



Ceramic Wire-Wound Platinum RTD Elements

Class A (IEC751), Alpha = 0.00385

-200 to 600°C
(-330 to 1110°F)

The "KN" Series RTDs are suitable for applications requiring extremely high temperature stability and high temperature shock resistance. Deviation from the IEC751 characteristic curve is minimal over the entire temperature range. The small diameter tolerances of the sensor body allow easy installation in protective tubes. Applications are found in chemical and power generation plants and with analytical equipment.

To Order

Dimensions† in millimeters (1 mm = 0.03937")	Nominal Resistance (Ohms)	Temperature Range, °C (°F)	Model Number	Self Heating Error in C°/mW Flowing Air V = 1 m/sec	Response Time in Seconds			
					Flowing Water V = 0.4 m/sec		Moving Air V = 1 m/sec	
					50% Response	90% Response	50% Response	90% Response
	1 x 100	-200 to 600 (-330 to 1110)	1PT100KN1515CLA	0.08	0.2	0.6	5	18
	1 x 100	-200 to 600 (-330 to 1110)	1PT100KN2515CLA	0.08	0.2	0.6	5	18
	1 x 100	-200 to 600 (-330 to 1110)	1PT100KN3045CLA	0.21	0.2	0.6	2.5	9
	1 x 100	-200 to 600 (-330 to 1110)	1PT100KN3026CLA	0.06	0.3	0.7	15	50
	2 x 100	-200 to 600 (-330 to 1110)	2PT100KN3045CLA*	0.08	0.2	0.6	5	18
	2 x 100	-200 to 600 (-330 to 1110)	2PT100KN3026CLA*	0.06	0.3	0.7	15	50

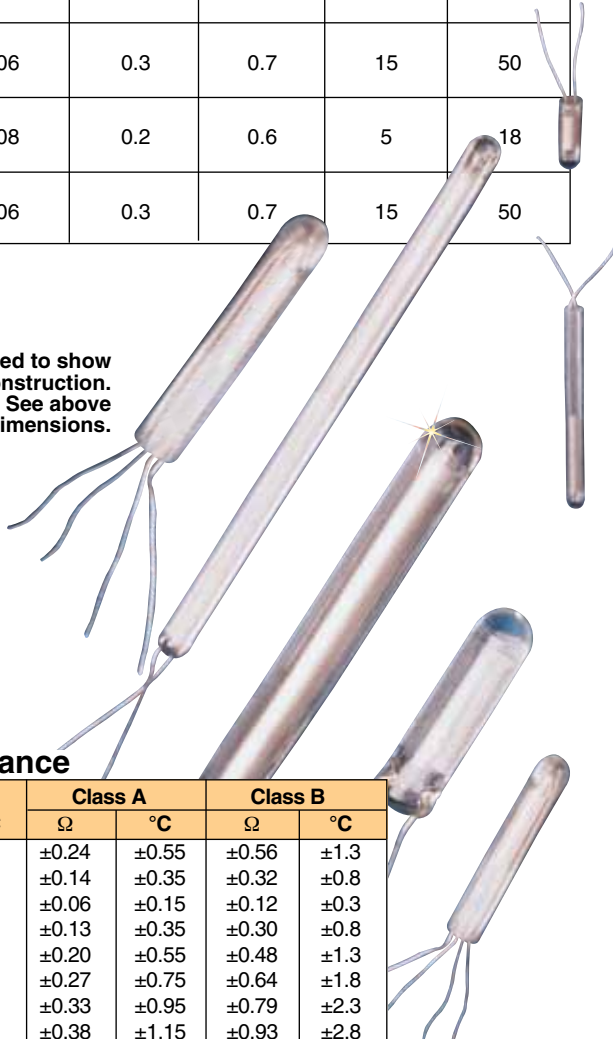
† Leads are 10 mm long.
* Dual element.

Ordering Examples: 1PT100KN1515CLA, 1 x 100 Ω ceramic wire-wound element.
2PT100KN3026CLA, 2 x 100 Ω ceramic wire-wound.

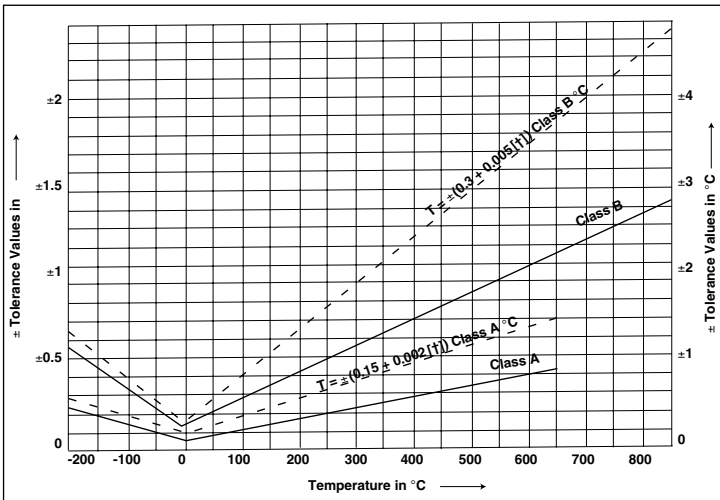
Discount Schedule	
(for Class A and Class B elements)	
1 to 4 units	Net
5 to 10 units	4%
11 to 24 units	6%
25 to 49 units	10%
50 to 99 units	11%
100 units and up	13%

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of RTD Elements

Enlarged to show construction. See above for dimensions.



