IPAQ R460

4-wire transmitter for resistance thermometers and thermocouples

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.

IPAQ R460 can be programmed either via the PC-Software INOR-Set or via DIP-switches (limited number of sensors and ranges). Power supply is not necessary during PC configuration. The auxiliary power can be supplied via the connection terminals or via the In-Rail-Bus connector. The status of power supply and sensor connection will be displayed by a LED on the transmitter front.

- Complete programmable via USB-interface or selectable per DIP-switch
- Switchable service functions for easy commissioning
- 3-port isolation
- Protection against measurement errors due to earthing problems and interference voltage carry-over
- Extremely slim design 6.2 mm narrow bayed housing for simple and space-saving top-hat rail mounting
- In-Rail-Bus connector for power supply allows for fast and cost-effective installation
- Safe isolation according to EN 61140 Protection of maintenance personnel and downstream equipment from impermissibly high voltage

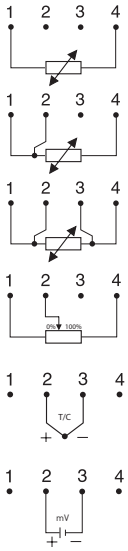
Specifications:

Input RTD and resistance	2-, 3-, 4-wire connection
Pt100, Pt200, Pt500, Pt1000 (a=0.00385) [1]	-200 to +850 °C / -328 to 1562 °F
Ni100 (a=0.006180) [2]	-60 to +250 °C / -76 to 482 °F
Ni200, Ni500, Ni1000 (a=0.006180) [2]	-50 to 180 °C / -58 to 356 °F
KTY, 29 types	-50 to +150 °C / -58 to 302 °F
Resistance	0 to 5000 Ω
Potentiometer/slidewire (3-terminals)	100 Ω to 50 kΩ
Input Thermocouple	B, C, D, E, J, K, L, N, R, S, T, U
Input Voltage	-100 to +100 mV / -1000 to +1000 mV
Sensor failure	Upscale or downscale action
Adjustments – Zero	Any value within range limits
Adjustments – Minimum spans	
Pt100, Pt200, Pt500, Pt1000	10 K
Ni100, Ni200, Ni500, Ni1000	10 K
KTY types	25 K
Resistance	20 Ω
Potentiometer/slidewire (3-terminals)	10 %
T/C type B, C, D / E, J, K, L, N, R, S, T, U	100 K / 50 K
mV-Input ± 100 mV / ± 1000 mV	5 mV / 50 mV
Output	
Current (rising or falling)	0/4-20 mA, 0/2-10 mA or customized
Voltage (rising or falling)	0/2-10 V, 0/1-5 V or customized
Operating temperature	-25 to +70 °C / -13 to 158 °F
Galvanic isolation (test / working voltage)	3 kV AC, 50 Hz, 1 min / 600 V AC/DC
Power supply	24 V DC, range 9.6 to 31.2 V DC, approx. 0.8 W
Typical measuring error	
Pt / Ni sensors	<0.1 K + 0.05 % meas.val.
T/C	<0.3 K + 0.08 % meas.val. + error of CJC (<1.5 K)
Mounting	DIN-Rail 35 mm according to EN/IEC 60715

[1] IEC 60751, [2] DIN 43760

Input connections

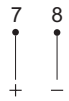
See data sheet for more alternatives



Output connections

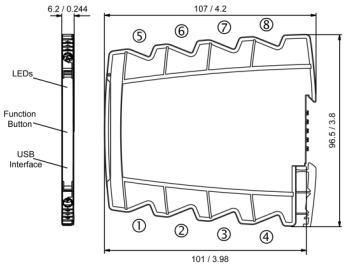
Power supply

via Terminals



via In-Rail-Bus

Dimensions



mm/inches

Ordering information

Transmitter	
IPAQ R460	70R4600010
Configuration tools	
INOR-Set, PC USB Converter	70USBIM010
INOR-Set, PC Software	www.inor.com
Accessories	
In-Rail-Bus system	See accessories