

Thermocouple Probe TCP-KA

This sensor is designed to measure exhaust gas temperatures up to 1,250 °C.

Thermocouples are temperature sensors, which supply a temperature corresponding voltage, due to its thermoelectric behaviour, without any additional external energy source. The mantle thermocouple has a metal mantle which includes two inner wires made of thermomaterial (Ni CrSi - NiSi). The wires are isolated. The voltage is amplified by an electronic circuit, which is powered by 12 V and supplies an output signal from 0 to 5 V. Please note that the operating temperature of the external electronics is from 0 to 120 °C.

The main feature and benefit of this sensor is the combination of high quality production part, robust design and its integrated amplifier.



Application	
Application	0 ... 1,250 °C
Operating Temp. Range (ext. electronics)	0 ... 120 °C

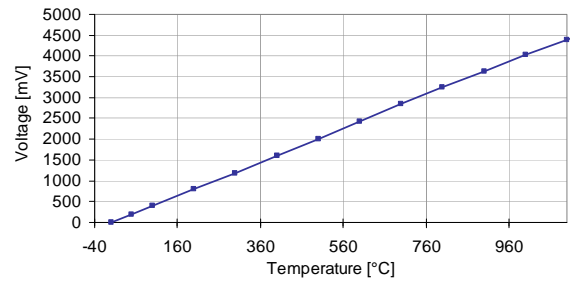
Mechanical Data	
Male Thread	M12x1
Wrench Size	17 mm
Installation Torque	15 Nm
Weight w Cable	85 g
Length	250 mm

Electrical Data	
Voltage Supply	12 V
Full Scale Output	0 ... 5 V

Connectors and Wires	
Connector	F 02U B00 292-01
Mating connector	D 261 205 357
Pin 1	Sig
Pin 2	Gnd
Pin 3	Us
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

Measuring Range		0 ... 1,250 °C
T [°C]	U [mV]	
0	0	
50	197	
100	399	
200	793	
300	1,190	
400	1,598	
500	2,012	
600	2,427	
700	2,839	
800	3,243	
900	3,638	
1,000	4,022	
1,100	4,396	
1,200	4,759	
1,250	5,000	



Application Hint

The TCP-KA can be connected to Bosch Motorsport ECUs with a 0 ... 5 V analog signal input (w/o pull-up resistor) or to external data logging devices.

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

Please, note that the operating temperature range of the external electronics is from 0 to 120 °C.

Recommended bending radius of the wire of the sensor element is minimum 20 mm to ensure the sensor works properly and for a longer lifespan of the sensor.

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 Bosch Data Logging System (<http://www.bosch-motorsport.com>).

Part Number

TCP-KA

F 02U V00 264-01

