

INPUT

Complete Specifications are listed in the T82 Manual available at www.pyromation.com/TechInfo/Docs/aspix or scan QR code



Resistance Thermometer (RTD)

TYPE	STANDARD	MEASUREMENT RANGE	MINIMUM RANGE
Pt100 ($\alpha = 0.00385\ ^\circ\text{C}^{-1}$) Pt200 Pt500 Pt1000	ASTM E1137 IEC 60 751	(-200 to 850) °C [-328 to 1562] °F (-200 to 850) °C [-328 to 1562] °F (-200 to 500) °C [-328 to 932] °F (-200 to 250) °C [-328 to 482] °F	(10) °C [18] °F (10) °C [18] °F (10) °C [18] °F (10) °C [18] °F
Pt100 ($\alpha = 0.003916$)	JIS C1604:1984	(-200 to 510) °C [-328 to 950] °F	(10) °C [18] °F
Ni100 ($\alpha = 0.00618$) Ni120 ($\alpha = 0.00618$)	DIN 43 760 IPTS-68	(-60 to 250) °C [-76 to 482] °F (-60 to 250) °C [-76 to 482] °F	(10) °C [18] °F (10) °C [18] °F
Pt50 ($\alpha = 0.00391$) Pt100 ($\alpha = 0.00391$) Cu50 ($\alpha = 0.00428$)	GOST 6651-94	(-185 to 1100) °C [-301 to 2012] °F (-200 to 850) °C [-328 to 1562] °F (-180 to 200) °C [-242 to 392] °F	(10) °C [18] °F (10) °C [18] °F (10) °C [18] °F
Pt100 (Callendar van Dusen) Nickel polynomial Copper polynomial		The measuring range limits are specified by entering the limit values that depend on the coefficients A to C and R_0 .	(10) °C [18] °F

Type of connection: 2-wire, 3-wire or 4-wire connection, sensor current: $\leq 0.3\text{ mA}$

With 2-wire circuit, compensation of wire resistance possible (0 to 30 Ω)

With 3-wire and 4-wire connection, sensor wire resistance up to max. 50 Ω per wire

Resistance (Ω)

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

Thermocouples (TC)

TYPE	STANDARD	MEASUREMENT RANGE	RECOMMENDED TEMPERATURE RANGE	MINIMUM RANGE
B (PtRh30-PtRh6) E (NiCr-CuNi) J (Fe-CuNi) K (NiCr-Ni) N (NiCrSi-NiSi) R (PtRh13-Pt) S (PtRh10-Pt) T (Cu-CuNi)	IEC 584 part 1 ASTM E230	(40 to 1820) °C [104 to 3308] °F (-270 to 1000) °C [-454 to 1832] °F (-210 to 1200) °C [-346 to 2192] °F (-270 to 1372) °C [-454 to 2501] °F (-270 to 1300) °C [-454 to 2372] °F (-50 to 1768) °C [-58 to 3214] °F (-50 to 1768) °C [-58 to 3214] °F (-260 to 400) °C [-436 to 752] °F	(100 to 1500) °C [212 to 2732] °F (0 to 750) °C [32 to 1382] °F (20 to 700) °C [68 to 1292] °F (0 to 1100) °C [32 to 2012] °F (0 to 1100) °C [32 to 2012] °F (0 to 1400) °C [32 to 2552] °F (0 to 1400) °C [32 to 2552] °F (-185 to 350) °C [-301 to 662] °F	(50) °C [90] °F (50) °C [90] °F (50) °C [90] °F (50) °C [90] °F (50) °C [90] °F (50) °C [90] °F (50) °C [90] °F (50) °C [90] °F
C (W5Re-W26Re)	ASTM E230	(0 to 2315) °C [32 to 4199] °F	(0 to 2000) °C [32 to 3632] °F	(50) °C [90] °F
D (W3Re-W25Re)	ASTM E1751	(0 to 2315) °C [32 to 4199] °F	(0 to 2000) °C [32 to 3632] °F	(50) °C [90] °F
L (Fe-CuNi) U (Cu-CuNi)	DIN 43 710	(-200 to 900) °C [-328 to 1652] °F (-200 to 600) °C [-328 to 1112] °F	(0 to 750) °C [32 to 1382] °F (-185 to 400) °C [-301 to 752] °F	(50) °C [90] °F (50) °C [90] °F
Cold junction		internal (Pt100) or external (-40 to 85) °C [-40 to 185] °F		
Max. sensor resistance		10 k Ω		

Voltage (mV)

TYPE	MEASUREMENT RANGE	MINIMUM RANGE
Millivolt (mV)	(-20 to 100) mV	5 mV

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