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 DEK 14.0032X**

Certificate history:
Issue 0 (2014-06-04)

Status: **Current**

Issue No: 1

Date of Issue: 2019-11-29

Applicant: **Yokogawa Process Analyzers Europe B.V.**
Euroweg 2
3825 HD Amersfoort
Netherlands

Equipment: **Contact Conductivity Sensors Model SC4A, SC42 and SX42**

Optional accessory:

Type of Protection: **Ex i**

Marking: Ex ia IIC T2…T6 Ga

Approved for issue on behalf of the IECEx Certification Body: **R. Schuller**

Position: **Certification Manager**

Signature:
(for printed version)

Date: 2019-11-29

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 Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands

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Certificate No.: **IECEx DEK 14.0032X**

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Manufacturer: **Yokogawa Process Analyzers Europe B.V.**
Euroweg 2
3825 HD Amersfoort
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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:

NL/DEK/ExTR14.0037/01

Quality Assessment Report:

NL/DEK/QAR13.0015/04

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

Contact Conductivity Sensors Model SC4A, SC42 and SX42 for connection to a certified associated Contact Conductivity Transmitter which converts a measurement signal into an analogue or digital output signal.

Model: SC4A: II 1G Ex ia IIC T4…T6 Ga
Model: SC42: II 1G Ex ia IIC T3…T6 Ga
Model: SX42: II 1G Ex ia IIC T2…T6 Ga

Electrical data:

For the models without ID-chip, available as a connector or permanently connected cable type, the I/O signals are from/to an associated intrinsically safe certified Conductivity transmitter (e.g. Yokogawa transmitter Model FLXA21 series or Yokogawa transmitter Model SC202S series).

For the models with ID-chip, only available as a connector type, the I/O signals are from/to an associated intrinsically safe certified Conductivity transmitter, Yokogawa Smart Adapter Model SA11-C1.

Sensor output circuits (connector, terminal or permanently connected cable): in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit with the following maximum values: U_i = 14.4 V; I_i = 116.5 mA; P_i = 342.4 mW;
- Permanently connected cable: L_i = 0.1 mH and C_i = 150 nF
- Connector type: L_i = 0 mH and C_i = 0 nF (without ID-chip) or C_i = 0.4 nF (with ID-chip).

The effective internal capacitance C_i of the sensor is depending mainly upon the properties and the length of the connected cable.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Ambient and process temperature range:
-30 °C to +40 °C for temperature class T6
-30 °C to +95 °C for temperature class T5
-30 °C to +130 °C for temperature class T4
-30 °C to +165 °C for temperature class T3, depending on sensor model
-30 °C to +275 °C for temperature class T2, depending on sensor model.

For models with an ID-chip, the ambient- and process temperature range is limited to a maximum temperature of +125°C for T4, T3 and T2.

Electrostatic charges of the sensor enclosure parts and label shall be avoided, especially in the case that the process medium is non-conductive. Use a damp cloth for cleaning the equipment.

The sensor version containing light metals, must be installed such, that, even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.

From the safety point of view the circuits shall be assumed to be connected to earth.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
- Minor constructional changes
- assessed per latest edition of the applicable standards

Annex:

224034200SC-Annex 1.pdf