developing solutions





Operating manual

ME12

Remotely configurable digital pressure transducer





Masthead

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Subject to technical amendments.



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Rev. ST4-A	09/15	Version 1 (first edition)
Rev. ST4-B	07/18	Version 2 (correction)
Rev. ST4-C	12/18	Version 3 (correction accessories, connection cables)
Rev. ST4-D	04/22	Version 4 (UKCA Declaration of conformity)
Rev. ST4-E	10/22	Version 5 (field housing omitted)

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1 Safety guidelines

1.1 General

This operating manual contains basic instructions for the installation, operation and maintenance of the device that must be followed without fail. It must be read by the installer, the operator and the responsible specialist personnel before installing and commissioning the device.

This operating manual is an integral part of the product and therefore needs to be kept close to the instrument in a place that is accessible at all times to the responsible personnel.

The following sections, in particular instructions about the assembly, commissioning and maintenance, contain important information, non-observance of which could pose a threat to humans, animals, the environment and property.

The instrument described in these operating instructions is designed and manufactured in line with the state of the art and good engineering practice.

1.2 Personnel Qualification

The instrument may only be installed and commissioned by specialized personnel familiar with the installation, commissioning and operation of this product.

Specialized personnel are persons who can assess the work they have been assigned and recognize potential dangers by virtue of their specialized training, their skills and experience and their knowledge of the pertinent standards.

1.3 Risks due to Non-Observance of Safety Instructions

Non-observance of these safety instructions, the intended use of the device or the limit values given in the technical specifications can be hazardous or cause harm to persons, the environment or the plant itself.

The supplier of the equipment will not be liable for damage claims if this should happen.

1.4 Safety Instructions for the Operating Company and the Operator

The safety instructions governing correct operation of the instrument must be observed. The operating company must make them available to the installation, maintenance, inspection and operating personnel.

Dangers arising from electrical components, energy discharged by the medium, escaping medium and incorrect installation of the device must be eliminated. See the information in the applicable national and international regulations.

Please observe the information about certification and approvals in the Technical Data section.

1.5 Unauthorised Modification

Modifications of or other technical alterations to the instrument by the customer are not permitted. This also applies to replacement parts. Only the manufacturer is authorised to make any modifications or changes.

1.6 Inadmissible Modes of Operation

The operational safety of this instrument can only be guaranteed if it is used as intended. The instrument model must be suitable for the medium used in the system. The limit values given in the technical data may not be exceeded.

The manufacturer is not liable for damage resulting from improper or incorrect use.

1.7 Safe working practices for maintenance and installation work

The safety instructions given in this operating manual, any nationally applicable regulations on accident prevention and any of the operating company's internal work, operating and safety guidelines must be observed.

The operating company is responsible for ensuring that all required maintenance, inspection and installation work is carried out by qualified specialized personnel.

1.8 Pictogram explanation



Type and source of danger

This indicates a **direct** dangerous situation that could lead to death or **serious injury** (highest danger level).

1. Avoid danger by observing the valid safety regulations.



WARNING

Type and source of danger

This indicates a **potentially** dangerous situation that could lead to death or **serious injury** (medium danger level).

1. Avoid danger by observing the valid safety regulations.



Type and source of danger

This indicates a **potentially** dangerous situation that could lead to slight or serious injury, damage or **environmental pollution** (low danger level).

1. Avoid danger by observing the valid safety regulations.



NOTICE

Note / advice

This indicates useful information of advice for efficient and smooth operation.

2 Product and functional description

2.1 Product overview

The following provide an overview of the possible connectors and process connections. The code stated corresponds to the respective code in the order code.

Electrical plug



Fig. 1: Electrical plug

Process connections



Near flush-mounted front sensor



2.1.1 Type plate



Fig. 3: Type plate

2.2 Use as intended

The ME12 is a pressure transmitter with a ceramic measuring cell for over-pressure and under-pressure and can be used for both relative and also absolute pressure measurements. The pressure transmitter can be used with non-aggressive liquid and gaseous media. Please see the technical data for the respective measuring ranges.



NOTICE

Soiled or aggressive media

Please contact the manufacturer before using this unit with dirty or aggressive media because the unit needs to be adapted for the specific customer in terms of the parts that come into contact with the media.

The device may only be used for the purpose stipulated by the manufacturer.

