

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: **Baseefa09ATEX0219X – Issue 3**

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: **Type KFD2-VR2-Ex1.50/500M Transformer Isolated Voltage Repeater**

5 Manufacturer: **Pepperl+Fuchs SE**

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

7 This re-issued certificate extends Type Examination Certificate No. Baseefa09ATEX0219X 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 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.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd 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 IEC 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:

⊕ II 3G Ex ec IIC T4 Gc (-40°C ≤ Ta ≤ +70°C) See Schedule

SGS Fimko Oy Customer Reference No. **0808**

Project File No. **22/0465**

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SGS Fimko Oy

Takomotie 8
FI-00380 Helsinki, Finland
Telephone +358 (0)9 696 361
e-mail sgs.fimko@sgs.com
web site www.sgs.fi

Business ID 0978538-5 Member of the SGS Group (SGA SA)



Mikko Välimäki
Authorised Signatory for SGS Fimko Oy

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Schedule

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Certificate Number Baseefa09ATEX0219X – Issue 3

15 Description of Product

The Type KFD2-VR2-Ex1.50M/500M Transformer Isolated Voltage Repeater is designed to provide a galvanically isolated interface to enable the transmission of a low voltage analogue signal from the hazardous area into the non-hazardous area.

The Type KFD2-VR2-Ex1.50M/500M Transformer Isolated Voltage Repeater 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 with plug-in terminals.

The Transformer Isolated Voltage Repeater Type KFD2-VR2-Ex1.50M/500M may be installed in hazardous areas that require Category 3 equipment.

Any temperature range within the $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ range shown on the front of this certificate may be printed on the equipment. e.g. $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$.

Electrical data

Supply circuit: 15 – 30V dc
(Terminals 14[+], 15[-] or
Power Rail Contacts)

Output: 0 – $\pm 50\text{mV}$ or
(Terminals 7[+], 8[-]) 0 – $\pm 500\text{mV}$

Input: 0 – $\pm 50\text{mV}$ or
(Terminals 4[+], 5[-]) 0 – $\pm 500\text{mV}$ or
The maximum values for the intrinsically safe circuits have to be
taken from Baseefa06ATEX0040.

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. The Type KFD2-VR2-Ex1.50M/500M Transformer Isolated Voltage Repeater 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.
2. The maximum values for the intrinsically safe circuits have to be taken from the EU-Type Examination Certificate Baseefa06ATEX0040.

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
266-012BS-D	1 of 1	D	2022-Aug-12	Summary
266-012BS-10D	1 & 2	D	2022-Aug-12	Type Label

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
266-012BS-01A	1 & 2	A	02-12-08	Schematic
266-012BS-03A	1 of 1	A	02-12-08	Component overlay
266-012BS-05A	1 – 6	A	02-12-08	Main printed circuit board
266-012UL-02B	1 – 6	B	2017-Sep-20	Relevant components for Div 2 / Zone 2
266-010BS-04F	1 – 15	F	2016-Mar-23	Mechanical Parts
266-012BS-06A	1 & 2	A	2017-Sep-20	Transformer details

These drawings are common to, and held with, IECEx BAS 09.0103X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa09ATEX0219X	29 September 2009	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR09.0149/00. Project File No. 08/0921.
Baseefa09ATEX0219X Issue 1	7 July 2015	To permit changes to the transformer and confirms 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.
Baseefa09ATEX0219X 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. The equipment is now marked: Ex ec IIC T4 Gc (-20°C ≤ Ta ≤ +60°C) Test Report No. GB/BAS/ExTR18.0075/00. Project File No. 17/0737
Baseefa09ATEX0219X Issue 3	22 December 2022	To permit a change of ambient temperature from -20°C to +60°C to -40°C to +70°C (any temperature range within the -40°C ≤ Ta ≤ +70°C range shown on the front of this certificate may be printed on the equipment. e.g. -20°C ≤ Ta ≤ +60°C) and to confirm that the safety device meets the requirements of EN IEC 60079-0:2018 in respect of the differences from EN 60079-0:2012+A11:2013. Additionally, the company name has changed to Pepperl+Fuchs SE. Test Report No. GB/BAS/ExTR22.0231/00 Project File No. 22/0465
For drawings applicable to each issue, see original of that issue.		