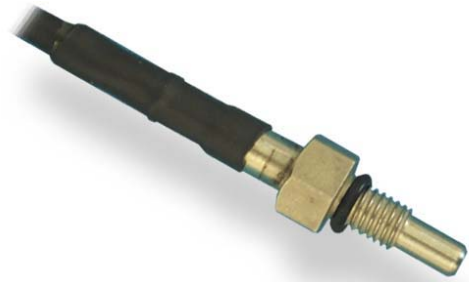


## Temperature Sensor NTC M6

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 a high quality production part and a robust and compact design.



Application	
Application	-55 ... 125 °C
Storage Temperature Range	0 ... 100 °C
Bio fuel compatibility	-
Max. Vibration	800 m/s <sup>2</sup> , 5 ... 500 Hz

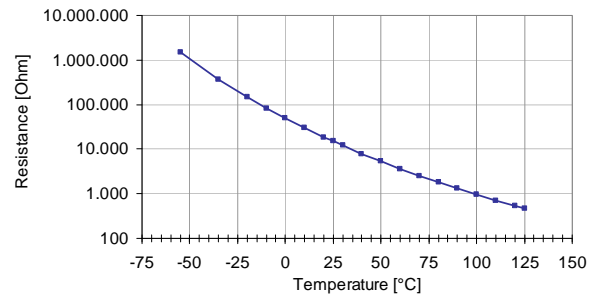
Electrical Data	
Characteristic	NTC
Max. Power @ 25 °C	200 mW
Nominal Resistance @ 25 °C	15 kOhm

Mechanical Data	
Male Thread	M6x1
Wrench Size	10 mm
Installation Torque	3 Nm
Weight w/o Cable	8.5 g
Sealing	O-Ring 4.47 x 1.78 mm

Characteristic	
Accuracy @ 25 °C	± 1.1 °C
Accuracy @ 100 °C	± 4.4 °C
Relative Resistance Tolerance @ 25 °C	± 5 %
Response Time $\tau_{63}$ in still water	< 9 s

### Characteristic Application

T [°C]	R [Ω]
-55	1,493,300
-35	366,720
-20	145,880
-10	83,317
0	49,254
10	29,959
20	18,732
25	15,000
30	12,012
40	7,894
50	5,356
60	3,651
70	2,545
80	1,804
90	1,301
100	945
110	704
120	528
125	460



### 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 ... 50 cm

Please specify the requested wire length with your order.

### Application Hint

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

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>).

### Part Number

Temperature Sensor NTC M6	<b>B 261 209 386-01</b>
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