Rotary Potentiometer RP 100/130/308

This sensor is designed to measure rotational movement, e.g. throttle angle, spring travel, gearbox position or steering angle.

A throttle rotation moves an internal slider (wiper) on a resistive element which is supplied with voltage. Thus voltage proportional to the angle can be measured. The housing and the bearings are made of high temperature resistant plastic. The mounting plate is protected with a metal cover to ensure a good fixation. The sensor is fitted in a shrink down boot for additional protection.

The main benefit of this sensor is the combination of both high accuracy and motorsports spec connection.

Application	
Application	[1] 0 ... 100° [2] 0 ... 130° [3] 0 ... 308°
Operating temperature range	-40 ... 150 °C
Max. vibration	200 m/s^2 @ 5 ... 2,000 Hz

Electrical Data	
Power supply Us	5 V
Maximal power supply	42 V
Total resistance	[1|2] 3 kΩ ±20 % [3] 5 kΩ ±20 %
Current Is	1 µA
Max. allowable contact current	10 mA

Mechanical Data	
Weight w/o cable	32 g
Protection class	IP65
Mounting	2 x M4
Lifetime	50 x 10^6 rotations
Housing	synthetic material

Characteristic	
Max. rotation speed	120 min^{-1}
Temp. coefficient	5 ppm/°K
Direction of rotation	anti-clockwise
Both rotation directions are available on request	
Redundancy	No

Connectors and Cables	
Connector	ASL 6-06-05PA-HE
Connector loom	ASL 0-06-05SA-HE
Pin 1	U_S
Pin 2	Gnd
Pin 3	Sig
Pin 4	-
Pin 5	-
Sleeve	DR-25
Cable size	AWG 24
Cable length L	16 ... 30 cm
Various motorsports and automotive connectors on request.	
Please specify the requested cable length with your order.	

Application Hint
The products of the RP series can be connected directly to most control units.
The sensor has no internal mechanical stops.
Each mounting orientation is possible.
The sensor meets all EMV, EMC and ESD automotive standards.
Please find further application hints in the offer drawing (http://www.bosch-motorsport.com).
Both rotation directions and other rotation angles available on request.
Free download of the sensor configuration file (*.sdf) for the Bosch Data Logging System (http://www.bosch-motorsport.com).

Part Number	
RP 100 [1]	**B 261 209 127-01**
RP 130 [2]	**B 261 209 128-02**
RP 308 [3]	**B 261 209 570-01**