

Thermocouple Probe TCP-K

This sensor is designed to measure exhaust gas temperatures up to 1,300 °C.

Thermocouples are temperature sensors, which generates a small temperature corresponding voltage, due to their thermo electrical behaviour, without any additional external energy. The mantle thermocouple has a metal mantle which includes two inner wires made of thermo material (NiCr-Ni). The wires are isolated.

The main feature and benefit of this sensor is a very quick response time, the combination of high quality production part and robust design with metal housing and motorsport connector.



Application	
Application	-200 ... 1,000 (1,300) °C
Max. Vibration	800 m/s ² @ 5 ... 500 Hz

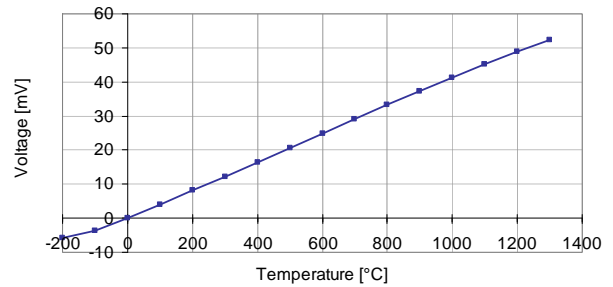
Electrical Data	
Voltage Supply	NiCr/Ni Typ K
Full Scale Output	DIN IEC 584-1

Mechanical Data	
Male Thread	see adapter
Wrench Size	see adapter
Installation Torque	see adapter
Weight with Wire	47 g
Sensor Tip Bend Radius	R 20

Connectors and Wires	
Connector	ASL 6-06-05PD-HE
Mating connector	ASL 0-06-05SD-HE
Pin 1	-
Pin 2	Sig+
Pin 3	Sig-
Pin 4	-
Pin 5	Src
Sleeve	DR-25
Wire Size	AWG 24
Wire Length L	15 ... 75 cm
Various motorsport and automotive connectors are available on request.	
Please specify the required wire length with your order.	

Characteristic Application

Accuracy (max. value)	
$\pm 1.5 \text{ }^\circ\text{C}$ or $0.004 \cdot t$	
T [°C]	U [mV]
-200	-5.891
-100	-3.554
0	0.000
100	4.096
200	8.138
300	12.209
400	16.397
500	20.644
600	24.905
700	29.129
800	33.275
900	37.326
1,000	41.276
1,100	45.119
1,200	48.838
1,300	52.410



Application Hint

The TCP-K can be connected to Bosch Motorsport ECUs with thermocouple inputs (w/o pull-up resistant) or to external devices, which amplify the sensor voltage.

Recommended max. continuous utilisation temperature 1,000 °C, short-term utilisation temperature 1,300 °C.

The sensor can be mounted individually according to the customer request.

The sensor tip is flexible/ bendable and can be fixed by a special adapter (B 261 209 159-01).

The length of the sensor tip can be modified on request.

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>).

Accessories

Adapter TCP-K **B 261 209 159-01**

Part Number

TCP-K **B 261 209 385-01**

