


**BOSCH**

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



- ▶ **Rotational movement measurement**
- ▶ **Measurement range: 0 to 50°, 0 to 130° or 0 to 350°**
- ▶ **Robust aluminum housing**
- ▶ **Wide operating temperature range**

These sensors are 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 housings 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 aluminum housing and motorsport spec connection.

## Application

Measuring range	Please see Variations
Operating temperature range	-55 to 125°C

## Technical Specifications

### Variations

	RP 50-M	RP 130-M	RP 350-M
Measuring range	0 to 50°	0 to 130°	0 to 350°
Total resistance	3 kΩ	4 kΩ	8 kΩ
Max. allowable contact current	1 mA	10 mA	1 mA
Connector	ASL 6-06-05PA-HE	KPTA 6E6-4P-C-DN	ASL 6-06-05PA-HE
Mating connector	ASL 0-06-05SA-HE	KPTA 1E6-4S-C-DN	ASL 0-06-05SA-HE

### Mechanical Data

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

### Electrical Data

Power supply $U_S$	5 V
Maximal power supply	42 V
Total resistance	Please see Variations
Current $I_S$	1 μA
Max. allowable contact current	Please see Variations

**Characteristic**

Direction of rotation Anti-clockwise

Both rotation directions are available on request.

**Connectors and Wires**

Connector	Please see Variations
Mating connector	Please see Variations
Pin 1 (A)	$U_S$
Pin 2 (B)	Gnd
Pin 3 (C)	Sig
Pin 4 (D)	-
Pin 5 (E)	-
Sleeve	DR-25
Wire size	AWG 24
Wire length L	16 to 30 cm

Various motorsport and automotive connectors are available on request.

Please specify the required wire length with your order.

**Installation Notes**

The products of the RP series can be connected directly to most control units.

The sensor has no internal mechanical stops.

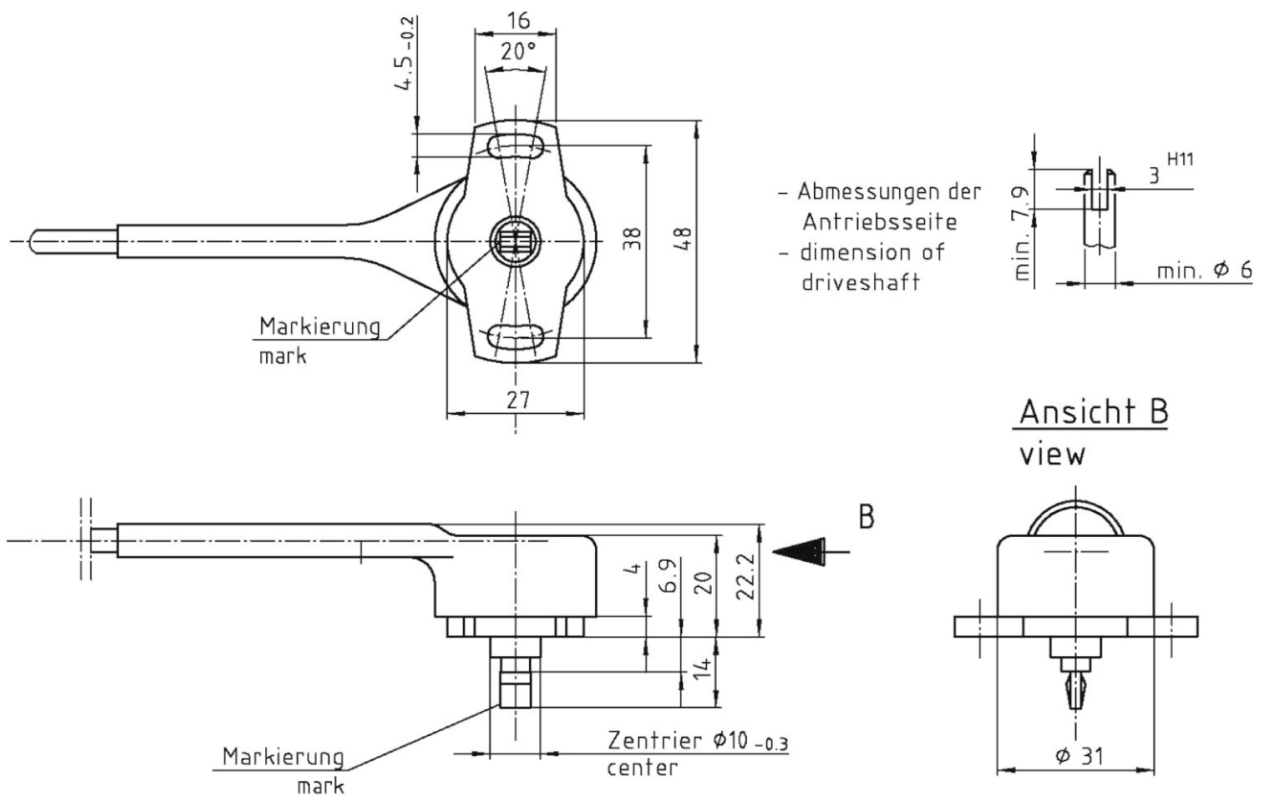
Each mounting orientation is possible.

The sensor meets all EMV, EMC and ESD automotive standards.

Both rotation directions and other rotation angles available on request.

Please find further application hints in the offer drawing and free download of the sensor configuration file (\*.sdf) for the Bosch Data Logging System at our homepage.

**Dimensions**



**Ordering Information**

Rotary Potentiometer RP 50-M	B 261 209 571-01
Rotary Potentiometer RP 130-M	B 261 209 576
Rotary Potentiometer RP 350-M	B 261 209 577-01



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