2.3 Function diagram



Fig. 4: Function diagram

- 1 Ceramic sensor
- 3 Auxiliary energy
- 5 Process connection
- 2 Electronics
- 4 Electrical connection

2.4 Design and mode of operation

The pressure sensor work on the thick layer technology DMS principle. The measured pressure acts directly onto a ceramic membrane that deforms when under pressure. This changes the resistance of the attached DMS bridge. Electronics integrated into the device convert this bridge signal into an electronic output signal.

Every pressure transmitter is programmed according to the code in the order code on delivery. Also, the electrical connections can be used to configure the pressure transmitter, adapting it ideally to suit the process conditions. You will need a Transmitter PC Interface available as an accessory.

3 Installation and assembly

3.1 Generalities

The instrument may only be installed and commissioned by specialized personnel familiar with the installation, commissioning and operation of this product.

Specialized personnel are persons who can assess the work they have been assigned and recognize potential dangers by virtue of their specialized training, their skills and experience and their knowledge of the pertinent standards.



WARNING

Mounting pressure transmitters

During assembly, observe the respective national and international guidelines and safety regulations.

Only mount the unit to systems that are depressurized. Only ever operate the unit within the permitted measuring range or below the maximum overload.



Fig. 5: Shutoff valve.

The device is set ex-works for vertical installation, however any installation position is possible.

To guarantee safe working conditions during installation and maintenance, suitable stop valves must be fitted in the system (see accessories). By means of the manometer shutoff, the unit

- Can be depressurized or taken out of operation.
- Be disconnected from the power supply within the applicable system for repairs or inspections.

3.2 Process connection

- By authorized and qualified specialized personnel only.
- The pipes need to be depressurized when the instrument is being connected.
- Appropriate steps must be taken to protect the device from pressure surges.
- Check that the device is suitable for the medium being measured.
- · Maximum pressures must be observed (cf. Tech. data)



Earth connection via the system earth

During assembly, ensure that the earth connection between the unit and the system earth is ensured. The connection to the system earth is realised via the process connection. Therefore, never use an insulated Teflon tape or similar. Design the process connection acc. to EN 837 and use a suitable flat seal.

3.2.1 Measuring lines that need to be connected

The following points need to be observed when connecting the pressure line:

- To ensure there is no influence on the measured values, severe bends and coils in the wire should be avoided.
- To prevent deposits, there should be a continuous incline or drop of at least 8%.
- When measuring steam pressure, a water bag-forming loop must be provided due to the temperature (see accessories).



Round shape

U-shape

- Fig. 6: Siphon MZ1###
 - The transmitter must be positioned below the measuring point for liquid measurements. Vent the pressure line before commissioning.
 - The transmitter must be positioned above the measuring point for gas measurements.

3.2.2 Pressure surge absorption

Pulsating pressure on the system side can lead to functional problems. We recommend installing a damping element in the pressure connection lines as a protective measure.

a) Capillary throttle



b) Settable damping reactor

In operating mode, the damping throttle must be set so that the output signal follows the pressure changes with a delay.



Fig. 8: Damping reactor MZ410#

3.3 Electrical connections

- · By authorized and qualified specialized personnel only.
- When connecting the unit, the national and international electro-technical regulations must be observed.
- Disconnect the system from the mains, before electrically connecting the device.
- Install the consumer-adapted fuses.
- Do not connect the connector if strained.

a) 2-wire connection



b) Three-wire connection



Fig. 10: 3-wire Circuitry







3.3.1 Standardised plug DIN EN 175 301-803-A

Fig. 12: Line socket DIN EN 175 301-803-A

Terminal	Signal name	DC		Cable colour
1	Supply /Output	+U _b	+Sig	red
2	Supply /Output	-U _b	-Sig	blue
3	n.c.			
	n.c.			

Table 1: 2-wire connection 4 ... 20 mA

Terminal	Signal name	AC	DC		Cable colour
1	Output			+Sig	Black
2	Supply /Output	$\sim U_{b}$	-U _b	-Sig	blue
3	Supply	$\sim U_{b}$	$+U_{b}$		red
	n.c.				

Table 2: 3-wire connection 0 ... 10V

The earth connection in the standardized plug is not connected.

