

1 **TYPE EXAMINATION CERTIFICATE**

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

3 Type Examination Certificate **Baseefa10ATEX0079X – Issue 2**
Number:

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 Voltage Repeater Type KFD2-VR-Ex1.**...**

5 Manufacturer: **Pepperl + Fuchs GmbH**

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

7 This re-issued certificate extends Type Examination Certificate No. Baseefa10ATEX0079X 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 60079-7:2015+A1:2018

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 :

Ex II 3G Ex ec IIC T4 Gc (-20°C ≤ Ta ≤ +60°C)

SGS Baseefa Customer Reference No. **0808**

Project File No. **17/0872**

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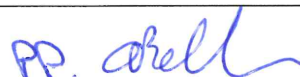
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R S SINCLAIR
TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

ABELLMAN
Certification
Manager

13

Schedule

14

Certificate Number Baseefa10ATEX0079X – Issue 2

15 Description of Product

The Transformer Isolated Voltage Repeater Type KFD2-VR-Ex1.**... is designed to restrict the transfer of energy from unspecified non-hazardous area apparatus to intrinsically safe equipment located in a hazardous area and provide galvanic isolation between the hazardous area and non-hazardous area circuits.

The Transformer Isolated Voltage Repeater Type KFD2-VR-Ex1.**... 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.

The apparatus is designed to operate from a d.c. supply of up to 35V on terminals 11 & 12 and the Power Rail. The segregation of the input and output circuitry meets the requirements for 250V.

The isolators covered by this certificate are as follows:

Transformer Isolated Voltage Repeater Type KFD2-VR-Ex1.18
Transformer Isolated Voltage Repeater Type KFD2-VR-Ex1.19
Transformer Isolated Voltage Repeater Type KFD2-VR-Ex1.19-Y109129

Electrical data

Supply circuit: (Terminals 11[+], 12[-] or Power Rail)	$U_i = 20 - 35\text{Vdc}$
Output: (Terminals 8[+], 7[-])	0 – 12Vdc or -10V – +10Vdc
Input: (Terminals 4[+], 5[-])	0 – 12Vdc or -10V – +10Vdc

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. The Transformer Isolated Voltage Repeater Type KFD2-VR-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 EN 60079-0, EN 60079-7 & EN 60529 and is in an area of at least pollution degree 2, as defined in IEC 60664-1.

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	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
16-0766BS-B	1 of 1	B	2018-Mar-07	Summary
16-0766UL-02	1 – 3	-	2017-Oct-10	Relevant Component List for Div 2
16-0766UL-03	1 – 3	-	2010-Dec-02	Component Overlay
16-0706IE-04D	1 – 14	D	2016-Mar-30	Mechanical Parts
16-0766BS-06	1 – 4	-	2015-Nov-12	Transformer Details
16-0766BS-10B	1 – 3	B	2018-Mar-07	Type Labels

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
251-5001A	1 of 1	A	10.05.01	Schematic
255-0751C	1 & 2	C	14.01.99	Transformer PCB Master
255-1109C	1 – 3	C	10.05.01	PCB Master
257-5004A	1 & 2	A	18.05.01	PCB Lacquering Details

These drawings are common to, and held with, IECEx BAS 10.0040X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa10ATEX0079X	15 April 2010	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR10.0067/00. Project File No. 10/0104.
Baseefa10ATEX0079X Issue 1	7 July 2015	To permit changes to the transformer and confirm the current design meets the requirements of EN 60079-0: 2012+A11:2013 and EN 60079-15:2010 including the revision of the marking in accordance with these standards. The equipment is now marked: Ex nA II T4 Gc (-20°C ≤ Ta ≤ +60°C) Test Report No. GB/BAS/ExTR15.0021/00. Project File No. 15/0067.
Baseefa10ATEX0079X Issue 2	10 April 2018	To permit minor electrical and mechanical changes and confirm the current design meets the requirements of EN 60079-0: 2012+A11:2013 and EN 60079-7:2015+A1:2018 including the revision of the marking in accordance with these standards. Additionally, drawings 252-1113C, 252-1197B, 252-1198B, 253-5003A, 256-0084B, 256-0089B, 256-5001A & 256-5002A have been superseded and replaced by drawings shown in the “new drawings” list. The equipment is now marked: Ex ec IIC T4 Gc (-20°C ≤ Ta ≤ +60°C) Test Report No. GB/BAS/ExTR18.0059/00. Project File No. 17/0872

For drawings applicable to each issue, see original of that issue.