All RTD elements come standard with 10 or 15 mm leads. Welded insulated extension leads available. Pricing is dependent on lead style (see omega.com).



Tolerance

Temp Deg °C	Class A		Class B	
	Ω	°C	Ω	°C
-200	±0.24	±0.55	±0.56	±1.3
-100	±0.14	±0.35	±0.32	±0.8
0	±0.06	±0.15	±0.12	±0.3
100	±0.13	±0.35	±0.30	±0.8
200	±0.20	±0.55	±0.48	±1.3
300	±0.27	±0.75	±0.64	±1.8
400	±0.33	±0.95	±0.79	±2.3
500	±0.38	±1.15	±0.93	±2.8
600	±0.43	±1.35	±1.06	±3.3
650	±0.46	±1.45	±1.13	±3.6
700			±1.17	±3.8
800			±1.28	±4.3
850			±1.34	±4.6

Glass Wire-Wound Pt RTD Elements

Class B (IEC751), Alpha = 0.00385

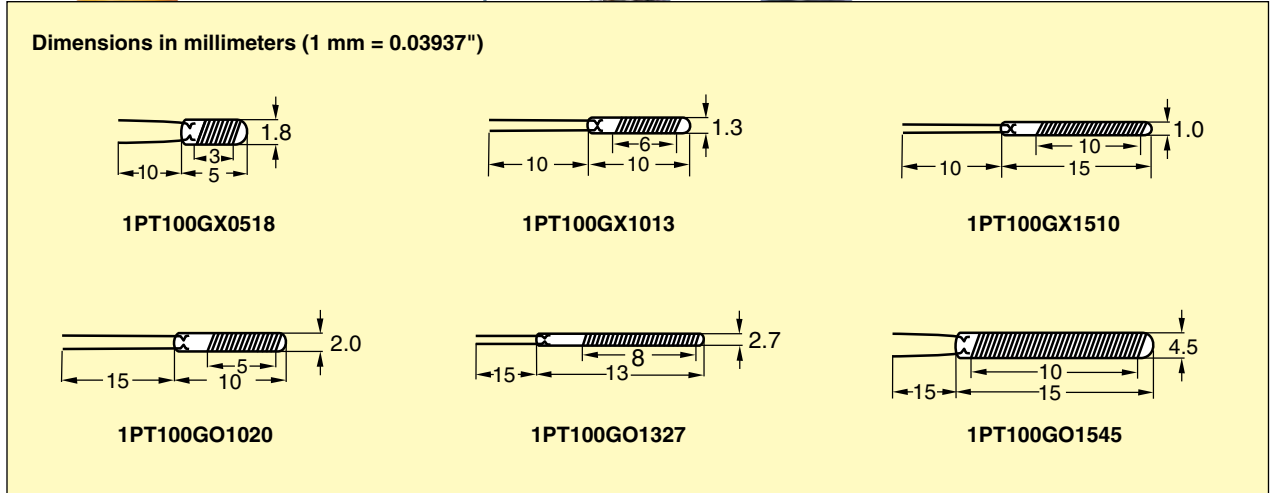
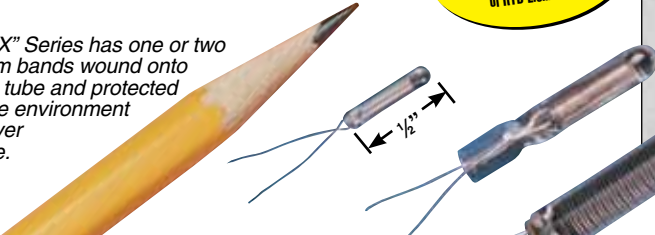
-220 to 400°C
(-365 to 750°F)

Glass wire-wound platinum RTD elements are made by winding a platinum wire onto a glass core and then fusing the exterior with glass. They are suitable for low or very high temperatures and are tolerant of thermal shocks. They offer good vibration resistance (depending on mounting method).



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The "GX" Series has one or two platinum bands wound onto a glass tube and protected from the environment by a layer of glaze.



Model No.	Nominal Resistance (ohms)	Temperature Range, °C (°F)	Self-Heating Error in C°/mW Flowing Air V = 1 m/sec	Response Time in Seconds			
				Flowing Water V = 0.4 m/sec		Moving Air V = 1 m/sec	
				50% Response	90% Response	50% Response	90% Response
1PT100GX0518	1 x 10	-220 to 400 (-365 to 750)	0.36	0.2	0.8	8.0	30.0
1PT100GX1013	1 x 100	-220 to 400 (-365 to 750)	0.39	0.2	0.5	4.0	12.0
1PT100GX1510	1 x 100	-220 to 400 (-365 to 750)	0.36	0.2	0.4	2.0	7.0
1PT100GO1020	1 x 100	-220 to 400 (-365 to 750)	0.26	0.14	0.35	7.0	21.0
1PT100GO1327	1 x 100	-220 to 400 (-365 to 750)	0.11	0.40	1.30	13.0	25.0
1PT100GO1545	1 x 100	-220 to 400 (-365 to 750)	0.09	0.80	2.40	16.0	40.0

Ordering Example: 1PT100GX0518, 1 x 100 Ω glass wire-wound Pt RTD element,.

