



IPAQ R330

Universal 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
- Accepts mA input signals within -1 to +100 mA when used with Adapter mA
- Acts like a passive isolator (isolation transmitter) with a 2-wire loop-powered 4-20 mA output
- Suitable for direct connection to an active input module of a control system

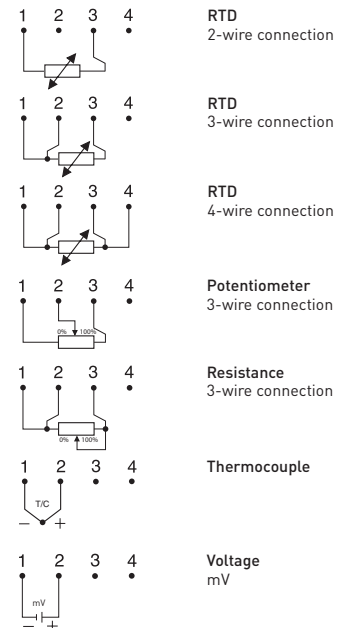
Specifications:

Input RTD	2-, 3-, 4-wire connection
Pt100 ($\alpha = 0.00385$) ¹⁾	-200 to +850 °C / -328 to +1562 °F
PtX 10 ≤ X ≤ 1000 ($\alpha = 0.00385$) ¹⁾	-200 to +850 °C / -328 to +1562 °F
Pt100 ($\alpha = 0.003916$) ²⁾	-200 to +850 °C / -328 to +1562 °F
Ni100 ³⁾ , Ni120 ⁴⁾	-60 to +250 °C / -76 to +482 °F
Ni1000 ³⁾	-50 to +180 °C / -58 to +356 °F
Cu10 ⁵⁾	-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
Resistance / potentiometer	10 Ω / 10 %
T/C, mV	2 mV
Output	4-20 mA / 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:	IS CL I Div 1 GP A-D, T6...T4 ⁴⁾
IPAQ R330X FM CA:	CL I Zn 0 AEx/Ex ia IIC T6...T4 Ga ⁴⁾
Typical accuracy	± 0.08 °C or ± 0.08 % of span
Mounting	35 mm DIN rail acc. to EN 60715

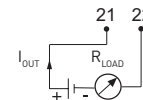
¹⁾ IEC 60751, ²⁾ JIS C 1604, ³⁾ DIN 43760, ⁴⁾ Edison No. 7, ⁵⁾ Edison No. 15, ⁶⁾ T6...T4 are depending on effect

Input connections

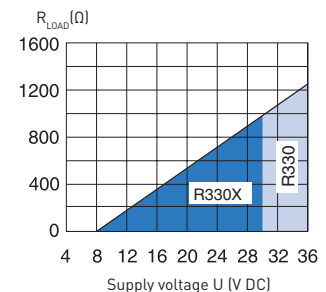
See data sheet for more alternatives



Output connections

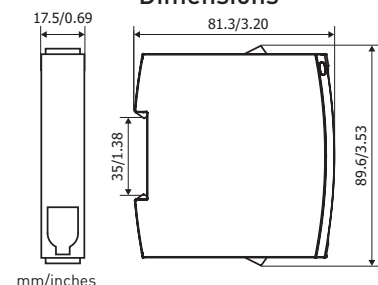


Output load diagram



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

Dimensions



Ordering information

IPAQ R330	70R3300012
IPAQ R330X (ATEX, IECEx)	70R330X012
IPAQ R330X (cFmus, ATEX, IECEx)	70R330F012
ICON-X, PC configuration kit	70CFGUSX01
ICON-BT, Bluetooth® configuration kit	70CFGBT001
Adapter mA, adapter for mA input signal	70ADA00051