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 20.0087X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2021-01-11		
Applicant:	**Knick Elektronische Messgeräte** GmbH & Co. KG Beuckestraße 22 14163 Berlin **Germany**		
Equipment:	**Digital inductive conductivity sensor type SE655X-GE**T0*M and SE656X-GE**W0*M**		
Optional accessory:			
Type of Protection:	**Intrinsic Safety "i"**		
Marking:	**Ex ia IIC T4/T6 Ga**		

Approved for issue on behalf of the IECEx Certification Body: **Jörg Koch**

Position: **Head of Certification Body**

Signature: (for printed version)

Date:

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

DEKRA
On the safe side.

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Manufacturer: **Knick Elektronische Messgeräte**
GmbH & Co. KG
Beuckestraße 22
14163 Berlin
Germany

Additional manufacturing locations:

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/ExTR20.0084/00

Quality Assessment Report:

DE/TUN/QAR06.0016/09

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

Subject and Type

See Annex

General product information:

The digital inductive conductivity sensor (with MEMOSENS protocol) is used for electrodeless conductivity measurement and temperature measurement of liquid media.

The connection of the digital inductive conductivity sensor is carried out via a permanently connected cable (L ≤ 100 m).

The electronic components of the digital inductive conductivity sensor are completely encapsulated.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The digital inductive conductivity sensor is suitable for use in the following ambient and process temperature range: see ratings, part 2 - Thermal parameters.

The digital inductive conductivity sensor may only be used in liquid media with a conductivity of at least 10 nS/cm.

Metallic process connection parts have to be mounted at the mounting location electrostatically conductive (< 1 MOhm).

Non-metallic process connection parts have to be protected from electrostatic charging.

The connection cable have to be protected from electrostatic charging, if installed through areas requiring EPL Ga equipment.

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Equipment (continued):

Ratings

1 Intrinsically safe supply- / signal circuit, connection via permanently connected cable (L ≤ 100 m)

Maximum input voltage	U_i	DC	5.1	V
Maximum input current	I_i		130	mA
Maximum input power	P_i		166	mW
Maximum internal capacity	C_i		18	µF
Maximum internal inductivity (connection cable)	L_i		0.72	µH/m

The intrinsically safe supply- / signal circuit, connection via permanently connected cable (L ≤ 100 m) may also be connected to an IECEx certified intrinsically safe Memosens sensor output circuit of the following product families:

- Analyzing Unit Stratos as described in IECEx KEM 08.0020
- Modular Analyzing System Protos as described in IECEx DEK 11.0054
- Measurement System Portavo as described in IECEx DEK 12.0059

2 Thermal parameters

2.1 Ambient temperature range of the sensor connection head and the connection cable: -20 °C up to +60 °C

2.2 Process temperature range depend on temperature class (media touched part of the sensor)

T4	-20 °C ≤ T_p ≤ +110 °C
T6	-20 °C ≤ T_p ≤ + 70 °C

An uncoupling of the temperature of the sensor connection head and the connection cable to the process temperature is to be guaranteed by appropriate measures.

Annex:

BVS_20_0087X_Knick_Annex.pdf

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Certificate No.: **IECEx BVS 20.0087X**
Annex

Subject and Type

Digital inductive conductivity sensor

Type SE655X-GET0*M**

- Non-ex-relevant
- Fixed cable length e.g. FT = 7 m
  Maximum cable length 100 m
- Process wetted material PEEK / shaft material 1.4571

Type SE656X-GEW0*M**

- Non-ex-relevant
- Fixed cable length e.g. FT = 7 m
  Maximum cable length 100 m
- Process wetted material PFA / shaft material 1.4571