1 # EU - TYPE EXAMINATION CERTIFICATE

2 **Safety Device, Controlling Device or Regulating Device intended for use outside a potentially explosive atmosphere but required for or contributing to the safe functioning of Equipment and Protective Systems with respect to the risks of explosion Directive 2014/34/EU**

3 EU - Type Examination Certificate Number: **BAS00ATEX7087 – Issue 8**

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **Dual Channel Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56**

5 Manufacturer: **Pepperl+Fuchs SE**

6 Address: **Lilienthalstrasse 200, 68307 Mannheim, Germany**

7 This re-issued certificate extends EC Type Examination Certificate No. BAS00ATEX7087 to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, 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 product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

8.1 The original certificate was issued by The Electrical Equipment Certification Service (UK Notified Body 0600). It, and any supplements previously issued by SGS Baseefa Ltd (UK Notified Body 1180) have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-11:2012**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

See Schedule

SGS Fimko Oy Customer Reference No. **0808** Project File No. **21/0422**

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Tuomas Hänninen
SGS Fimko Oy

13 # Schedule

14 ## Certificate Number BAS00ATEX7087 – Issue 8

15 Description of Product

The Dual Channel Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56 is designed to provide a galvanically isolated interface to enable to the connection of equipment located in a hazardous area with equipment located in a non-hazardous area by providing galvanic isolation and limiting to intrinsically safe levels the voltage and current into the hazardous area

The equipment comprises a number of electronic components, including transformers, fuses, resistors and zener diodes, all mounted on a single printed circuit board and housed within a plastic enclosure fitted with terminals for external connections.

The segregation of the hazardous area circuits meets the requirements for 250V.

Coding is as follows:

⟨Ex⟩	**II (1) G**	**[Ex ia Ga] IIC**	**(-20°C ≤ Ta ≤ +60°C)**
⟨Ex⟩	**II (1) D**	**[Ex ia Da] IIIC**	**(-20°C ≤ Ta ≤ +60°C)**
⟨Ex⟩	**I (M1)**	**[Ex ia Ma] I**	**(-20°C ≤ Ta ≤ +60°C)**

Input / Output Parameters
KFD0-CS-Ex2.54 and KFD0-CS-Ex2.54-Y1, -Y3 or -Y207412 - Dual Channel
Non-hazardous Area Terminals
(Terminals 11 & 12 and terminals 8, 9 & 10)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	28V	C_i	=	5.64nF
I_o	=	93mA	L_i	=	0
P_o	=	653mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.077	4.3		55
IIB / IIIC	0.64	17		199
IIA	2.14	35		431
I	3.39	51		671

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex1.54 and KFD0-CS-Ex1.54-Y1, -Y3 or -Y207411 - Single Channel

Non-hazardous Area Terminals
(Terminals 11 & 12)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

U_o	=	28V	C_i	=	5.64nF
I_o	=	93mA	L_i	=	0
P_o	=	653mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.077	4.3		55
IIB / IIIC	0.64	17		199
IIA	2.14	35		431
I	3.39	51		671

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex2.54-Y2 or -Y72222 – Dual Channel

Non-hazardous Area Terminals
(Terminals 11 & 12 and terminals 8, 9 & 10)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	25.2V	C_i	=	5.64nF
I_o	=	43mA	L_i	=	0
P_o	=	271mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.101	19.6		138
IIB / IIIC	0.81	72		508
IIA	2.89	153		964
I	4.14	233		1452

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex1.54-Y2 or -Y72221 – Single Channel
Non-hazardous Area Terminals
(terminals 11 & 12)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

U_o	=	25.2V	C_i	=	5.64nF
I_o	=	43mA	L_i	=	0
P_o	=	271mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.101	19.6		138
IIB / IIIC	0.81	72		508
IIA	2.89	153		964
I	4.14	233		1452

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:

- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex2.56 - Dual Channel

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	21V	C_i	=	5.64nF
I_o	=	252mA	L_i	=	0
P_o	=	1.323W			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.182	0.56		26.9
IIB / IIIC	1.264	2.24		107.6
IIA	4.774	4.48		215.3
I	6.294	7.35		353.2

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex1.56 - Single Channel

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

U_o	=	21V	C_i	=	5.64nF
I_o	=	252mA	L_i	=	0
P_o	=	1.323W			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.182	0.56		26.9
IIB / IIIC	1.264	2.24		107.6
IIA	4.774	4.48		215.3
I	6.294	7.35		353.2

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or

- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

16 Report Number

See Certificate History.

17 Specific Conditions of Use

None

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product:

Clause	Subject	Compliance
1.2.7	LVD type requirements	Manufacturer responsibility
1.2.8	Overloading of equipment (protection relays, etc.)	User/Installer responsibility
1.4.1	External effects	User/Installer responsibility
1.4.2	Aggressive substances, etc.	User/Installer responsibility

19 Drawings and Documents

New drawings submitted for this issue of certificate.

Number	Sheet	Issue	Date	Description
16-0691BS-H	1 of 1	H	2021-Oct-27	Summary (Ex*.56)
16-0692BS-H	1 of 1	H	2021-Oct-27	Summary (Ex*.54)
16-0691BS-10G	1 – 3	G	2021-Oct-27	Type Label (Ex*.56)
16-0692BS-10G	1 – 3	G	2021-Oct-27	Type Label (Ex*.54)

The drawings above are common to Baseefa10ATEX0021X, IECEx BAS 08.0079 & IECEx BAS 10.0007X and are held with IECEx BAS 08.0079.

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
16-0691BS-00E	1 – 8	E	2009-Oct-09	Description (Ex*.56)
16-0691BS-01E	1 of 1	E	2009-Apr-21	Schematic
16-0691BS-02E	1 of 1	E	2009-Oct-09	I.S. Relevant Components (Ex*.56)
16-0691BS-03E	1 of 1	E	2009-Apr-21	Component Layout
16-0691BS-05E	1 & 2	E	2009-Apr-17	PCB Layout
16-0691BS-06F	1 & 2	F	2011-Nov-30	Transformers
16-0691BS-07E	1 – 3	E	2009-Dec-10	Lacquering Details
16-0692BS-00F	1 – 8	F	2011-Nov-30	Description SMART Fire Detector Power Supply KFD0-CS-Ex*.54
16-0692BS-02F	1 of 1	F	2011-Nov-30	I.S. Relevant Components (Ex*.54)
16-0706IE-04C	1 – 14	C	2014-Mar-27	Mechanical Parts

These drawings are common to, and held with, IECEx BAS 08.0079.

20 Certificate History

Certificate No.	Date	Comments
BAS00ATEX7087	17 July 2000	The release of the prime certificate. The associated test and assessment is documented in Test Report 00(C)0160.
BAS00ATEX7087/1	22 March 2001	To permit an alternative PCB coating pattern for the K*D0-CS-Ex1.54 and K*D0-CS-Ex1.54-Y72221.
BAS00ATEX7087/2	29 November 2001	To permit minor changes to component values in non-critical circuitry.
BAS00ATEX7087/3	3 November 2004	To permit minor parts list changes. Project File No. 04/0729.
BAS00ATEX7087/4	10 September 2008	To permit minor drawing changes, PCB layout changes, addition of the certification code [Ex iaD], addition of the KFD0-CS-Ex1.54-Y207411 & KFD0-CS-Ex2.54-Y207412 models and t o confirm that the current designs meet the requirements of EN 60079-0:2006, EN 60079-11:2007, EN 60079-26:2004 & EN 61241-11:2005. Test Report No. GB/BAS/ExTR08.0169/00. Project File No. 08/0307.
BAS00ATEX7087/5	20 January 2010	To permit the use of alternative PCB and electrical changes to introduce the KFD0-CS-Ex*.56 model. Test Report No. GB/BAS/ExTR10.0010/00. Project File No. 09/0397.
BAS00ATEX7087/6	24 May 2012 Re-issued 10 September 2012	To permit: - Minor drawing changes - Minor electrical changes to form the following models KFD0-CS-Ex1.54-Y1, KFD0-CS-Ex2.54-Y1 KFD0-CS-Ex1.54-Y2, KFD0-CS-Ex2.54-Y2 KFD0-CS-Ex1.54-Y3, KFD0-CS-Ex2.54-Y3 - To confirm that the equipment covered by this certificate has been reviewed against the requirements of EN 60079-0:2009 and EN 60079-11:2012 in respect of the differences from EN 60079-0:2006 and EN 60079-11:2007 and that none of these differences, with the exception of marking, affect this equipment. The equipment is now marked: ⟨Ex⟩ II (1)G [Ex ia Ga] IIC ⟨Ex⟩ II (1)D [Ex ia Da] IIIC ⟨Ex⟩ I (M1) [Ex ia Ma] I Test Report No. GB/BAS/ExTR12.0138/00. Project File No. 11/0986.
BAS00ATEX7087 Issue 7	28 April 2015	This issue incorporates previously issued primary and supplementary certificates into one certificate, permits changes to the transformer and confirms that the equipment covered by this certificate has been reviewed against the requirements of EN 60079-0:2012+A11:2013 in respect of the differences from EN 60079-0:2009 and that none of these differences affect this equipment. Test Report No. GB/BAS/ExTR15.0020/00 Project File No. 15/0066.

