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 16.0030X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2021-03-31) Issue 0 (2016-05-19)
Date of Issue:	2024-02-23		
Applicant:	**Knick Elektronische Messgeräte GmbH & Co. KG** Beuckestraße 22 14163 Berlin **Germany**		
Equipment:	**MEMOSENS Sensors type Details see general product information**		
Optional accessory:			
Type of Protection:	**Intrinsic Safety "i"**		
Marking:	Ex ia IIC T3/T4/T6 Ga		

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

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

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

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Certificate No.: **IECEx BVS 16.0030X**

Date of issue: 2024-02-23

Issue No: 2

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

Manufacturing locations: **Knick Elektronische Messgeräte GmbH & Co. KG**
Beuckestraße 22
14163 Berlin
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/ExTR16.0034/02

Quality Assessment Report:

DE/TUN/QAR06.0016/11

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

General product information:

The MEMOSENS Sensors are used in connection with a MEMOSENS measuring cable type CA/MS-***X** or type CA/MS-***X**-L (IECEx BVS 15.0114X) or an in hardware and function identical and certified measuring cable to measure different parameters of fluid media.
The connection between sensor and measuring cable is galvanically isolated via a completely isolated connection system (inductive coupling).
The sensor's electronic circuit is completely encapsulated.

Listing of all components used referring to older standards

Subject and type	Certificate	Standards
MEMOSENS sensor component parts sets type 71076376, type 71099247, type 71266569, type 71266568, type 71099248, type 71099249	IECEx BVS 15.0032U	IEC 60079-0:2011 Edition 6.0 (1) IEC 60079-11:2011 Edition 6.0

(1) No applicable technical differences

Subject and Type:

See Annex

Ratings:

The MEMOSENS Sensors may be connected to the MEMOSENS measuring cable type CA/MS-***X** or type CA/MS-***X**-L (IECEx BVS 15.0114X) or an in hardware and function identical and certified MEMOSENS measuring cable.
For MEMOSENS Conductivity-Sensor type SE605*-XMS***-00P (with CondCheck option) see additional Specific Conditions of Use.
Temperature class and ambient temperature range – see table Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:
See Annex

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
The MEMOSENS Conductivity-Sensor type SE605*-XMS**** was enhanced with CondCheck option for the connection of resistors, the type key has changed to SE605*-XMS***-00*.
The Specific Conditions of Use were enhanced/modified.

Annex:

BVS_16_0030X_Knick_Annex_issue2.pdf

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Certificate No.: **IECEx BVS 16.0030X issue No: 2**
Annex

Subject and Type:

MEMOSENS pH/Redox-Sensor type SE5**X**-*MS*

- non Ex-relevant details
- Sensor length, e.g. / 1 = 120 mm, / 2 = 225 mm
- non Ex-relevant details

MEMOSENS Conductivity-Sensor type SE604X-MS****

- non Ex-relevant details

MEMOSENS Conductivity-Sensor type SE605*-XMS***-00*

- 0 = no Special Version
  P = CondCheck
- non Ex-relevant details
- non Ex-relevant details

MEMOSENS Conductivity-Sensor type SE6**X-**MS** **-***/***

- non Ex-relevant details
- Material with process contact
  Steel, F=1.4571 G=1.4435
- non Ex-relevant details

MEMOSENS Oxygen-Sensor type SE7**X/*-*MS*

- non Ex-relevant details

MEMOSENS Sensor details - type, marking, ambient temperature range:

Type	Marking	Ambient temperature range
SE5X**-*MS*** **SE7**X/*-*MS***	**Ex ia IIC T3/T4/T6 Ga**	-20 °C ≤ T_a ≤ + 135 °C (T3) -20 °C ≤ T_a ≤ + 120 °C (T4) -20 °C ≤ T_a ≤ + 70 °C (T6)
SE604X-MS** **SE605*-XMS***-00*** **SE6**X-**MS****-***/***	**Ex ia IIC T3/T4/T6 Ga**	-20 °C ≤ T_a ≤ + 135 °C (T3) -20 °C ≤ T_a ≤ + 115 °C (T4) -20 °C ≤ T_a ≤ + 65 °C (T6)

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Certificate No.: **IECEx BVS 16.0030X issue No: 2**
Annex

Specific Conditions of Use:

1 The MEMOSENS sensors may be used in the following ambient temperature range:
Temperature class and ambient temperature range – see table above.

2 The MEMOSENS sensors may not be operated in electrostatically critical processing conditions. Intense vapour or dust flows directly impacting on the connection system must be avoided.

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

4 For the sensor type **SE604X-MS****,** type **SE605*-XMS***-00*,** type **SE6**X-**MS****-***/***** and type **SE7**X/*-*MS*** valid:
The sensor may only be used in liquid media with a conductivity of at least 10 nS/cm.

5 For MEMOSENS Conductivity-Sensor type **SE605*-XMS***-00P** with CondCheck option for the connection of resistors:

Resistors with a power rating of 250 mW are suitable for the temperature class T4…T3 at a maximal ambient temperature of 70 °C.

Alternatively, the CondCheck interface may only be used if a safe, non-hazardous atmosphere can be ensured.
Alternatively, resistors connected to the CondCheck interface must be assessed regarding their self-heating when subjected to a 166 mW load. The resistor's surface temperature must remain below the required temperature class, with a safety margin of 5 K.