





This operating manual contains important information for the operation in potentially explosive atmospheres Please read the instructions carefully and store them in a safe place for future reference



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Introduction

I Shipping and storage

The device is to be safeguarded against moisture, dirt, impact and damage.

II Product inspection

Upon receipt of the product, the consignment should be checked for completeness. The data of the device have to be compared with the packing slip and the order documents

Notify us of any shipping damage immediately upon receipt of the product. Any damage claim received at a later time will not be honoured.

III Warranty

Your flow sensor was manufactured in accordance with the highest quality standards and was thoroughly tested prior to shipment. However, in the event any problem arises with your device, we will be happy to resolve the problem for you as quickly as possible under the terms of the warranty which can be found in the terms and conditions of delivery. Your warranty will only be honoured if the device was installed and operated in accordance with the instructions for your device. Any mounting, commissioning and/or maintenance work is to be carried out by qualified and authorized technicians only.

IV Validity of this operating manual



The present instructions apply to explosion-proof Coriolis flow sensors of the HPC series, **as of year of construction November 2018 or later**. These instructions are supplementary operating manual for non-explosion proof Coriolis flow sensors. If you do not have a copy of the latter instructions, please request one from Heinrichs Messtechnik GmbH or download the

instructions from our website.

The instructions herein pertain primarily to explosion proof Coriolis flow sensors for use in conjunction with an explosion proof certified transmitter. The technical data in the mounting and operating instructions for non-explosion proof Coriolis flow sensors still apply insofar as the present instructions do not replace them or exclude their application.

The transmitter used in conjunction with an HPC sensor must be listed for use in its country of installation. The manufactures installation drawings shall be followed when installing.

V Repairs and hazardous materials

It is important that you do the following before shipping your flow sensor to Heinrichs Messtechnik GmbH for repair:

- Enclose a description of the problem with your device. Describe in as much detail as possible the application and the physical and chemical properties of the fluid.
- Remove any residues from the device and be sure to clean the seal grooves and recesses thoroughly. This is particularly important if the fluid is corrosive, toxic, carcinogenic, radioactive or otherwise hazardous.

The operator is liable for any substance removal or personal damage costs arising from inadequate cleaning of a device that is sent for repair.



1 Steps prior to operation



Prior to installation and operation, it is essential that the operator familiarizes himself with all of the instructions and information contained in the manual for non-explosion proof Coriolis flow meters as well as the present instructions. If any part of either manual is missing, contact Heinrichs Messtechnik GmbH to request a new manual. These manuals can also be downloaded from our website.

The HPC sensors described herein are only to be used to measure mass and volume

flow, as well as liquid and gas density and temperature, in conjunction with a transmitter certified for use in the area and country of operation.

1.1 Installation, mounting, commissioning and maintenance

Installation, mounting, commissioning and maintenance are to be performed by a technician trained to work with explosion-proof devices, or by a Heinrichs Messtechnik service technician.



Warning

Any safety relevant maintenance or repairs in terms of explosion-protection is to be carried out by the manufacturer, an authorized Heinrichs Messtechnik GmbH service centre or under the supervision of an expert in explosion proof devices.

Heinrichs Messtechnik GmbH accepts no liability for any loss or damage of any kind arising from improper operation of any product, improper handling or use of any replacement part, or from external electrical or mechanical effects, overvoltage or lightning. Any such improper operation, use or handling shall automatically invalidate the warranty for the product concerned.

In the event of a problem please contact the service centre of Heinrichs Messtechnik:



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 Phone:
 +49 221 49708-0

 Fax:
 +49 221 49708-178

 Internet:
 www.heinrichs.eu

 Email:
 info@heinrichs.eu

Contact our customer service department if your device needs repair or if you need assistance in diagnosing a problem with your device.



1.1 Hazard warnings

The purpose of the hazard warnings listed below is to ensure that device operators and maintenance personnel are not injured and that the flow meter and any devices connected to it are not damaged.

