

## Rotary Potentiometer RP 50-/130-/350-M

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 sensors are fitted in a shrink down boot for additional protection.

The main benefit of these sensors is the combination of high accuracy, very robust aluminium housing and motorsport spec connection.



Application	
Application	[1] 0 ... 50° [2] 0 ... 130° [3] 0 ... 350°
Operating temperature range	-55 ... 125 °C

Electrical Data	
Power supply $U_s$	5 V
Maximal power supply	42 V
Total resistance	[1] 3 kΩ [2] 4 kΩ [3] 8 kΩ
Current $I_s$	1 μA
Max. allowable contact current	[1 3] 1 mA [2] 10 mA

Mechanical Data	
Weight w/o wire	38 g
Protection class	IP66
Mounting	2 x M4
Housing	aluminium alloy

Characteristic	
Direction of rotation	anti-clockwise
Both rotation directions are available on request.	
Redundancy	No

### Connectors and Wires

Connector	[1 3] ASL 6-06-05PA-HE [2] KPTA 6E6-4P-C-DN
Mating connector	[1 3] ASL 0-06-05SA-HE [2] KPTA 1E6-4S-C-DN
Pin 1 (A)	U <sub>s</sub>
Pin 2 (B)	Gnd
Pin 3 (C)	Sig
Pin 4 (D)	-
Pin 5 (E)	-
Sleeve	DR-25
Wire size	AWG 24
Wire length	16 ... 30 cm
Various motorsport and automotive connectors on request.	
Please specify the required wire 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 50-M [1]	<b>B 261 209 571-01</b>
RP 130-M [2]	<b>B 261 209 576</b>
RP 350-M [3]	<b>B 261 209 577-01</b>

