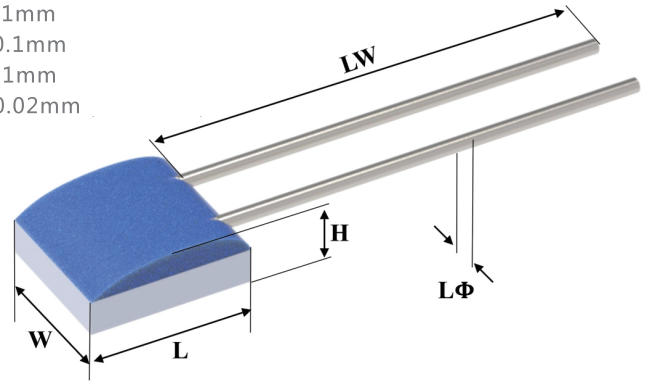
Thin film platinum temperature sensons Pt100-2W elements

Size

H=1.1±0.1mm
L=2.3±0.1mm
W=2.0±0.1mm
LW= 10±1mm
LΦ=0.2±0.02mm



Product characteristics

- PT100-2W series thin film platinum resistors have the advantages of small size, high precision and good long-term stability.
- It has the characteristics of anti-vibration and anti-shock.
- The product can be subdivided into regular ultra low and high temperature series, covering the temperature range of -200 to 650℃.
- It can be used in many connection ways, such as resistance welding, argon arc welding, pressure welding, brazing and so on.
- Widely used in automotive, instrumentation, household appliances, new energy and other fields.

General features

Performance parameters	Description
Type of components	Thin film platinum resistance
Component size	2.0mm×2.3mm×1.1mm 1.6mm×2.3mm×1.1mm 1.2mm×5.0mm×1.1mm
Lead specifications	Length:10mmm;diameter:0.2mm
Lead material	Platinum nickel ; Silver target ; Pure Platinum ; Sterling silver ;
Lead tension	≥9N
Insulation impedance	>100MΩ at20°C > 2MΩ at500°C
TCR	3850ppm/°C
Working current	0.3~1mA
Long-term stability	After 1000 hours at 500°C , the resistance shift of R(0°C) is less than 0.04%
Response time	water current v=0.4m/s τ0.5=0.05s τ0.9=0.15s
	air current v=2m/s τ0.5=3s τ0.9=10s
Self-heating coefficient	0°C 0.4°C/mW
Anti-vibration	Frequency acceleration ≥40g from 10 to 2000Hz
Impact resistant	8ms half sine wave acceleration ≥100g
Package	Vacuum plastic packaging
Customizable	Substrate size、base resistance、lead specifications、can be provided on request

Selection

Type temperature criteria	Range of application	Classes	R_0 (Ω)	Temperature range	Deviation
Pt 100-2W	-70~+500℃	1/3B	100±0.04	0~+150℃	±(0.1+0.0017|T|)
		A	100±0.06	-50~+300°C	±(0.15+0.002|T|)
		B	100±0.12	-70~+500℃	±(0.3+0.005|T|)
		2B	100±0.24	-70~+500℃	±(0.6+0.01|T|)
Pt 100-2W -H650	-50~+650℃	B	100±0.12	-50~+650°C	±(0.3+0.005|T|)
		2B	100±0.24	-50~+650℃	±(0.6+0.01|T|)
Pt 100-2W -L200	-200~+150°C	B	100±0.12	-200~+150°C	±(0.3+0.005|T|)
		2B	100+0.24	-200~+150°C	±(0.6+0.01|T|)

Note * : the marked classes and temperature measurement accuracy refer to the IEC60751 standard.
T is the measured temperature.

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