The safety advisories and hazard warnings in the present document that aim to avoid placing operators and maintenance personnel at risk and to avoid material damage are prioritized using the terms listed below, which are defined as follows in regard to the instructions herein and the advisories pertaining to the device itself.

Warning



means that failure to take the prescribed precautions **<u>could result</u>** in injury, substantial material damage or even death. Always comply to these warnings and proceed with caution.

Caution



means that failure to take the prescribed precaution <u>could result</u> in material damage or destruction of the device. We advice always to abide to these instructions!

Note



means that the accompanying text contains important information about the product, handling the product or about a section of the documentation that is of particular importance.

1.2 Proper use of the device



Warning

The operator is responsible for ensuring that the material used in the sensor and transmitter housing is suitable and that such material meets the requirements for the fluid being used and the ambient site conditions. The manufacturer accepts no responsibility in regard to such material and housing.



Warning

In order for the device to perform correctly and safely, it must be shipped, stored, set up, mounted operated and maintained properly.





2 Identification

Manufacturer:	Heinrichs M Robert-Per D-50739 C Germany	/lesstechnik GmbH rthel-Strasse 9 ologne
a 0	Phone: Fax: Internet: Email:	+49 221 49708-0 +49 221 49708-178 www.heinrichs.eu info@heinrichs.eu
Product type:	Mass flow-	rate meter for liquid and gaseous products
Product name:	HPC Coriolis Ma	ss Flow Sensor
File name:	hpc_ex_ba	_21.01_en.doc
Version:.	21.01, Date, Janua	ary 31, 2021



3 General information about explosion protection $(\epsilon_{0158} \langle \epsilon_x \rangle)$ Ш Example designation 2G IIC Т6 Ex ia Gb Equipment groups Equipment group I applies to equipment intended for use in underground parts of mines as well as those parts of surface installations of such mines endangered by firedamp and/or combustible dust Equipment group II applies to equipment intended for use in other places Acc. Directive 94/9/EC (ATEX) П liable to be endangered by explosive atmospheres. This group is subdivided into three categories. Equipment category Gas Definition Dust Equipment in this category is intended for use in areas in which 1G 1 D explosive atmospheres caused by mixtures of air and gases, (0) (20) vapours or mists or by air/dust mixtures are present continuously, for long periods or frequently. Equipment in this category is intended for use in areas in which 2 G 2 D explosive atmospheres caused by gases, vapours, mists or air/dust (1) (21) mixtures are likely to occur. Equipment in this category is intended for use in areas in which 3G 3D explosive atmospheres caused by gases, vapours, mists, or air/dust mixtures are unlikely to occur or, if they do occur, are likely to do so (2) (22) only infrequently and for a short period only. (The numbers in round brackets correspond to the IEC Zones.) Ex = Explosion-proof electrical equipment Types of protection General requirements IEC 60079-0 "d" Flameproof enclosure IEC 60079-1 "e" Increased safety IEC 60079-7 "i" IEC 60079-11 Intrinsic safety (ia, ib) Equipment dust ignition protection by enclosure "t" (ta, tb or tc) ..t" EN 60079-31 EN 60079-0 ff / IEC 60079-0 ff Explosion groups Gases and vapours IIA Acetone, benzene, fuel oil, ethanoic acid IΙΒ City gas, ethylene, isoprene IIC Acetylene, hydrogen, carbon bisulphide **Dust Atmospheres** IIIA Fibers and flyings IIIB Non-conductive dusts Acc. Metal dusts IIIC **Temperature classes** Maximum surface temperature Temperature class 842 °F 450 °C T1 300 °C 572 °F T2 Т3 200 °C 392 °F 135 °C 275 °F Τ4 T5 100 °C 212 °F 85 °C 185 °F T6 Equipment protection level, EPL Gases: Ga, Gb oder Gc Dust: Da, Db or Dc

Explosion protection designations [square brackets] refer to "Related electrical equipment or circuits."



