

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 Ω
- 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

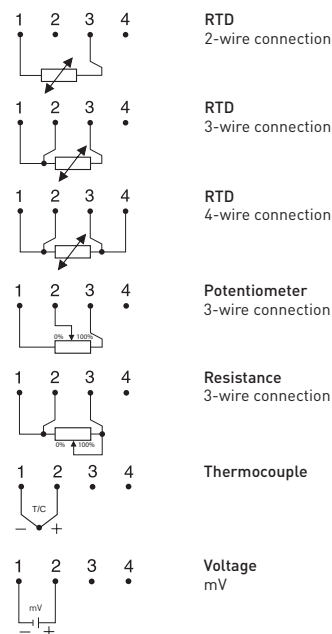
Specifications:

Input RTD	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 ¹⁾ , Ni120 ²⁾	-60 to +250 °C / -76 to +482 °F
Ni1000 ¹⁾	-50 to +180 °C / -58 to +356 °F
Cu10 ³⁾	-50 to +200 °C / -58 to +392 °F
Input Resistance / potentiometer	0 to 10000 Ω / 100 to 10000 Ω
Input Thermocouples	Types B, C, D, E, J, K, N, R, S, T
Input mV	-10 to +1000 mV
Sensor failure	Upscale (≥ 21.0 mA) or downscale (≤ 3.6 mA) action
Adjustments - Zero	Any value within range limits
Adjustments - Minimum spans	
Pt100, Pt1000, Ni100, Ni1000	10 °C / 18 °F
Potentiometer	10 Ω
T/C, mV	2 mV
Output	4-20 / 20-4 mA, temperature linear
Operating temperature	-40 to +85 °C / -40 to +185 °F
Galvanic isolation	1500 VAC, 1 min
Power supply	IPAQ R330: 8.0...36.0 VDC
	IPAQ R330X: 8.0...30.0 VDC
Intrinsic safety	
IPAQ R330X ATEX:	II 1 G Ex ia IIC T6...T4 Ga
IPAQ R330X IECEx:	Ex ia IIC T6...T4 Ga
IPAQ R330X FM US:	CL I, Div 1, GP A, B, C and D / CL I, Zn 0, Ex ia IIC Ga
IPAQ R330X FM CA:	CL I, Div 1, GP A, B, C and D / CL I, Zn 0, Ex ia IIC Ga
Typical accuracy	$\pm 0.08^\circ\text{C}$ or $\pm 0.08\%$ of span
Mounting	Rail acc. to DIN EN 50022, 35 mm

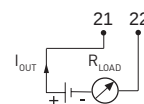
¹⁾ DIN 43760, ²⁾ Edison No.7, ³⁾ Edison No.15

Input connections

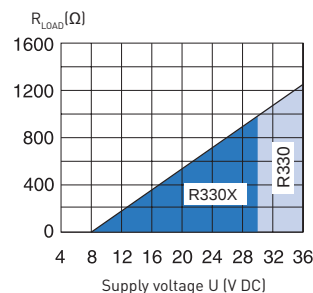
See data sheet for more alternatives



Output connections

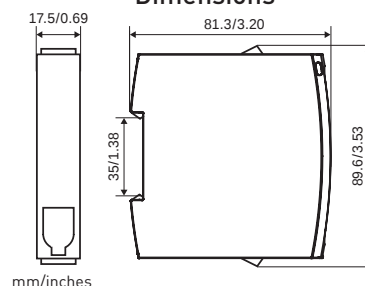


Output load diagram



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

Dimensions



Ordering information

IPAQ R330	70R3300012
IPAQ R330X (ATEX / IECEx / FM)	70R330X012
PC configuration kit (USB-conn.)	70CFGUSX01
ICON-BT Bluetooth kit	70CFGBT001
Configuration	70CAL00001