

Certificate of Conformity

Ex EQUIPMENT

Certificate No.: **ANZEx 11.2009**

Current Issue: 1

Date of Issue: 3 January 2019

Applicant: **Pepperl+Fuchs GmbH**
Lilienthalstrasse 200
68307 Mannheim
GERMANY

Equipment: Isolation Switching Amplifier Type K*A*-SR*-Ex*.W.*

Type of Explosion Protection: Intrinsic Safety 'i'

Explosion Protection Marking: [Ex ia] I
-20 °C ≤ Ta ≤ +60 °C

*This certificate is granted subject to the conditions as set out in
Standards Australia/Standards New Zealand Miscellaneous Publication **MP87.1***

Signed for and on behalf of issuing body
Name & Position


G. Barnier
Principal Engineer – Certification

This certificate is not transferable and remains the property of the issuing body.

The status of this certificate can be confirmed through the database located at www.anzex.com.au

Certificate issued by:

Safety in Mines, Testing and Research Station
2 Robert Smith Street, REDBANK QLD 4301

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Manufacturer : **Pepperl+Fuchs GmbH**
Lilienthalstrasse 200
68307 Mannheim
GERMANY

Additional Manufacturing Location(s): **Pepperl+Fuchs Asia Pte Ltd**
18 Ayer Rajah Crescent
SINGAPORE 139942

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0: 2007 Explosive atmospheres Part 0: Equipment – General requirements
IEC 60079-11: 2006 Explosive atmospheres Part 11: Intrinsic safety “I”

This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

The equipment listed has successfully met the examination and test requirements as recorded in:

Test Report No.; Issuing Body: DE/PTB/ExTR11.0048/00; PTB
Quality Assessment Report No.; Issuing Body: DE/PTB/QAR06.0008/09 - PTB
File Reference: 11/0120, 06/0041

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Schedule

Equipment Description:

The equipment is designed to restrict the transfer of energy from unspecified non-hazardous area apparatus to intrinsically safe circuits located in a hazardous area. It also provided galvanic isolation between the hazardous area and non-hazardous area circuits.

The following models are covered by this certificate:

KFA4-SR2-Ex1.W*, KFA4-SR2-Ex1.W.LB*, KFA4-SR2-Ex2.W*, KFA4-SR2-Ex2.W.IR*

KFA5-SR2-Ex1.W*, KFA5-SR2-Ex1.W.LB*, KFA5-SR2-Ex2.W*, KFA5-SR2-Ex2.W.IR*

KFA6-SR2-Ex1.W*, KFA6-SR2-Ex1.W.LB*, KFA6-SR2-Ex2.W*, KFA6-SR2-Ex2.W.IR*

“*” represents alpha numeric signs (e.g.-Y1). These signs are used to describe different versions of a module. These differences do not affect intrinsic safety.

Variations Permitted by Issue 1

- Amended referenced QARs

Electrical Ratings/Parameters:

Nil

Specific Conditions of Use associated with Issue 1:

Nil

Additional Information permitted by issue 1:

Additional information listed for previous issues remain applicable, there are no additional specific additional information for this issue.

Manufacturer's Documents associated with this Issue:

Nil

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History of Previous Issues and Variations

Issue 0 dated 16 December 2011

Manufacturer's Documents associated with Issue 0:

Document Number	Pages / Sheets	Document Title	Revision	Date
16-316PT-01A (Sheets 7 to 9 of 14)	2	PTB-ATEX Umschreibung K*A*-SR*-Ex*.W.*	-	-
16-316PT-08	1	ATEX – Antragszeichnung KFA*-SR2-EX*.* IS-block diagram	-	07.02.01
16-316PT-09 (2 Sheets)	2	ATEX – Antragszeichnung KFA*-SR2-EX*.* Schematics	-	07.02.01
16-316PT-10	1	ATEX – Antragszeichnung KFA*-SR2-EX*.* Assembly drawing side B	-	9/2/01
16-316PT-11 (Sheet 1 of 2)	1	ATEX – Antragszeichnung KFA*-SR2-EX*.* Copper layout side B	-	9/2/01
16-316PT-11 (Sheet 2 of 2)	1	ATEX – Antragszeichnung KFA*-SR2-EX*.* Copper layout side A	-	-
16-503PT-04 (10 Sheets)	10	Mechanical parts 2nd Supplement to PTB 00 ATEX 2081	-	2011-Apr-12
16-503PT-06 (2 Sheets)	2	Transformer 2nd Supplement to PTB 00 ATEX 2081	-	2011-Apr-12
16-503PT-09 (4 Sheets)	4	Instructions 2nd Supplement to PTB 00 ATEX 2081	-	2011-Apr-12
16-0503SI-10 (2 Sheets)	2	Type Label KFA*-SR2-EX*.W*	-	2011-Dec-14

Electrical Ratings/Parameters associated with Issue 0:

Nil

Specific Conditions of Use associated with Issue 0:

Nil

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Additional Information associated with Issue 0:

Output circuit terminals 7, 8, 9 or 10, 11, 12:

Um ≤ 253V AC

Power supply terminals 14 and 15:

230V AC±10% Um = 253V AC (KFA6-...)

115V AC±10% Um = 126.5V AC (KFA5-...)

100V AC±10% Um = 110V AC (KFA4-...)

Hazardous area terminals 1, 2, 3 or 4, 5, 6:

1. Maximum values for each circuit (linear characteristic):

U_o (V)	I_o (mA)	P_o (mW)	C_i (nF)	L_i (mH)
10.6	19.1	51	negligible	negligible

The capacitance and the inductance of the load connected to the output terminals of the equipment must not exceed the following values.

C_o (μ F)	L_o (mH)
63	1000

In the presence of lumped capacitances and inductances greater than 1% of above value (excluding the cable) in the intrinsically safe input circuits, the maximum permissible external capacitances and inductances are to be taken from the following table.

C_o (μ F)	L_o (mH)
5.1	20

2. Maximum values when both intrinsically safe circuits are connected in parallel (linear characteristic):

U_o (V)	I_o (mA)	P_o (mW)	C_i (nF)	L_i (mH)
10.6	38.2	102	negligible	negligible

The capacitance and the inductance of the load connected to the output terminals of the equipment must not exceed the following values.

C_o (μ F)	L_o (mH)
63	320

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Co (μ F)	Lo (mH)
4.8	20

Routine testing of the transformer shall be carried out in accordance with clause 11.2 of IEC 60079-11: 2006.