4 Specifications

4.1 Description of the HPC Mass-Flow Sensor

The HPC sensor has an "Intrinsic safety" type of protection and is equipped with the following four independent potential-free and isolated circuits:

- Excitation circuit
- Sensor circuit 1
- Sensor circuit 2
- Temperature sensor circuit (RTD)

All circuits have safe separation from one another within the sensor

The transmitter shall be connected to the sensor using a dedicated cable specially designed for this purpose. Such a cable can be purchased from Heinrichs Messtechnik during your order process.

4.2 Device identification

The rating plates on Heinrichs Messtechnik flow meters that are suitable for use in potentially explosive atmospheres are labelled accordingly. Since the sensor and transmitter are separately certified, each device has its own rating plate.

The HPC rating plates contain all the information necessary to identify the sensor, and for determining it's suitability for a potential explosive atmosphere.

$\left(\right.$	Type: HPC-SC)1-6030-10A1-RL-11-0H	MF-Date	: 2019/03
Heinrichs	Ser. No.:	546286	TAG No.	: CML-1
	Tamb:	-40°C to 60°C	PS:	100 bar
KOROLD Crews	T-Process:	-40°C to 80°C	PT:	150 bar
D-50739 Cologne	Wetted Parts:	1.4404 / 1.4571	Qmax:	20 kg/h
www.heinrichs.eu	Connection:	NPT 1/2"	Qmin:	2 kg/h
C C DAED	Sensor C:	84,322		See Manual
	Cable fitting:	HAN R23 Connector		See Manual
CML 19ATEX2096X IECEx CML 19.0025X	Ex II 1G Ex II 1D Ex	: ia IIC T4 Ga : ia IIIC T135℃ Da		$\mathbb{A} \rightarrow \mathbb{O}$

Image 1: HPC for process temperatures ranging from – 40 °C to 80 °C.

	Type: HPC-S()2-6030-10C2-LL-11-0H	MF-Date	: 2019/03
Heinrichs	Ser. No.:	546287	TAG No.	: CML-2
	Tamb:	-40°C to 60°C	PS:	100 bar
KOROLD Group	T-Process:	-40°C to 180°C	PT:	150 bar
D-50739 Cologne	Wetted Parts:	1.4404 / 1.4571	Qmax:	50 kg/h
www.heinrichs.eu	Connection:	NPT 1/2"	Qmin:	5 kg/h
C C DAED	Sensor C:	126.356		See Manual
C C 0190	Cable fitting:	HAN R23 Connector		See Manual
CML 19ATEX2096X IECEx CML 19.0025X		< ia IIC T4T2 Ga < ia IIIC T135℃ Da < ia IIIC T190℃/T240℃ Db		

Image 2: HPC for process temperatures ranging from – 40 °C to 180 °C

4.3 Mounting and Installation

The mounting instructions for the standard sensor also apply to the explosion-proof sensor.

4.3.1 Thermally insulated sensor

In explosive atmospheres the sensor may also be outfitted with thermal insulation. However, so not to impair the sensors thermal ratings, the sensors neck cooling ribs of the high-temperature version shall not be included in the insulation. The connector of the standard version may be completely enveloped by the insulating material.

4.3.2 Heated sensor

The sensor can be externally heated to avoid crystallization in the flow tube. Any heating technique or device can be used. When using electrical heating devices, these must be suitable for use in the potentially explosive environment present.

It is the operator's responsibility to ensure that the heating temperature does not exceed the maximum allowable temperature for the fluid and/or the maximum allowable temperature range for the potentially explosive atmosphere in which the device is being operated.

The maximum allowable temperature range for the fluid is indicated on the sensors rating plate. It is also the operator's responsibility to ensure that no hazards are created by hot surfaces pursuant to EN 1127-1 (Explosive atmospheres – Explosion prevention and protection) paragraphs 5.2 and 6.4.2.