Certificate No.	Date	Comments
BAS00ATEX7087 Issue 8	23 November 2021	This issue confirms that the equipment covered by this certificate has been reviewed against the requirements of EN IEC 60079-0:2018 in respect of the differences from EN 60079-0:2012+A11:2013 and that none of these differences affect this equipment. Test Report No. GB/BAS/ExTR21.0189/00 Project File No. 21/0422
For drawings applicable to each issue, see original of that issue.		

1 # UK-TYPE EXAMINATION CERTIFICATE

2 **Safety Device, Controlling Device or Regulating Device intended for use outside a potentially explosive atmosphere but required for or contributing to the safe functioning of Product and Protective Systems with respect to the risks of explosion**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 UK-Type Examination Certificate Number: **BAS21UKEX0426**

4 Product: **Dual Channel Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56**

5 Manufacturer: **Pepperl+Fuchs SE**

6 Address: **Lilienthalstrasse 200, 68307 Mannheim, Germany**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa, Approved Body number 1180, 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 product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **21(C)0161**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-11:2012

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

Ex II (1) G [Ex ia Ga] IIC (-20°C ≤ Ta ≤ +60°C)

Ex II (1) D [Ex ia Da] IIIC (-20°C ≤ Ta ≤ +60°C)

Ex I (M1) [Ex ia Ma] I (-20°C ≤ Ta ≤ +60°C)

SGS Baseefa Customer Reference No. **0808** Project File No. **21/0161**

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Registered in England No. 4305578.
Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN

UKAS PRODUCT CERTIFICATION
0191

R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number BAS00UKEX0426**

15 Description of Product

The Dual Channel Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56 is designed to provide a galvanically isolated interface to enable to the connection of equipment located in a hazardous area with equipment located in a non-hazardous area by providing galvanic isolation and limiting to intrinsically safe levels the voltage and current into the hazardous area

The equipment comprises a number of electronic components, including transformers, fuses, resistors and zener diodes, all mounted on a single printed circuit board and housed within a plastic enclosure fitted with terminals for external connections.

The segregation of the hazardous area circuits meets the requirements for 250V.

Input / Output Parameters
KFD0-CS-Ex2.54 and KFD0-CS-Ex2.54-Y1, -Y3 or -Y207412 - Dual Channel
Non-hazardous Area Terminals
(Terminals 11 & 12 and terminals 8, 9 & 10)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	28V	C_i	=	5.64nF
I_o	=	93mA	L_i	=	0
P_o	=	653mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.077	4.3		55
IIB	0.64	17		199
IIA	2.14	35		431
I	3.39	51		671

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I, IIA & IIB and 600nF for Group IIC.

KFD0-CS-Ex1.54 and KFD0-CS-Ex1.54-Y1, -Y3 or -Y207411 - Single Channel

Non-hazardous Area Terminals
(Terminals 11 & 12)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

U_o	=	28V	C_i	=	5.64nF
I_o	=	93mA	L_i	=	0
P_o	=	653mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.077	4.3		55
IIB	0.64	17		199
IIA	2.14	35		431
I	3.39	51		671

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I, IIA & IIB and 600nF for Group IIC.

KFD0-CS-Ex2.54-Y2 or -Y72222 – Dual Channel

Non-hazardous Area Terminals
(Terminals 11 & 12 and terminals 8, 9 & 10)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	25.2V	C_i	=	5.64nF
I_o	=	43mA	L_i	=	0
P_o	=	271mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.101	19.6		138
IIB	0.81	72		508
IIA	2.89	153		964
I	4.14	233		1452

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I, IIA & IIB and 600nF for Group IIC.

KFD0-CS-Ex1.54-Y2 or -Y72221 – Single Channel
Non-hazardous Area Terminals
(terminals 11 & 12)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

U_o = 25.2V C_i = 5.64nF
I_o = 43mA L_i = 0
P_o = 271mW

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.101	19.6		138
IIB	0.81	72		508
IIA	2.89	153		964
I	4.14	233		1452

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I, IIA & IIB and 600nF for Group IIC.

KFD0-CS-Ex2.56 - Dual Channel

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	21V	C_i	=	5.64nF
I_o	=	252mA	L_i	=	0
P_o	=	1.323W			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.182	0.56		26.9
IIB	1.264	2.24		107.6
IIA	4.774	4.48		215.3
I	6.294	7.35		353.2

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I, IIA & IIB and 600nF for Group IIC.

KFD0-CS-Ex1.56 - Single Channel

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

U_o	=	21V	C_i	=	5.64nF
I_o	=	252mA	L_i	=	0
P_o	=	1.323W			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.182	0.56		26.9
IIB	1.264	2.24		107.6
IIA	4.774	4.48		215.3
I	6.294	7.35		353.2

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I, IIA & IIB and 600nF for Group IIC.

16 Report Number

21(C)0161

17 Specific Conditions of Use

None

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
16-1555CM-10	1 & 2	0	2021-Apr-12	Additional Marking Requirements for UKCA
For all other drawings see BAS00ATEX7087				

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BAS 08.0079**

Page 1 of 4

Certificate history:

Status: **Current**

Issue No: 6

Issue 5 (2021-03-29)
Issue 4 (2015-04-28)
Issue 3 (2012-09-10)
Issue 2 (2012-05-24)
Issue 1 (2010-01-20)
Issue 0 (2008-09-10)

Date of Issue: 2021-11-25

Applicant: **Pepperl+Fuchs SE**
Lilienthalstrasse 200
68307 Mannheim
Germany

Equipment: **Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **[Ex ia Ga] IIC**
[Ex ia Da] IIIC
[Ex ia Ma] I

Approved for issue on behalf of the IECEx Certification Body: **Mr R S Sinclair**

Position: **Technical Manager**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom

IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 08.0079**

Date of issue: 2021-11-25 Issue No: 6

Manufacturer: **Pepperl+Fuchs SE**
Lilienthalstrasse 200
68307 Mannheim
Germany

Manufacturing locations: **Pepperl+Fuchs Asia Pte. Ltd.**
18 Ayer Rajah Crescent
Singapore 139942
Singapore

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/BAS/ExTR08.0169/00 GB/BAS/ExTR10.0010/00 GB/BAS/ExTR12.0138/01
GB/BAS/ExTR15.0020/00 GB/BAS/ExTR21.0189/00

Quality Assessment Report:

DE/PTB/QAR06.0008/16

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56 is designed to provide a single or dual channel galvanically isolated interface to enable the connection of apparatus located in a hazardous area with apparatus located in a non-hazardous area by providing galvanic isolation and limiting the voltage and current into the hazardous area to intrinsically safe levels.

The Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56 comprises a number of electrical components, including two isolating transformers, fuses, resistors and zener diodes all mounted onto a single printed circuit board (PCB) and housed within a plastic enclosure.

28V 93mA 0.653W variants
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54-Y1/Y3
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54-Y1/Y3
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54 with part number Y207411
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54 with part number Y207412

25.2V 43mA 271mW variants
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54-Y2
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54-Y72221
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54-Y2
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54-Y72222

21V 252mA 1.323W variants

Smart Fire Detector Isolator Type KFD0-CS-Ex1.56
Smart Fire Detector Isolator Type KFD0-CS-Ex2.56

See Annex for electrical data.

SPECIFIC CONDITIONS OF USE: NO

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 6.1

This issue of the certificate confirms that confirms the current design meets the requirements of IEC 60079-0:2017 in respect of the differences from IEC 60079-0:2011 and that none of these differences affect this equipment.

ExTR: **GB/BAS/ExTR21.0189/00**	File Reference: **21/0422**

Annex:

IECEx BAS 08.0079 Annex Issue 3.pdf

Input / Output Parameters

KFD0-CS-Ex2.54 and KFD0-CS-Ex2.54-Y1, -Y3 or -Y207412 - Dual Channel

Non-hazardous Area Terminals
(Terminals 11 & 12 and terminals 8, 9 & 10)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	28V	C_i	=	5.64nF
I_o	=	93mA	L_i	=	0
P_o	=	653mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.077	4.3	55
IIB / IIIC	0.64	17	199
IIA	2.14	35	431
I	3.39	51	671

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex1.54 and KFD0-CS-Ex1.54-Y1, -Y3 or -Y207411 - Single Channel

Non-hazardous Area Terminals
(Terminals 11 & 12)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

U_o	=	28V	C_i	=	5.64nF
I_o	=	93mA	L_i	=	0

P_o = 653mW

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.077	4.3	55
IIB / IIIC	0.64	17	199
IIA	2.14	35	431
I	3.39	51	671

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex2.54-Y2 or -Y72222 – Dual Channel
Non-hazardous Area Terminals
(Terminals 11 & 12 and terminals 8, 9 & 10)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o = 25.2V C_i = 5.64nF
I_o = 43mA L_i = 0
P_o = 271mW

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.101	19.6	138
IIB / IIIC	0.81	72	508
IIA	2.89	153	964

I	4.14	233	1452

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex1.54-Y2 or -Y72221 – Single Channel

Non-hazardous Area Terminals
(terminals 11 & 12)

U_m = 253V

The apparatus is designed to operate from a d.c. supply of up to 40V on the above terminals.

