



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx DEK 14.0032X Issue No: 0 Certificate history:
Issue No. 0 (2014-06-04)

Status: **Current** Page 1 of 3

Date of Issue: **2014-06-04**

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

Electrical Apparatus: **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:*

M. Erdhuizen

Position:

Certification Manager

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

DEKRA Certification B.V.
Meander 1051,
6825 MJ Arnhem
The Netherlands





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

Additional Manufacturing
location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

*This Certificate **does not** indicate compliance with electrical 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/ExTR14.0037/00](#)

Quality Assessment Report:

[NL/DEK/QAR13.0015/00](#)



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Schedule

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.

Electrical data:

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: $U_i = 14.4 \text{ V}$; $I_i = 116.5 \text{ mA}$; $P_i = 0.342 \text{ W}$; $C_i = 0 \text{ nF}$ (connector or terminal) or $<150 \text{ nF}$ (permanently connected cable); $L_i = 0 \text{ mH}$;

or for connection to the certified intrinsically safe Yokogawa Contact Conductivity Transmitter Model FLXA21 series or Model SC202S series.

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

CONDITIONS OF CERTIFICATION: 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 Contact Conductivity Sensors Model SC42 containing accessible non-metallic parts must be installed and used so, that dangers of ignition due to hazardous electrostatic charges cannot occur, especially in the case that the process medium is non-conductive.

For Contact Conductivity Sensors containing light metals, it 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.