4.3.3 Connection sensor – transmitter

The associated transmitter used in connection with the HPC sensor must be listed in the country of intended installation. The installation drawings provided by the manufacturer must be observed! It is essential that the output parameters of the converter match the input parameters of the sensor.

The dedicated cable **SLI2Y (SP) CY 5 x 2 x 0.5 mm² [blue**] is to be used for the electrical connection between sensor and the remote mounted transmitter. This cable, which is available from Heinrichs Messtechnik, has five twisted wire pairs, each of which has a foil shield, and a tinned copper strand wound around each pair. These tinned copper strands are twisted together are installed in the "shield" terminal of the transmitter. All 5 cable pairs are shielded by a further tinned copper wire mesh. This outer cable shield is connected to the transmitters housing, via a dedicated EMC cable fitting, as well as to the outer-casing of the sensor's connector thus ensuring optimum noise immunity.



Image 3: Heinrichs standard SLI2Y (SP) CY 5 x 2 x 0.5 cable with HAN R23 connector



4.3.3.1 Pin assignment of the Sensor cable

Pin Designation	Terminal / Pin designation	Type of protection
		Ex ia
Sensor lines		
Pick-Up coil 1 +	1	X
Pick-Up coil 1 -	2	X
Pick-Up coil 2 +	3	X
Pick-Up coil 2 -	4	X
Tlk-	5	X
Temperature sensor -	6	X
Temperature sensor +	7	X
Tlk+	8	X
EXCITER Coil	9	X
EXCITER Coil	10	X
Shield	Shield	X

Note: Sensor and transmitter are always mounted separately.

4.3.3.2 Cable Parameters

The operator is to comply in all cases with the applicable installation regulations of the corresponding region or country such as EN 60079-14 "Electrical apparatus for explosive gas atmospheres- Part 14: Electrical installations in hazardous areas" for Europe, Section 18 of the Canadian Electrical Code for Canada or Article NEC 504 and / or NEC 505 for the United States.

Applicable guidelines pertaining to the interconnection of intrinsically safe circuits must also be observed.

The following maximum cable parameters must be abided to:

$C_L = 100 \text{ pF/m}$ wire to wire	$L_L = 700 \mu$ H/km wire to wire
C∟ = 170 pF/m wire to shield	L∟ = 500 µH/km wire to shield



Warning

If a connecting cable other than the Heinrichs Messtechnik cable is used, a comprehensive assessment is required to ensure it fulfils all the requirements of the applied protection classes and the area of installation

4.3.3.3 Equipotential bonding

Equipotential bonding between the sensor and transmitter is essential and must be established and maintained. Connection points are provided on the outside of the sensor and transmitter for this purpose.



4.4 EC Type-Examination

The sensors are certified with the following examination certificates:

ATEX	<u>CML 19ATEX2096X</u>				
	Standard Version		High Temperature Version		
(Ex)	II 1G Ex ia IIC T4 Ga II 1D Ex ia IIIC T135°C Da	or	II 1G Ex ia IIC T4 Ga II 1D Ex ia IIIC T135°C Da II 2D Ex ia IIIC T190°C/T240°C Db		
IECEx	IECEx CML 19	.0025 X			
	Standard Version		High Temperature Version		
IEC TECEX	Ex ia IIC T4 Ga	Or	Ex ia IIC T4 Ga		
	EX IA IIIC I 135°C DA		Ex ia IIIC T190°C/T240°C Db		

and are approved for the use in potentially explosive atmospheres. (hazardous classified locations)



In order to comply with the requirements for explosive atmospheres, it is essential that the maximum electrical and thermal values set forth below are observed.