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

U_o	=	25.2V	C_i	=	5.64nF
I_o	=	43mA	L_i	=	0
P_o	=	271mW			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminal 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR L/R RATIO (µH/ohm)
IIC	0.101	19.6	138
IIB / IIIC	0.81	72	508
IIA	2.89	153	964
I	4.14	233	1452

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex2.56 - Dual Channel

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

U_o	=	21V	C_i	=	5.64nF
I_o	=	252mA	L_i	=	0
P_o	=	1.323W			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2 and 4 w.r.t. 5)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.182	0.56		26.9
IIB / IIIC	1.264	2.24		107.6
IIA	4.774	4.48		215.3
I	6.294	7.35		353.2

NOTE:
The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

KFD0-CS-Ex1.56 - Single Channel

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

U_o	=	21V	C_i	=	5.64nF
I_o	=	252mA	L_i	=	0
P_o	=	1.323W			

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to output terminals of the apparatus must not exceed the following values:

Hazardous Area Terminals
(Terminals 1 w.r.t. 2)

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.182	0.56		26.9
IIB / IIIC	1.264	2.24		107.6
IIA	4.774	4.48		215.3
I	6.294	7.35		353.2

NOTE:

The above parameters apply when one of the two conditions below is given:
- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:
- the total L_i of the external circuit (excluding the cable) ≥1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) ≥1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I & IIA.

(1) # Konformitätsaussage

(2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen - **Richtlinie 94/9/EG**

(3) Prüfbescheinigungsnummer

TÜV 99 ATEX 1499 X

(4) Gerät: Geräte der K-Serie Typen KFD.-...-...

(5) Hersteller: Pepperl + Fuchs GmbH

(6) Anschrift: Postfach 68301
D-68307 Mannheim

(7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Prüfbescheinigung festgelegt.

(8) Der TÜV Hannover/Sachsen-Anhalt e.V., TÜV CERT-Zertifizierungsstelle, bescheinigt als benannte Stelle Nr. 0032 nach Artikel 9 der Richtlinie des Rates der Europäischen Gemeinschaften vom 23. März 1994 (94/9/EG) die Erfüllung der grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.

Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht Nr. 99/PX20790 festgelegt.

(9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit

EN 50 021: 1999

(10) Falls das Zeichen "X" hinter der Bescheinigungsnummer steht, wird auf besondere Bedingungen für die sichere Anwendung des Gerätes in der Anlage zu dieser Bescheinigung hingewiesen.

(11) Diese Konformitätsaussage bezieht sich nur auf die Konzeption und den Bau des festgelegten Gerätes gemäß Richtlinie 94/9/EG. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Inverkehrbringen dieses Gerätes.

(12) Die Kennzeichnung des Gerätes muß die folgenden Angaben enthalten:

II 3 G EEx n A II T4

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Der Leiter

Hannover, 03.12.1999

(13) **ANLAGE**

(14) Konformitätsaussage Nr. TÜV 99 ATEX 1499 X

(15) Beschreibung des Gerätes

Geräte der K-Serie Typen KFD.-...-... dienen zur galvanischen Trennung von MSR-Signalen im explosionsgefährdeten Bereich und im nicht explosionsgefährdeten Bereich. Die Geräte der K-Serie Typen KFD.-...-... dürfen in explosionsgefährdeten Bereichen der Zone 2 errichtet werden.
Die höchstzulässige Umgebungstemperatur beträgt 60°C.

Elektrische Daten

Gerätetyp	Nennwerte für	Anschlußklemmen	geltende "Besondere Bedingungen" Nr.
Trennschaltverstärker KFD2-SOT2-Ex1.LB KFD2-SOT2-Ex1.LB-Y KFD2-SOT2-Ex2 KFD2-SOT2-Ex2-Y KFD2-ST2-Ex1.LB KFD2-ST2-Ex2	Speisespannung: 20 ... 30 VDC Ausgangsstromkreise: KFD2-SOT2*** Un≤40 VDC, 100 mA KFD2-ST2*** 100 mA	Speisespannung: 14, 15 bzw. Power Rail Ausgangsstromkreise: 7, 8, 9 (KFD2-SOT2***); 7, 9 (KFD2-ST2***) bzw. Power Rail	1, 2, 3, 4, 5
Trennwandler KFD2-RR-Ex1***	Speisespannung: 15 ... 50 VDC	Speisespannung: 7; 8 bzw. Power Rail	1, 2, 4, 6
Ventilsteuerbaustein	Speisespannung:	Speisespannung: 7, 8	1, 2, 4
KFD2-SD-Ex1.17	5 ... 25 VDC		
KFD2-SD-Ex1.36	15 ... 35 VDC		
KFD2-SD-Ex1.36-87B	15 ... 35 VDC		
KFD2-SD-Ex1.48	5 ... 35 VDC		
KFD2-SD-Ex1.48.90A	5 ... 35 VDC		
SMART-Transmitter KFD2-STC4-Ex1 KFD2-STC4-Ex1.20 KFD2-STC4-Ex1.Y2186 KFD2-STC4-Ex2 KFD2-STC4-Ex2.Y72195	Speisespannung: 20 ... 35 VDC	Speisespannung: 14, 15 bzw. Power Rail	1, 2, 4
Trennwandler KFD2-VR-Ex1.50M KFD2-VR-Ex1.50M.L KFD2-VR-Ex1.50M.R	Speisespannung: 10 ... 40 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 6 (für die Speisespannung)

BA 02 11.98 1.000.000

Gleichstromwandler KFD0-CS-Ex1.50P KFD0-CS-Ex1.51P KFD0-CS-Ex1.52 KFD0-CS-Ex1.53 KFD0-CS-Ex1.54 KFD0-CS-Ex2.53 KFD0-CS-Ex2.54 KFD0-CS-Ex2.50P KFD0-CS-Ex2.51P KFD0-CS-Ex2.51P-96C KFD0-CS-Ex2.52	--	--	1, 2, 4
Trennwandler	Speisespannung: 20 ... 35 VDC	Speisespannung: 7, 8 bzw. Power Rail	1, 2, 4 (für alle Trennwandler) 6 für:
KFD2-CD-Ex1.32 KFD2-CD-Ex1.32.10 KFD2-CD-Ex1.32-1 KFD2-CD-Ex1.32-12 KFD2-CD-Ex1.32-13			Speisespannung und Eingänge
KFD2-CD-Ex1.32-15			Speisespannung
KFD2-CD-Ex1.32-2			Speisespannung und Eingänge
KFD2-CD-Ex1.32-21 KFD2-CD-Ex1.32-3 KFD2-CD-Ex1.32-5 KFD2-CD-Ex1.32-6 KFD2-CD-Ex1.32-8			Speisespannung
KFD2-CD-Ex1.32-9 KFD2-CD-1.32 KFD2-CD-1.32-12 KFD2-CD-1.32-13			Speisespannung und Eingänge
KFD2-CD-1.32-15			Speisespannung
KFD2-CD-1.32-2			Speisespannung und Eingänge
KFD2-CD-1.32-8			Speisespannung
SMART Trennwandler KFD2-SCD-Ex1.LK	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4

Daten-
und Signalstromkreise ..... elektrische Daten und Anschlüsse gemäß Angaben des Herstellers und gültigen Konformitätsbescheinigungen bzw. EG-Baumusterprüfbescheinigungen

(16) Prüfungsunterlagen bestehend aus 320 Seiten sind im Prüfbericht aufgelistet.

(17) Besondere Bedingungen

1. Geräte der K-Serie Typen KFD.-...-... sind so zu errichten, daß eine Schutzart von mindestens IP 54 gemäß EN 60529 erreicht wird.

2. Bei Geräten der K-Serie Typen KFD.-...-..., für die zusätzlich eine Konformitätsbescheinigung bzw. EG-Baumusterprüfbescheinigung vorliegt, sind die zulässigen Höchstwerte für die eigensicheren Stromkreise zu beachten. An nichteigensichere Stromkreise in der Zone 2 dürfen nur betriebsmäßig nicht funkende Geräte angeschlossen werden, welche für den Betrieb in explosionsgefährdeten Bereichen der Zone 2 und die am Einsatzort vorliegenden Bedingungen geeignet sind.

3. Das Betätigen aller Schalter ist nur ist nur bei der Installation oder für Reparaturzwecke zulässig.

4. Das Verbinden und Trennen der Anschlüsse von nicht eigensicheren Stromkreisen unter Spannung ist nur ist nur bei der Installation oder für Reparaturzwecke zulässig.

