

Universal high-isolation 4-wire transmitter



Easy configuration via DIP switch

INOR

IPAQ R460 is a 4-wire transmitter for resistance thermometers and thermocouples configurable via PC Software or DIP switches

IPAQ R460 is a programmable 4-wire (separately powered) transmitter. It converts Pt, Ni, KTY and TC sensor signals as well as potentiometer, resistor and mV signals to isolated standard signals.

The commissioning function, which can be switched on at the front, generates a reference signal at the output with which the subsequent signal path can be tested and adjusted.

The Power supply can be supplied via the connection terminals or via the In-Rail-Bus connector. The supply voltage and error status are indicated by LEDs on the front of the unit.

Highlights:

- Easy configuration
- Easy commissioning
- 3-port isolation
- Slim design
- Optional in-rail bus mounting
- Safe isolation

Technical Data

Type	Rail-mounted
Input	Pt, Ni, KTY, Thermocouple, mV and ohm
Input RTD	Pt100, Pt200, Pt500, Pt1000, Ni100, Ni200, Ni500, Ni1000
Input Thermocouple	B, C, D, E, J, K, L, N, R, S, T, U
Type of Transmitter	Digital Signal Conditioner in 4-wire technology with 3-port isolation
Output	Freely in ranges 0...20 mA / 0...10 V
Measuring range (Pt)	-200...+850 °C, -328...+1562 °F
Galvanic isolation	3 kV AC (test voltage) / 600 V AC/DC (working voltage)
Measuring channels	1 channel
Sensor connection	2-, 3-, 4-wire
Power supply	24 V DC, Voltage range 9.6...31.2 VDC, approx. 0.8 W
Typical accuracy	Pt100: < 0.1 K + 0.05% meas. val. TC: < 0.3 K + 0.08 % meas. val.
Configuration	DIP switches or PC with INOR Set
EMC	EN 61326-1
Ambient temperature	Operation: -25...+70 °C (-13...+158 °F), Transport and storage: -40...+85 °C (-40...+185 °F)
Design	6.2 mm (0.244") bayed case, protection class IP 20, mounting on 35 mm top-hat rail acc. to EN 60715
Weight	Approx. 70 g

IPAQ R460 - the alternative product to IPAQ-4L

IPAQ-4L is obsolete. IPAQ R460 is an alternative product and you need to check your application. Have a look at the similarities between IPAQ-4L and IPAQ R460 below.

Parameter	Data for transmitter	
	IPAQ-4L	IPAQ R460
Input		
Pt sensor	Pt100, Pt1000, PtX	Pt100, Pt200, Pt500, Pt1000
Ni Sensor	Ni100, Ni120, Ni1000	Ni100, Ni200, Ni500, Ni1000
Thermocouples	B, C, E, J, K, L, N, R, S, T, U	B, C, D, E, J, K, L, N, R, S, T, U
Current	-1...50 mA	No
mV	No	±100 mV, ±1000 mV
Volt	-10...50 V	No
Resistance	0...8000 Ohm	0...5000 Ohm
Potentiometer	No	100...50 kOhm
KT and KTY Temperature Sensors	No	KTY, 29 types
RTD connections	3-, 4-wire	2-, 3-, 4-wire
Cold Junction Compensation (CJC int.) error	±0.5 K	< 1.5 K
Adjustments		
All inputs	Any value within range limits	Any value within range limits (PC config.)
Minimum span Pt100, Ni100	10 K	10 K
Minimum span Thermocouple	2 mV	50 K (100 K for types B, C, D)
Output		
Current (straight, reversed)	0/4...20 mA, Custom	0/2...10 mA, 0/4...20 mA, Custom
Voltage (straight, reversed)	0/2...10 V, Custom	0/1...5 V, 0/2...10 V, Custom
Isolation, Input // Output // Power supply		
Test Voltage	4000 VAC, 1 min	3000 VAC, 1 min
Working Voltage	Not specified	600 V AC/DC
Power Supply	20...30 VDC or 90...250 VAC	24 VDC (9.6 V...31.2 V DC)
Configuration	PC	DIP switches or PC with INOR Set
Teach-In Function for measuring range limits	No	Yes (for Pot., Res. and mV-input)
Sensor error correction	Yes	Yes (see Teach-In Function)
Ambient temperature, operation	-20 to +70 °C	-25 to +70 °C
Response time T99	~ 0.8 s	250 ms
Dimensions (wxhxl)	22.5x99x82	6.2x107x96,5

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