the service temperature inside and outside the enclosure to be evaluated at the location of the equipment.



Certificate Annex

Certificate Number CML 17ATEX3144X
Equipment Smart Transmitter Power Supplies
Type HiD2022 and HiD2022SK
Manufacturer Pepperl+Fuchs GmbH

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

Issue 0

Drawing No	Sheets	Rev.	Approved Date	Title
16-1305CM-01	1 to 6	2017-04-06	09 Aug 2017	Schematic HiD2022 & HiD2022SK
16-1305UL-02	1 to 12	2017-03-27	09 Aug 2017	Relevant Components Div2/Zone 2 HiD2022 & HiD2022SK
16-1305CM-03	1 to 2	2017-04-06	09 Aug 2017	Component Layout HiD2022 & HiD2022SK
16-0534-04A	1 to 2	2009-02-04	09 Aug 2017	Housing HiC/HiD
16-1305CM-05	1 to 5	2017-04-06	09 Aug 2017	PCB Layout HiD2022 & HiD2022SK
16-1305CM-06	1 to 6	2017-03-27	09 Aug 2017	Transformers HiD2022 & HiD2022SK
16-1305CM-09	1 to 3	2017-06-15	09 Aug 2017	Instructions HiD2022 & HiD2022SK
16-1305CM-10	1 to 3	2017-06-15	09 Aug 2017	Type Label HiD2022 & HiD2022SK

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None.