

Temperature Sensor NTC M8

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 Temp. Range	0 ... 100 °C
Bio fuel compatibility	-
Max. Vibration	800 m/s ² , 5 ... 500 Hz

Mechanical Data	
Male Thread	M8x1
Wrench Size	12 mm
Installation Torque	3 Nm
Weight w/o Wire	10 g
Sealing	O-Ring 6.35 x 1.78 mm



Electrical Data

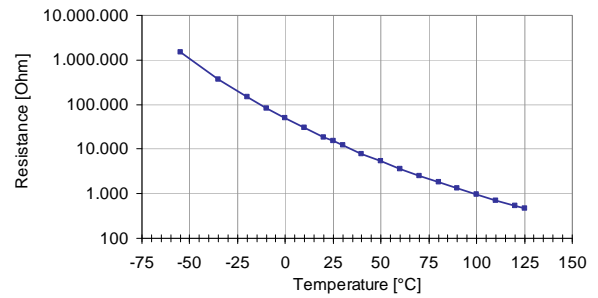
Characteristic	NTC
Max. Power at 25 °C	200 mW
Nominal Resistance @ 25 °C	15 kΩ

Characteristic

Accuracy @ 25 °C	± 1.1 °C
Accuracy @ 100 °C	± 4.4 °C
Relative Resistance Tolerance	± 5 %
Response Time τ_{63} in still water	< 11 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 required wire length with your order.	

Application Hint

The NTC M8 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>).

Part Number

NTC M8 **B 261 209 384-01**

