

# **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 17.0027X	Page 1 of 4	<u>Certificate history:</u>
04-4	Our manufacture of the control of th	Janua Navid	Issue 0 (2018-03-15)

Status: Current Issue No: 1

Date of Issue: 2021-05-26

**INOR Process AB** Applicant:

Travbanegatan 10 213 77 Malmö Sweden

Equipment: **Temperature Transmitter, Model IPAQ C530X** 

Optional accessory:

Type of Protection: **Intrinsically Safe** 

Ex ia IIC T6 ... T4 Ga Marking:

Approved for issue on behalf of the IECEx Dorin Stochitoiu P. Eng Certification Body:

Position: **Technical Oversight Specialist** 

Signature:

(for printed version)

Date:

- 1. This certificate and schedule may only be reproduced in full.
- This certificate is not transferable and remains the property of the issuing body.
  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





# IECEx Certificate of Conformity

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Date of issue: 2021-05-26 Issue No: 1

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/ExTR17.0029/00 NL/KIWA/ExTR17.0029/01

**Quality Assessment Report:** 

DK/ULD/QAR11.0003/06



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

In-head Temperature Transmitter Model IPAQ C530X 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 signal with HART communication.

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 USB port and NFC technology for service and configuration.

#### **Electrical data**

Supply and output circuit (terminals +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 1 ... 5):

In type of protection intrinsic safety Ex ia IIC, with following maximum values:

$$U_0 = 6.5 \text{ V}$$
;  $I_0 = 11.7 \text{ mA}$ ;  $P_0 = 19.1 \text{ mW}$ ;  $C_0 = 24 \mu\text{F}$ ;  $L_0 = 400 \text{ mH}$ .

Communication port (mini USB connector):

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

The sensor circuits are infallible galvanically isolated from the power supply and output circuit and withstand a test voltage of 500 VAC for 1 minute

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):

$$U_{\rm i}$$
 = 10 V,  $I_{\rm i}$  = 100 mA,  $P_{\rm i}$  = 0.25 W and  $U_{\rm o}$  = 30 V,  $I_{\rm o}$  = 18 mA,  $P_{\rm o}$  = 135 mW,  $C_{\rm o}$  = 66 nF,  $L_{\rm o}$  = 40 mH.

### Refer to the Annexe for Thermal Data

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

- The communication port (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 recognises the following changes;

- 1. Change of electronics and printed circuit board layout.
- 2. Update of the ambient temperature range related to the supply input power parameter.
- Update of the marking plates, installation manual and control drawing.
  Update of a standard from IEC 60079-0 edition 6 to edition 7.

### Annex:

IECEx KIWA 17.0027X Issue 1 Annexe.pdf

Annexe to: IECEx KIWA 17.0027X Issue 1

Applicant: INOR Process AB

Apparatus: Temperature Transmitter, Model IPAQ C530X



## 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:

- 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.
- 4. Update of a standard from IEC 60079-0 edition 6 to edition 7.

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