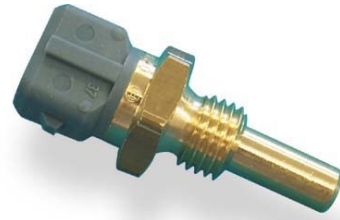


Temperature Sensor NTC M12

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

The NTC-resistor has a negative temperature coefficient. This means, that with increasing temperature the conductivity rises. The conductive element of the temperature sensor is made of semiconducting heavy metal oxide and oxidized mixed crystals, which are equipped with a protective housing.

The main benefit of the sensor is the combination of both high quality production part and a robust, compact design. Furthermore the sensor is available with a series or military spec connector.



Application	
Application	-40 ... 130 °C
Storage Temp. Range	0 ... 100 °C
Max. Vibration	600 m/s ²

Electrical Data	
Characteristic	NTC
Nominal Resistance @ 20 °C	2,5 kOhm ± 5 %

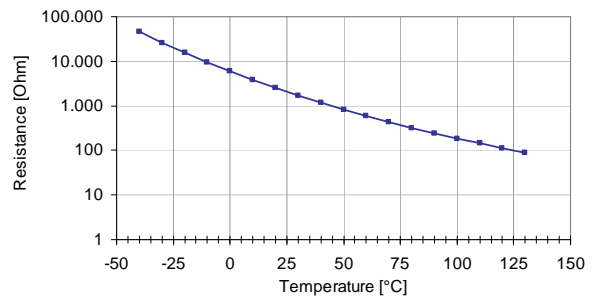
Mechanical Data	
Male Thread	M12x1,5
Wrench Size	19 mm
Installation Torque	25 Nm
Weight w/o Cable	28,9 g

Characteristic	
Accuracy @ 25 °C	± 1,4 °C
Accuracy @ 100 °C	± 3,4 °C
Response Time τ_{63} in still water	< 15 s

Characteristic Application

T [°C]	R [Ohm]
-40	45.313
-30	26.114
-20	15.462
-10	9.397
0	5.896
10	3.792
20	2.500
30	1.707
40	1.175
50	834
60	596
70	436
80	323
90	243
100	187
110	144
120	113
130	89

Application Hint



Connectors and Cables

Connector	Bosch Jetronic
Connector Loom	D 261 205 289
Pin 1	SIG+
Pin 2	SIG-
Pin 3	-
Pin 4	-
Pin 5	-

Various military and automotive connectors on request.

Application Hint

The NTC M12 can be connected directly to most control units using a pull-up resistor (typically 1 or 3 kOhm).

Each 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 M12 **0 280 130 026**

