

Platinum-ceramic temperature sensors: CR Series



CR Series Ceramic Wire Wound PRTD

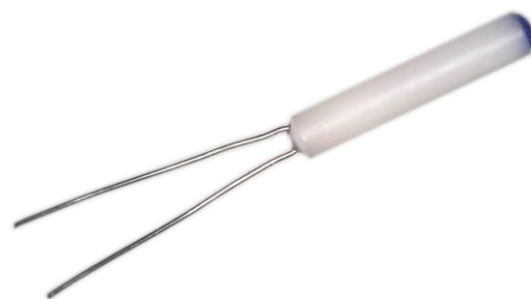
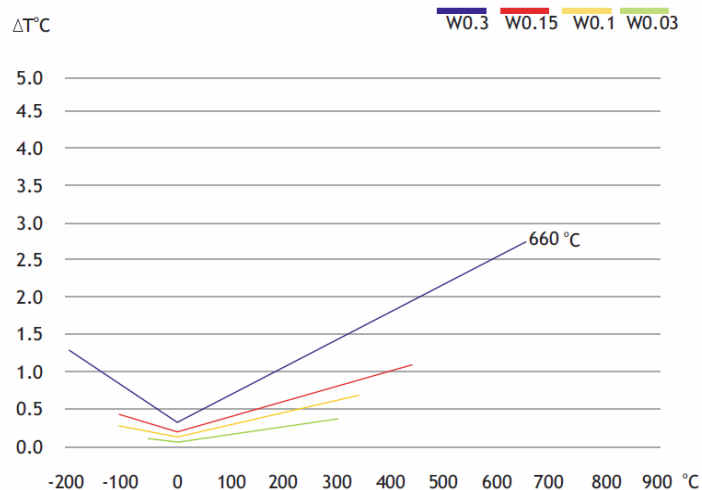
The CR Series Ceramic Wire Wound PRTDs are suitable for general applications requiring temperature stability and accuracy.

Applications: Industrial resistance thermometers, for industrial process like chemical, power generation plants and analytical equipment.

Construction: A platinum coil is sealed inside a high purity aluminum oxide ceramic body. Lead wires are shear force resistant and assure proper connection to extension leads and cables. Two separate coils can be embedded in one ceramic body.

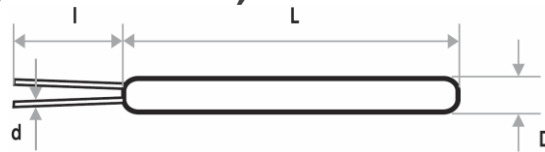
On demand: In addition to the standard products, we are also producing on demand products. In order to offer the best solution to the market, we are able to design element sensors considering different diameters, lengths, classes and coefficients.

Class tolerance chart



Changes and errors excepted

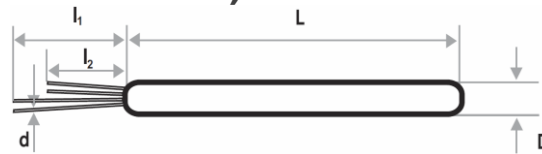
CR Series specifications 1x Pt100 Models (Single elements)



1x Pt100 types												
Product				Dimensions in mm				Self Heating 0°C (K/mW)	Response time			
Description	Tolerance Class		Temp. range (°C)	D	L	d	l1		Water: v= 0.4m/s		Air: V= 3m/s	
								t _{0.5}	t _{0.9}	t _{0.5}	t _{0.9}	
CR-1508-100	W0.3	B	-196 ... +660	1.5±0.15	8+2/-0	0.2±0.01	9.5±0.5	0.28	0.2	0.5	6.7	21.8
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
	W0.06	1/5B	-50 ... +300				9.5±0.5					
	W0.03L	1/10B	-50 ... +150				9.5±0.5					
	W0.03	1/10B	-50 ... +300				8.5±0.5					
CR-1015-100	W0.3	B	-196 ... +660	1.0±0.1	15+2/-0	0.2±0.01	9.5±0.5	0.14	0.2	0.3	3.0	9.0
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
	W0.03L	1/10B	-50 ... +150				9.5±0.5					
	W0.03	1/10B	-50 ... +300				9.5±0.5					
							8.5±0.5					
CR-1515-100	W0.3	B	-196 ... +660	1.5±0.15	15+2/-0	0.2±0.01	9.5±0.5	0.08	0.2	0.4	5.0	15.7
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
	W0.06	1/5B	-50 ... +300				9.5±0.5					
	W0.03L	1/10B	-50 ... +150				9.5±0.5					
	W0.03	1/10B	-50 ... +300				8.5±0.5					
CR-1515EG-100	W0.3	B	-196 ... +660	1.5±0.15	15+2/-0	0.27±0.01	9.5±0.5	0.08	0.2	0.4	5.0	15.7
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
CR-1515G-100	W0.3	B	-196 ... +660	1.5±0.15	15+2/-0	0.27±0.01	9.5±0.5	0.08	0.2	0.4	5.0	15.7
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
	W0.06	1/5B	-50 ... +300				9.5±0.5					
	W0.03L	1/10B	-50 ... +150				9.5±0.5					
	W0.03	1/10B	-50 ... +300				8.5±0.5					
CR-2615-100	W0.3	B	-196 ... +660	2.6±0.15	15+2/-0	0.27±0.01	9.5±0.5	0.6	0.3	0.6	10.2	33.8
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
CR-1025-100	W0.3	B	-196 ... +660	1.0±0.15	25+2/-0	0.2±0.01	9.5±0.5	0.07	0.2	0.4	3.0	8.8
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
	W0.03L	1/10B	-50 ... +150				9.5±0.5					
	W0.03	1/10B	-50 ... +300				8.5±0.5					
CR-1525-100	W0.3	B	-196 ... +660	1.5±0.15	25+2/-0	0.2±0.01	9.5±0.5	0.07	0.2	0.4	5.3	16.0
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
	W0.03L	1/10B	-50 ... +150				9.5±0.5					
	W0.03	1/10B	-50 ... +300				8.5±0.5					
CR-2630-100	W0.3	B	-196 ... +660	2.6±0.15	30+2/-0	0.27±0.01	9.5±0.5	0.4	0.3	0.6	10.5	34.0
	W.15	A	-100 ... +450				9.5±0.5					
	W0.1	1/3B	-100 ... +350				9.5±0.5					
	W0.03L	1/10B	-50 ... +150				9.5±0.5					
	W0.03	1/10B	-50 ... +300				8.5±0.5					