4.4.1 Sensor Parameters

Exciter circuit	(Pins 9 and 10)

Warning

Voltage Current Power Effective internal capacitance	Ui li Pi Ci	30 V 90 mA 0.4 W negligible
Effective internal inductance	Li	4.38 mH
Sensor circuits (Pins 1 – 2 and 3 – 4)		
Voltage	Ui	DC 30 V
Current	li	25 mA
Power	Pi	0.130 W
Effective internal capacitance	Ci	negligible
Effective internal inductance	Li	50 mH
Output voltage	Uo	AC 0.3 V

Temperature sensor circuits (Pins 5 to 8)



Voltage	Ui	DC	30 V
Current	li		10 mA
Power	Pi		0.04 W
Effective internal capacitance	Ci		negligible
Effective internal inductance	Li		negligible

4.4.2 Ambient temperature range Ta

The equipment's temperature class, surface temperature and equipment protection level are dependent upon the connection type, process temperature and ambient temperature as follows:

Table1: Temperature Classes

Connection via HAN R23 connector plug	Ambient temp. range	Maximum Process temperature	Temperature Class	Maximum Surface Temperature	EPL
Standard or high temperature	-40°C to +60°C	80°C	Τ4	T135°C	Ga/Da
High temperature With cooling rib neck	-40°C to +60°C	130°C	Τ4	T190°C	Ga/Db
High Temperature With cooling rib neck	-40°C to +49°C	180°C	Τ2	T240°C	Ga/Db



5 Installation and commissioning

5.1 Mounting

The mounting instructions for the standard sensor also apply to the explosion-proof sensor. This handbook complements that of the standard sensor.

The sensor may only be separately installed and connected with a special sensor cable, whereby the maximum CL and LL of the connection cable must be observed.

Refer to the standard operating manual for the connection scheme of the sensor

5.2 General conditions for safe operation

- a) If the conditions described in this document are not adhered to or if there is any inappropriate interference with the equipment, all the manufactures warranties expire.
- b) Conditions described in this manual, as well as the permitted operating conditions which have been defined for the sensor and which are stated on the rating plates must be adhered to.
- c) Appropriate measures shall be met to prevent any unintentional or inadmissible damage to the device.
- d) The operator shall ensure that the equipment is only installed in areas which comply with the approved types of protection and environments.
- e) All connected electrical equipment must be suitable for its intended use.
- f) The operator shall ensure protection against lightning according to local regulations.
- g) The sensor is maintenance-free. Substitution of components may impair intrinsic safety

5.3 Requirements for installation in all environments

- a) The installation of the intrinsically safe circuits requires a control drawing (system description), to be issued by the operator/erector.
- b) The equipment is only to be installed and connected in a de-energized state.
- c) The sensor can be installed in zone 0 as well as zone 20 or 21. The intrinsically safe circuits are to be installed (from specialists) according to applicable regulations.
- d) Equipotential bonding between the sensor and transmitter is essential to guarantee conformity of the intrinsically safe circuits.
- e) It is to be insured that the intrinsically safe circuits of the sensor cable are not laid together with nonintrinsically safe circuits.
- f) When using a connection cable other than the manufactures specified cable, the intrinsic safety of the cable is to be validated using the cables nominal parameters.
 Refer also to section 4.3.3.2 "Cable Parameters" on page 10
- g) If the sensor is used at an ambient temperature below -20 °C, suitable cables are to be used.
- h) The operational wall thickness of the stainless steel flow tubes are < 1 mm. Therefore, in cases where the sensor is operated in zone 1 atmospheres and where zone 0 may be present in tubes, the



operator is to ensure that in the area of these tubes, no risk of damage through the medium or mechanical assertion shall occur.

- i) Seized screws or adhering joints (e.g. by frost or corrosion) are not to be opened with force in the presence of a potentially explosive atmosphere.
- j) Where substances of explosion group "A" or "IIC" are present and the presence of an Ex-atmosphere is considered possible, only non-sparking tools shall be used.
- k) The sensors loop hood may be produced from Aluminium alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation particularly if the equipment is installed in a zone O location.
 The description of the second during installed in a zone O location.

The danger of objects falling onto the sensor shall be excluded.

