

IPAQ C530

Universal HART-compatible 2-wire Transmitter



IPAQ C530 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 C530 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 and system (sensor/transmitter) error correction
- 50-point Customized Linearization and Callendar-Van Dusen
- Rugged design tested for 10 g vibrations
- Configuration via USB, without external power
- Runtime counter - hour counter for elapsed operational time
- Communicates with HART Communicator or PC via modem
- Integrated in Emerson AMS and Siemens PDM systems

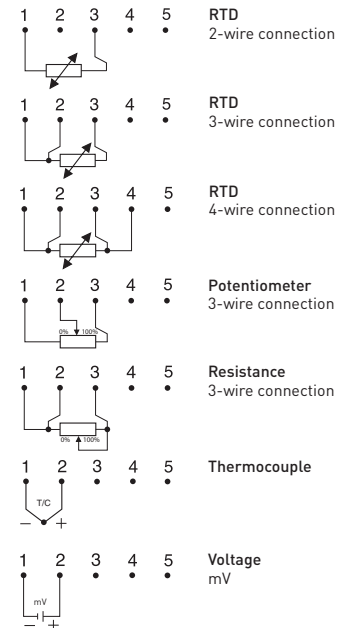
Specifications:

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	100 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 C530	8.5...36.0 VDC
	IPAQ C530X	8.5...30.0 VDC
Intrinsic safety		
IPAQ C530X ATEX:	II 1G Ex ia IIC T6...T4 Ga	
IPAQ C530X IECEx:	Ex ia IIC T6...T4 Ga	
IPAQ C530X FM US/CA:	Pending	
Typical accuracy	$\pm 0.08^\circ\text{C}$ or $\pm 0.08\%$ of span	
Connection head	DIN B or larger	

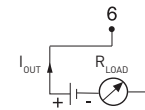
¹⁾IEC 60751, $\alpha = 0.00385$ and Pt100 acc. to JIS 1604, $\alpha = 0.003916$ ²⁾DIN 43760

³⁾Temperature, resistance or voltage linear, customized linearization possible

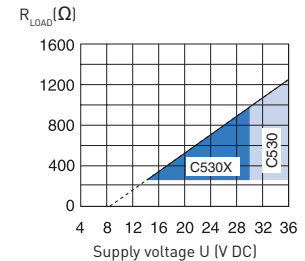
Input connections



Output connections

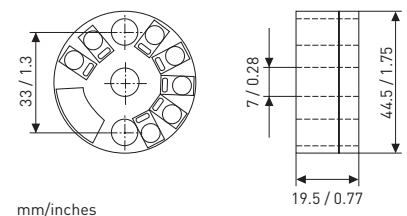


Output load diagram



$$R_{LOAD} = (U - 8.5) / 0.022$$

Dimensions



Ordering information

IPAQ C530	70C5300010
IPAQ C530X (ATEX / IECEx)	70C530X010
IPAQ C530X (FM)	70C530F010
PC-USB Config. / USB Lite Kit	70CFGUS101
ICON-BT Bluetooth kit	70CFGBT001