5. Beim Anschluß von nicht eigensicheren Stromkreisen an die Daten- und Signalstromkreise sind außerhalb der Geräte der K-Serie Typen KFD.-...-... Maßnahmen zu treffen, daß die Bemessungsspannung durch vorübergehende Störungen um nicht mehr als 40% überschritten wird.

6. Für die Anschlüsse der Speisespannung, der Eingänge und der Ausgänge sind außerhalb der Geräte der K-Serie Typen KFD.-...-... Maßnahmen zu treffen, um zu verhindern, daß die Bemessungsspannung durch vorübergehende Störungen um mehr als 40% überschritten wird. Für die Anschlüsse der Speisespannung entfällt diese Forderung, wenn die Geräte über Einspeisebausteine KFD2-EB... entsprechend der Konformitätsaussage TÜV 98 ATEX 1273 X versorgt werden.

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

Keine zusätzlichen

BA 02 11.98 1.000.000

Translation

(1) # STATEMENT OF CONFORMITY

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**

(3) Test certificate number

TÜV 99 ATEX 1499 X

(4)	Equipment or Protective System:	Devices of the K-series types KFD.-...-...
(5)	Manufacturer:	Pepperl + Fuchs GmbH
(6)	Address:	Postfach 68301 D-68307 Mannheim

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV Hannover/Sachsen-Anhalt e.V., TÜV Certification Body N° 0032 in accordance with Article 9 of the Council Directive 94/9/EC of March 23, 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report N° 99/PX/20790.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50 021: 1999

(10) If the sign "X" is placed after the certification number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type examination certificate relates only to the design and construction of the specified equipment or protective system. Further requirements of this Directive apply to the manufacture and placing on the market of this equipment or protective system.

(12) The marking of the equipment or protective system shall include the following:

Ex II 3 G EEx n A II T4

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hannover, 1999-12-03

Head of the Certification Body

(13) **SCHEDULE**

(14) **STATEMENT OF CONFORMITY N° TÜV 99 ATEX 1499 X**

(15) Description of equipment or protective system

The devices of the K-series types KFD.-...-... are used for the galvanic insulation of MSR-signals in the explosion hazardous area and in the non explosion hazardous area. The Devices of the K-series types KFD may be installed in explosion hazardous areas of the zone 2.
The maximum permissible ambient temperature is 60°C.

Electrical data

Device type	Nominal values for	Terminals	valid "Special conditions for safe use" no.
Isolated Amplifier KFD2-SOT2-Ex1.LB KFD2-SOT2-Ex1.LB-Y KFD2-SOT2-Ex2 KFD2-SOT2-Ex2-Y KFD2-ST2-Ex1.LB KFD2-ST2-Ex2	Supply voltage: 20 ... 30 V d. c. Output circuits: KFD2-SOT2*** Un≤40 V d. c., 100 mA KFD2-ST2*** 100 mA	Supply voltage: 14, 15 resp. Power Rail Output circuits: 7, 8, 9 (KFD2-SOT2***); 7, 9 (KFD2-ST2***) resp. Power Rail	1, 2, 3, 4, 5
DC Isolation Module KFD2-RR-Ex1***	Supply voltage: 15 ... 50 V d. c.	Supply voltage: 7; 8 resp. Power Rail	1, 2, 4, 6
Solenoid Driver	Supply voltage:	Supply voltage: 7, 8	1, 2, 4
KFD2-SD-Ex1.17	5 ... 25 V d.c..		
KFD2-SD-Ex1.36	15 ... 35 V d.c.		
KFD2-SD-Ex1.36-87B	15 ... 35 V d.c.		
KFD2-SD-Ex1.48	5 ... 35 V d.c.		
KFD2-SD-Ex1.48.90A	5 ... 35 V d.c.		
SMART-Transmitter KFD2-STC4-Ex1 KFD2-STC4-Ex1.20 KFD2-STC4-Ex1.Y2186 KFD2-STC4-Ex2 KFD2-STC4-Ex2.Y72195	Supply voltage: 20 ... 35 V d. c.	Supply voltage: 14, 15 resp. Power Rail	1, 2, 4
DC Isolation Module KFD2-VR-Ex1.50M KFD2-VR-Ex1.50M.L KFD2-VR-Ex1.50M.R	Supply voltage: 10 ... 40 V d. c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 6 (for the supply voltage)

Transformer Isolated Loop Powered Current Separator KFD0-CS-Ex1.50P KFD0-CS-Ex1.51P KFD0-CS-Ex1.52 KFD0-CS-Ex1.53 KFD0-CS-Ex1.54 KFD0-CS-Ex2.53 KFD0-CS-Ex2.54 KFD0-CS-Ex2.50P KFD0-CS-Ex2.51P KFD0-CS-Ex2.51P-96C KFD0-CS-Ex2.52	--	--	1, 2, 4
DC Isolation Module	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 7, 8 resp. Power Rail	1, 2, 4 (for all DC Isolation Modules) 6 for:
KFD2-CD-Ex1.32 KFD2-CD-Ex1.32.10 KFD2-CD-Ex1.32-1 KFD2-CD-Ex1.32-12 KFD2-CD-Ex1.32-13			Supply voltage and inputs
KFD2-CD-Ex1.32-15			Supply voltage
KFD2-CD-Ex1.32-2			Supply voltage and inputs
KFD2-CD-Ex1.32-21 KFD2-CD-Ex1.32-3 KFD2-CD-Ex1.32-5 KFD2-CD-Ex1.32-6 KFD2-CD-Ex1.32-8			Supply voltage
KFD2-CD-Ex1.32-9 KFD2-CD-1.32 KFD2-CD-1.32-12 KFD2-CD-1.32-13			Supply voltage and inputs
KFD2-CD-1.32-15			Supply voltage
KFD2-CD-1.32-2			Supply voltage and inputs
KFD2-CD-1.32-8			Supply voltage
SMART DC Isolation Module KFD2-SCD-Ex1.LK	Supply voltage: 20 ... 35 V d. c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4

Data and signal circuits ..... electrical data and connections according to manufacturers specifications and valid certificates of conformity resp. EC type-examination certificates

(16) Test documents consisting of 320 pages are listed in the test report.

(17) Special conditions for safe use

1. The devices of the K-series types KFD.-...-... have to be erected in such a way, that a degree of protection of at least IP 54 according to EN 60529 is reached.

2. The maximum permissible values for the intrinsically safe circuits must be observed for devices of the K-series types KFD.-...-..., where also a Certificate of Conformity resp. an EC type-examination certificate is available. Only devices non sparking in normal operation, which are suitable for the operation in explosion hazardous areas of the zone 2 and the conditions available at the place of operation, are allowed to be connected to non intrinsically safe circuits in the zone 2.

3. The operation of all switches is only permitted during installation or for repair purposes.

4. The connecting and disconnecting of the connections of non intrinsically safe circuits under voltage is only permitted during installation or for repair purposes.

5. If non intrinsically safe circuits are connected to the data- and signal-circuits, measures have to be taken outside the devices of the K-series types KFD.-...-..., that the rated voltage is exceeded not more than 40% by transient disturbances.

6. For the connections of the supply voltage, the inputs and the outputs measures have to be taken outside the devices of the K-series types KFD.-...-..., that the rated voltage is exceeded not more than 40% by transient disturbances. For the connections of the power supply this demand is cancelled, if the devices are supplied by the power feed module type KFD2-EB... according to the declaration of conformity TÜV 98 ATEX 1273 X.

(18) Essential Health and Safety Requirements

no additional ones

BA 02 11.98 1.000.000

1. ERGÄNZUNG
zur
Konformitätsaussage Nr. TÜV 99 ATEX 1499 X

der Firma: Pepperl + Fuchs GmbH
Königsberger Allee 87
D-68307 Mannheim

Die "Besonderen Bedingungen" für den Geräte der K-Serie Typen KFD.-...-... werden geändert und lauten wie folgt:

Besondere Bedingungen

1. Geräte der K-Serie Typen KFD.-...-... sind so zu errichten, dass eine Schutzart von mindestens IP 54 gemäß EN 60529 erreicht wird.

2. Bei Geräten der K-Serie Typen KFD.-...-..., für die zusätzlich eine Konformitätsbescheinigung bzw. EG-Baumusterprüfbescheinigung vorliegt, sind die zulässigen Höchstwerte für die eigensicheren Stromkreise zu beachten. An nichteigensichere Stromkreise in der Zone 2 dürfen nur Geräte angeschlossen werden, welche für den Betrieb in explosionsgefährdeten Bereichen der Zone 2 und die am Einsatzort vorliegenden Bedingungen geeignet sind (Herstellererklärung oder Zertifikat einer Prüfstelle).

