



1 **TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **KIWA 15ATEX0037X** Issue: **3**

4 Equipment: **Switch Amplifier, Model HiC2831* and HiC2832***

5 Applicant: **Pepperl+Fuchs SE**

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 CSA Group Netherlands B.V., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0: 2018/AC:2020-02 EN 60079-7: 2015 + A1: 2018

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified 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. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 3G
Ex ec IIC T4 Gc
Ta = -40°C to +70°C

Project Number 80109128

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42,
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SCHEDULE

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KIWA 15ATEX0037X
Issue 3

13 DESCRIPTION OF EQUIPMENT

Switch Amplifiers Model HiC2831* and Model HiC2832* are isolated barriers that transfer digital signals from intrinsically safe NAMUR sensors or dry contracts, located in an explosive atmosphere, into non-intrinsically safe output signals.

Model HiC2831* is a single channel module with one input that controls up to two outputs, Model HiC2832* is a dual module channel module with one input and one output per channel.

The modules mount into a HiC Termination Board.

Electrical data:

Supply: 19... 30 V (via Termination Board),
Rated current maximum 30 mA,
power maximum 0,7 W.

Outputs: passive transistors, supply depending on version (see instruction manual)

Variation 1 - This variation introduced the following change:

- i. Changed type of protection from nA to ec

Variation 2 - This variation introduced the following changes:

- i. For functional reasons a resistor in the electrical circuit is added.
- ii. Modified layout.
- iii. Update of the marking plate and technical documents.
- iv. Update of the rated ambient temperature range from -20°C ... +60°C to -40°C ... +70°C.
- v. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0: 2012 + A11: 2013 was replaced by EN IEC 60079-0: 2018/AC:2020-02
- vi. The report is also to facilitate the transfer of certificate KIWA 15ATEX0037 X from Kiwa Nederland B.V., Unit Kiwa ExVision, Wilmersdorf 50, to 7327 AC Apeldoorn, The Netherlands to CSA Group

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
1	16 October 2015	150800119	The release of the prime certificate
2	05 December 2018	150800119	The introduction of Variation 1.
3	29 March 2022	R80109128A	The introduction of Variation 2.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The equipment shall only be used in an area of at least pollution degree 2, as defined in EN 60664-1.

15.2 The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN 60079-0.

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42,
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Page 2 of 3



SCHEDULE

TYPE EXAMINATION CERTIFICATE

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Issue 3

- 15.3 Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
- 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)**
The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.
- 17 **CONDITIONS OF MANUFACTURE**
- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.
- 17.2 Holders of Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

Certificate Annexe



Certificate Number: KIWA 15ATEX0037X

Equipment: Switch Amplifier, Model HiC2831* and HiC2832*

Applicant: Pepperl+Fuchs SE

Issues 1 and 2: Refer to the report stated in section 14.2

Issue 3

Drawing	Sheets	Rev.	Date (Stamp)	Title
16-1151KI-02	1 to 6	B	02 Mar 2022	Bill of material
16-0828BV-03	1 to 2	A	02 Mar 2022	Component set-up
16-0828BV-05	1 to 4	A	02 Mar 2022	Layout
16-1151KI-10	1 of 1	B	02 Mar 2022	Type Label
16-1151KI-01	1 to 2	A	02 Mar 2022	Schematics
16-0828BV-04	1 to 2	-	02 Mar 2022	Housing
16-1151KI-09	1 to 2	A	02 Mar 2022	Instructions

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Page 1 of 1