- Combination of the external barriers from the transmitter has not been assessed. Therefore, each input wiring circuit to the sensors should be kept segregated from the other inputs as per requirements of the standards.
- m) For the high temperature version, the temperature class, assigned maximum surface temperature, maximum ambient temperature and Equipment Protection Level (EPL) are dependent on the maximum process temperature applied by the end-user/installer. The options are detailed under the description in the certificate. When the maximum process temperature of the final installation is determined by the end user, the temperature class, assigned maximum surface temperature, maximum ambient temperature and the Equipment Protection Level (EPL) which are applicable to the applied process temperature shall be observed and complied with.

The equipment is marked with the maximum ambient temperature and maximum process temperature with all options stated in the certificate, but the limits may be lower than those marked depending on the actual process temperature applied.

5.4 Requirements for installation dust environments

- a) It is to be ensured that the sensor complies with the requirements of the degree of protection of at least IP54 (cable glands and conduits) and gaskets must be protected against adverse environmental conditions.
- b) In certain extreme circumstances, the non-metallic parts incorporated in the enclosure of the sensor may generate an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism (such as wind-blown dust) is unlikely to be present. Clean regularly with a damp cloth.
- c) The sensors are to be electro-statically earthed. Electrostatic charging must be avoided.

5.5 Ex relevant screw and bolt torques

There are no relevant torques to be observed.



6 Maintenance and repair work

6.1 Definition of terms according to IEC 60079-17:

Maintenance: defines a combination of any actions carried out to retain an item in, or restore it to, conditions in which it is able to meet the requirements of the relevant specification and perform its required functions.

Inspection: defines any action comprising careful scrutiny of an item carried out either without dismantling, or with the addition of partial dismantling as required, supplemented by means such as measurement, in order to arrive at reliable conclusion as to the condition of an item.

Visual inspection: defines an inspection which identifies, without the use of access equipment and tools, those defects, such as missing bolts, which will be apparent to the eye.

Close inspection: defines an inspection which encompasses those aspects covered by a visual inspection and, in addition, identifies those defects, such as loose bolts, which will be apparent only be the use of access equipment, for example steps, where necessary, and tools.

Detailed inspection: defines an inspection which encompasses those aspects covered by a close inspection and, in addition, identifies those defects, such as loose terminations, which will only be apparent by opening the enclosure, and/or using, where necessary, tools and test equipment.

- a) Maintenance or replacement work must be performed by qualified personnel only, i.e. personnel qualified according to TRBS 1203 or similar.
- b) Only auxiliary components which comply with all ATEX or/and IECEx requirements national directives and legislations may be used in potentially explosive atmospheres
- c) At the presence of Ex-atmospheres, the equipment must be regularly cleaned. The intervals are to be defined by the operator in compliance with the environmental rules valid at the place of operation.
- d) After maintenance and repair works have been performed, all barriers and notices removed for that purpose must be returned to their original place.
- e) In the event that faults of the equipment are detected, the equipment is to be removed. The internal components cannot be maintained by the customer. The equipment is to be returned to the manufacturer for inspection.
- f) Fuses, with the exception of the replaceable mains fuse, shall **not** be replaced by the operator, since affected Zener-diodes must also be simultaneously replaced. This work requires a follow-up adjustment and assessment, which can only be carried out at the manufacturer's factory.



Recommended inspection intervals

Activity		Visual inspection	Close inspection	Detailed inspection
	Activity	3-month interval	6-month interval	12-month interval
	Visual inspection of	Х		
1	equipment for intactness,	lf necessary, at		
	removal of dust settlements	shorter intervals		
	Check of electrical system			
2	for intactness and		Х	Х
	functionality			
3	Check of entire system		User's responsibility	

6.2 Fault elimination

No repairs or modifications may be performed on equipment that is operated in conjunction with explosive atmospheres. Such equipment shall only be repaired by expert personnel trained and authorized to do so.

Damaged threaded or flat joints which may impair the IP protection of the enclosure shall not be repaired or modified. The equipment shall be returned to the manufacturer for repair and replacement.