3.3.2 M12 flanged connector DIN EN 61076-2-101







Fig. 13: M12 plug DIN EN 61076-2-101

Pin	Signal name		DC		Cable colour
1	Supply /Output		+U _b	+Sig	brown
2	n.c.				
3	Supply /Output		-U _b	-Sig	blue
4	n.c.				
Table 3	3: 2-wire connection 4 20 mA				
Pin	Signal name	AC	DC		Cable colour
Pin 1	Signal name Supply	AC ~U _b	DC +U _b		Cable colour brown
1	Supply			-Sig	
1 2	Supply n.c.	~U _b	+U _b	Ŭ	brown

3.4 Commissioning

All electrical supply, operating and measuring lines and the pressure connections must have been correctly installed before commissioning. All supply lines are arranged so that there are no mechanical forces acting on the device.

- If liquid measuring media are used the pressure connection lines must be vented, as liquid columns of different heights in the pipes can cause measuring errors. The instrument must be protected against frost, if water is used as a measuring medium.
- Appropriate shutoff valves must be provided to ensure safety during installation, maintenance and inspection

3.5 Servicing

3.5.1 Maintenance

The instrument is maintenance-free. We recommend the following regular inspection to guarantee reliable operation and a long service life:

- Check the function in combination with downstream components.
- · Check the leak-tightness of the pressure connection lines.
- Check the electrical connections.

The exact test cycles need to be adapted to the operating and environmental conditions. In combination with other devices, the operating instructions for the other devices also need to be observed.

3.5.2 Transport

The measuring device must be protected against impacts. It should be transported in the original packaging or a suitable transport container.

3.5.3 Service

All defective or faulty devices should be sent directly to our repair department. Please coordinate all shipments with our sales department.



Process media residues

Process media residues in and on dismantled devices can be a hazard to people, animals and the environment. Take adequate preventive measures. If required, the devices must be cleaned thoroughly.

Return the device in the original packaging or a suitable transport container.

3.5.4 Accessories

- Prefabricated M12 connection lines (see Order Codes).
- Siphons MZ1###
- Capillary throttle coil MZ400#
- Settable damping reactor MZ410#
- Manometer shutoff valves MZ5###, MZ6####

Please see here the data sheet MZ measuring devices accessories. Here you will find more detailed information about the technical data and the order codes of the accessory parts MZ.

3.5.5 Disposal

Please help to protect the environment by always disposing of the work pieces and packaging materials in compliance with the valid national waste and recycling guidelines or reuse them.

4 Technical data

4.1 Generalities

Reference conditions (acc. to IEC	61298-1)	
Temperature error	+15 +25 °C	
Relative humidity	45 75 %	
Air pressure	86 … 106 kPa	860 1060 mbar
Auxiliary energy	24 V DC	
Installation position	User-defined	

4.2 Input variables

0 ... +2.5 0 ... 250

0 ... 400

0 ... 600

0 ... 1000

0 ... 1600

0 ... +4

0 ... +6

0 ... +10

0 ... +16

Messgröße

Absolutdruck

Relative pressure

Pressure in non-aggressive liquid and gaseous media.

Measuring	I	Pressure sa	fety		istic curve ation
[bar]	[kPa]	Overpres- sure	Bursting pressure	Option	Standard
0 +0.6	0 60	4 bar	7 bar		1.0 %FS
0 +1	0 100	4 bar	7 bar	0.5%FS	1.0 %FS
0 +1,6	0 160	4 bar	7 bar	0.5%FS	1.0 %FS
0 +2.5	0 250	10 bar	15 bar	0.5%FS	1.0 %FS
0 +4	0 400	10 bar	15 bar	0.5%FS	1.0 %FS
0 +6	0 600	20 bar	35 bar	0.5%FS	1.0 %FS
0 +10	0 1000	40 bar	70 bar	0.5%FS	1.0 %FS
0 +16	0 1600	40 bar	70 bar	0.5%FS	1.0 %FS
0 +25	0 2500	100 bar	150 bar		1.0 %FS
0 +40	0 4000	100 bar	150 bar		1.0 %FS
0 +60	0 6000	200 bar	250 bar		1.0 %FS
Measuring	I	Pressure sa	fety		istic curve ation
[bar]	[kPa]	Overpres- sure	Bursting pressure	Option	Standard
0 +1	0 100	4 bar	7 bar	0.5%FS	1.0 %FS
0 +1.6	0 160	4 bar	7 bar	0.5%FS	1.0 %FS

