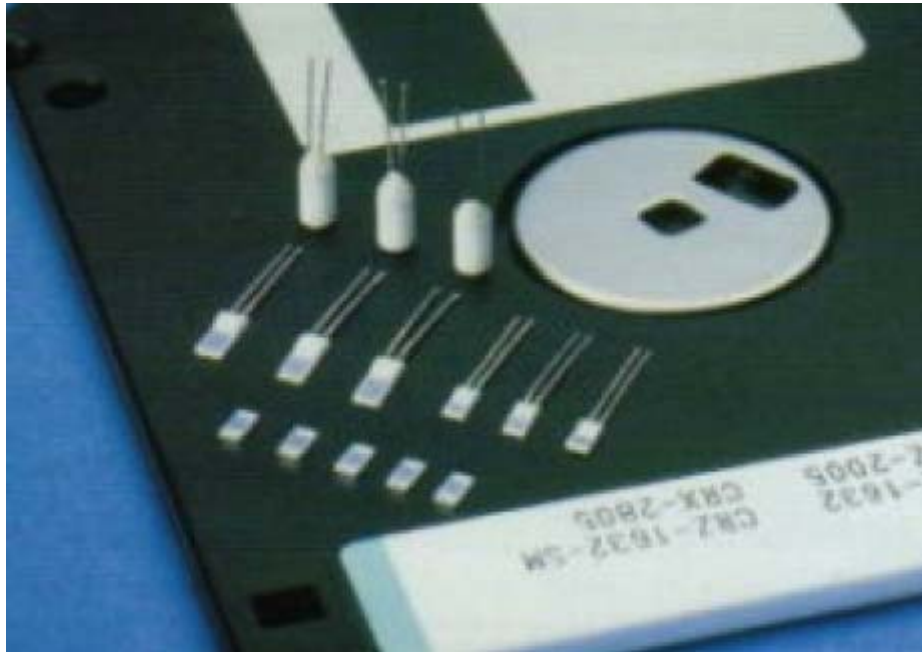


# RESISTANCE THERMOMETER ELEMENTS

## CRZ PLATINUM THIN-FILM ELEMENTS



Pt 100Ω  
Pt 500 Ω  
Pt 1000 Ω

CRZ Platinum Thin Film Resistance Thermometer Elements are the epoch-making temperature detectors developed by Hayashi Denko Co. Ltd., Japan making full use of the state-of-the-art high technologies such as thin film laying by sputtering, ultra fine patterning technology by photolithography and dry-etching method, resistance value adjustment by digital trimming for accurate resistance.

- \* The tolerances are in accordance with IEC, DIN & JIS standards.
- \* Temperature Coefficient Resistance:  $R_{100}/R_0 = 1.3851$ .
- \* All elements are provided after inspecting and printing the actual resistance value at 0 deg. C.
- \* The elements are made exclusively of ceramic and platinum, giving excellent stability even at high temperature.
- \* The Platinum thin film is sputtered on the ceramic surface, giving outstanding resistance to vibration and shock.
- \* The surface of Platinum thin film is coated with ceramic, so the element can withstand high voltage and has high insulation resistance.
- \* In addition class A and B, more accurate class 1/3B, can also be offered.

### SPECIFICATIONS:

Recommendable Operating Temperature: -40 to +400 deg. C

Class: 1/3B, A and B

Measuring Current: Max 2mA

Material of leads: Gold plated Nickel, 0.15Wx0.25Hx12mmL

Sr. no.	Model	Resistance Value	Measuring Current	Class	Dimension (WxLxTmm)
1	CRZ-1632-100	Pt100	Max 1mA	1/3B A B 2B	1.6x3.2x1.0
2	CRZ-2005-100	Pt100	Max 1mA		2.0x5.0x1.0
3	CRZ-2005-500	Pt500	Max 0.5mA		2.0x5.0x1.0
4	CRZ-2005-1000	Pt1000	Max 0.5mA		2.0x5.0x1.0

### TOLERANCE:

Class	Tolerance	Tolerance of Resistance at 0 deg. C	TCR(Alpha)(ohm/ohm/deg. C)
1/3B*	+/- (0.1+0.0017t)	+/-0.04 ohm	0.003851+/-0.000004
A	+/- (0.15+0.002t)	+/-0.06 ohm	0.003851+/-0.000005
B	+/- (0.3+0.005t)	+/-0.12 ohm	0.003851+/-0.000012
2B*	+/- (0.6+0.01t)	+/-0.25 ohm	0.003851+/-0.000024

### STABILITY:

After continuously heating the CRZ-1632 at 400 deg. C for 1000 hours, the margin of error at 0 deg. C is within 0.008 ohm(0.02 deg. C).

### SELF-HEATING:

A current passing through the resistance element causes the element to heat. So the current used with the element should not exceed 1mA.

FOR MODIFICATION PURPOSES DESIGN/SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

Manufactured & Marketed by:



An ISO 9001:2008 Company

**Toshniwal Sensors Pvt. Ltd.,**

D-30, Industrial Estate, Makhupura, Ajmer: 305 002

Tel.: 0145-2695536, 2695482, Fax: 0145-2695006

E-mail: marketing@tspl-india.com, info@tspl-india.com Website: www.tspl-india.com

