1 # TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

3 Type Examination Certificate Number: **Baseefa09ATEX0218X – Issue 1**

3.1 In accordance with Article 41 of Directive 2014/34/EU, 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 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: **Transformer Isolated Current Repeater Type KFD2-ST*3-Ex1****

5 Manufacturer: **Pepperl + Fuchs GmbH**

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

7 This re-issued certificate extends Type Examination Certificate No. Baseefa09ATEX0218X 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 Baseefa certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products of Category 3 intended for use in potentially explosive atmospheres given in Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

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 60079-0:2012+A11:2013 **EN 60079-15:2010**

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 TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the product shall include the following :

Ⓔx II 3G Ex nA II T4 (-20°C≤ Ta ≤ +60°C)

SGS Baseefa Customer Reference No. **0808** Project File No. **16/0060**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa09ATEX0218X – Issue 1**

15 Description of Product

The Transformer Isolated Current Repeater Type KFD2-ST*3-Ex1** is designed to provide a galvanically isolated interface to enable the transmission of current or voltage signals from the hazardous area into the non-hazardous area.

The apparatus comprises a number of electrical components, including transformers and opto-isolator to provide galvanic isolation and fuses, resistors and zener diodes, all mounted on a single printed circuit board (PCB) and housed within a plastic enclosure.

The apparatus covered by this certificate are as follows:

- Transformer Isolated Current Repeater Type KFD2-STC3-Ex1
- Transformer Isolated Current Repeater Type KFD2-STV3-Ex1-1
- Transformer Isolated Current Repeater Type KFD2-STV3-Ex1-2

In the type designation, the following letters are used to indicate the use of optional features:

KFD2-ST*3-Ex1**

C	Current output
V	Voltage output
-1	0-5V output
-2	2-10V output

The Transformer Isolated Current Repeater Type KFD2-ST*3-Ex1 may be installed in hazardous areas that require Category 3 equipment.

Electrical data

Supply circuit: (Terminals 7[+], 8[-] or Power Rail Contacts)	U_i = 20 – 35V dc
Output: (Terminals 9[+], 10[+], 11[+])	4 – 20mA or 0 – 5V or 2 – 10V
Input: (Terminals 1[+], 3[-])	4 – 20mA or The maximum values for the intrinsically safe circuits have to be taken from the EU-Type Examination certificate BAS01ATEX7369.

16 Report Number

GB/BAS/ExTR16.0291/00

17 Specific Conditions of Use

1. The Transformer Isolated Current Repeater Type KFD2-ST*3-Ex1** 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 and EN 60079-15.

2. The maximum values for the intrinsically safe circuits have to be taken from the EU-Type Examination Certificate BAS01ATEX7369.

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
266-027IE-B	1 of 1	B	2015-Dec-16	Summary KFD2-STC(V)3-Ex1…
266-032UL-02B	1 – 6	B	2015-Nov-04	Components for Div 2 / Zone 2 KFD2-STC(V)3-Ex1…
266-026BS-04E	1 – 16	E	2014-Mar-27	Mechanical parts KFD2-STC(V)3-Ex1…
266-026BS-06A	1 – 4	A	2015-Nov-12	Transformer details KFD2-STC(V)3-Ex1…
266-027IE-10A	1 – 3	A	2014-May-12	Type Label – Category 3 KFD2-STC(V)3-Ex1…

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
266-026BS-01	1 & 2	-	12-05-06	Schematic KFD2-STC(V)3-Ex1…
266-026BS-03A	1 & 2	-	04-04-08	Assembly KFD2-STC(V)3-Ex1…
266-026BS-05A	1 – 9	-	04-04-08	Main PCB KFD2-STC(V)3-Ex1…

These drawings are common to, and held with, IECEx BAS 09.0102X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa09ATEX0218X	29 September 2009	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2006 & EN 60079-15:2005 is documented in Test Report No. GB/BAS/ExTR09.0148/00. Project File No. 09/0161.
Baseefa09ATEX0218X Issue 1	15 November 2016	To permit the use of alternative components, other minor drawing changes and to confirm that the current design meets the requirements of EN 60079-0: 2012+A11:2013 and EN 60079-15:2010 in respect of the differences from EN 60079-0:2009 & EN 60079-15:2005. Test Report No. GB/BAS/ExTR16.0291/00. Project File No. 16/0060.
For drawings applicable to each issue, see original of that issue.		