

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Platinum Resistance Temperature Detector

M 1020

M series PRTDs are designed for large volume applications where long term stability, interchangeability and accuracy over a large temperature range are vital. Typical applications are Automotive, White Goods, HVAC, Energy Management, Medical and Industrial equipment.

| Nominal Resistance R0 | Tolerance DIN EN 60751 1996-07 | Tolerance DIN EN 60751 2009-05 | Order Number Plastic Bag | Order Number Blister reel |
|--------------------------|---|---------------------------------------|--|--|
| 100 Ohm at 0°C | Class 1/3 B Class A Class B | F 0.1 F 0.15 F 0.3 | 32 208 180 | 32 208 428 32 208 429 32 208 280 |
| 500 Ohm at 0°C | Class B | F 0.3 | 32 208 201 | 32 208 285 |
| 1000 Ohm at 0°C | Class 1/3 B Class A Class B | F 0.1 F 0.15 F 0.3 | 32 208 482 32 208 438 32 208 191 | 32 208 483 32 208 439 32 208 286 |

The measuring point for the nominal resistance is defined at 8mm from the end of the sensor body.

Specification DIN EN 60751 (according to IEC 751)

Temperature range -70°C to +500°C (continuous operation)

(temporary use to 550°C possible)

Tolerance Class B: -70°C to +500°C
Tolerance Class A: -50°C to +300°C

Tolerance Class 1/3 DIN: 0°C to +150°C

Temperature coefficient TCR = 3850 ppm/K

Leads Pt clad Ni- wire

Recommend connection technology:

Welding, Crimping and Brazing

Lead lengths (L) 10mm ±1 mm

Long-term stability max. R₀-drift 0.04% after 1000h at 500°C

Vibration resistance at least 40g acceleration at 10 to 2000 Hz,

depends on installation

Shock resistance at least 100g acceleration with 8ms half sine wave,

depends on installation

Environmental conditions unhoused for dry environments only

Insulation resistance > 100 M Ω at 20°C; > 2 M Ω at 500°C

Self heating 0.2 K/mW at 0°C

Response time water current (v= 0.4m/s): $t_{0.5} = 0.10$ s

 $t_{0.9} = 0.30s$

air stream (v= 2m/s): $t_{0.5} = 4.0s$

 $t_{0.9} = 12.0s$

Measuring current 100 Ω : 0.3 to 1.0mA

500 Ω : 0.1 to 0.7mA 1000 Ω : 0.1 to 0.3mA

(self heating has to be considered)

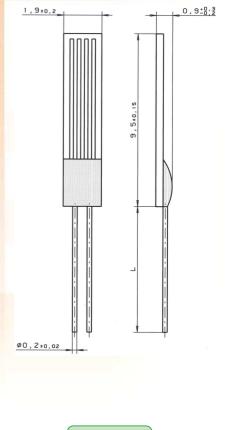
Note Other tolerances, values of resistance and wire lengths are

available on request.

We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

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