3. Das Betätigen aller Schalter ist nur ist nur bei der Installation, der Wartung oder für Reparaturzwecke zulässig.

4. Das Verbinden und Trennen der Anschlüsse von nicht eigensicheren Stromkreisen unter Spannung ist nur ist nur bei der Installation, der Wartung oder für Reparaturzwecke zulässig. Anmerkung: Das zeitliche Zusammentreffen von explosionsfähiger Atmosphäre und Installation, Wartung bzw. Reparatur wird in der Zone 2 als unwahrscheinlich bewertet.

5. Beim Anschluss von nicht eigensicheren Stromkreisen an die Daten- und Signalstromkreise sind außerhalb der Geräte der K-Serie Typen KFD.-...-... Maßnahmen zu treffen, dass die Bemessungsspannung durch vorübergehende Störungen um nicht mehr als 40% überschritten wird.

6. Für die Anschlüsse der Speisespannung, der Eingänge und der Ausgänge sind außerhalb der Geräte der K-Serie Typen KFD.-...-... Maßnahmen zu treffen, um zu verhindern, daß die Bemessungsspannung durch vorübergehende Störungen um mehr als 40% überschritten wird. Für die Anschlüsse der Speisespannung entfällt diese Forderung, wenn die Geräte über Einspeisebausteine KFD2-EB... entsprechend der Konformitätsaussage TÜV 00 ATEX 1618 X versorgt werden.

Alle übrigen Angaben gelten unverändert für diese 1. Ergänzung.

Die Prüfungsunterlagen sind im Prüfbericht Nr. 00PX18900 aufgeführt.

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hannover, 14.09.2000

Der Leiter

Translation

1. SUPPLEMENT to

STATEMENT OF CONFORMITY No. TÜV 99 ATEX 1499 X

of the company : Pepperl + Fuchs GmbH
Königsberger Allee 87
D-68307 Mannheim

The "Special conditions for safe use" for the devices of the K-series types KFD.-...-... are changed and read as follows:

Special conditions for safe use

1. The devices of the K-series types KFD.-...-... have to be erected in such a way, that a degree of protection of at least IP 54 according to EN 60529 is reached.

2. The maximum permissible values for the intrinsically safe circuits must be observed for devices of the K-series types KFD.-...-..., where also a Certificate of Conformity resp. an EC type-examination certificate is available. Only devices, which are suitable for the operation in explosion hazardous areas of the zone 2 and the conditions available at the place of operation (Declaration of conformity or certificate of a testing department), are allowed to be connected to non intrinsically safe circuits in the zone 2.

3. The operation of all switches is only permitted during installation, for maintenance or for repair purposes.

4. The connecting and disconnecting of the connections of non intrinsically safe circuits under voltage is only permitted during installation, for maintenance or for repair purposes. Note: The temporal coincidence of explosion hazardous atmosphere and installation, maintenance resp. repair purposes is assessed as unlikely.

5. If non intrinsically safe circuits are connected to the data- and signal-circuits, measures have to be taken outside the devices of the K-series types KFD.-...-..., that the rated voltage is exceeded not more than 40% by transient disturbances.

6. For the connections of the supply voltage, the inputs and the outputs measures have to be taken outside the devices of the K-series types KFD.-...-..., that the rated voltage is exceeded not more than 40% by transient disturbances. For the connections of the power supply this demand is cancelled, if the devices are supplied by the power feed module type KFD2-EB... according to the declaration of conformity TÜV 00 ATEX 1618 X.

All other details remain unchanged for this 1. supplement.

The test documents are listed in the test report no. 00PX18900

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hannover, 2000-09-14

Head of the
Certification Body

TÜV NORD

2. ERGÄNZUNG
zur
Konformitätsaussage Nr. TÜV 99 ATEX 1499 X

der Firma: Pepperl + Fuchs GmbH
Königsberger Allee 87
D-68307 Mannheim

Die Geräte der K-Serie Typen KFD.-...-... dürfen künftig auch gemäß den im Prüfbericht aufgeführten Unterlagen gefertigt werden.
Die Konformitätsaussage Nr. TÜV 99 ATEX 1499 X ist künftig auch für die Geräte und Angaben gemäß der folgenden Tabelle gültig:

Gerätetyp	Nennwerte für	Anschlussklemmen	geltende "Besondere Bedingungen" Nr.
SMART-Transmitter KFD2-STC4-Ex1-Y112669 KFD2-STC4-Ex1.2O-Y112668 KFD2-STV4-Ex1-1 KFD2-STV4-Ex1-2 KFD2-STV4-Ex1.2O-1 KFD2-STV4-Ex1.2O-2 KFD2-STV4-Ex2 KFD2-STV4-Ex2-1 KFD2-STV4-Ex2-2 KFD2-STV4-Ex2-RSC	Speisespannung: 20 ... 35 VDC	Speisespannung: 14, 15 bzw. Power Rail	1, 2, 4
Trennwandler KFD2-VR3-Ex1.26	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4 6 (für Speisespannung und Ausgang)
KFD2-VR-Ex1.50M KFD2-VR-Ex1.50M.L KFD2-VR-Ex1.50M.R	Speisespannung: 10 ... 40 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4

Die „Besonderen Bedingungen“ werden wie folgt geändert:

6. Für die Anschlüsse der Speisespannung, der Eingänge und der Ausgänge sind außerhalb der Geräte der K-Serie Typen KFD.-...-... Maßnahmen zu treffen, um zu verhindern, dass die Bemessungsspannung durch vorübergehende Störungen um mehr als 40% überschritten wird. Für die Anschlüsse der Speisespannung entfällt diese Forderung, wenn die Geräte über Einspeisebausteine KFD2-EB... entsprechend der Konformitätsaussage TÜV 98 ATEX 1273 X bzw. KFD2-EB*-*** entsprechend der Konformitätsaussage TÜV 00 ATEX 1618 X versorgt werden.

Alle übrigen Angaben gelten unverändert für diese 2. Ergänzung.

Die Prüfungsunterlagen sind im Prüfbericht Nr. 02YEX 162 973 aufgeführt.

TÜV NORD CERT GmbH & Co. KG
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470
Fax: 0511 986-2555

Hannover, 18.09.2002

Der Leiter

Translation

2. SUPPLEMENT to

STATEMENT OF CONFORMITY No. TÜV 99 ATEX 1499 X

of the company : Pepperl + Fuchs GmbH
Königsberger Allee 87
D-68307 Mannheim

In the future, the devices of the K-series types KFD.-...-... may also be may also be manufactured according to the documents listed in the test report.
In the future, the Statement of Conformity TÜV 99 ATEX 1499 X is also valid for the devices and specifications according to the following table:

Device type	Nominal values for	Terminals	Valid „Special conditions for safe use“ no.
SMART-Transmitter KFD2-STC4-Ex1-Y112669 KFD2-STC4-Ex1.2O-Y112668 KFD2-STV4-Ex1-1 KFD2-STV4-Ex1-2 KFD2-STV4-Ex1.2O-1 KFD2-STV4-Ex1.2O-2 KFD2-STV4-Ex2 KFD2-STV4-Ex2-1 KFD2-STV4-Ex2-2 KFD2-STV4-Ex2-RSC	Supply voltage: 20 ... 35 V d. c.	Supply voltage: 14, 15 resp. Power Rail	1, 2, 4
Voltage Repeater KFD2-VR3-Ex1.26	Supply voltage: 20 ... 35 V d. c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4 6 (for supply voltage and output)
KFD2-VR-Ex1.50M KFD2-VR-Ex1.50M.L KFD2-VR-Ex1.50M.R	Supply voltage: 10 ... 40 V d. c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4

The „Special conditions for safe use“ are changed as follows:

6. For the connections of the supply voltage, the inputs and the outputs measures have to be taken outside the devices of the K-series types KFD.-...-..., that the rated voltage is exceeded not more than 40% by transient disturbances. For the connections of the power supply this demand is cancelled, if the devices are supplied by the power feed module type KFD2-EB... according to the declaration of conformity TÜV 98 ATEX 1273 X resp KFD2-EB*-*** according to the declaration of conformity TÜV 00 ATEX 1618 X

All other details remain unchanged for this 2. supplement.

The test documents are listed in the test report no. 02YEX 162 973.

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hanover, 2002-09-18

Head of the
Certification Body

3. ERGÄNZUNG
zur
Konformitätsaussage Nr. TÜV 99 ATEX 1499 X

der Firma: Pepperl + Fuchs GmbH
Königsberger Allee 87
D-68307 Mannheim

Die Geräte der K-Serie Typen KFD.-...-... dürfen künftig auch gemäß den im Prüfbericht aufgeführten Unterlagen gefertigt werden.
Die Konformitätsaussage Nr. TÜV 99 ATEX 1499 X ist künftig auch für die Geräte und Angaben gemäß der folgenden Tabelle gültig:

Gerätetyp	Nennwerte für	Anschlussklemmen	geltende "Besondere Bedingungen" Nr.
Trennwandler			
KFD2-VR4-Ex1.26	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4
Trennwandler			
KFD2-CD-Ex1.32 KFD2-CD-Ex1.32-2 KFD2-CD-Ex1.32-5 KFD2-CD-1.32-12 KFD2-CD-1.32 KFD2-CD-1.32-2 KFD2-CD-1.32-8 KFD2-CD-1.32-12 KFD2-CD-1.32-13 KFD2-CD-1.32-15	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4
Trennschaltverstärker			
KFD2-SOT2-EX1.LB.IO KFD2-SOT2-EX1.IO	Speisespannung: 20 ... 30 VDC Ausgangsstromkreise: Un≤40 VDC, 100 mA	Speisespannung: 14, 15 bzw. Power Rail Ausgangsstromkreise: 7, 8, 9 bzw. 7/8 und 10/11 bzw. Power Rail	1, 2, 3, 4, 5

Alle übrigen Angaben gelten unverändert für diese 3. Ergänzung.

