Mining And Surface Certification (Pty) Ltd

2015/021934/07

THIS CERTIFICATE IS ISSUED AS AN I.A. CERTIFICATE IN TERMS OF THE MINE HEALTH AND SAFETY ACT, ACT NO 29 OF 1996 (AND REGULATIONS), THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND REGULATION 17 OF THE ELECTRICAL MACHINERY REGULATIONS

IA CERTIFICATE	MASC S/22-8642X	**Issue**	0
Issue Date	16 November 2022	**Expiry Date**	23 July 2024
**** Based on Certificate No**	IECEx INE 09.0025X	**Issue / Variations / Amendment**	1
Requested by	**Pepperl+Fuchs (Pty) Ltd** 1st fl Zerwick Forum, 8 Glen Eagle Office Park, Cnr Monument Rd and Braambos St Glen Marais, Kempton Park 1619		
Manufacturer	**Pepperl+Fuchs SE** Lilienthalstrasse 200, 68307 Mannheim **Germany**		
Description	The field transmitter WHA-UT-F7B1-0-PP-Z1-Ex2 is an I.S. instrument that takes temperature measurement with a thermocouple or an RTD and sends the results wirelessly to a gateway. The device can read up to two sensors simultaneously. The sensor input ports are suitable for connection in Zone 0. The sensors are not part of the present certification; only input and output parameters of the connections are detailed. An additional port is provided for temporary communication with HART compliant IS hand held communicator when commissioning or/and checking the status of the device. The device is powered with a single primary cell identified and tested according to IEC 60079-11. The cell is provided by Pepperl+Fuchs, product name W-BAT-B1-Li, and can be replaced also when device is in the hazardous area. The device contains an RF module and a PCB antenna for wireless communications. A foil keypad is placed on the front side of the enclosure to give a visual interface when commissioning or/and checking the status of the device.		
Equipment	Field transmitter	**Type**	WHA-UT-F7B1-0-PP-Z1-Ex2
MARKING: **Original marking as per certificate ** remains applicable.** **IA number must be added.**	**Type:** **Ex Marking:** **IA Number:** **Warnings:**	Field transmitter type WHA-UT-F7B1-0-PP-Z1-Ex2 Ex ia IIC T4 MASC S/22-8642X (To be additionally marked on equipment) See Base Certificate ** (original marking must be applied)	
Quality Assurance report (QAR) / Notification (QAN):	DE/PTB/QAR06.0008/17		
Quality Assurance report (QAR) / Notification (QAN) Expiry date:	23 July 2024		

Compliance:

The equipment as described above has been allocated the rating Explosion Protected 'as above' utilizing the SANS/IEC Standards:

- SANS (IEC) 60079-0: 2005 Equipment - General requirements
- SANS (IEC) 60079-11: 2007 Equipment protection by intrinsic safety "i"
- SANS (IEC) 60079-26: 2007 Construction, test and marking of Group II Zone 0 electrical apparatus

Note: This certificate covers only the listed standards and does not imply compliance to any other standard, related or inferred. It is up to the manufacturer to ensure that the product complies to all relevant standards for the application.

Special conditions of safe use "X":

- Refer to Annex A below for more details.

Conditions of manufacture:

- Refer to Annex A below for more details.

C. WELTHAGEN
TECHNICAL SPECIALIST

N. VILJOEN
TECHNICAL OFFICER

This certificate covers all units sold as long as the QAR/QAN remains valid.
According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).

Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
SANS 10086 requirements;
Any conditions mentioned in the above certificate;
Any relevant requirements of the MHS Act;
Any restrictions and conditions enforced by the chief inspector of mines, principal inspector (Group I equipment) or chief inspector of factories (Group II equipment).

Mining And Surface Certification (Pty) Ltd
Unit 5 Lelyta Park, 45 Jurg Avenue, Hennopspark, Ext 87
Centurion 0157

IA CERTIFICATE: MASC S/22-8642X
Equipment: Field transmitter
(Expiry date: 23 July 2024)

