

1 Pt100 KX 2515



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The KX Series Ceramic Wire Wound PRTDs are suitable for general applications requiring temperature stability.

Applications: Industrial resistance thermometers, especially in 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.



Types

Product	Tolerance	Order No.	Dimensions in mm				Self Heating	Response time			
			L	D	d	l		Water: $V_{\text{air}} = 0.4 \text{ m/s}$		Air: $V_{\text{air}} = 3 \text{ m/s}$	
1Pt100 KX 2515	W0.3	32.206.028	25^{+2}_0	1.5±0.15	0.20±0.01	10.0±0.5	0.07	0.2	0.4	5.3	16.0
	W0.15	32.206.029									
	W0.1	32.206.030									
	W0.03	32.206.031									
See Remark											

Technical Specification

Nominal resistance:	100 Ohm @ 0 °C	Measuring current:	1 mA						
Temperature range:	W0.3 (Class B) = -196 °C to +660 °C W0.15 (Class A) = -100 °C to +450 °C W0.1 (Class 1/3 B) = -100 °C to +350 °C W0.03 (Class 1/10 B) = -50 °C to +300 °C (Special ST Class proportional to W0.3)	Insulation resistance after assembly:	> 100 MOhm @ 25 °C						
Temperature coefficient:	Tc = 3850 ppm/K	Tolerance class:	- According to IEC 60751:2008 - Other standards and narrower tolerances are available on request						
Leads:	Palladium-gold alloy	Temperature stability:	Excellent long-term stability						
		Also available:	- Platinum-gold alloy - Different temperature coefficients (3916 ppm/K - old JIS) - Extension leads - Two separated coils can be embedded in one ceramic body						
		Remark:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Class</th> <th>Working Temperature</th> <th>Lead Length (l)</th> </tr> </thead> <tbody> <tr> <td>W0.03 (1/10 DIN)</td> <td><=150 °C 150 °C to 300 °C</td> <td>10 mm 8 to 9 mm</td> </tr> </tbody> </table>	Class	Working Temperature	Lead Length (l)	W0.03 (1/10 DIN)	<=150 °C 150 °C to 300 °C	10 mm 8 to 9 mm
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The measuring point is located at 8 mm from the end of the sensor body

Sensor Technology reserves the right to make changes without notice in the specifications of this products

Long Term Stability Test (according to IEC 60751)

		Initial Values			Values at 0°C after 250h @ 660°C		0°C Drift after 250 h		
Type	Piece	R @ 0°C	R @ 100°C	TK	R @ 0°C	R @ 100°C	Drift	Drift %	Average
1Pt 100 KX 2515	1	100,028	138,507	3846,9	100,035	138,520	0,007	0,007%	0,0092
	2	100,027	138,515	3847,8	100,036	138,530	0,009	0,009%	
	3	100,030	138,544	3850,3	100,036	138,555	0,006	0,006%	
	4	99,997	138,488	3849,2	100,011	138,508	0,014	0,014%	
	5	100,088	138,604	3848,2	100,096	138,619	0,008	0,008%	Std. deviation
	6	100,084	138,584	3846,8	100,088	138,594	0,003	0,003%	0,0042
	7	100,008	138,495	3848,5	100,024	138,522	0,016	0,016%	
	8	100,104	138,613	3847,0	100,114	138,631	0,010	0,010%	

		Initial Values			Values after more 750h @ 660°C		0°C Drift after 1000 h		
Type	Piece	R @ 0°C	R @ 100°C	TK	R @ 0°C	R @ 100°C	Drift	Drift %	Average
1Pt 100 KX 2515	1	100,028	138,507	3846,9	100,039	138,532	0,012	0,012%	0,0136
	2	100,027	138,515	3847,8	100,041	138,541	0,013	0,013%	
	3	100,030	138,544	3850,3	100,040	138,565	0,011	0,011%	
	4	99,997	138,488	3849,2	100,012	138,516	0,015	0,015%	
	5	100,088	138,604	3848,2	100,102	138,630	0,014	0,014%	Std. deviation
	6	100,084	138,584	3846,8	100,093	138,599	0,009	0,009%	0,0051
	7	100,008	138,495	3848,5	100,033	138,537	0,025	0,025%	
	8	100,104	138,613	3847,0	100,115	138,638	0,011	0,011%	

KX 2515 Drift (%) at 0°C after aging cycles

