

IPAQ R530

Smart HART-compatible 2-wire Transmitter



IPAQ R530 is a modern, HART® temperature transmitter developed to meet the highest standards of accuracy and reliability. A universal transmitter compatible with RTD, thermocouples, voltage and potentiometer sensors. It is fully compatible with HART® 7 and offers extended diagnostic information, for example device error, sensor and wiring conditions.

IPAQ R530 supports communication via NFC® (Near-field communication) and Bluetooth® which makes it possible to configure and monitor the transmitter remotely.

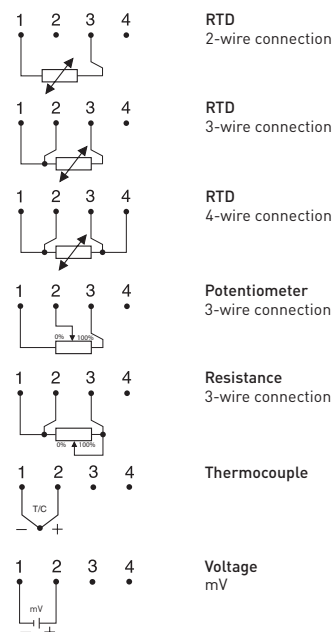
- High accuracy and long term stability
- Accepts RTD, T/C, mV and ohm
- Sensor error correction
- 50-point Customized Linearization and Callendar-Van Dusen
- Low temperature drift
- High security - Password protection and date of changes logged
- Configuration via USB, without external power
- Runtime counter - hour counter for elapsed operational time
- Communicates with HART Communicator or PC via HART modem
- Integrated in Emerson AMS and Siemens PDM systems

Specifications:

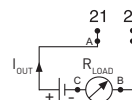
Input RTD	2-, 3-, 4-wire connection
Pt100 ($\alpha = 0.00385$) ¹⁾	-200 to +850 °C / -328 to +1562 °F
PtX 10 ≤ X ≤ 1000 ($\alpha = 0.00385$) ¹⁾	-200 to +850 °C / -328 to +1562 °F
Pt100 ($\alpha = 0.003916$) ²⁾	-200 to +850 °C / -328 to +1562 °F
Ni100 ³⁾ , Ni120 ⁴⁾	-60 to +250 °C / -76 to +482 °F
Ni1000 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 R530 8.5...36.0 VDC
	IPAQ R530X 8.5...30.0 VDC
Intrinsic safety	
IPAQ R530X ATEX:	II 1G Ex ia IIC T6...T4 Ga
IPAQ R530X IECEx:	Ex ia IIC T6...T4 Ga
IPAQ R530X FM US:	IS CL I Div 1 GP A-D, T6...T4 ⁴⁾
IPAQ R530X 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

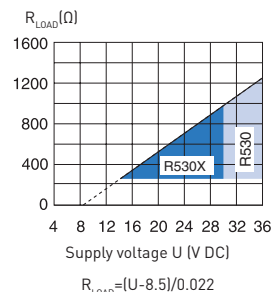
Input connections



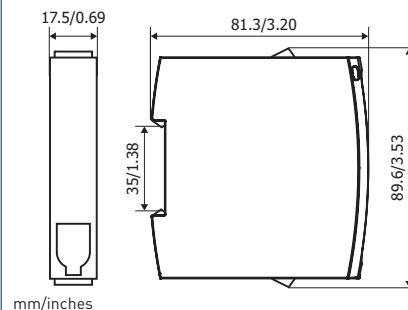
Output connections



Output load diagram



Dimensions



Ordering information

IPAQ R530	70R5300010
IPAQ R530X (ATEX, IECEx)	70R530X010
IPAQ R530X (cFmus, ATEX, IECEx)	70R530F010
ICON-X, PC configuration kit	70CFGUSX01
ICON-BT, Bluetooth® configuration kit	70CFGBT001