

1 **TYPE EXAMINATION CERTIFICATE**

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

3 Type Examination Certificate **Baseefa11ATEX0022X – Issue 1**
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: **Voltage Repeater Type HiC2095 / HiD2096**

5 Manufacturer: **Pepperl + Fuchs GmbH**

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

7 This re-issued certificate extends Type Examination Certificate No. Baseefa11ATEX0022X 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+A11:2017 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 :

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

SGS Baseefa Customer Reference No. **0808**

Project File No. **17/0608**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number Baseefa11ATEX0022X – Issue 1

15 Description of Product

The Voltage Repeater Type HiC2095 / HiD2096 is designed to transfer a signal from a hazardous area to unspecified apparatus located in a non-hazardous area. The hazardous area circuit is galvanically isolated from the non-hazardous area circuit using transformers and the voltage and current appearing at the hazardous area connection pins is limited to intrinsically safe levels.

The Voltage Repeater Type HiC2095 / HiD2096 comprises a number of electronic components including two (HiC2095) or four (HiD2096) isolating transformers, fuses, zener diodes and resistors all mounted on a single printed circuit board and housed in a plastic enclosure with two polarised sockets in the base of the enclosure for hazardous and non-hazardous area connections via a terminal backplane. LED indication is provided for power-on status.

The HiC2095 is a single channel repeater and the HiD2096 is a two channel repeater.

This report covers the installation of the Voltage Repeater Type HiC2095 / HiD2096 (Baseefa11ATEX0021X) in a Category 3 / Zone 2 location.

Electrical data

HiC2095

Supply circuit:

(SL1 Pins 1a[-], 1b[-] w.r.t. 2a[+], 2b[+])

$U_i = 20 - 30\text{Vdc}$

Input:

(SL2 Pin 5a[+] w.r.t. 1b[-], 7a[-])

(SL2 Pin 5a[+] w.r.t. 5b[-])

(SL2 Pin 5a[+] w.r.t. 1a[-], 7b[-])

0 – -20V

20mA @ -18V

9mA @ -10V

or

The maximum values for the intrinsically safe circuits have to be taken from EU-Type Certificate Baseefa11ATEX0021X.

Output:

(SL1 Pin 8a[+] w.r.t. 7a[-])

0 – -20V

into 10k Ω

HiD2096

Supply circuit:

(SL1 Pins 1a[-], 1b[-] w.r.t. 2a[+], 2b[+])

$U_i = 20 - 30\text{Vdc}$

Input:

(SL2 Pins 5a[+], 1a[+] w.r.t. 7a[-], 3b[-])

(SL2 Pins 5a[+], 1a[+] w.r.t. 5b[-], 1b[-])

(SL2 Pins 5a[+], 1a[+] w.r.t. 7b[-], 3a[-])

0 – -20V

20mA @ -18V

9mA @ -10V

or

The maximum values for the intrinsically safe circuits have to be taken from EU-Type Certificate Baseefa11ATEX0021X.

Output:

(SL1 Pins 8a[+], 10a[+] w.r.t. 7a[-], 9a[-])

0 – -20V

into 10k Ω

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. The Voltage Repeater Type HiC2095 / HiD2096 must be installed on a suitable certified Pepperl + Fuchs H-System backplane.
2. The Voltage Repeater Type HiC2095 / HiD2096 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
HiC2095				
16-0677BS-A	1 of 1	A	2017-Aug-17	Summary
16-0677BS-00A	1 – 10	A	2017-Aug-17	Description
16-0677UL-02B	1 – 3	B	2017-Aug-17	Relevant Components for Div 2 / Zone 2
HiD2096				
16-0678BS-A	1 of 1	A	2017-Aug-17	Summary
16-0678BS-00A	1 – 10	A	2017-Aug-17	Description
16-0678UL-02B	1 – 5	B	2017-Aug-17	Relevant Components for Div 2 / Zone 2
Common				
16-0677BS-06A	1 – 6	A	2017-Aug-17	Transformers
16-0677BS-07A	1 & 2	A	2017-Aug-17	PCB Lacquering Details
16-0677BS-10A	1 – 3	A	2017-Aug-17	Type Label

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
HiC2095				
16-0677BS-03	1 & 2	-	2010-Jul-21	Component Layout
HiD2096				
16-0678BS-03	1 & 2	-	2010-Jul-21	Component Layout
Common				
16-0677BS-01	1 – 6	-	2010-Jul-19	Schematic

Number	Sheet	Issue	Date	Description
16-0677BS-05	1 – 4	-	2010-Jul-19	PCB Layout
16-534-04A	1 & 2	A	2009-Feb-04	HiC/HiD Housing

These drawings are common to Baseefa11ATEX0021X, IECEx BAS 11.0013X and held with IECEx BAS 11.0012X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa11ATEX0021X	28 February 2011	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2006, EN 60079-11:2007 & EN 61241-11:2006 is documented in Test Report No. GB/BAS/ExTR11.0020/00. Project File No. 09/0181.
Baseefa11ATEX0021X Issue 1	10 May 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/ExTR18.0113/00. Project File No. 17/0608

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