ANNEX A

This document is based on and must be read in conjunction with certificate IECEx INE 09.0025X.	
Description (According to Base Certificate) **	
"Refer to description in Base Certificate ** (and any applicable schedules/issues/variations)."	
Standard compliance	See Base Certificate ******
Special conditions of safe use ("X")	• The equipment's connected to the field transmitter WHA-UT-F7B1-0-PP-Z1-Ex2 must be compatible as regards to the intrinsic safety. • The equipment is intended to be used in an operating temperature range from -20°C to +60 °C. • For the risk from electrostatic discharge, the user will have to read the instructions
Conditions of manufacture	• None.
Conditions of Certification	• This IA Certificate covers all units sold from the date of this document to the expiry date of this certificate. • As per ARP 0108 a maximum three yearly review is required on this IA Certificate (expiry is determined as per the QAR/QAN/QMS expiry date). • The apparatus must be additionally marked with the MASC marking details above. • 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. • The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by the certificate on which this IA Certificate is based and any other conditions in this IA Certificate. • The certification on which this IA Certificate is based must remain valid. • The extent of the requirements in the ARP 0108 (or regulations), SANS 10108 and any other applicable regulations on the certification of the equipment must remain unchanged. • The Ex-quality assurance notification/report for the equipment must remain valid.
Conclusion:	• From the above and the selective examination of the documentation, nothing contrary to the requirements of the applicable standards was found, provided that the equipment / component is used as described in the above document / certificate and according to the MASC conditions below. A MASC IA certificate is issued based on the work done as per the Base Certificate **. • The routine tests for production units according to the Base Certificate ** must be complied with (if applicable).

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
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e-mail: **info@masc-ex.co.za**

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx INE 09.0025X**

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Certificate history:
Issue 0 (2010-08-27)

Status: **Current**

Issue No: 1

Date of Issue: 2020-12-22

Applicant: **Pepperl+Fuchs SE**
Lilienthalstrasse 200
68307 Mannheim
Germany

Equipment: **Field transmitter type WHA-UT-F7B1-0-PP-Z1-Ex2**

Optional accessory:

Type of Protection: **ia**

Marking: Pepperl+Fuchs
68307 Mannheim–GERMANY
WHA-UT-F7B1-0-PP-Z1-Ex2
(Serial Number)
Ex ia IIC T4
IECEx INE 09.0025X
Tamb : -20 °C , +60 °C
WARNINGS:
Potential electrostatics charging hazard. See instructions.
Use only cell W-BAT-B1-Li provided by P+F.

Approved for issue on behalf of the IECEx Certification Body: **Thierry HOUEIX**

Position: **Ex Certification Officer**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel et des Risques
BP n2 / Parc Technologique ALATA
F-60550 Verneuil-en-Halatte
France

INERIS
controlling risks for sustainable development

IECEx Certificate of Conformity

Manufacturer: **Pepperl+Fuchs SE**
Lilienthalstrasse 200
68307 Mannheim
Germany

Manufacturing locations: **Pepperl+Fuchs SE**
Lilienthalstrasse 200
68307 Mannheim
Germany

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

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 60079-0:2004 Edition:4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11:2006 Edition:5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26:2004 Edition:1	Electrical apparatus for explosve gas atmospheres - Part 26: Construction, test and marking of Group II Zone 0 electrical apparatus

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

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

FR/INE/ExTR09.0028/00

Quality Assessment Report:

DE/PTB/QAR06.0008/13

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The field transmitter WHA-UT-F7B1-0-PP-Z1-Ex2 is an I.S. instrument that takes temperature measurement with a thermocouple or an RTD and sends the results wirelessly to a gateway. The device can read up to two sensors simultaneously. The sensor input ports are suitable for connection in Zone 0. The sensors are not part of the present certification; only input and output parameters of the connections are detailed. An additional port is provided for temporary communication with HART compliant IS hand held communicator when commissioning or/and checking the status of the device.

The device is powered with a single primary cell identified and tested according to IEC 60079-11. The cell is provided by Pepperl+Fuchs, product name W-BAT-B1-Li, and can be replaced also when device is in the hazardous area. The device contains an RF module and a PCB antenna for wireless communications.

A foil keypad is placed on the front side of the enclosure to give a visual interface when commissioning or/and checking the status of the device.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The equipments connected to the field transmitter WHA-UT-F7B1-0-PP-Z1-Ex2 must be compatible as regards to the intrinsic safety.

The equipment is intended to be used in an operating temperature range from -20°C to +60 °C.

For the risk from electrostatic discharge, the user will have to read the instructions.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
For the Issue 01:

- Change of QAR

- Change of Applicant/Manufacturer designation.

IECEx Certificate of Conformity

Additional information:
PARAMETERS RELATING TO THE SAFETY

Maximum input characteristics to the following terminals:

- Sensor terminals:

Ui (V)	Pi (mW)	Ci (nF)	Li (mH)
3	50	72.6	negligible

- HART terminals:

Ui (V)	Pi (mW)	Ci (nF)	Li (mH)
3	50	negligible	negligible

Maximum output characteristics to the following terminals:

- Sensor terminals:

Uo (V)	Io (mA)	Po (mW)	Co (µF)	Lo (mH)
3.9	24.12	23.52	100	63

- HART terminals:

Uo (V)	Io (mA)	Po (mW)	Co (µF)	Lo (mH)
3.9	10.4	10.1	100	329