



# UK Type Examination Certificate CML 22UKEX2025X Issue 0

# **United Kingdom Conformity Assessment**

1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

2 Equipment FB Remote I/O modules type FB 3204 \*, \*FB 3205\*

3 Manufacturer PepperI+Fuchs SE

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.

Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

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 specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 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 60079-1:2012

EN 60079-11:2012

EN 60079-26:2007

10 The equipment shall be marked with the following:

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Ex d [ia Ga] IIG T4 Gb

Ex db [ia] IIC T4

 $\langle \mathcal{E}_{\mathbf{x}} \rangle_{\parallel (1) \parallel}$ 

 $\langle \mathcal{E}_{\mathbf{x}} \rangle_{\parallel (1)\Gamma}$ 

[Ex ia Da] IIIC

[Ex ia] IIIC







## 11 Description

The FB Remote VO module type FB 3204\* and type FB 3205\* consists of a separately certified I/O-Device (BVS 12 ATEX E 024 X)

- type LB 3104\* or
- type LB 3105 \*

which is built in an Empty module enclosures type I1 (BVS PP 10.2189 EG). The FB Remote I/O modules are designated for installation on Field station FB Remote I/O type FB92\*\* (PTB 97 ATEX 1075) or FB Remote I/O Backplane type FB92\*) which have to be fitted with power supply unit type FB 9206 \* or type FB 9215\* or type FB 9216 \*.

The FB Remote I/O modules provide safe galvanic separation between intrinsically safe circuits and non-intrinsically safe signal circuits / non intrinsically safe power supply on the PCB up to a sum of peak values of rated voltages of 375 V. The external connection has to be done by connectors.

### **Parameters**

The FB Remote VO modules are designated for installation on Field station FB Remote I/O type FB92\*\* (PTB 97 ATEX 1075) or FB Remote I/O Backplane type FB92\*\*BP\*\*\*\*\*.\* (BVS 11 ATEX E 041 X) which have to be fitted with power supply unit type FB 9206 \* or type FB 9215\* or type FB 9216 \*.

Intrinsically safe circuits, type of protection Ex ia IIC and Ex ia IIIC

# **Transmitter supply**

Connector-pins

Channel 1: 1 (+), 2,3 (-) or 1 (+), 4 (-) Channel 2: 5 (+),1,6,7 (-) or 5 (+), 8 (-) Channel 3: 9 (+), 10,11 (-)or 9 (+), 12 (-) Channel 4: 13 (+), 14,15 (-) or 13 (+), 16 (-)

## Single channel parameters

Max. output voltage	Uo		DC 27 V
Max. output current	Lo		90mA
Max. output power	Po		588 mW
Linear output characteristic			
Max. external capacitance	Co	IIC	90 nF
		IIIC	705 nF
Max. external inductance	Lo	IIC	4,47 mH
		IIIC	17,89 mH
Max. inductance / resistance ratio	Lo/Ro	IIC	57,74 μH/Ω
		IIIC	230,9 μΗ/Ω





The different designations of connector pins refer to a2-wtre or a 3-wire configuration of the power supply circuit.

The common GND of the four input/output circuits shall be considered as being connected to earth Potential.

# **Analogue input**

# **Connector-pins**

Channel 1 .2,3 - 4

Channel 2: 6,7 - 8

Channel 3: 10,11 - 12

Channel 4: 14,15 - 16

Single channel parameters

Max. input voltage	Ui	DC 30 V
Max. input current	Li	100 mA
Max. input power	Pi	100 <sup>(1)</sup> mW

(1) 100mW at 0.7 V

Max. external capacitance	Ci	242 nF
Max. external inductance	Li	negligible

Max. output voltage	Uo	DC ±0.7 V
Max. output current	Lo	±2.78 mA
Max. output power	Po	2 mW

Linear output characteristic

Max. external capacitance	Co	IIC	100 µF
		IIIC	1000 μF

Max. external inductance	Lo	IIC	100 mH

IIIC 100 mH

Max. inductance / resistance ratio	Lo/Ro	IIC	N/A

IIIC N/A

# **Subject and Type**

FB Remote I/O module type FB 3204\* and type FB 3205 \*

FB 32<sup>(1)\*\*(2)\*(3)</sup>

(1)Type of protection

2: Intrinsic Safety





Type of channel

3: Analogue input Transmitter power supply

(2) Numbers of in-/oubut channels

04: 4 channel

05:4 channels HART-function

(3) The asterisk represents any combination of characters, which are used to mark no safety relevant functions of the module

# 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	31 Aug 2023	R14112DD/00	Prime Certificate issued.

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

# 13 Conditions of Manufacture

None.

# 14 Specific Conditions of Use

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

- i. The FB Remote I/O modules are designated for installation on Field station FB Remote I/O type FB92\*\* (PTB 97 ATEX 1075) or FB Remote I/O Backplane type FB92\*\*BP\*\*\*\*\*.\* (BVS11ATEXE041X) which have to be fitted with power supply unit type FB 9206\* or type FB 92 15\* or type FB 9216\*.
- ii. At installation of the FB Remote I/O modules on the Field station FB Remote VO type FB 92\*\* (PTB 97ATEX 1075) or FB Remote I/O Backplane type FB92\*\*BP\*\*\*\*\*.\* separation distances according to EN 60079-11:20I2, clause 6.2.1 between IS external connections of the FB Remote I/O modules and non-IS external connection of other modules has to be heeded.

# **Certificate Annex**

Certificate Number CML 22UKEX2025X

Equipment FB Remote I/O modules type FB 3204 \*, \*FB 3205\*

Manufacturer Pepperl+Fuchs SE

The following documents describe the equipment defined in this certificate:

# CMI Ex «Manufacturer\_Name»

### Issue 0

For drawings describing the equipment, refer to attached certificate BVS 12ATEX E101X. In addition to the drawings listed on BVS 12ATEX E101X the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
16-1555CM-10	1 to 2	0	31 Aug 2023	Additional Marking Requirements for UKCA