10 bar

10 bar

10 bar

20 bar

20 bar

15 bar

15 bar

15 bar

35 bar

35 bar

0.5%FS

0.5%FS

0.5%FS

0.5%FS

0.5%FS

1.0 %FS

1.0 %FS

1.0 %FS

1.0 %FS

1.0 %FS

Vakuum und ± Measuringe

Measuring	l	Pressure sa	afety		istic curve ation
[bar]	[kPa]	Overpres- sure	Bursting pressure	Option	Standard
01	0100	4 bar	7 bar		1.0 %FS
-1 0	-100 0	4 bar	7 bar		1.0 %FS
-1 +0.6	-100 +60	4 bar	7 bar		1.0 %FS
-1 +1.5	-100 +150	4 bar	7 bar		1.0 %FS
-1 +3	-100 +300	10 bar	15 bar		1.0 %FS
-1 +5	-100 +500	20 bar	35 bar		1.0 %FS
-1 +9	-100 +900	40 bar	70 bar		1.0 %FS
-1 +15	-100 +1500	40 bar	70 bar		1.0 %FS
-1 +24	-100 +2400	100 bar	150 bar		1.0 %FS

4.3 Output parameters

Voltage output

Current output

		3-Conductor
Output range		0 10 V DC
Limits		approx. 10.5 V DC
Apparent ohmic resist- ance	$15 V \le U_{b} < 20 V$ $20 V \le U_{b} \le 30 V$	≥ 5 kΩ ≥ 2 kΩ
	2-Conductor	3-Conductor
Output range	2-Conductor 4 20 mA	3-Conductor 0 20 mA 4 20 mA
Output range Limits		0 20 mA

4.4 Measurement accuracy

Non-linearity	Maximum	0.5 % FS
	Typical	0.2 % FS
Hysteresis	Maximum	0.5 % FS
	Typical	0.2 % FS
Characteristic curve deviation ²⁾	Standard	1.0 %
	Option ¹⁾	0.5 %
Temperature drift	Zero point	0.07 % FS/K
	Measuring range	0.05 % FS/K

 $^{\mbox{\tiny 1)}}$ only possible for certain measuring ranges $^{\mbox{\tiny 2)}}$ incl. non-linearity and hysteresis

4.5 Auxiliary energy

Voltage output

Current output

		3-Conductor
Rated Voltage		24 V AC/DC
Admissible operating voltage		15 30 V AC/DC
Power consumption		≤ 1 W (VA)
	2-Conductor	3-Conductor
Rated Voltage	2-Conductor 24 V DC	3-Conductor 24 V AC/DC
Rated Voltage Admissible operating voltage		

4.6 Application conditions

Ambient temperature range	-10 °C +70 °C
Storage temperature range	-20 °C +85°C
Medium temperature range	-10 °C +85 °C
EMV	EN 61326-1:2013 EN 61326-2-3:2013
RoHS	EN IEC 63000:2018
Protection type	IP 65 acc. to EN 60529

Materials of the parts that come into contact with the surroundings

Housing	CrNi Steel 1.4305
Device plug screw lid	Polypropylene, black
Device plug	Polyamide, brass, zinc
Cable socket	Polyamide, polycarbonate, brass, zinc

Materials of the parts that come into contact with the measuring medium

Process connection	CrNi Ste	eel 1.4404
Sensor membrane	Cerami	c Al ₂ O ₃
Seal ¹⁾	FKM	Fluorinated rubber, Viton®
	CR	Chloroprene rubber, Neopren®
	EPDM	Ethylene propylene diene rubber
	H-NBR	Hydrogenated acrylonitrile butadiene rubber
	FFPM	Perfluorinated rubber, Kalrez®

¹⁾ see order code

4.7 Parameters

The ME12 pressure transmitter is fully configured on delivery, however it can also be remotely configured on site. A PC, an interface, which is available as an accessory and the PC software **transmitter programmer** are required for configuration.

- The EU13 with a USB interface is used for pressure transmitters with 2-line connections.
- The EU03 with an RS 232 interface is used for pressure transmitters with 3line connections. Every device is delivered with an RS232/USB adapter to ensure that the interface can be operated on the USB interface.

