

## **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 16.0018X**  Page 1 of 4

Issue No: 3

Certificate history:

Status: Current Issue 2 (2021-05-26) Issue 1 (2019-02-28) Issue 0 (2017-01-24)

2024-08-27 Date of Issue:

Applicant: **INOR Process AB** 

Travbanegatan 10 213 77 Malmö Sweden

Equipment: **Temperature Transmitter, Model IPAQ R330X** 

Optional accessory:

Type of Protection: **Intrinsically Safe** 

Marking: Ex ia IIC T6 ... T4 Ga

Approved for issue on behalf of the IECEx Certification Body:

**Dave Magee** 

Position:

Senior Director of Operations, Toronto

Signature:

(for printed version)

(for printed version)

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Certificate issued by:

**CSA Group** 178 Rexdale Blvd **Toronto Ontario M9W 1R3** Canada





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Date of issue: 2024-08-27 Issue No: 3

Manufacturer: INOR Process AB

Travbanegatan 10 213 77 Malmö **Sweden** 

Manufacturing locations:

INOR Process AB Travbanegatan 10 213 77 Malmö

Sweden

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/ExTR16.0020/01 NL/KIWA/ExTR16.0020/02 NL/KIWA/ExTR16.0020/03

**Quality Assessment Report:** 

DK/ULD/QAR11.0003/09



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The rail mounted Temperature Transmitter Model IPAQ R330X 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 provided with a mini USB port and NFC technology for service and configuration.

#### **Electrical data**

Supply and output circuit (terminals +21 and -22):

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 ... 4)::

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

 $U_{\rm o}$  = 6.5 V;  $I_{\rm o}$  = 11.7 mA;  $P_{\rm o}$  = 19.1 mW;  $C_{\rm o}$  = 24  $\mu$ F;  $L_{\rm o}$  = 400 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):

$$U_{\rm i}$$
 = 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.

#### Ambient temperature range:

P <sub>i</sub>	Temperature class	Ambient temperature range
	Т6	-40°C to +55°C
900 mW	T5	-40°C to +70°C
	Т4	-40°C to +85°C
700 mW	Т6	-40°C to +60°C
	T5	-40°C to +75°C
	T4	-40°C to +85°C

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

- 1. The communication interface (USB connection) may only be connected to the associated ICON Interface if the temperature transmitter is outside of the hazardous area.
- 2. If certified ICON-X interface is used, a connected sensor may be located in the hazardous area.
- 3. If non-Ex ICON interface is used, a connected sensor shall not be located in the hazardous area.
- 4. For the applicable ambient temperature range, refer to the General product information.
- 5. 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 3, recognises the following changes:

- 1. To permit the update of the address on the side label to list the postal address in place of PO box address.
- To permit minor change to the construction of the transformer.
  To permit minor technical / administrative changes to drawings not affecting previous assessments.