IA – CERTIFICATE

(Supplement 1: Reviewed as per ARP 0108)

IN TERMS OF REGULATION 21.17.2 OF THE MINERALS ACT (INCORPORATION THE MINE HEALTH AND SAFETY ACT) AND REGULATION 9 (1) OF THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT

Ex – Type Examination Certificate number:	**MASC S/17-0871X**
Equipment:	Temperature Converters KFD0-TR-Ex1, KFD0-CC-Ex1, KFD0-TT-Ex1 & KDF0-RC-Ex1
Serial No:	(See “Conditions of Certification”)
Requested by:	Pepperl+Fuchs (Pty) Ltd
Address:	1st fl Zerwick Forum 8 Glen Eagle Office Park Cnr Monument Rd and Braambos St Glen Erasmia, Kempton Park 1619 South Africa
Manufacturer:	Pepperl+Fuchs SE
Address:	Königsberger Allee 87 D-68307 Mannheim Germany

DESCRIPTION:

The Temperature Converters Type KFD0-TR-Ex1, KFD0-CC-Ex1, KFD0-TT-Ex1 & KDF0-RC-Ex1 are used for the transmission of signals out of the explosion hazardous area into the non-explosion hazardous area. The Temperature Converters Type KFD0-..-Ex1 may be installed in explosion hazardous areas that require apparatus of the category 3.

The maximum permissible ambient temperature is 60ºC.

Electrical Data

Output signal 4...20 mA, loop powered …….. (Terminals 9 [+], 8 [-])	Un = 12 … 35 V d.c.
Data- and signal circuit …… (Terminals 1, 2, 3; KFD0-CC-Ex1: Terminals 1, 2)	electrical data according to the manufacturers specifications resp. valid EC-Type Examination Certificate or Certificate of Conformity

/. MARKING…

MARKING:

TÜV marking remains applicable. The following MASC Certificate number (IA number) must be additionally applied to the equipment.

IA No: MASC S/17-0871X

COMPLIANCE:

The equipment as described above and in MASC letter 17-0871 is hereby certified "Explosion Protected" Ex nA II T4 and is suitable for use in hazardous locations as stated below and as tested, assessed and inspected in accordance with the relevant requirements of SANS / IEC Standards:

The evaluation was conducted according to the requirements of:

i) SANS (IEC) 60079-0 :2006 "Explosive atmospheres – Part 0: Equipment — General requirements"

ii) SANS (IEC) 60079-15 :2005 "Electrical apparatus for explosive gas atmospheres – Part 15: Type of protection 'n'"

Location	Zone 2	Gas Surface
Hazard Frequency	---	Intermittent as could occur under abnormal operating conditions in hazardous area
Environment	Group II	Propane to Hydrogen / Acetylene
Surface Temperature	T4	(135ºC)
Service/Ambient Temperature	-20ºC to +60ºC	

The use of apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:

i. SANS 10086 requirements;
ii. Any conditions mentioned in the above document;
iii. Codes of Practice enforced in terms of Regulations 21.17.2 of Minerals Act, by Chief Inspector of Mines;
iv. Any restrictions and conditions enforced by Chief Inspectors of Mines, Principal Inspector (Group I equipment) of Chief Inspector of Factories (Group II equipment);
v. Any relevant requirements of the MHS Act or the OHS Act.

CONDITIONS OF MANUFACTURE:

- None

SPECIAL CONDITIONS OF USE (X):

- The device has to be installed in a suitable housing corresponding to EN60079-15 in such a way that a degree of protection of at least IP54 according to EN60529 is reached.
- The maximum permissible values for the intrinsically safe circuits have to be taken from the valid EC-Type Examination Certificate.
- The operation of the switches and adjustment parts is only permitted if no explosive atmosphere exists.
- The connection and the disconnection of energised non intrinsically safe circuits is only permitted if no explosive atmosphere exists.

/. CONDITIONS…

CONDITIONS OF CERTIFICATION:

1. This Certificate remains valid based on a three yearly review covered by an official MASC letter.
2. The apparatus must be additionally marked with the MASC marking details above.
3. This approval only covers the equipment as certified above and does not include any scheduled additions or variations / amendments / new issues to the certificate(s), made after the above date.
4. The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by TÜV and in this approval.
5. The TÜV certification must remain valid.
6. The extent of the requirements in the ARP 0108 (or regulations) and SANS 10108 on the certification of the equipment must remain unchanged.
7. The Ex quality assurance notification/report for the equipment must remain valid.

D.P Visser
TECHNICAL SPECIALIST

C Welthagen
TECHNICAL SPECIALIST

Mining And Surface Certification

This document is issued based on Mining And Surface Certification's Standard Contract terms and conditions available on request.

While every endeavour is made to ensure that a test / assessment is representative and accurately performed, and that a report is accurate in the quoted results and conclusions drawn from the test / assessment, MASC or its members/employees shall in no way be liable for any error made in carrying out the test / assessment or for any erroneous statement, whether in fact or in opinion, contained in a report issued pursuant to a test / assessment.

MASC takes no responsibility for any non-conformances, exclusions or any results / assessments not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer attests on his own responsibility that the equipment has been constructed in accordance with the applicable requirements of the relevant standards and that the routine verifications and routine tests have been successfully completed and the product complies with the documentation and standard(s).

This document is only for use and application in South Africa. It is issued based on National interpretations and accepted practises.

Mining And Surface Certification (Pty) Ltd Reg No: 2015/021934/07
Directors: Roelof Viljoen & Francoius du Toit
Unit #5, Lelyta Park, 45 Jurg Avenue, Hennopspark Ext 87, Centurion, 0157 ◊ P.O. Box 14344, Clubview, 0014
Tell: 012 653 2959 ◊ Fax: 086 605 8568
e-mail: **info@masc-ex.co.za**