(16) Die Prüfungsunterlagen sind im Prüfbericht Nr. 04 YEX 551274 aufgelistet.

(17) Besondere Bedingungen

siehe Tabelle

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

keine zusätzlichen

TÜV NORD CERT GmbH & Co. KG
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470
Fax: 0511 986-2555

Hannover, 15.06.2004

i. V.

Der Leiter

Translation

3. SUPPLEMENT to

STATEMENT OF CONFORMITY No. TÜV 99 ATEX 1499 X

of the company : Pepperl + Fuchs GmbH
Königsberger Allee 87
D-68307 Mannheim

In the future, the devices of the K-series types KFD.-...-... may also be manufactured according to the documents listed in the test report.
In the future, the Statement of Conformity TÜV 99 ATEX 1499 X is also valid for the devices and specifications according to the following table:

Device type	Nominal values for	Terminals	Valid „Special conditions for safe use“ no.
Voltage Repeater			
KFD2-VR4-Ex1.26	Supply voltage: 20 ... 35 V d. c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4
DC Isolation Module			
KFD2-CD-Ex1.32 KFD2-CD-Ex1.32-2 KFD2-CD-Ex1.32-5 KFD2-CD-1.32-12 KFD2-CD-1.32 KFD2-CD-1.32-2 KFD2-CD-1.32-8 KFD2-CD-1.32-12 KFD2-CD-1.32-13 KFD2-CD-1.32-15	Supply voltage: 20 ... 35 VDC	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4
Isolated Amplifier			
KFD2-SOT2-EX1.LB.IO KFD2-SOT2-EX1.IO	Supply voltage: 20 ... 30 V d. c. Output circuits: Un≤40 V d. c., 100 mA	Supply voltage: 14, 15 resp. Power Rail Output circuits: 7, 8, 9 resp. 7/8 and 10/11 resp. Power Rail	1, 2, 3, 4, 5

All other details remain unchanged for this 3. supplement.

(16) The test documents are listed in the test report no. 04YEX551274.

(17) Special conditions for safe use
see table

(18) Essential Health and Safety Requirements
no additional ones

TÜV NORD CERT GmbH & Co. KG
TÜV CERT-Certification Body
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470

Hanover, 2004-06-15

i. V.

Head of the
Certification Body

4. E R G Ä N Z U N G
zur
Konformitätsaussage Nr. TÜV 99 ATEX 1499 X

Hersteller: Pepperl + Fuchs GmbH
Anschrift: Königsberger Allee 87
D-68307 Mannheim

Die Geräte der K-Serie Typen KFD.-...-... dürfen künftig auch gemäß den im Prüfbericht aufgeführten Unterlagen gefertigt werden.
Die Änderungen betreffen den inneren Aufbau der Geräte gemäß der folgenden Tabelle:

Trennschaltverstärker	Teilenummer
KFD2-ST2-EX1.LB	180997
KFD2-ST2-EX2	181000
KFD2-SOT2-EX1.LB	181002
KFD2-SOT2-EX1.LB.IO	181004
KFD2-SOT2-EX2	181005
KFD2-SOT2-EX2.IO	181007
KFD2-SOT2-EX2.IO	Y181008

Die elektrischen Daten sowie übrigen Angaben gelten unverändert für diese 4. Ergänzung.

(16) Die Prüfungsunterlagen sind im Prüfbericht Nr. 05 YEX 551961 aufgelistet.

(17) Besondere Bedingungen

keine Änderungen

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

keine zusätzlichen

TÜV NORD CERT GmbH & Co. KG
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D-30519 Hannover
Tel.: +49 511 986-1470
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Hannover, 09.05.2005

Der Leiter

TÜV NORD

Translation

4. SUPPLEMENT to

Statement of Conformity No. TÜV 99 ATEX 1499 X

Manufacturer: Pepperl + Fuchs GmbH
Address: Königsberger Allee 87
D-68307 Mannheim

In the future, the devices of the K-series types KFD.-...-... may also be manufactured according to the documents listed in the test report.
The changes refer to the internal construction of the devices according to the following table:

Isolated Amplifier	Part no.
KFD2-ST2-EX1.LB	180997
KFD2-ST2-EX2	181000
KFD2-SOT2-EX1.LB	181002
KFD2-SOT2-EX1.LB.IO	181004
KFD2-SOT2-EX2	181005
KFD2-SOT2-EX2.IO	181007
KFD2-SOT2-EX2.IO	Y181008

The electrical data as well as all other details remain unchanged for this 4. supplement.

(16) The test documents are listed in the test report N° 05 YEX 551961.

(17) Special conditions for safe use

no changes

(18) Essential Health and Safety Requirements

no additional ones

TÜV NORD CERT GmbH & Co. KG
Am TÜV 1
D-30519 Hannover
Tel.: +49 511 986-1470
Fax: +49 511 986-1590

Hannover, 2005-05-09

Head of the
Certification Body

TÜV NORD

5. ERGÄNZUNG

zur Konformitätsaussage:	**TÜV 99 ATEX 1499 X**
Gerät:	Geräte der K-Serie Typen KFD.-...-...
Hersteller:	Pepperl + Fuchs GmbH
Anschrift:	Lilienthalstrasse 200 68307 Mannheim
Auftragsnummer:	8000553879
Ausstellungsdatum:	06.10.2008

Änderungen:

Die Geräte der K-Serie Typen KFD.-...-... dürfen künftig auch gemäß den im Prüfbericht aufgeführten Unterlagen gefertigt werden.
Die Änderungen betreffen die zur Beurteilung herangezogenen Normenstände, die Kennzeichnung und technische Änderungen bzw. neu hinzu gekommene Gerätetypen.

Die Geräte erfüllen die Anforderungen der folgenden Normen:

EN 60079-0:2006 **EN 60079-15:2005**

Die Konformitätsaussage Nr. TÜV 99 ATEX 1499 X einschließlich der Ergänzungen ist künftig für die Geräte und Angaben gemäß der folgenden Tabelle gültig:

Gerätetyp	Nennwerte für	Anschlussklemmen	geltende "Besondere Bedingungen" Nr.
KFD0-CS-Ex1.50P KFD0-CS-Ex1.51P KFD0-CS-Ex1.52 KFD0-CS-Ex1.53 KFD0-CS-Ex1.54 KFD0-CS-Ex2.50P KFD0-CS-Ex2.51P KFD0-CS-Ex2.52 KFD0-CS-Ex2.53 KFD0-CS-Ex2.54	--	--	1, 2, 4
KFD0-SD2-Ex1.10100 KFD0-SD2-Ex1.1065 KFD0-SD2-Ex1.1180 KFD0-SD2-Ex1.1045 KFD0-SD2-Ex2.1045 KFD0-SD2-Ex1.1245	Nennspannung: 20 ... 35 VDC	Nennspannung: 7, 8 bzw. 7, 8 und 10, 11	1, 2, 4

KFD2-CD-1.32	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 4
KFD2-CD-Ex1.32 KFD2-CD-Ex1.32-1 KFD2-CD-Ex1.32-2 KFD2-CD-Ex1.32-3 KFD2-CD-Ex1.32-5 KFD2-CD-Ex1.32-6 KFD2-CD-Ex1.32-8 KFD2-CD-Ex1.32-9 KFD2-CD-Ex1.32-10 KFD2-CD-Ex1.32-12 KFD2-CD-Ex1.32-13 KFD2-CD-Ex1.32-15 KFD2-CD-Ex1.32-21	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4
KFD2-CD2-Ex1 KFD2-CD2-Ex2	Speisespannung: 20 ... 35 VDC	Speisespannung: 14, 15 bzw. Power Rail	1, 2, 3, 4
KFD2-SCD-Ex1.LK	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4
KFD2-SCD2-Ex1.LK KFD2-SCD2-Ex2.LK	Speisespannung: 20 ... 35 VDC	Speisespannung: 14, 15 bzw. Power Rail	1, 2, 3, 4
KFD2-SOT2-Ex1.LB KFD2-SOT2-Ex1.LB.IO KFD2-SOT2-Ex2 KFD2-SOT2-Ex2.IO KFD2-ST2-Ex1.LB KFD2-ST2-Ex2 KFD2-SOT2-Ex2.IO-Y 181008	Speisespannung: 20 ... 30 VDC Ausgangsstromkreise: Un≤40 VDC, 100 mA bzw. für KFD2-ST2-*** 100 mA	Speisespannung: 14, 15 bzw. Power Rail Ausgangsstromkreise: 7, 8, 9 bzw. 7/8 und 10/11	1, 2, 3, 4

