

INPUT

Resistance Thermometer (RTD)

TYPE	MEASUREMENT RANGE	MINIMUM RANGE
Pt100 ($\alpha = 0.00385\text{ }^{\circ}\text{C}^{-1}$)	(-200 to 850) $^{\circ}\text{C}$ [-328 to 1562] $^{\circ}\text{F}$	10 $^{\circ}\text{C}$ [18 $^{\circ}\text{F}$]
Pt500	(-200 to 250) $^{\circ}\text{C}$ [-328 to 482] $^{\circ}\text{F}$	10 $^{\circ}\text{C}$ [18 $^{\circ}\text{F}$]
Pt1000	(-200 to 250) $^{\circ}\text{C}$ [-328 to 482] $^{\circ}\text{F}$	10 $^{\circ}\text{C}$ [18 $^{\circ}\text{F}$]
Ni100 ($\alpha = 0.00618\text{ }^{\circ}\text{C}^{-1}$)	(-60 to 180) $^{\circ}\text{C}$ [-76 to 356] $^{\circ}\text{F}$	10 $^{\circ}\text{C}$ [18 $^{\circ}\text{F}$]
Ni500	(-60 to 150) $^{\circ}\text{C}$ [-76 to 302] $^{\circ}\text{F}$	10 $^{\circ}\text{C}$ [18 $^{\circ}\text{F}$]
Ni1000	(-60 to 150) $^{\circ}\text{C}$ [-76 to 302] $^{\circ}\text{F}$	10 $^{\circ}\text{C}$ [18 $^{\circ}\text{F}$]
Connection type	2-, 3- or 4-wire connection cable. Resistance compensation possible in the 2-wire system (0 to 20) Ω	
Sensor cable resistance	maximum 11 Ω per cable	
Sensor current	$\leq 0.6\text{ mA}$	

Resistance (Ω)

TYPE	MEASUREMENT RANGE	MINIMUM RANGE
Resistance (Ω)	(10 to 400) Ω (10 to 2000) Ω	10 Ω 100 Ω

Thermocouples (TC)

TYPE	MEASUREMENT RANGE	MINIMUM RANGE
B (PtRh30-PtRh6) ^[4]	(0 to 1820) °C	[32 to 3308] °F
C (W5Re-W26Re)	(0 to 2320) °C	[32 to 4208] °F
D (W3Re-W25Re) ^[3]	(0 to 2495) °C	[32 to 4523] °F
E (NiCr-CuNi)	(-200 to 915) °C	[-328 to 1679] °F
J (Fe-CuNi)	(-200 to 1200) °C	[-328 to 2192] °F
K (NiCr-Ni)	(-200 to 1372) °C	[-328 to 2501] °F
L (Fe-CuNi) ^[2]	(-200 to 900) °C	[-328 to 1652] °F
N (NiCrSi-NiSi)	(-270 to 1300) °C	[-454 to 2372] °F
R (PtRh13-Pt)	(0 to 1768) °C	[32 to 3214] °F
S (PtRh10-Pt)	(0 to 1768) °C	[32 to 3214] °F
T (Cu-CuNi)	(-200 to 400) °C	[-328 to 752] °F
U (Cu-CuNi) ^[2]	(-200 to 600) °C	[-328 to 1112] °F
MoRe5-MoRe41 ^[1]	(0 to 2000) °C	[32 to 3632] °F
Cold junction	internal (Pt100) or external (0 to 80) °C [32 to 176] °F	
Cold junction accuracy	± 1 °C	

[1] no reference
[2] according to DIN 43710
[3] according to ASTM E1751
[4] higher measurement error for temperatures below 300 °C (572) °F

Voltage (mV)

TYPE	MEASUREMENT RANGE	MINIMUM RANGE
Millivolt (mV)	(-10 to 100) mV	5 mV