




Type Examination Certificate **CML 17ATEX3030X Issue 2**

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Smart Transmitter Isolator Types KFD2-STC(V)5-Ex1.20... and KFD2-STC(V)5-Ex2...**
- 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 Isolator Type KFD2-STC(V)5-Ex1.2O... and KFD2-STC(V)5-Ex2... are 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 Outputs. The Hazardous Area Connections (Input Circuits) are for Sink Input, Source Input or Three Wire Input.

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

The polymeric enclosure is suitable for mounting on a DIN rail. It 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 Smart Transmitter Isolator must also be installed in a suitably certified enclosure providing an ingress protection of IP54 minimum. Field wiring connections to the device are by colour coded pluggable connectors or powered from pluggable DIN rail connection

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

Nomenclature:

Smart Transmitter Isolator Type KFD2-STC(V)5-Ex2...

Smart Transmitter Isolator Type KFD2-STC(V)5-Ex1.2O...

KFD2-ST Smart Transmitter

Followed by one of the options:

C Current source/sink

V Voltage

Followed by one of the options:

5-Ex1.2O Single hazardous area input/Dual non-hazardous area output.

5-Ex2 Dual hazardous area input/Dual non-hazardous area output.

Followed by one of the options:

-1 5 Volt – used with “V”

-2 10 Volt – used with “V”

.H Higher field voltage

.NCL No current limit

-Y1...n Customised version - does not affect intrinsic safety

-... Customised version - combination of numbers/letters does not affect safety



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Rating

All models have the following ratings:

KFD2-STC(V)5-Ex2.. & KFD2-STC(V)5-Ex1.20...	
Connection(s):	Terminals 14, 15 and Power Rail 1,2
Operating Supply Voltage:	18 Vdc to 30 Vdc
Maximum Power:	
- KFD2-STC5-Ex1.20	≤ 1.7 W
- KFD2-STC5-Ex2	≤ 2.6 W
Maximum Voltage (Um):	250 Vac

Variation 1

This variation introduces the following modifications:

- i. Minor changes to PCB 16-1136CM-05

12 Certificate history and evaluation Reports

Issue	Date	Associated report	Notes
0	20 Apr 2017	R1617A/00	Issue of Prime Certificate
1	13 Apr 2108	R11656A/00	Introduction of Variation 1
2	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.



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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 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 should be made to the enclosure certificate. The installer shall ensure that the maximum ambient temperature of the module when installed is not exceeded.
- iii. When the device is mounted in a zoned area, connection and disconnection whilst live is only permitted if the potentially explosive atmosphere is shown to be absent.



Certificate Annex

Certificate Number CML 17ATEX3030X
Equipment Smart Transmitter Isolator Types KFD2-STC(V)5-Ex1.2O...
 and KFD2-STC(V)5-Ex2...
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
16-1136CM-01	1 to 6	2017-01-09	20 Apr 2017	Schematics KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...
16-1136UL-02	1 to 111	2016-11-16	20 Apr 2017	Relevant Component List for Div.2/ Zone 2 KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...
16-1136CM-03	1 to 2	2017-01-20	20 Apr 2017	Component Layout KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...
16-1135CM-04	1 to 10	2016-09-06	20 Apr 2017	Mechanical Parts KF-Extended-Housing 15 term. Asymm
16-1136CM-05	1 to 5	2017-02-20	20 Apr 2017	PCB Layout KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...
16-1136CM-06	1 to 8	2016-10-19	20 Apr 2017	Transformers KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...
16-1136CM-09	1 to 3	2017-03-10	20 Apr 2017	Instructions KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...
16-1136CM-10	1 to 3	2017-03-10	20 Apr 2017	Type Label KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...

Issue 1

Drawing No	Sheets	Rev	Approved Date	Title
16-1136CM-05A	1 to 9	2017-12-06	11 Apr 2018	PCB Layout KFD2-STC(V)5-Ex2... & KFD2-STC(V)5-Ex1.2O...

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None.



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