

# IPAQ R330

## Universal PC-Programmable 2-wire transmitter



IPAQ R330 is a universal, isolated, temperature transmitter with additional voltage and resistance input. Its robust design and high quality gives excellent performance and accuracy also under harsh conditions.

IPAQ R330 supports communication via NFC® (Near-field communication) and Bluetooth® which makes it possible to configure and monitor the transmitter remotely.

- High accuracy and long term stability
- 50-point Customized Linearization and Callendar-Van Dusen
- Accepts RTD, T/C, mV and  $\Omega$
- Sensor error and system (sensor/transmitter) error correction for highest total accuracy
- Low temperature drift
- Configuration via USB, without external power
- Runtime counter - hour counter for elapsed operational time
- Rugged design tested for 5 g vibrations
- High security - Password protection and date of changes logged

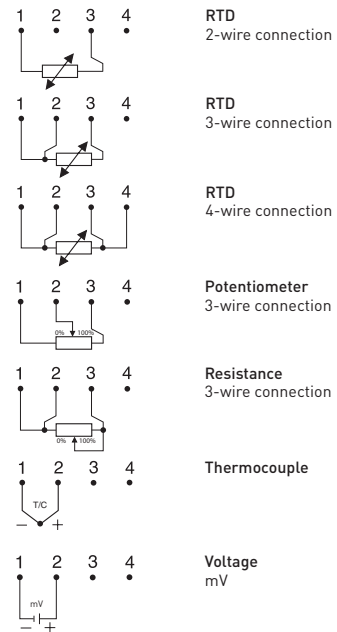
### Specifications:

<b>Input RTD</b>	2-, 3-, 4-wire connection
Pt100 ( $\alpha=0.00385$ )	-200 to +850 °C / -328 to +1562 °F
PtX $10 \leq X \leq 1000$ ( $\alpha=0.00385$ )	Upper range depending on X-value
Pt100 ( $\alpha=0.003916$ )	-200 to +850 °C / -328 to +1562 °F
Ni100 <sup>1)</sup> , Ni120 <sup>2)</sup>	-60 to +250 °C / -76 to +482 °F
Ni1000 <sup>1)</sup>	-50 to +180 °C / -58 to +356 °F
Cu10 <sup>3)</sup>	-50 to +200 °C / -58 to +392 °F
<b>Input Resistance / potentiometer</b>	0 to 10000 $\Omega$ / 100 to 10000 $\Omega$
<b>Input Thermocouples</b>	Types B, C, D, E, J, K, N, R, S, T
<b>Input mV</b>	-10 to +1000 mV
<b>Sensor failure</b>	Upscale ( $\geq 21.0$ mA) or downscale ( $\leq 3.6$ mA) action
<b>Adjustments - Zero</b>	Any value within range limits
<b>Adjustments - Minimum spans</b>	
Pt100, Pt1000, Ni100, Ni1000	10 °C / 18 °F
Potentiometer	10 $\Omega$
T/C, mV	2 mV
<b>Output</b>	4-20 / 20-4 mA, temperature linear
<b>Operating temperature</b>	-40 to +85 °C / -40 to +185 °F
<b>Galvanic isolation</b>	1500 VAC, 1 min
<b>Power supply</b>	IPAQ R330: 8.0...36.0 VDC IPAQ R330X: 8.0...30.0 VDC
<b>Intrinsic safety</b>	
IPAQ R330X ATEX:	II 1 G Ex ia IIC T6...T4 Ga <sup>4)</sup>
IPAQ R330X IECEx:	Ex ia IIC T6...T4 Ga <sup>4)</sup>
IPAQ R330X cFMus:	IS CL I Div 1 GP A-D, T6...T4 Cl I Zn 0 AEx/Ex ia IIC T6...T4 Ga <sup>4)</sup>
<b>Typical accuracy</b>	$\pm 0.08$ °C or $\pm 0.08$ % of span
<b>Mounting</b>	Rail acc. to DIN EN 50022, 35 mm

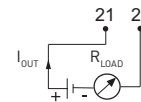
<sup>1)</sup> DIN 43760, <sup>2)</sup> Edison No.7, <sup>3)</sup> Edison No.15 <sup>4)</sup> For Tambient, see the manual

### Input connections

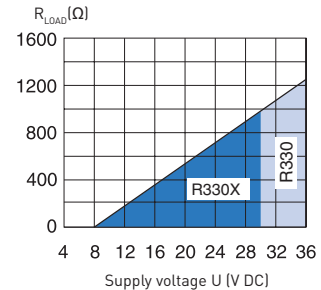
See data sheet for more alternatives



### Output connections

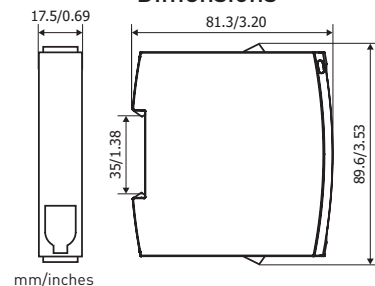


### Output load diagram



$$R_{LOAD} = (U - 8) / 0.022$$

### Dimensions



### Ordering information

IPAQ R330	70R3300012
IPAQ R330X (ATEX / IECEx)	70R330X012
IPAQ R330X (cFMus)	70R330F012
PC configuration kit (USB-conn.)	70CFGUSX01
ICON-BT Bluetooth kit	70CFGBT001