

Temperature Sensor NTC M6-H

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

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

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 mm x 1.78 mm

Characteristic	
Accuracy @ 25 °C	± 1.84 °C
Accuracy @ 100 °C	± 1.5 °C
Relative resistance tolerance @ 25 °C	8 %
Response time τ_{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

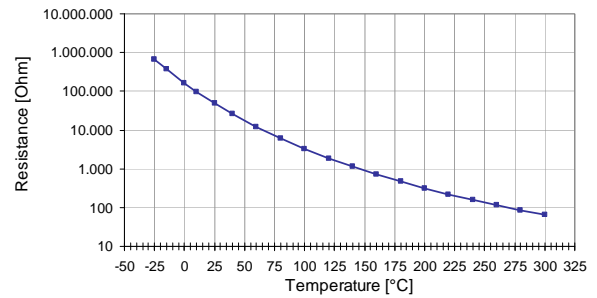
Application Hint

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 (<http://www.bosch-motorsport.com>).

Free download of the sensor configuration file (*.sdf) for the Bosch Data Logging System (<http://www.bosch-motorsport.com>).



Connectors and Wire

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 ... 50 cm

Please specify the required wire length with your order.

Part Number

NTC M6-H **B 261 209 989-01**

