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 TUN 15.0026X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2016-07-19)
Date of Issue:	2021-06-24		
Applicant:	**Knick Elektronische Messgeräte GmbH & Co. KG** Beuckestrasse 22, 14163 Berlin **Germany**		
Equipment:	**Digital inductive conductivity sensor SE680X-****U0****		
Optional accessory:			
Type of Protection:	**Intrinsic safety**		
Marking:	Ex ia IIC T6/T4/T3 Ga		

Approved for issue on behalf of the IECEx Certification Body: **Andreas Meyer**

Position: **Deputy Head of the IECEx Certification Body**

Signature: (for printed version)

TÜV NORD

Digital unterschrieben von Meyer Andreas
Datum: 2021.06.24 14:50:22 +02'00'

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:

TÜV NORD CERT GmbH
Hanover Office
Am TÜV 1, 30519 Hannover
Germany

TÜV NORD

IECEx Certificate of Conformity

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/TUN/ExTR15.0036/01

Quality Assessment Report:

DE/TUN/QAR06.0016/10

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

Intrinsically safe inductive conductivity sensor type SE680X-****U0** equipped with an integrated PT1000 temperature probe used for measurement of solutions with high conductivity and temperatures for different media.

The connection of the intrinsically safe circuit is possible via plug M12 or a permanently connected cable.

The electronic components of the intrinsically safe inductive conductivity sensor type SE680X-****U0** are completely encapsulated.

Electrical data:

Sensor circuit (M12 plug 4 PIN or permanently connected cable)	In type of protection Intrinsic Safety Ex ia IIC Only for connection to certified intrinsically safe circuits. Maximum values: U_i = 5.1 V I_i = 130 mA P_i = 166 mW
Maximum effective internal capacitance C_i	55 µF
Maximum effective internal inductance L_i	negligibly small

The stated values of effective internal capacitance Ci and inductance Li consider already a connection cable of a length of 100 m.

Thermal parameters:

The ambient temperature range of the inductive conductivity sensor type SE680X-****U0** depending on the temperature class is given in the following table:

Temperature class	Ambient temperature range of the connection head	Permissible process temperature
T6	-20 °C up to +75 °C	+75 °C
T4	-20 °C up to +125 °C	+125 °C
T3	-20 °C up to +150 °C	+150 °C

SPECIFIC CONDITIONS OF USE: YES as shown below:
1. Cable and sensor may only be operated within their specified ambient temperature range and have to be protected against electrostatic charges, if installed in a hazardous area.

2. The sensor may only be operated in liquids with a conductivity of at least 10 nS/cm

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Proof of the conformity of the digital inductive conductivity sensor type SE680X-****U0** to the IEC standards IEC 60079-0: 2017 and IEC 60079-11: 2011.

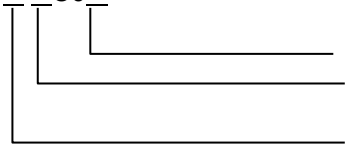
The proof of the conformity of the digital inductive conductivity sensor type SE680X-****U0** to the IEC 60079-11: 2011 is already verified and conformed in the previous issue No. 0

Annex:

Attachment to IECEx TUN 15.0026 X Issue 01.pdf

TÜV NORD CERT GmbH
Hanover Office
Am TÜV 1
30519 Hannover
Germany

General product information:
Subject and Type:
Digital inductive conductivity sensor type SE680X-****U0**:
SE680X-** **U0**



No relevance for the safety
N4: Electrical connection M12 (4-pin)
F*: Permanently connected cable max.100 m
No relevance for the safety

Description:
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