6.3 Disposal

Packaging material and worn components shall be disposed of according to the regulations applicable in the country of installation.

7 Warnings

The following warnings or similar wordings are either printed on the rating plate, or are stated in the User Manual:

- "Substitution of components may impair intrinsic safety"
- "Do not disconnect cable when an explosive atmosphere is present"
- "The enclosure is to be protected against impact"



8 Model Code

The following table depicts the model-code of the HPC sensor. The Ex relevant positions of the model code are marked yellow:



Pos.	Marking	Remarks	
А	Wetted Material	Non-Ex relevant position	
B,C	Model size	size Non-Ex relevant position	
D,E,F,G	Process Connection	Non-Ex relevant position	
H,I	Pressure rating	Non-Ex relevant position	
J	Enclosure options	Non-Ex relevant position	
К	Type of installation	Non-Ex relevant position	
L	Sensor configurations		
	R - Remote -40° C to 80° C (-40 $^{\circ}$ F to 176 $^{\circ}$ F)	with HAN D22 Connector	
	L - Remote -40°C to 180°C (-40°F to 356°F)	WITH HAN R25 CONNECTOR	
	X - Customer specified		
М	Approvals	II 1G Ex ia IIC T4 Ga	
	L - ATEX / IECEx	II 1D Ex ia IIIC T135°C Da	
	(in combiantion with "R" from Pos. "L")	or	
	Or	II 1G Ex ia IIC T4 Ga	
	L – ATEX / IECEx	II 1D Ex ia IIIC T135°C Da	
	(in combiantion with "L" from Pos. "L")	II 2D Ex ia IIIC T195°C/240°C Db	
N	Calibration Flow	Non-Ex relevant position	
0	Calibration Density	Non-Ex relevant position	
Р	Supplementary Equipment	Non-Ex relevant position	
Q	Design	Non-Ex relevant position	

• "i"



Declaration of Conformity 9

Nº. 20-4142	-01	
Hersteller: <i>Manufacturer</i> :	Heinrichs Messtechnik GmbH Robert-Perthel-Strasse 9 50739 Köln	
Produktbeschreibung: Product description:	Coriolis Durchflussmessgerät UMC4 für Verwendung mit der Sensorreihen TM* und HPC Coriolis Flowmeter UMC4 for use with the Sensor series TM* and HPC	
Hiermit erklären wir, in alleinig der folgenden EU-Richtlinien, entspricht:	ger Verantwortung, dass das oben genannte Messsystem den Anforderungen , einschließlich allen bis heute veröffentlichten Änderungen bzw. Nachträgen	
We declare herewith, in sole the following EU-directives, in	responsibility, that the product described above is conform with the provisions o ncluding all published changes and amendments as of today:	
2014/30/EU (EMC)	EU-Richtlinie über die Elektromagnetische Verträglichkeit EU-Directive relating to electromagnetic compatibility	
2014/34/EU (ATEX)	EU-Richtlinie über Geräte zur Bestimmungsgemäße Verwendung in explosionsgefährdeten Bereichen. EU-Directive relating to electrical equipment intended for use in potentially explosive atmospheres	
2014/35/EU (LVD)	EU-Richtlinie über die Bereitstellung elektrischer Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen auf dem Markt EU-Directive relating to the making available on the market of electrical equipment designed for use within certain voltage limits	
2014/68/EU (PED)	EU-Richtlinie zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die Bereitstellung von Druckgeräten auf dem Markt <i>EU-Directive</i> on the harmonisation of the laws of the Member States relating to the making available on the market of pressure equipment	
nhang N und X sind ein integraler f	Bestandteil dieser Erklärung	
Köln, den 01.04.2020	of this declaration	
	1 _ 1 11	
Joseph Burke (Explosionsschutzbeauftragte Explosion Protection Repres	Michael Manderfeld er / (Druckgerätebeauftragter / sentative) PED Representative)	
O P D L		
Se VIII		





Konformitätserklärung-UMC4_20-4142-01.docx

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