The following parameters can be set

Characteristic curve	Increasing / decreasing
Attenuation	0 200 s
Offset correction	±25 %FS
Margin correction	±25 %FS

Signal limits	Current output (settable)	Voltage output (not settable)
Upper limit	3.5 22.5 mA	approx. 10.5 V
Lower limit	3.5 22.5 mA	0V
Error signal	3.5 22.5 mA	

4.8 Construction design

4.8.1 Dimensional picture

All dimensions in mm unless otherwise stated



Fig. 14: Dimension drawing housing and process connections

4.8.2 Process connection

Port		Material
G½ B	Connection shanks with external thread	1.4404
G¼ B	Connection shanks with external thread	1.4404
1⁄4-18 NPT EXT	Connection shanks with external thread	1.4404
7/16 UNF	Connection with inner thread for the Schrader®- screw connection >	1.4404
G¾ B	Connection shanks with external thread near flush-mounted front sensor	1.4404
G1 B	Connection shanks with external thread near flush-mounted front sensor	1.4404

4.8.3 Electrical connection

Unit connector and cable socket DIN EN 175 301-803 Form A, 4 pin





Fig. 15: Line socket DIN EN 175 301-803A



Fig. 16: M12 plug DIN EN 61076-2-101

M12 flanged connector DIN EN 61076-2-101 coding A, 4 pin



Μ

	5 Or	der	Со	de	S															
Code No.	1 2	34	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
VIE 1 2										0					Μ	#	#	#	#	
Type	Measuring range	Measurement accuracy —	Process connection	Output signal —	Electrical connection	Operating voltage —	Casing —	Seal (with contact to the medium)	Version			unu	sed				Device specification			

[1,2]	Measuring range	[1,2]	Measuring range	Abs.	Rel.
01	0 0.6 bar	F1	0 60 kPa		•
02	0 1 bar	F2	0 100 kPa	•	•
03	0 1.6 bar	F3	0 160 kPa	•	•
04	0 2.5 bar	F4	0 250 kPa	•	•
05	0 4 bar	F5	0 400 kPa	•	•
06	0 6 bar	F6	0 600 kPa	•	•
07	0 10 bar	F7	0 1000 kPa	٠	•
08	0 16 bar	F8	0 1600 kPa	•	•
09	0 25 bar	G1	0 2500 kPa		•
10	0 40 bar	G2	0 4000 kPa		•
11	0 60 bar	G3	0 6000 kPa		•
31	-1 0 bar				•
32	-1 … 0.6 bar				•
33	-1 … 1.5 bar				•
34	-1 3 bar				•
35	-1 5 bar				•
36	-1 9 bar				•
37	-1 15 bar				•
38	-1 24 bar				•
39	01 bar				•

Abs. = absolute pressure measurement

Rel. = *relative pressure measurement*.

[3]	Measurement accuracy
Μ	1.0 % Characteristic curve deviation (relative pressure measurement)
0	0.5 % Characteristic curve deviation (relative pressure measurement)
S	1.0 % characteristic curve deviation (absolute pressure measurement)
Т	0.5 % characteristic curve deviation (absolute pressure measurement)

[4,5]	Process connection	Material
85	Connection shanks with external thread G¼ B	
87	Connection shanks with external thread G ¹ / ₂ B	
88	Connecting port with outer thread 1/4 -18 NPT EXT	1.4404
S1	Schrader® screw connection inner thread 7/16 UNF	
A 3	Near flush-mounted front sensor outer thread G1 B	
A 8	Near flush-mounted front sensor outer thread G ³ / ₄ B	

[6]	Output signal	
Α	0 20 mA	3-wire version
Ρ	4 20 mA	3-wire version
С	0 10 V	3-wire version
D	1 5V	3-wire version
В	4 20 mA	2-wire version

[7]	Electrical connection
н	Cable socket DIN EN 175 301-803
Μ	M12 coupling device DIN EN 61076-2-101

[8]	Operating voltage	
9	24 V DC	2-wire version
L	24 V AC/DC	3-wire version

[9]	Casing Prote	ction class (DIN EN 60 529)
0	Standard casing	
V	Standard casing, cast version	IP65

