



Temperature Sensor NTC M6-H

- Wide measurement range: -25 to 300°C



This sensor is designed to measure fluid temperatures e.g. oil, water or fuel. This signal may be used as a control value for engine control units or as a measurement value which is logged in a data acquisition system.

The NTC sensing element has a negative temperature coefficient. This means, that with increasing temperature the conductivity rises and the resistance decreases. The sensing element is a lacquer-coated thermistor disk which is connected via a copper-clad Fe wire to a AWG 24 wire. To improve the response time, the element is molded into a high performance heat paste.

The main benefit of the sensor is the combination of both high quality production part and a robust, compact design. It is especially designed to measure high temperatures (up to 300°C).

Application

Application	-25 to 300°C
Storage temperature range	0 to 100°C
Bio fuel compatibility	-
Max. vibration	800 m/s ² at 5 to 500 Hz

Technical Specifications

Mechanical Data

Male thread	M6x1
Wrench size	10 mm
Installation torque	3 Nm
Weight w/o wire	8.5 g
Sealing	O-Ring 4.47 x 1.78 mm

Electrical Data

Characteristic	NTC
Max. power at 25°C	200 mW
Nominal resistance at 25°C	49.12 kΩ

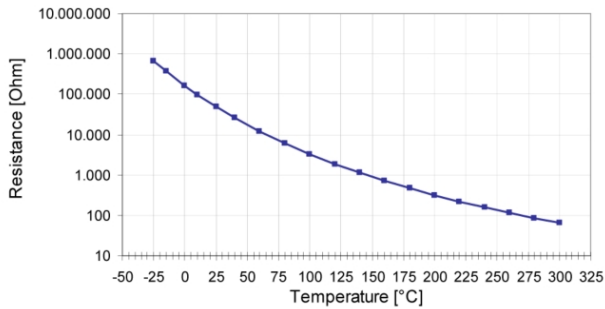
Characteristic

Accuracy at 25°C	± 1.84°C
Accuracy at 100°C	± 1.5°C
Rel. resistance tolerance at 25°C	8 %
Response time tau 63 in still water	< 7 s

Characteristic Application

T [°C]	R [Ω]
-25	657,350
-15	365,040
0	162,210
10	98,322

25	49,120
40	26,065
60	12,140
80	6,119
100	3,300
120	1,885
140	1,132
160	710
180	463
200	312
220	217
240	155
260	113
280	85
300	64



Connectors and Wires

Connector	ASL 6-06-05PN-HE
Mating connector	ASL 0-06-05SN-HE
Pin 1	-
Pin 2	Sig-
Pin 3	Sig+
Pin 4	-
Pin 5	-

Various motorsport and automotive connectors are available on request.

Wire size	AWG 24
Wire length L	15 to 50 cm

Please specify the required wire length with your order.

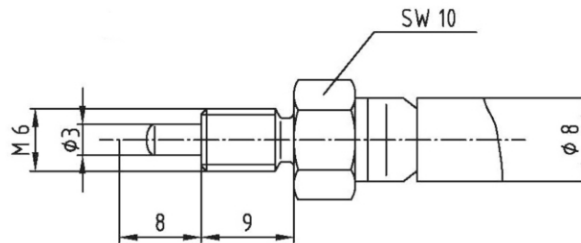
Installation Notes

The NTC M6-H can be connected directly to most control units using a pull-up resistor (typically 1 or 3 kΩ).

Any mounting orientation is possible.

Please find further application hints in the offer drawing and free download of the sensor configuration file (*.sdf) for the Bosch Data Logging System at our homepage.

Dimensions



Ordering Information

Temperature Sensor NTC M6-H

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