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 BVS 16.0072**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2016-11-04)
Date of Issue:	2023-08-30		
Applicant:	**Heinrichs Messtechnik GmbH** Robert-Perthel-Straße 9 50739 Köln **Germany**		
Equipment:	**Electronic transmitter type ES, ES-PPA or ES-FF**		
Optional accessory:			
Type of Protection:	**Intrinsic Safety "i"**		
Marking:	Ex ia IIC T6 Gb		

Approved for issue on behalf of the IECEx Certification Body: **Deniz Pezzutto**

Position: **Certification Manager**

Signature: (for printed version)

Date: (for printed version) 2023-08-30

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:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

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Certificate No.: **IECEx BVS 16.0072**

Date of issue: 2023-08-30 Issue No: 1

Manufacturer: **Heinrichs Messtechnik GmbH**
Robert-Perthel-Straße 9
50739 Köln
Germany

Manufacturing locations: **Heinrichs Messtechnik GmbH**
Robert-Perthel-Straße 9
50739 Köln
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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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:

DE/BVS/ExTR16.0074/01

Quality Assessment Report:

DE/BVS/QAR11.0001/10

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

Subject and Type

Electronic transmitter types ES, ES-PPA or ES-FF

Description

The electronic transmitter serves for the recording of the position or angular position of a magnet at variable-area flowmeters.

The completely encapsulated electronic device of the transmitter is mounted in a light alloy housing together with corresponding terminals for the connection of the intrinsically safe circuits. The transmitter is provided to be installed in a housing with a min. degree of protection IP20.

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Update to IEC 60079-0:2017

A slightly changed printed circuit board and schematic can be used as an alternative for type ES.

Annex:

BVS_16_0072_Heinrichs_Annex_issue1.pdf

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Certificate No.: **IECEx BVS 16.0072 issue No: 1**
Annex

Parameters

1	Type ES				
1.1	Input circuit (terminals 1 and 2)				
	Voltage	U_i	DC	30	V
	Current	I_i		150	mA
	Power	P_i		1	W
	Effective internal inductance	L_i		0.24	mH
	Effective internal capacitance	C_i		16	nF
1.2	Binary outputs 1 and 2: potentially free optocoupler circuits (terminals 3 - 4 and 5 - 6), each				
	Voltage	U_i	DC	30	V
	Current	I_i		20	mA
	Power	P_i		100	mW
	Effective internal inductance	L_i		4	µH
	Effective internal capacitance	C_i		16	nF
2	Type ES-PPA				
	Input circuit (terminals 7 and 8)				
2.1	For use as field device in a fieldbus system in accordance with FISCO with voltage	U_i	DC	17.5	V
2.2	Or for connection to a circuit with the following max. values				
	Voltage	U_i	DC	32	V
	Current	I_i		280	mA
	Power	P_i		2	W
	The effective internal values are:				
	Effective internal inductance	L_i		< 10	µH
	Effective internal capacitance	C_i		< 5	nF
3	Type ES-FF				
	Fieldbus circuit (terminals 9 and 10)				
3.1	For use as field device in a fieldbus system in accordance with FISCO voltage	U_i	DC	17.5	V
3.2	Or for connection to a circuit with the following max. values				
	Voltage	U_i	DC	32	V
	Current	I_i		280	mA
	Power	P_i		2	W
	The effective internal values are:				
	Effective internal inductance	L_i		< 10	µH
	Effective internal capacitance	C_i		< 5	nF
4	Ambient temperature range	T_a	-40 °C	up to	+70 °C