[10]	Seal (with	contact to medium)
V	FKM	Fluororubber, Viton®
С	CR	Chloroprene rubber (Neopren®)
Е	EPDM	Ethylene propylene diene rubber
Н	H-NBR	Hydrogenated acrylonitrile butadiene rubber
Κ	FFPM	Perfluorinated rubber (Kalrez®)

[11]	Version	
0	Standard	
3	Suitable for O_2 measurement O_2 (D-ring with BAM approval test for reactivity with oxygen)
Α	Silicone-free	

5.1 Accessories

Order no.	Planned measures	No. of Poles	Length
06401993	PUR cable with M12-coupling	4-pin	2m
06401994	PUR cable with M12-coupling	4-pin	5m
06401563	PUR cable with M12-coupling	4-pin	7m
06401572	PUR cable with M12-coupling	4-pin	10m
MZ1###	Siphons		
MZ400#	Capillary throttle coil		
MZ410#	Settable damping reactor		
MZ5###	Manometer shutoff valve acc. to DIN 16270/16	6271	
MZ6###	Manometer shutoff valve acc. to DIN 16272		
EU03	3-wire transmitter PC Interface incl. PC softwa	re	
EU13	2-wire transmitter PC Interface incl. PC softwa	re	
A data shee	t is available on our website www.fischermesste	echnik de	or on re-

A data sheet is available on our website www.fischermesstechnik.de or on request.

ess- und Regeltechnik GmbH	Attach
6 Attacl	amonte
0 Allaci	linents
MESS- UND REGELTECHNIK	(Translation)
EU Declaration of Confo	ormity
For the product described as follows	•
Product designation	Pressure transmitter
Type designation	ME12
.)po coolgilation	
it is hereby declared that it corresponses of the specified in the following designated	
2014/30/EU 2011/65/EU	EMC Directive RoHS Directive
(EU) 2015/863	Delegated Directive amending Annex II to Directive 2011/65/EU
The products were tested in complia	nce with the following standards.
	Electromagnetic compatibility (EMC)
DIN EN 61326-1:2013-07 EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
DIN EN 61326-2-3:2013-07 EN 61326-2-3:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning
	RoHS Directive (RoHS3)
DIN EN IEC 63000:2019-05 EN IEC 63000:2018	Technical documentation for the assessment of electrical and electronic products with re- spect to the restriction of hazardous substances
Also they were subjected to the conf	ormity assessment procedure "Internal production control".
	is declaration of conformity in relation to fulfilment of the fundamental re- e technical documents is with the manufacturer.
Manufacturer	FISCHER Mess- und Regeltechnik GmbH
	Bielefelder Str. 37a 32107 Bad Salzuflen, Germany
	Tel. +49 (0)5222 974 0
Documentation representative	Torsten Malischewski General Manager R&D
The devices bear the following marking:	CE
Bad Salzuflen 29 March 2022	G. Gödde Managing director
09010162 • CE_EN_ME12 • Rev. ST4-B • 04/	22 1/1

Fig. 17: CE_EN_ME12





UKCA Declaration of Conformity

For the product described as follows

is hereby declared to comply with the essential requirements, specified in the following UK regulations:

Product designation	Pressure transmitter
Type designation	ME12
Statutory regulation No.	Description
2016 No. 1091	The Electromagnetic Compatibility Regulations 2016
2021 No. 422	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electron Equipment (Amendment) Regulations 2021

2022 No. 1647

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (Amendment) Regulations 2021 The Hazardous Substances and Packaging (Legislative Functions and Amendment) (EU Exit) Regulations 2020

The products have been tested according to the following standards.

Electromagnetic compatibility (EMC):

BS EN 61326-1:2013-02-28	Electrical equipment for measurement, control and laboratory use. EMC requirements. Gen- eral requirements
BS EN 61326-2-3:2013-02-28	Electrical equipment for measurement, control and laboratory use. EMC requirements. Par- ticular requirements. Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning.

Restriction of Hazardous Substances (RoHS):

BS EN IEC 63000:2018-12-10

Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

The sole responsibility for drawing up this declaration of conformity in relation to the fulfilment of the essential requirements and the preparation of the technical documentation lies with the manufacturer.

Manufacturer

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Die Geräte werden gekennzeichnet mit:

Bad Salzuflen 29 March 2022

G. Gödde Managing director



Fig. 18: UKCA_EN_ME12

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