KFD2-STC4-Ex2-RSC KFD2-STC4-Ex1 KFD2-STC4-Ex1.H KFD2-STC4-Ex1.2O KFD2-STC4-Ex1.2O.H KFD2-STC4-Ex2 KFD2-STC4-Ex1.2O-Y 122582 KFD2-STC4-Ex2-Y 132953 KFD2-STC4-Ex1-Y 122583 KFD2-STC4-Ex1-Y 204907	Speisespannung: 20 ... 35 VDC	Speisespannung: 14, 15 bzw. Power Rail	1, 2, 4
KFD2-VR4-Ex1.26	Speisespannung: 20 ... 35 VDC	Speisespannung: 11, 12 bzw. Power Rail	1, 2, 4
KFD2-STV4-Ex1-1 KFD2-STV4-Ex1-2 KFD2-STV4-Ex1.2O-1 KFD2-STV4-Ex1.2O-2 KFD2-STV4-Ex2-1 KFD2-STV4-Ex2-2	Speisespannung: 20 ... 35 VDC	Speisespannung: 14, 15 bzw. Power Rail	1, 2, 4

Die Kennzeichnung ändert sich wie folgt:

II 3 G Ex nA II T4

(16) Die Prüfungsunterlagen sind im Prüfbericht Nr. 08 204 553879 aufgelistet.

(17) Besondere Bedingungen

Die "Besonderen Bedingungen" werden für die Geräte, die in dieser Ergänzung aufgelistet sind, wie folgt geändert:

1. Geräte der K-Serie Typen KFD.-...-... sind in einem geeigneten Gehäuse entsprechend EN 60079-0 und EN 60079-15 so zu errichten, dass eine Schutzart von mindestens IP 54 gemäß EN 60529 erreicht wird.

2. Die für die Geräte gültige EG-Baumusterprüfbescheinigung muss beachtet werden

3. Das Betätigen aller Schalter ist nur ist nur zulässig wenn keine explosionsfähige Atmosphäre vorhanden ist.

4. Das Verbinden und Trennen der Anschlüsse von nicht eigensicheren Stromkreisen unter Spannung ist nur ist nur zulässig wenn keine explosionsfähige Atmosphäre vorhanden ist.

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

keine zusätzlichen

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, akkreditiert durch die Zentralstelle der Länder für Sicherheitstechnik (ZLS), Ident. Nr. 0044, Rechtsnachfolger der TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

Der Leiter der Zertifizierungsstelle

Schwedt

Geschäftsstelle Hannover, Am TÜV 1, 30519 Hannover, Tel.: +49 (0) 511 986-1455, Fax: +49 (0) 511 986-1590

Translation

5. SUPPLEMENT

to Statement of Conformity No.	**TÜV 99 ATEX 1499 X**
Equipment:	Devices of the K-series types KFD.-...-...
Manufacturer:	Pepperl + Fuchs GmbH
Address:	Lilienthalstrasse 200 68307 Mannheim Germany
Order number:	8000553879
Date of issue:	2008-10-06

Amendments:

In the future, the devices of the K-series types KFD.-...-... may also be manufactured according to the documents listed in the test report.
The changes concern the standards used for assessment, the marking, changes in the technical design and some new types of devices.

The equipment meets the requirements of these standards:

EN 60079-0:2006 **EN 60079-15:2005**

In the future, the Statement of Conformity TÜV 99 ATEX 1499 X including the supplements is valid for the devices and specifications according to the following table:

Device type	Nominal values for	Terminals	Valid "Special conditions for safe use" no.
KFD0-CS-Ex1.50P KFD0-CS-Ex1.51P KFD0-CS-Ex1.52 KFD0-CS-Ex1.53 KFD0-CS-Ex1.54 KFD0-CS-Ex2.50P KFD0-CS-Ex2.51P KFD0-CS-Ex2.52 KFD0-CS-Ex2.53 KFD0-CS-Ex2.54	--	--	1, 2, 4

KFD0-SD2-Ex1.10100 KFD0-SD2-Ex1.1065 KFD0-SD2-Ex1.1180 KFD0-SD2-Ex1.1045 KFD0-SD2-Ex2.1045 KFD0-SD2-Ex1.1245	Nominal voltage: 20 ... 35 V d.c.	Nominal voltage: 7, 8 resp. 7, 8 and 10, 11	1, 2, 4
KFD2-CD-1.32	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 11, 12 resp. Power Rail	1, 4
KFD2-CD-Ex1.32 KFD2-CD-Ex1.32-1 KFD2-CD-Ex1.32-2 KFD2-CD-Ex1.32-3 KFD2-CD-Ex1.32-5 KFD2-CD-Ex1.32-6 KFD2-CD-Ex1.32-8 KFD2-CD-Ex1.32-9 KFD2-CD-Ex1.32-10 KFD2-CD-Ex1.32-12 KFD2-CD-Ex1.32-13 KFD2-CD-Ex1.32-15 KFD2-CD-Ex1.32-21	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4
KFD2-CD2-Ex1 KFD2-CD2-Ex2	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 14, 15 resp. Power Rail	1, 2, 3, 4
KFD2-SCD-Ex1.LK	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4
KFD2-SCD2-Ex1.LK KFD2-SCD2-Ex2.LK	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 14, 15 resp. Power Rail	1, 2, 3, 4
KFD2-SOT2-Ex1.LB KFD2-SOT2-Ex1.LB.IO KFD2-SOT2-Ex2 KFD2-SOT2-Ex2.IO KFD2-ST2-Ex1.LB KFD2-ST2-Ex2 KFD2-SOT2-Ex2.IO-Y 181008	Supply voltage: 20 ... 35 V d.c. Output circuits: Un≤40 V d.c., 100 mA resp. for KFD2-ST2-*** 100 mA	Supply voltage: 14, 15 resp. Power Rail Output circuits: 7, 8, 9 resp. 7/8 and 10/11	1, 2, 3, 4

KFD2-STC4-Ex2-RSC KFD2-STC4-Ex1 KFD2-STC4-Ex1.H KFD2-STC4-Ex1.2O KFD2-STC4-Ex1.2O.H KFD2-STC4-Ex2 KFD2-STC4-Ex1.2O-Y 122582 KFD2-STC4-Ex2-Y 132953 KFD2-STC4-Ex1-Y 122583 KFD2-STC4-Ex1-Y 204907	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 14, 15 resp. Power Rail	1, 2, 4
KFD2-VR4-Ex1.26	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 11, 12 resp. Power Rail	1, 2, 4
KFD2-STV4-Ex1-1 KFD2-STV4-Ex1-2 KFD2-STV4-Ex1.2O-1 KFD2-STV4-Ex1.2O-2 KFD2-STV4-Ex2-1 KFD2-STV4-Ex2-2	Supply voltage: 20 ... 35 V d.c.	Supply voltage: 14, 15 resp. Power Rail	1, 2, 4

The marking changes as follows:

II 3 G Ex nA II T4

(16) The test documents are listed in the test report No. 08 204 553879.

(17) Special conditions for safe use

The "Special conditions for safe use" are changed for the devices listed in this supplement as follows:

1. The devices of the K-series types KFD.-...-... have to be installed in a suitable housing corresponding to EN 60079-0 and EN 60079-15 in such a way, that a degree of protection of at least IP 54 according to EN 60529 is reached.

2. The additionally available EC Type Examination Certificate for these devices has to be respected.
3. The operation of all switches is only permitted in the absence of a hazardous atmosphere.
4. The connecting and disconnecting of the connections of non intrinsically safe circuits, when energised, is only permitted in the absence of a hazardous atmosphere.

(18) Essential Health and Safety Requirements

no additional ones

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, accredited by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the certification body

Schwedt

Hanover office, Am TÜV 1, 30519 Hanover, Tel.: +49 (0) 511 986-1455, Fax: +49 (0) 511 986-1590

6. E R G Ä N Z U N G

zur Konformitätsaussage:	**TÜV 99 ATEX 1499 X**
Gerät:	Geräte der K-Serie Typen KFD.-...-...
Hersteller:	Pepperl + Fuchs GmbH
Anschrift:	Lilienthalstrasse 200 68307 Mannheim Deutschland
Auftragsnummer:	8000555965
Ausstellungsdatum:	17.11.2010

Änderungen:

Die Geräte der K-Serie Typen KFD.-...-... dürfen künftig auch gemäß den im Prüfbericht aufgeführten Unterlagen gefertigt werden. Durch technische Änderungen entstehen neue Gerätevarianten.

