

## 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 <sup>2</sup> @ 5 ... 500 Hz

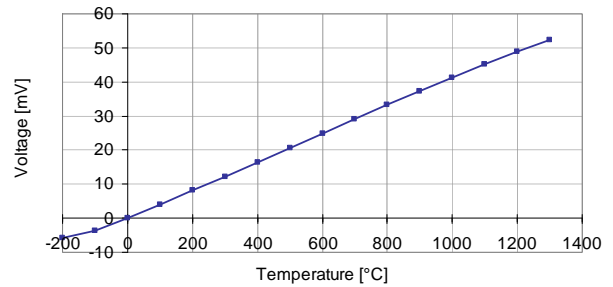
Electrical Data	
Voltage Supply	NiCr/Ni Typ K
Full Scale Output	DIN IEC 584-1

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 $0.004 * t$	
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**

