



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.: issue No.: Certificate history:

Status:

Date of Issue: **2011-12-16** Page 1 of 3

Applicant: **Yokogawa Europe B.V. (YPA)**
Euroweg 2
3825 HD Amersfoort
The Netherlands
The Netherlands

Electrical Apparatus: **Inductive Conductivity Sensor Model ISC40S series**
Optional accessory:

Type of Protection: **Ex i**

Marking: **Ex ia IIC T4...T6 Ga**

Approved for issue on behalf of the IECEx
Certification Body:

C.G. van Es

Position:

Certification Manager

Signature:
(for printed version)



2011-12-16

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.
Utrechtseweg 310
6812 AR Arnhem
The Netherlands

All testing, inspection, auditing and certification activities of the former KEMA Quality are an integral part of the DEKRA Certification Group.





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Manufacturer: **Yokogawa Europe B.V. (YPA)**
Euroweg 2
3825 HD Amersfoort
The Netherlands
The Netherlands

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 : 2007-10 Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5
IEC 60079-11 : 2006 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition: 5
IEC 60079-26 : 2006 Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
Edition: 2

*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/ExTR11.0021/00](#)

Quality Assessment Report:
[NL/KEM/QAR10.0013/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Inductive Conductivity Sensor Model ISC40S-...-... for connection to a certified associated Inductive Conductivity Transmitter which converts a measurement signal into an analogue or digital signal.

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, depending on sensor material.

Electrical data

Sensor output circuits (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:

$U_i = 19.1 \text{ V}$; $I_i = 170 \text{ mA}$; $P_i = 0.8 \text{ W}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ mH}$;

or for connection to the certified intrinsically safe Yokogawa Inductive Conductivity Transmitter Model FLXA21 series, Model ISC202S series or Model IC200S series.

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

CONDITIONS OF CERTIFICATION: YES as shown below:

The Sensor 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 Inductive Conductivity Sensor Model ISC40S-GT series, because the external temperature element is made of Titanium, it must be installed such, that, even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.

Ambient 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