Certification of

EXPLOSION PROTECTED ELECTRICAL EQUIPMENT

ANZEx Scheme

Certificate of Conformity

Certificate No:	**ANZEx 09.2001**	**Issue:**	**0**	**9 October 2009**	**Original Issue**
		Issue:	**1**	**28 January 2011**	**Modifications**

Applicant:

Pepperl+Fuchs GmbH
Lilienthalstrasse 200
68307 Mannheim
GERMANY

Electrical Equipment:

Universal Temperature Module Type KFD2-UT2-Ex*-*

Type of Protection and Marking Code:

[Ex ia] I -20 °C ≤ Ta ≤ +60 °C
ANZEx 09.2001

Manufactured by:

Pepperl+Fuchs GmbH
Lilienthalstrasse 200
68307 Mannheim
GERMANY

Pepperl+Fuchs Pte Ltd
18 Ayer Rajah Crescent
P+F Building
SINGAPORE 139942

The certification database located at http://www.anzex.com.au shows the currency of this certificate.

Issued by:

Simtars

Safety in Mines, Testing and Research Station
2 Smith Street, REDBANK QLD 4301, Australia
Postal Address: PO Box 467, GOODNA QLD 4300, Australia
Phone: + 61 7 3810 6381 **Fax: + 61 7 3810 6366**

www.jas-anz.org/register

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This certificate is granted subject to the conditions as set out in Standards Australia/Standards New Zealand P-008 Ex Mark Management Committee Publication MP87.1.

The electrical apparatus 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: 2004	**Electrical apparatus for explosive gas atmospheres Part 0: General requirements**
IEC 60079-11: 2006	**Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i"**

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

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

Test Report No. and Issuing Body:	**DE/TUN/ExTR07.0005/00, DE/TUN/ExTR07.0005/01, DE/TUN/ExTR07.0005/02; TUV Nord**
Quality Assessment Report No. and Issuing Body:	**GB/PTB/QAR06.0007, GB/PTB/QAR06.0008; PTB**
File Reference:	**10/0183**

Signed for and on behalf of issuing authority

Principal Engineer - Certification
Engineering, Testing and Certification Centre

Position

28 January 2011

Date of issue

This certificate is not transferable, remains the property of the issuing body and must be returned in the event of its being revoked or not renewed.

Certificate No: ANZEx 09.2001 Issue: 1

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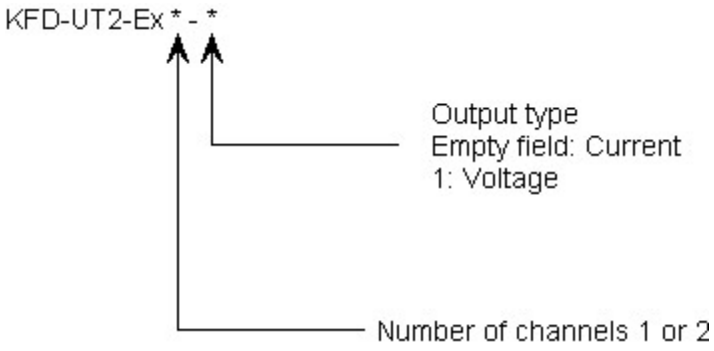
Schedule

Equipment:

The equipment is designed as single (Ex1) and dual (Ex2) channel associated apparatus to accept input from thermocouples, RTDs (2, 3 or 4 wire) or potentiometers in hazardous area and provide isolated analogue signal at the output in a safe area.

The module is housed in a plastic (polycarbonate) case suitable for DIN rail mounting. Removable terminal blocks allow the connection of external circuits.

The model descriptor is as follows:



This supplementary certificate covers the following:

- **Minor design changes**
- **Transformer wire thickness increased to 0.14 mm diameter**
- **Group I parameters (capacitance & inductance) changed**
- **Change of manufacturing address in Germany.**

Certificate No: ANZEx 09.2001 Issue: 1 Date of Issue: 28 January 2011

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Certificate No.: **ANZEx 09.2001**
Issue: **1**
Date of Issue: **28 January 2011**

Drawings:

Drawings associated with Issue 1:

Drawing No.	Drawing Title	Revision No.	Drawn/ Revision Date
366-024-01C Sheet 1 of 3	Circuit Diagram – Power Supply & Microcontroller KFD2-UT2-Ex.-.	-	2009-Jan-15
366-024-01C Sheet 2 of 3	Circuit Diagram – Input circuit KFD2-UT2-Ex.-.	-	2009-Jan-15
366-024-01C Sheet 3 of 3	Circuit Diagram – Output circuits, channels 1 & 2 KFD2-UT2-Ex.-.	-	2009-Jan-15
366-024-02C	Relevant Components KFD2-UT2-Ex.-.	-	2009-Jan-15
366-024-03C Sheet 1 of 2	Component layout – top side KFD2-UT2-Ex.-.	-	2009-Jan-19
366-024-03C Sheet 2 of 2	Component layout – bottom side KFD2-UT2-Ex.-.	-	2009-Jan-19
366-024-05C Sheet 1 of 5	PCB layout – top KFD2-UT2-Ex.-.	-	2009-May-12
366-024-05C Sheet 2 of 5	PCB layout – middle top 1 KFD2-UT2-Ex.-.	-	2009-May-12
366-024-05C Sheet 3 of 5	PCB layout – middle bottom 1 KFD2-UT2-Ex.-.	-	2009-May-12
366-024-05C Sheet 4 of 5	PCB layout – bottom KFD2-UT2-Ex.-.	-	2009-May-12
366-024-05C Sheet 5 of 5	PCB layout – PCB dimensions KFD2-UT2-Ex.-.	-	2009-May-12

(Drawing list continued next page)

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Certificate No.: **ANZEx 09.2001**
Issue: **1**
Date of Issue: **28 January 2011**

Drawing No.	Drawing Title	Revision No.	Drawn/ Revision Date
366-024-06C Sheets 1 to 4 of 4	Transformer for KFD2-UT2-EX.	-	2009-Jan-19
366-024-07C Sheet 1 of 2	Lacquering details – top side (PCB 366-024-05C) KFD2-UT2-Ex.-.	-	2009-Jan-20
366-024-07C Sheet 2 of 2	Lacquering details – bottom side (PCB 366-024-05C) KFD2-UT2-Ex.-.	-	2009-Jan-20

Drawings associated with Issue 0:

Drawing No.	Drawing Title	Revision No.	Drawn/ Revision Date
366-024-01A Sheet 1 of 3	Circuit Diagram – Power Supply & Microcontroller KFD2-UT2-Ex.-.	-	2007-Sep-27
366-024-01A Sheet 2 of 3	Circuit Diagram – Input circuit KFD2-UT2-Ex.-.	-	2007-Sep-27
366-024-01A Sheet 3 of 3	Circuit Diagram – Output circuits, channels 1 & 2 KFD2-UT2-Ex.-.	-	2007-Sep-27
366-024-02B	Relevant Components KFD2-UT2-Ex.-.	-	2008-Jun-30
366-024-03A Sheet 1 of 2	Component layout – top side KFD2-UT2-Ex.-.	-	2007-Sep-28
366-024-03A Sheet 2 of 2	Component layout – bottom side KFD2-UT2-Ex.-.	-	2007-Sep-28
366-024-04A Sheets 1 to 8 of 10	KF-Housing 15 Term. KFD2-UT2-Ex.-.	-	2007-Oct-09
366-024-04A Sheet 9 of 10	Mechanical drawing Inner housing TOC2	-	2007-Oct-09
366-024-04A Sheet 10 of 10	Mechanical drawing Outer housing TOC2	-	2007-Oct-09

(Drawing list continued next page)

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Drawing No.	Drawing Title	Revision No.	Drawn/ Revision Date
366-024-05A Sheet 1 of 4	PCB layout – top KFD2-UT2-Ex.-.	-	2007-Sep-28
366-024-05A Sheet 2 of 4	PCB layout – middle top 1 KFD2-UT2-Ex.-.	-	2007-Sep-28
366-024-05A Sheet 3 of 4	PCB layout – middle bottom 1 KFD2-UT2-Ex.-.	-	2007-Sep-28
366-024-05A Sheet 4 of 4	PCB layout – bottom KFD2-UT2-Ex.-.	-	2007-Sep-28
366-024-06A Sheets 1 to 4 of 4	Transformer for KFD2-UT2-EX.	-	2007-Oct-09
366-024-07B Sheet 1 of 2	Lacquering details – top side (PCB 366-024-05A) KFD2-UT2-Ex.-.	-	2008-Jan-30
366-024-07B Sheet 2 of 2	Lacquering details – bottom side (PCB 366-024-05A) KFD2-UT2-Ex.-.	-	2008-Jan-30
366-024SI-10A Sheets 1 to 3 of 3	Type Label KFD2-UT2-Ex.-.	-	2009-July-24

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Certificate No.: **ANZEx 09.2001**
Issue: **1**
Date of Issue: **28 January 2011**

Additional Information:

Entity parameters associated with the apparatus are as follows:

Issue 1 of the certificate:

Um = 250 V ac

Uo (V)	*Io* (mA)	*Po* (mW)	GROUP I		
			Co (µF)	*Lo* (mH)	Lo/Ro (µH/Ω)
9	22	50	226	964	9125

Issue 0 of the certificate:

Um = 250 V ac

Uo (V)	*Io* (mA)	*Po* (mW)	GROUP I	
			Co (µF)	*Lo* (mH)
9	22	50	6	50

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