

1 **TYPE EXAMINATION CERTIFICATE**

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

3 EC - Type Examination Certificate Number: **Baseefa14ATEX0130X – Issue 1**

4 Equipment or Protective System: **Universal Temperature Converter Type HiC2081**

5 Manufacturer: **Pepperl + Fuchs GmbH**

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

7 This equipment or protective system 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's. 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 60079-15:2010

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 or protective system 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 or protective system shall include the following :

Ⓔ II 3G Ex nA IIC T4 Gc

Baseefa Customer Reference No. **0808**

Project File No. **15/0179**

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R S SINCLAIR

GENERAL MANAGER

On behalf of SGS Baseefa Limited

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Schedule

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Certificate Number Baseefa14ATEX0130X – Issue 1

15 Description of Equipment or Protective System

The Universal Temperature Converter Type HiC2081 is designed to transfer a signal from TC/mV, RTD (2, 3 or 4-wire) or Potentiometer in 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 a transformer and opto-couplers and the voltage and current appearing at the hazardous area connectors are limited to intrinsically safe levels.

The Universal Temperature Converter Type HiC2081 comprises a number of electronic components including an isolating transformer, two opto-isolators, 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. LEDs provide status indication.

Input / Output Parameters

Supply circuit:

(SL1:Pins 2a[+]/b[+] w.r.t 1a[-]/1b[-]) 19 - 30Vdc.

Module Identification Pins:

(SL1:Pins 5a w.r.t 5b) 19 - 30Vdc

Output:

SL1:Pin 8a[+] w.r.t. 7a[-] 0/4 – 21.5mA

Input:

SL2:Pins 1a[+], 5a[+], 1b[-], 5b[-] RTD or thermocouple or the maximum values for the intrinsically safe circuits have to be taken from the EC-Type Examination certificate Baseefa14ATEX0129X.

16 Report Number

GB/BAS/ExTR15.0183/00

17 Specific Conditions of Use

1. The HiC2081 must be installed on a suitably certified Pepperl + Fuchs H-System backplane.
2. The HiC2081 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 60529 and EN 60079-15 and is in an area of not more than pollution degree 2, as defined in EN 60664-1.

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

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
16-1036BS-A	1 of 1	A	2015-Mar-19	Summary
16-1036BS-00A	1 – 11	A	2015-Mar-19	Description
16-1036BS-01A	1 – 3	A	2015-Feb-12	Schematic
16-1036UL-02A	1 – 5	A	2015-Feb-12	Relevant Components for Div 2 / Zone 2
16-1036BS-03A	1 of 1	A	2015-Feb-12	Component Layout
16-1036BS-05A	1 – 4	A	2015-Feb-12	PCB Layout

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
16-534-04A	1 & 2	A	2009-Feb-04	Mechanical Parts (Housing)
16-1036BS-06	1 – 5	-	2014-Jan-13	Transformer
16-1036BS-10	1 – 3	-	2014-Jan-13	Type Label

These drawings are common to Baseefa14ATEX0129X and IECEx BAS 14.0071X and held with IECEx BAS 14.0071X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa14ATEX0130X	14 July 2014	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR14.0204/00. Project File No. 14/0123.
Baseefa14ATEX0130X Issue 1	6 July 2015	This issue permits minor changes and permits the introduction of the Module Identification Pins. Report No. GB/BAS/ExTR15.0183/00. Project File No. 15/0179.

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