Die Geräte erfüllen die Anforderungen der folgenden Normen:

EN 60079-0:2006 **EN 60079-15:2005**

Die Konformitätsaussage Nr. TÜV 99 ATEX 1499 X ist künftig auch für die Geräte und Angaben gemäß der folgenden Tabelle gültig:

Gerätetyp	Nennwerte für	Anschlussklemmen	geltende "Besondere Bedingungen" Nr.
KFD0-CS-Ex1.54-Y207411 KFD0-CS-Ex1.56 KFD0-CS-Ex2.54-Y207412 KFD0-CS-Ex2.56	--	--	1, 2, 4
KFD0-SD2-Ex2.1245	Nennspannung: 20...35 VDC	Nennspannung: 7, 8 und 8, 9	1, 2, 4
KFD2-SCD2-Ex1-Y1 KFD2-SCD2-Ex2-Y1	Speisespannung: 20 ... 35 VDC	Speisespannung: 14, 15 bzw. Power Rail	1, 2, 3, 4

Die Kennzeichnung bleibt unverändert wie folgt:

II 3 G Ex nA II T4

(16) Die Prüfungsunterlagen sind im Prüfbericht Nr. 10 214 555965 aufgelistet.

(17) Besondere Bedingungen

Die Besonderen Bedingungen bleiben unverändert und sind für die Geräte, die in dieser Ergänzung aufgelistet sind, entsprechend der Tabelle auf Seite 1 gültig.

1. Geräte der K-Serie Typen KFD.-...-... sind in einem geeigneten Gehäuse entsprechend EN 60079-0 und EN 60079-15 so zu errichten, dass eine Schutzart von mindestens IP 54 gemäß EN 60529 erreicht wird.
2. Die für die Geräte gültige EG-Baumusterprüfbescheinigung muss beachtet werden.
3. Das Betätigen aller Schalter ist nur ist nur zulässig wenn keine explosionsfähige Atmosphäre vorhanden ist.
4. Das Verbinden und Trennen der Anschlüsse von nicht eigensicheren Stromkreisen unter Spannung ist nur ist nur zulässig wenn keine explosionsfähige Atmosphäre vorhanden ist.

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

keine zusätzlichen

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, akkreditiert durch die Zentralstelle der Länder für Sicherheitstechnik (ZLS), Ident. Nr. 0044, Rechtsnachfolger der TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

Der Leiter der Zertifizierungsstelle

Schwedt

Geschäftsstelle Hannover, Am TÜV 1, 30519 Hannover, Tel.: +49 (0) 511 986-1455, Fax: +49 (0) 511 986-1590

Translation

6. SUPPLEMENT

to Statement of Conformity No.	**TÜV 99 ATEX 1499 X**
Equipment:	Devices of the K-series types KFD.-...-...
Manufacturer:	Pepperl + Fuchs GmbH
Address:	Lilienthalstrasse 200 68307 Mannheim Germany
Order number:	8000555965
Date of issue:	2010-11-17

Amendments:

In the future, the devices of the K-series types KFD.-...-... may also be manufactured according to the documents listed in the test report. New types of the device had been created by technical modifications.

The equipment meets the requirements of these standards:

EN 60079-0:2006 **EN 60079-15:2005**

In the future, the Statement of Conformity TÜV 99 ATEX 1499 X is also valid for the devices and specifications according to the following table:

Device type	Nominal values for	Terminals	Valid "Special conditions for safe use" no.
KFD0-CS-Ex1.54-Y207411 KFD0-CS-Ex1.56 KFD0-CS-Ex2.54-Y207412 KFD0-CS-Ex2.56	--	--	1, 2, 4
KFD0-SD2-Ex2.1245	Nominal voltage: 20...35 V d.c.	Nominal voltage: 7, 8 and 8, 9	1, 2, 4
KFD2-SCD2-Ex1-Y1 KFD2-SCD2-Ex2-Y1	Supply voltage: 20 ... 35 V d.c.	Supply voltag: 14, 15 resp. Power Rail	1, 2, 3, 4

The marking remains unchanged as follows:

II 3 G Ex nA II T4

(16) The test documents are listed in the test report No. 10 214 555965.

(17) Special conditions for safe use

The Special conditions for safe use remain unchanged and are valid for the devices listed in this supplement according to the table on page 1.

1. The devices of the K-series types KFD.-...-... have to be installed in a suitable housing corresponding to EN 60079-0 and EN 60079-15 in such a way, that a degree of protection of at least IP 54 according to EN 60529 is reached.
2. The additionally available EC Type Examination Certificate for these devices has to be respected.
3. The operation of all switches is only permitted in the absence of a hazardous atmosphere.
4. The connecting and disconnecting of the connections of non intrinsically safe circuits, when energised, is only permitted in the absence of an explosion hazardous atmosphere.

(18) Essential Health and Safety Requirements

no additional ones

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The head of the certification body

Schwedt

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IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx BAS 10.0007X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 3	Issue 2 (2021-03-29) Issue 1 (2012-05-21) Issue 0 (2010-01-20)
Date of Issue:	2021-11-25		
Applicant:	**Pepperl+Fuchs SE** Lilienthalstrasse 200 68307 Mannheim **Germany**		
Equipment:	**Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56**		
Optional accessory:			
Type of Protection:	**Type n**		
Marking:	Ex nA IIC T4 Gc		

Approved for issue on behalf of the IECEx Certification Body: **Mr R S Sinclair**

Position: **Technical Manager**

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom

IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 10.0007X**

Date of issue: 2021-11-25 Issue No: 3

Manufacturer: **Pepperl+Fuchs SE**
Lilienthalstrasse 200
68307 Mannheim
Germany

Manufacturing locations: **Pepperl+Fuchs Asia Pte. Ltd.**
18 Ayer Rajah Crescent
Singapore 139942
Singapore

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/BAS/ExTR10.0011/00 GB/BAS/ExTR12.0138/00 GB/BAS/ExTR21.0189/00

Quality Assessment Report:

DE/PTB/QAR06.0008/16

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56 is designed to provide a single or dual channel galvanically isolated interface to enable the transmission of current or voltage signals from the hazardous area into the non-hazardous area.

The Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56 comprises a number of electrical components, including two isolating transformers, fuses, resistors and zener diodes all mounted onto a single printed circuit board (PCB) and housed within a plastic enclosure.

28V 93mA 0.653W variants
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54-Y1/Y3
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54-Y1/Y3
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54 with part number Y207411
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54 with part number Y207412

25.2V 43mA 271mW variants
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54-Y2
Smart Fire Detector Isolator Type KFD0-CS-Ex1.54-Y72221
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54-Y2
Smart Fire Detector Isolator Type KFD0-CS-Ex2.54-Y72222

21V 252mA 1.323W variants

Smart Fire Detector Isolator Type KFD0-CS-Ex1.56
Smart Fire Detector Isolator Type KFD0-CS-Ex2.56

See annex for electrical data.

SPECIFIC CONDITIONS OF USE: YES as shown below:
1. The Smart Fire Detector Isolator Type KFD0-CS-Ex*.54/56 must be installed in a suitably certified enclosure such that it is afforded a degree of protection of at least IP54 in accordance with IEC 60529 & IEC 60079-15 and is in an area of at least pollution degree 2, as defined in IEC 60664-1.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 3.1

This issue of the certificate confirms that confirms the current design meets the requirements of IEC 60079-0:2017 in respect of the differences from IEC 60079-0:2011 and that none of these differences affect this equipment.

ExTR: **GB/BAS/ExTR21.0189/00**	File Reference: **21/0422**

Annex:

IECEx BAS 10-0007X-Annex.pdf

Baseefa
Rockhead Business Park
Staden lane, Buxton, Derbyshire
SK17 9RZ
United Kingdom

Electrical data

KFD0-CS-Ex1.54

Supply circuit: (Terminals 11[+], 12[-])	U_i = 0 – 26Vdc
Output: (Terminals 1[+], 2[-])	0 – 26Vdc or The maximum values for the intrinsically safe circuits have to be taken from the EC-Type Examination certificate IECEx BAS 08.0079.

KFD0-CS-Ex2.54

Supply circuit: (Terminals 11[+], 12[-], 9[+], 10[-], 8[-])	U_i = 0 – 26Vdc
Output: (Terminals 1[+], 2[-], 4[+], 5[-])	0 – 26Vdc or The maximum values for the intrinsically safe circuits have to be taken from the EC-Type Examination certificate IECEx BAS 08.0079.

KFD0-CS-Ex1.56

Supply circuit: (Terminals 11[+], 12[-])	U_i = 0 – 42Vdc
Output: (Terminals 1[+], 2[-])	0 – 19Vdc or The maximum values for the intrinsically safe circuits have to be taken from the EC-Type Examination certificate IECEx BAS 08.0079.

KFD0-CS-Ex2.56

Supply circuit: (Terminals 11[+], 12[-], 9[+], 10[-], 8[-])	U_i = 0 – 42Vdc
Output: (Terminals 1[+], 2[-], 4[+], 5[-])	0 – 19Vdc or The maximum values for the intrinsically safe circuits have to be taken from the EC-Type Examination certificate IECEx BAS 08.0079.