

# 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

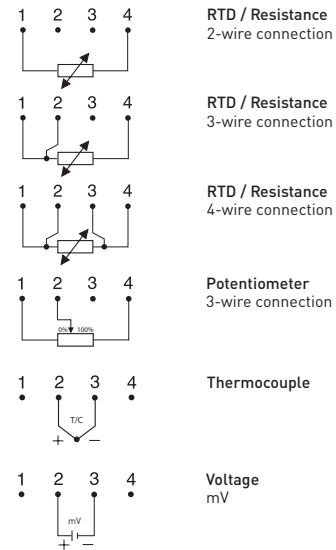
### Specifications:

<b>Input RTD and resistance</b>	2-, 3-, 4-wire connection
Pt100, Pt200, Pt500, Pt1000 (a=0.00385) <sup>1)</sup>	-200 to +850 °C / -328 to 1562 °F
Ni100 (a=0.006180) <sup>2)</sup>	-60 to +250 °C / -76 to 482 °F
Ni200, Ni500, Ni1000 (a=0.006180) <sup>2)</sup>	-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
<b>Input Thermocouple</b>	B, C, D, E, J, K, L, N, R, S, T, U
<b>Input Voltage</b>	-100 to +100 mV / -1000 to +1000 mV
<b>Sensor failure</b>	Upscale or downscale action
<b>Adjustments – Zero</b>	Any value within range limits
<b>Adjustments – Minimum spans</b>	
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
<b>Output</b>	
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
<b>Operating temperature</b>	-25 to +70 °C / -13 to 158 °F
<b>Galvanic isolation (test / working voltage)</b>	3 kV AC, 50 Hz, 1 min / 600 V AC/DC
<b>Power supply</b>	24 V DC, range 9.6 to 31.2 V DC, approx. 0.8 W
<b>Typical measuring error</b>	
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)
<b>Mounting</b>	DIN-Rail 35 mm according to EN/IEC 60715

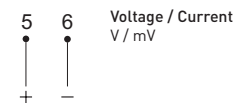
<sup>1)</sup> IEC 60751, <sup>2)</sup> DIN 43760

### Input connections

See data sheet for more alternatives



### Output connections

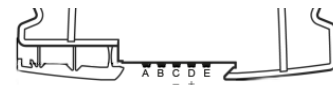


### Power supply

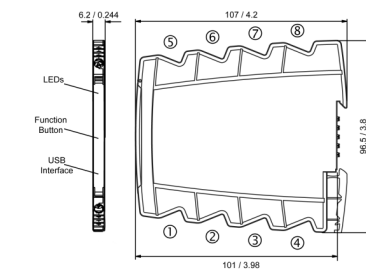
via Terminals



via In-Rail-Bus



### Dimensions



mm/inches

### Ordering information

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