IPAQ C530

Universal HART-compatible 2-wire Transmitter

HART COMMUNICATION PROTOCOL · IEC · IECEx · Ex · FM APPROVED · CE · 1 YEAR WARRANTY · NFC

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
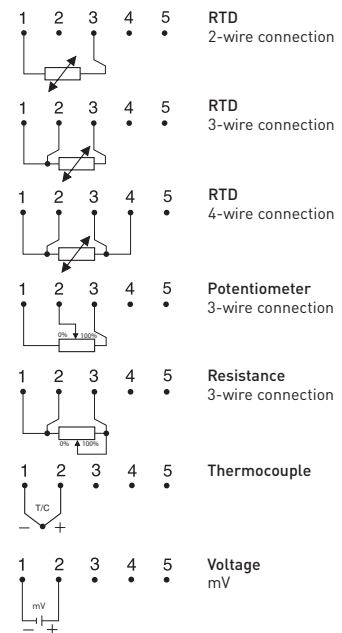- Integrated in Emerson AMS and Siemens PDM systems

Specifications:

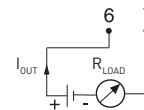|		
Input RTD		2-, 3-, 4-wire connection
Pt100 (α =0.00385)		-200 to +850 °C / -328 to +1562 °F
PtX 10 ≤ X ≤ 1000 (α =0.00385)		Upper range depending on X-value
Pt100 (α =0.003916)		-200 to +850 °C / -328 to +1562 °F
Ni100[1], Ni120[2]		-60 to +250 °C / -76 to +482 °F
Ni1000[1]		-50 to +180 °C / -58 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[4]
IPAQ C530X IECEx:		Ex ia IIC T6...T4 Ga[4]
IPAQ C330X cFMus:		IS Cl I Div 1 GP A-D, T6...T4
		Cl I Zn 0 AEx/Ex ia IIC T6...T4 Ga[4]
Typical accuracy		±0.08°C or ±0.08% of span
Connection head		DIN B or larger

[1] IEC 60751, α=0.00385 and Pt100 acc. to JIS 1604, α=0.003916 [2] DIN 43760
[3] Temperature, resistance or voltage linear, customized linearziation possible [4] For Tambient, see the manual
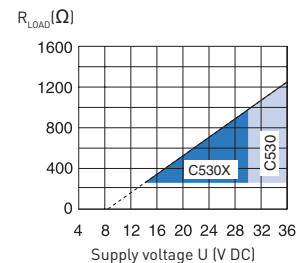
Input connections

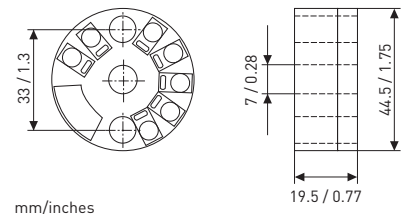|		
1 2 3 4 5	RTD	2-wire connection
1 2 3 4 5	RTD	3-wire connection
1 2 3 4 5	RTD	4-wire connection
1 2 3 4 5	Potentiometer	3-wire connection
1 2 3 4 5	Resistance	3-wire connection
1 2 3 4 5	Thermocouple	
1 2 3 4 5	Voltage	mV

Output connections

Output load diagram

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

Dimensions

mm/inches

Ordering information

IPAQ C530	70C5300010
IPAQ C530X (ATEX / IECEx)	70C530X010
IPAQ C530X (cFMus)	70C530F010
HART PC modem USB	70MEM00003
PC configuration kit (USB-conn.)	70CFGUSX01
ICON-BT Bluetooth kit	70CFGBT001
Configuration	70CAL00001