APAQ C130

Digital 2-wire transmitter for Pt100 and Pt1000 with wireless communication

5 YEAR WARRANTY

NFC

APAQ C130 is a modern transmitter with high reliability and great performance. External influences such as ambient temperature, vibration, moisture and EMC interference have minimal influence on the measurement result, thanks to the robust design.

What characterizes APAQ C130 is simplicity. You can easily configure the transmitters wirelessly via NFC with your smartphone or tablet. There is no need for expensive configuration tools or fixed workstations for transmitter configuration.

Measurements with Pt100 & Pt1000 sensors in 2-,3-, 4-wire connection

APAQ C130 accepts inputs from Pt100 & Pt1000 sensors in 2-, 3-, 4-wire connectios acc. to IEC 60751 (α=0.00385)

Temperature linear output

Fully temperature linear 4-20 mA output.

High accuracy

With an accuracy of ±0,15 K or ±0,15 % of span (the largest apply) APAQ C130 offers an outstanding performance in its class.

Compact design for easy installation

The head-mounted variant is only 10.5 mm high and can easily be installed in all DIN B connection heads.

Reliable over time

Minimal drift of ±0.05°C or ±0.05% of span/ year reduces the need for calibration.

Designed for harsh conditions

Rugged design tested for 10 g vibrations.

Mounting, wiring and testing

APAQ C130 is designed to fit inside connection heads type DIN B or larger. The large centre hole, dia. 7 mm / 0.28 inch, the robust terminals with test connections and the low height greatly simplify the mounting, wiring and testing procedure.

Wireless configuration

Configure APAQ C130 wirelessly with your smartphone without power supply and cables

INOR Connect, easy-to-use app for configuration

The simple and user friendly app, INOR Connect, is used for transmitter configuration in seconds. All parameters are set in the app and then transferred to the transmitter via NFC.

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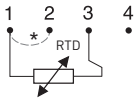
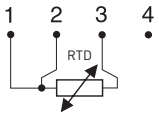
Specifications

Input RTD		
Pt100 (IEC 60751, α=0.00385)	2-, 3-, 4-wire connection	-200... +850°C / -328...+1562°F
Pt1000 (IEC 60751, α=0.00385)	2-, 3-, 4-wire connection	-200... +850°C / -328...+1562°F
Sensor current		⩽ 0.5 mA
Maximum sensor wire resistance		50 Ω/wire
Monitoring		
Sensor break and sensor short circuit indication		Upscale (≥21.0 mA) or downscale (≤3.6 mA) action
Adjustments		
Zero adjustment		Any value within range limits
Minimum span		20 °C / 36 °F
Output		
Output signal		4...20 mA, temperature linear
NAMUR compliance		Current limitations and failure currents acc. to NAMUR NE 43
Adjustable filtering level		0.4 to 26 s
Permissible load, see load diagram		818 Ω @ 24 VDC
General data		
Isolation		Not galvanically isolated
Power supply, polarity protected		6...32 VDC
Environment conditions		
Ambient temperature	Storage and operation	-40...+85°C / -40...+185°F
Humidity		0...98% RH (non-condensing)
Vibrations		Acc. to IEC 60068-2-6, test Fc, 10...2000 Hz, 10 g
Rough Handling		Acc. to IEC 60068-2-31:2008, test Ec
EMC	Standards	Directive: 2014/30/EU Harmonized standards: EN 61326-1, EN 61326-2-3
	Immunity performance	ESD, Radiated EM-field, Magnetic Fields: Criteria A
		Burst, conducted RF: Criteria A
		Surge: standard deviation 1% of span
Accuracy and stability		
Basic accuracy		Max of ±0,15K or ±0,15% of span
Temperature influence	Deviation from 20 °C / 68 °F	Max. of ±0,015°C / °C or ±0,015 % of span / °C Max. of ±0,015°F / °F or ±0,008 % of span / °F
Sensor wire influence		2-wire: Compensation for 0 to 100 Ω loop resistance 3-wire: Negligible, with equal wire resistence 4-wire: Negligible
Supply voltage influence		Negligible
Long-term stability		±0.05 % of span per year
Housing		
Material, Flammability (UL)		PC/ABS + PA, V0
Mounting		DIN B-head or larger, DIN rail (with mounting kit)
Connection		Single/stranded wires, Max. 1.5 mm^2, AWG 24...12
Weight		32 g / 0.07 lb
Protection, housing / terminals		IP 65 / IP 00

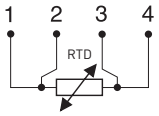
Input connections



Pt100 / Pt1000
2-wire connection



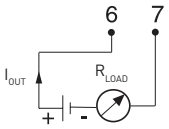
Pt100 / Pt1000
3-wire connection



Pt100 / Pt1000
4-wire connection

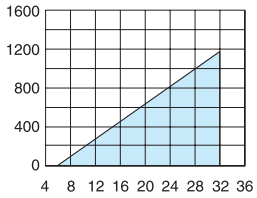
* Short terminals 1 and 2 on the transmitter, max 50 Ω on each wire

Output connections



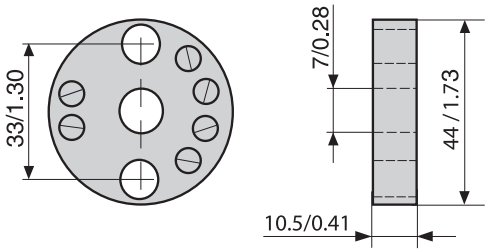
Output load diagram

$R_{LOAD}(\Omega) = (U-6)/0.022$



Supply voltage U (V DC)

Dimensions



mm/inches

Ordering information

APAQ C130 RTD	70C1300011
Head mounting kit	70ADA00017
DIN-rail Adapter + Screw (10 pcs)	70ADA00027