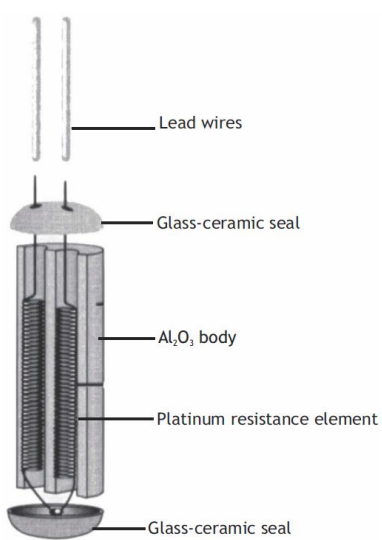
Changes and errors excepted

CR Series specifications 2 Pt100 Models (Double elements)



2x Pt100 Types													
Product			Dimensions in mm				Self Heating	Response time					
Description	Tolerance Class	Temp. range (°C)	D	L	d	l1		0°C (K/mW)	Water:		Air:		
									v= 0.4m/s		V= 3m/s		
									t _{0.5}	t _{0.9}	t _{0.5}	t _{0.9}	
CR-1710-2x100	W0.3	B	-196 ... +660	1.7±0.15	10+2/-0	0.2±0.01	10.5±0.5	9.5±0.5	0.28	0.2	0.5	6.7	21.8
	W.15	A	-100 ... +450				10.5±0.5	9.5±0.5					
	W0.1	1/3B	-100 ... +350				10.5±0.5	9.5±0.5					
CR-1715-2x100	W0.3	B	-196 ... +660	1.7±0.1	15+2/-0	0.2±0.01	10.5±0.5	9.5±0.5	0.14	0.2	0.3	3.0	9.0
	W.15	A	-100 ... +450				10.5±0.5	9.5±0.5					
	W0.1	1/3B	-100 ... +350				10.5±0.5	9.5±0.5					
CR-1725-2x100	W0.3	B	-196 ... +660	1.7±0.15	25+2/-0	0.2±0.01	10.5±0.5	9.5±0.5	0.08	0.2	0.4	5.0	15.7
	W.15	A	-100 ... +450				10.5±0.5	9.5±0.5					
	W0.1	1/3B	-100 ... +350				10.5±0.5	9.5±0.5					
CR-1725G-2x100	W0.3	B	-196 ... +660	1.7±0.15	25+2/-0	0.27±0.01	10.5±0.5	9.5±0.5	0.08	0.2	0.4	5.0	15.7
	W.15	A	-100 ... +450				10.5±0.5	9.5±0.5					
	W0.1	1/3B	-100 ... +350				10.5±0.5	9.5±0.5					
CR-2630-2x100	W0.3	B	-196 ... +660	2.6±0.15	30+2/-0	0.27±0.01	10.5±0.5	9.5±0.5	0.08	0.2	0.6	10.5	34.0
	W.15	A	-100 ... +450				10.5±0.5	9.5±0.5					
	W0.1	1/3B	-100 ... +350				10.5±0.5	9.5±0.5					

Temperature validity range IEC 60751 Other standards, narrower tolerances and other nominal resistances are available on request	1/10B (W 0.03)	-50°C ... +300°C
	1/10B (W 0.03L)	-50°C ... +150°C
	1/5B (W 0.06)	-50°C ... +300°C
	1/3B (W 0.1)	-100°C ... +350°C
	A (W 0.15)	-100°C ... +450°C
	B (W 0.3)	-196°C ... +660°C
Resistance value	Pt100 2x Pt100	
Measuring current	Pt100: 1 mA	
Measuring point	8mm from sensor body	
Temperature coefficient	3850 ppm/K (others on request)	
Wire material	Palladium-gold alloy	
Insulation resistance	> 100 MOhm @ 25 °C	
Long-term stability	Temperature stability max. R0-Drift 0.03 %/year	
Also available	<ul style="list-style-type: none"> Platinum-gold alloy Different temperature coefficients On demand. (3916 ppm/K - old JIS) Extension leads 	



Lead wires

Glass-ceramic seal

Al₂O₃ body

Platinum resistance element

Glass-ceramic seal

