

Pt100 & Thermocouple Assemblies for Industrial Applications

- ✓ Pt100 in class A, 1/3 DIN and 1/10 DIN available, max. 400°C
- ✓ Thermocouples Type J, K, N and T. Accuracy IEC class 1, max. 800°C
- ✓ Sheath lengths of 20-500mm as standard
- ✓ Sheath diameters of 6, 9, 11 & 15mm
- ✓ Wide range of process fittings/threads
- ✓ Optional head-mount transmitters

Omega's industrial protection head temperature probes are offered in 3 different mechanical constructions and with many options and fittings, making them suitable for a wide range of applications.

The following may be specified at time of order: sensor type; fixed, replaceable or mineral insulated construction; accuracy class; diameter; insertion and lagging lengths; process fittings and optional head-mount transmitter.



Sensor Type	Internal Construction	Accuracy	Diameter	Length	Threaded Fitting	Transmitter
B-P = Pt100 B-J = Thermocouple J B-K = Thermocouple K B-T = Thermocouple T B-N = Thermocouple N	F = Fixed Sensor Element G = Replacement PT100 Element M = Mineral Insulated	Pt100 A = Class A 1/3 = 1/3 DIN 1/10 = 1/10 DIN Thermocouple: 1 = Class 1 (standard)	6 = 6mm 9 = 9mm 11 = 11mm 15 = 15mm	20-200mm 201-500mm	M18 = M18x1.5 G1/4 = 1/4" BSPP G1/2 = 1/2" BSPP R1/4 = 1/4" BSPT R1/2 = 1/2" BSPT	Analogue Transmitter TX-Pt100 – for Pt100 TX-TC – for Thermocouple Please State Scaling Required



Specifications

Sheath material:
316 Stainless Steel

Max. Head Temperature:
70°C (with transmitter)
150°C (without transmitter)

Standard Pt100 Wiring:
Class A: 2 wire

Class 1/3 and 1/10 DIN:
4-wire

Pt100 Transmitter:
Minimum span: 20°C

Accuracy: +/- (0.1°C + 0.1% range) +/- 5µA for -100 to 500°C
+/- (0.2°C + 0.1% range) +/- 5µA for -200 to 850°C

Thermal Drift:
Zero: +/- 0.01°C/°C
Span: +/- 50ppm

Output: 4 to 20mA,
2 wire, loop powered.

Operating voltage:
8 to 30Vdc

Loop Resistivity:
800 Ohm @ 24Vdc

Thermocouple Transmitter:

Minimum span: 75°C
Accuracy: +/- 0.1% FS
(0/100°C range) Excl. CJ

Overall Stability (inc. CJ): 400ppm/°C

Cold Junction Compensation:
Automatic 0 to 70°C.
Accuracy 0.2°C @ 20°C,
tracking +/- 0.05°C/°C

Output: 4 to 20mA, 2 wire, loop powered.

Operating voltage:
10 to 30Vdc

Loop Resistance:
(Vsupply - 10)/0.021

Ordering Guide			
Probe Type	Description		Order Code
Sensor type	Pt100 (RTD) Probe J thermocouple K thermocouple T thermocouple N thermocouple		B-P B-J B-K B-T B-N
Internal Construction	Fixed sensor element Replaceable Pt100 sensor (only for 9, 11 & 15 mm diameter) Mineral insulated Pt100		F G M
Accuracy*	Pt100	Accuracy class A Pt100 Accuracy 1/3 DIN Pt100 Accuracy 1/10 DIN	A 1/3 1/10
	Thermocouple	Accuracy Class 1	1
Diameter	6 mm diameter 9 mm diameter 11 mm diameter 15 mm diameter		6 9 11 15
Length	length 5-200 mm length 201-500 mm		20-200 201-500
Threads**	No thread M18 x 1.5 G1/4 with 19mm Hex G1/2 with 24mm Hex R1/4 with 19mm Hex R1/2 with 24mm Hex Lagging Ext. with M18x1.5 Lagging Ext. with G1/4 with 19mm Hex Lagging Ext. with G1/2 with 24mm Hex (xxx Specify the distance from the thread to the sensor head)		0 M18 G1/4 G1/2 R1/4 R1/2 M18Hxxx G1/4Hxxx G1/2Hxxx
Transmitters***	Transmitter for Pt100 Transmitter for Thermocouple		TX-Pt100 TX-TC

* Thermocouples are IEC class 1 as standard ** M18 x 1.5 is only available for 6mm diameter sheath

*** When ordering a transmitter, specify required scaling IE. range 0-120°C = output 4-20 mA

Ordering example 1: B-K-M-1-6-50-M18

Thermocouple type K probe with Class 1 accuracy and diameter of 6mm. The probe length is 50mm with M18 x 1.5 mounting thread.

Base price - K

Additional price for M18 thread

Total Price

Ordering example 2: B-P-M-A-9-100-G1/4H50-TXPt100

Pt100 probe with Class A accuracy and diameter of 9mm. The probe length is 100mm with a G1/4 mounting bush, 50mm lagging extension and a head mounted transmitter.

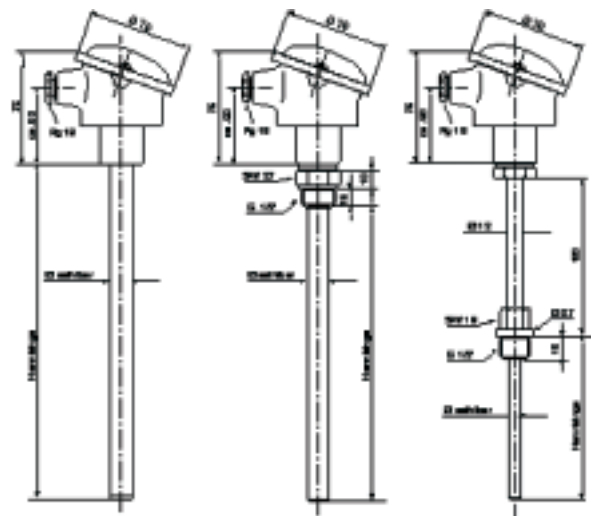
Base price - P

Additional price MI Construction

Additional price for process connection/extension

Additional price for transmitter

Total Price





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