



1 **TYPE EXAMINATION CERTIFICATE**

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

3 Type Examination Certificate Number: **Baseefa10ATEX0264X**

4 Equipment: **Transformer Isolated Resistance Repeater Type HiC2077**

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/ExTR10.0293/00**

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. **10/0261**

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 black ink, appearing to read "R S Sinclair".

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

Baseefa

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.



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Schedule

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Certificate Number Baseefa10ATEX0264X

15 Description of Equipment

The Transformer Isolated Resistance Repeater Type HiC2077 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 Transformer Isolated Resistance Repeater Type HiC2077 comprises a number of electronic components including three 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.

This report covers the installation of the Transformer Isolated Resistance Repeater Type HiC2077 (IECEX BAS 10.0122X or Baseefa10ATEX0263X) in a Category 3 / Zone 2 location.

Electrical data

Supply circuit:

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

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

Input:

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

0 – 10mA or

0 – 9V or

The maximum values for the intrinsically safe circuits have to be taken from EC-Type Certificate Baseefa10ATEX0263X.

Output:

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

0 – 10mA

0 – 7V

16 Report Number

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17 Special Conditions for Safe Use

1. The Transformer Isolated Resistance Repeater Type HiC2077 must be installed on a suitable certified Pepperl + Fuchs H-System backplane.
2. The Transformer Isolated Resistance Repeater Type HiC2077 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 |
|---------------|--------------|--------------|-------------|--|
| 16-0773BS | 1 of 1 | - | 2010-Mar-10 | Summary |
| 16-0773BS-00 | 1 – 8 | - | 2010-Mar-04 | Description |
| 16-0773BS-01 | 1 & 2 | - | 2010-Mar-03 | Schematic |
| 16-0773UL-02 | 1 – 5 | - | 2010-Mar-05 | Relevant Components for Div 2 / Zone 2 |
| 16-0773BS-03 | 1 of 1 | - | 2010-Mar-04 | Component Layout |
| 16-0534-04A | 1 & 2 | A | 2009-Feb-04 | Housing |
| 16-0773BS-05 | 1 – 4 | - | 2010-Mar-04 | PCB Layout |
| 16-0665BS-06 | 1 – 7 | - | 2010-Jan-27 | Transformers |
| 16-0773BS-07 | 1 of 1 | - | 2010-Mar-04 | PCB Lacquering Details |
| 16-0773BS-10 | 1 – 3 | - | 2010-Mar-09 | Type Label |

These drawings are common to, and held with, IECEX BAS 10.0123X.