

THIN-FILM PLATINUM TEMPERATURE SENSORS

PT SERIES



FEATURES

- Industry's lowest cost and widest selection!
- Precision performance, excellent stability
- Performance equivalent to wirewound RTD's at a lower price
- Wide resistance range: 100Ω, 500Ω, 1000Ω
- Dual sensors available in a single package (Type PTD)
- Meets DIN 43760 and IEC 751
- Choice of temperature ratings (up to +640°C)
- Unparalleled response time
- Rugged design is insensitive to vibration

SPECIAL MODIFICATIONS (Consult Factory)

- Non-standard resistance values (up to 2000Ω)
- 4-terminal elements
- Insulated extension wires
- Assembly into stainless steel probes (PTS Series)
- MIL-Spec Group A & B environmental testing

TYPE PTF—FLAT ELEMENT

TYPE PTR—CYLINDRICAL (ceramic encased)

TYPE PTA—AXIAL LEAD (ceramic encased)

TYPE PTD—DUAL ELEMENT (ceramic encased)



Leads are .010" dia. x 0.400" long typ. on all types (non-standard sizes are available)

SPECIFICATIONS (shaded items indicate most popular sizes)

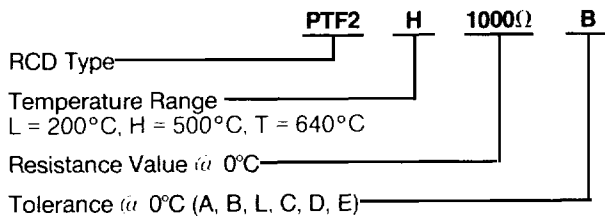
RCD TYPE	Dimensions			Standard Resistance Values	Typical Response Time (sec.)				Self Heating Air 1 m/s (°C/mW)
	W±.016[.4]	L±.02[.5]	H±.01[.25]		Water 0.2 m/s 50%	Water 0.2 m/s 90%	Air 1 m/s 50%	Air 1 m/s 90%	
PTF1	.095 [2.4]	.400 [10]	.055 [1.4]	100, 500, 1000	.2	.75	6	20	.17
PTF2	.125 [3.2]	.165 [4.2]	.055 [1.4]	100	.15	.6	5	12	.25
PTF3	.160 [4]	.200 [5]	.055 [1.4]	100, 500, 1000	.2	.7	6	20	.17
PTF4	.080 [2]	.100 [2.5]	.047 [1.2]	100	.07	.2	3	10	.30
PTF5	.080 [2]	.200 [5]	.055 [1.4]	100	.1	.3	5	15	.25
PTF6	.118 [3]	.275 [7]	.055 [1.4]	100	.15	.5	5	12	.20
PTF7	.118 [3]	.472 [12]	.055 [1.4]	500, 1000	.2	.75	7	22	.16
PTF8	.080 [2]	.590 [15]	.055 [1.4]	100	.2	.75	7	22	.16
PTR1	.125 [3.2]	.530 ±.062	N/A	100, 500, 1000	1.5	6	20	66	.12
PTR2	.120 [3]	.250 ±.031	N/A	100	1.3	5	15	50	.16
PTA1	.125 [3.2]	.600 ±.04	N/A	100, 500, 1000	1.5	6	20	66	.12
PTA1	.120 [3]	.250 ±.031	N/A	100	1.3	5	15	50	.16
PTD1	.170 [4.3]	.675 ±.062	N/A	2 × 100, 2 × 500, 2 × 1000	2	8	25	80	.12

TOLERANCES ("B" is standard)

DIN 43760	Letter Code	Tolerance (%)	Tolerance (°C)
1/2 DIN	A*	.06%	.15°C
DIN	B	.12%	.3°C
1.5 DIN	L	.2%	.5°C
2 DIN	C	.25%	.6°C
4 DIN	D	.5%	1.3°C
5 DIN	E	.6%	1.5°C

* "A" tolerance is not available on all types. Consult factory

HOW TO ORDER



SPECIFICATIONS

Max Temp. Type L	+200°C continuous (+250°C short periods)
Type H	+500°C continuous (+550°C short periods)
Type T	+640°C continuous (+680°C short periods)
TCR (0°C to 100°C)	+3850 ppm/°C
Stability	0 1°C Drift after 1000 hrs at Max Temp.
Insulation	10 MΩ Min. @ 25°C, 1 MΩ Min. @ Max. Temp.
Capacitance (1 KHz)	<10 pF
Inductance	Essentially non-inductive (<1 μH)

RESISTANCE AND INTERCHANGEABILITY

°C	Resis.	Tolerance			
		1/2 DIN	DIN	1.5 DIN	2 DIN
-50	.803	±.25°C	±.55°C	±.85°C	±1.1°C
0	1.000	±.15°C	±.3°C	±.45°C	±.6°C
+100	1.385	±.35°C	±.8°C	±1.2°C	±1.6°C
+200	1.758	±.55°C	±1.3°C	±2.0°C	±2.6°C
+300	2.120	±.75°C	±1.8°C	±2.7°C	±3.6°C
+400	2.470	±.95°C	±2.3°C	±3.5°C	±4.6°C
+500	2.809	±1.15°C	±2.8°C	±4.2°C	±5.6°C