



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 KIWA 16.0016X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2019-02-28\)](#)
[Issue 0 \(2017-01-24\)](#)
Date of Issue: 2021-05-26
Applicant: **INOR Process AB**
Travbanegatan 10
213 77 Malmö
Sweden
Equipment: **Temperature Transmitter, Model IPAQ C330X**
Optional accessory:
Type of Protection: **Intrinsically Safe ia**
Marking: Ex ia IIC T6 ... T4 Ga

Approved for issue on behalf of the IECEx
Certification Body:

Dorin Stochitoiu P. Eng

Position:

Technical Oversight Specialist

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 www.iecex.com or use of this QR Code.



Certificate issued by:

CSA Group
178 Rexdale Blvd
Toronto Ontario M9W 1R3
Canada





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Manufacturer: **INOR Process AB**
Travbanegatan 10
213 77 Malmö
Sweden

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 Reports:

[NL/KIWA/ExTR16.0019/01](#)

[NL/KIWA/ExTR16.0019/02](#)

Quality Assessment Report:

[DK/UJD/QAR11.0003/06](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The in-head Temperature Transmitter Model IPAQ C330X is a loop powered device that converts the measurement signals of temperature sensors (RTD or thermocouple) or resistance or mV signals into a 4 - 20 mA output signal.

The transmitter is designed to be mounted into a Form B or larger connection head according to EN 50446 / DIN 43729.

The transmitter is provided with a mini USB port and NFC technology for service and configuration.

Electrical data

Supply and output circuit (terminals Out +6 and -7):

In type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit; with following maximum values:
 $U_i = 30 \text{ V}$; $I_i = 100 \text{ mA}$; $P_i = 0.9 \text{ W}$; $C_i = 23.1 \text{ nF}$; $L_i = 20 \text{ }\mu\text{H}$.

Sensor circuits (terminals In 1 ... 5):

In type of protection intrinsic safety Ex ia IIC, with following maximum values:
 $U_o = 6.5 \text{ V}$; $I_o = 11.7 \text{ mA}$; $P_o = 19.1 \text{ mW}$; $C_o = 24 \text{ }\mu\text{F}$; $L_o = 400 \text{ mH}$.

The sensor circuits are infallible galvanically isolated from the power supply and output circuit and withstand a test voltage of 500 VAC.

Communication interface (mini USB port):

Only for connection to the associated ICON-X or ICON Interface.

The USB circuit is protected in accordance with the requirements of type of protection intrinsic safety Ex ia IIC, and has following maximum values (for information only):

$U_i = 10 \text{ V}$, $I_i = 100 \text{ mA}$, $P_i = 0.25 \text{ W}$ and

$U_o = 30 \text{ V}$, $I_o = 18 \text{ mA}$, $P_o = 135 \text{ mW}$, $C_o = 66 \text{ nF}$, $L_o = 40 \text{ mH}$.

Refer to the Annexe for Thermal Data

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The communication interface (USB connection) may only be connected to the associated ICON Interface if the temperature transmitter is outside of the hazardous area.

If certified ICON-X interface is used, a connected sensor may be located in the hazardous area.

If non-Ex ICON interface is used, a connected sensor shall not be located in the hazardous area.

- For the applicable ambient temperature range, refer to the General product information.

- The transmitter shall be mounted in to a suitable enclosure that provides a degree of protection of at least IP20.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 2, recognises the following changes; refer to the certificate annex to view a comprehensive history:

1. Change of electronics and printed circuit board layout.
2. Update of the ambient temperature range related to the supply input power parameter.
3. Update of the marking plates, installation manual and control drawing.

Annex:

[IECEX KIWA 16.0016X Issue 2 Annexe.pdf](#)

Annexe to: IECEx KIWA 16.0016X Issue 2

Applicant: INOR Process AB

Apparatus: Temperature Transmitter, Model IPAQ C330X



Ambient temperature range:

<i>P_i</i>	Temperature class	Ambient temperature range
900 mW	T6	-40°C to +55°C
	T5	-40°C to +70°C
	T4	-40°C to +85°C
700 mW	T6	-40°C to +60°C
	T5	-40°C to +75°C
	T4	-40°C to +85°C

Full certificate change history

Issue 1 – this Issue introduced the following changes:

- i. Change of the electronics providing improved electrical parameters for the sensor circuits and a galvanic isolation between the supply and output circuit and the sensor circuits.
- ii. Update of a standard from IEC 60079-0 edition 6 to edition 7.

Issue 2 – this Issue introduced the following changes:

- i. Change of electronics and printed circuit board layout.
- ii. Update of the ambient temperature range related to the supply input power parameter.
- iii. Update of the marking plates, installation manual and control drawing.