



1 **TYPE EXAMINATION CERTIFICATE**

2 **Equipment Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 Type Examination Certificate Number: **Baseefa10ATEX0032X**
4 Equipment: **Transformer Isolated Voltage Repeater Type HiC2065 / HiC2068**
5 Manufacturer: **Pepperl + Fuchs GmbH**
6 Address: **Lilienthalstrasse 200, 68307 Mannheim, Germany**

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

8 Baseefa certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment of Category 3 intended for use in potentially explosive atmospheres given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR10.0030/00**

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

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

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 equipment is subject to special conditions for safe 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 equipment shall include the following :

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

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0808**

Project File No. **09/0398**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

A handwritten signature in blue ink, appearing to read "R S Sinclair".

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

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Registered in England No. 4305578. Registered address as above.

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Schedule

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Certificate Number Baseefa10ATEX0032X

15 Description of Equipment

The Transformer Isolated Voltage Repeater Type HiC2065 / HiC2068 is designed to transfer a voltage 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 Transformer Isolated Voltage Repeater Type HiC2065 / HiC2068 comprises a number of electronic components including two 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, channel status and fault conditions.

The isolators covered by this certificate are as follows:

Transformer Isolated Voltage Repeater Type HiC2065
Transformer Isolated Voltage Repeater Type HiC2068

This report covers the installation of the Transformer Isolated Voltage Repeater Type HiC2065 / HiC2068 (IECEX BAS 10.0012X or Baseefa10ATEX0031X) in a Category 3 / Zone 2 location.

Electrical data

HiC2065

Supply circuit:

(SL1 Pins 1a[-], 1b[-], 2a[+], 2b[+])

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

Input:

(SL2 Pins 5a[+], 5b[-])

$0 - \pm 50\text{mV}$ or

The maximum values for the intrinsically safe circuits have to be taken from the EC-Type Examination certificate Baseefa10ATEX0031X.

Output:

(SL1 Pins 8a[+], 7a[-])

$0 - \pm 50\text{mV}$

Fault Output:

(SL1 Pin 6b)

Open collector output: fault output shall be $< V_{cc}/2$
(when connected to V_{cc} via $10\text{k}\Omega$ pull-up resistor)

HiC2068

Supply circuit:

(SL1 Pins 1a[-], 1b[-], 2a[+], 2b[+])

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

Input:

(SL2 Pins 5a[+], 5b[-])

$0 - \pm 500\text{mV}$ or

The maximum values for the intrinsically safe circuits have to be taken from the EC-Type Examination certificate Baseefa10ATEX0031X.

Output:

(SL1 Pins 8a[+], 7a[-])

$0 - \pm 500\text{mV}$

Fault Output:

(SL1 Pin 6b)

Open collector output: fault output shall be $< V_{cc}/2$
(when connected to V_{cc} via $10\text{k}\Omega$ pull-up resistor)



16 Report Number

GB/BAS/ExTR10.0030/00

17 Special Conditions for Safe Use

1. The Transformer Isolated Voltage Repeater Type HiC2065 / HiC2068 must be installed on a suitable certified Pepperl + Fuchs H-System backplane.
2. The Transformer Isolated Voltage Repeater Type HiC2065 / HiC2068 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 IEC 60079-15.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
16-0693BS	1 of 1	-	11-Aug-09	Summary HiC2065 / HiC2068
16-0693BS-00	1 – 7	-	30-Jun-09	Description HiC2065 / HiC2068
16-0693BS-01	1 – 3	-	21-Apr-09	Schematic HiC2065 / HiC2068
16-0693UL-02	1 – 4	-	11-Aug-09	Relevant Components Div 2 / Zone 2 HiC2065 / HiC2068
16-0693BS-03	1 of 1	-	21-Apr-09	Component Layout HiC2065 / HiC2068
16-534-04A	1 & 2	A	04-Feb-09	Housing HiC/HiD
16-0693BS-05	1 & 2	-	21-Apr-09	PCB Layout HiC2065 / HiC2068
16-0693BS-06	1 – 5	-	22-Apr-09	Transformers HiC2065 / HiC2068
16-0693BS-07	1 of 1	-	22-Apr-09	PCB Lacquering Details HiC2065 / HiC2068
16-0693BS-10	1 – 4	-	23-Apr-09	Type Label HiC2065 / HiC2068

These drawings are common to, and held with, IECEx BAS 10.0013X.