Platinum temperature sensor in thin-film technology M 416

M-series platinum temperature sensors are characterized by long-term stability, excellent precision over a wide temperature range and compatibility. They are used particularly for applications with high consumption volumes, typically in the automotive, white goods, HVAC and energy generation industries as well as in medical and industrial appliances and machinery.

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	32 208 217 32 208 216 32 208 213	32 208 701 32 208 279 32 208 278

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

Specification DIN EN 60751

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 B:	0°C to +150°C

Temperature coefficient TC = 3850 ppm/K

Leads Pt clad Ni- wire
Recommend connection technology:
Welding, Crimping and Brazing

Lead lengths (L) 10mm ±1mm

Long-term stability Max. R_0 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

Ambient conditions Use unprotected only in dry environments

Insulation resistance > 100 MΩ at 20°C; > 2 MΩ at 500°C

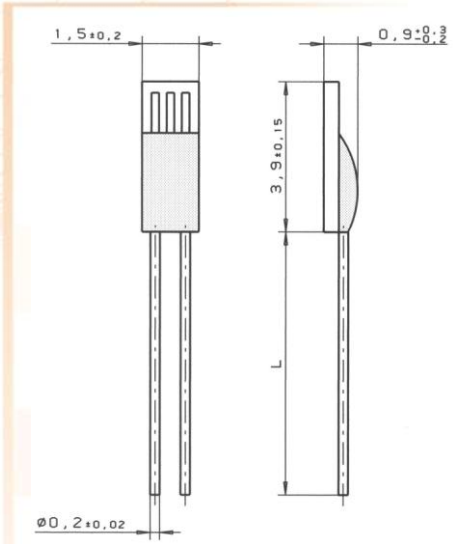
Self heating 0.4 K/mW at 0°C

Response time

Water current (v= 0.4m/s):	$t_{0.5}$ = 0.06s
	$t_{0.9}$ = 0.18s
Air flow (v= 2m/s):	$t_{0.5}$ = 3.1s
	$t_{0.9}$ = 10.5s

Measuring current 100Ω: 0.3 to 1.0mA
(self heating has to be considered)

Note Other tolerances, values of resistance and wire lengths are available on request.



RoHS conform

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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