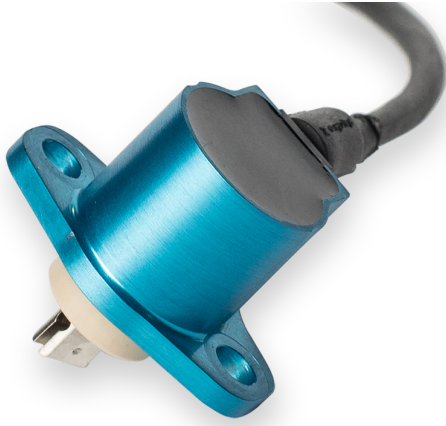


Rotary Position Sensor RPS-F



- ▶ Rotational movement measurement
- ▶ Hall effect technology
- ▶ Measurement range: 0 to 360° possible
- ▶ Analog output 0.2 to 4.8 V
- ▶ Dual output, fully redundant possible

This sensor is designed to measure rotational movement of throttle position.

The electrical circuit is designed with a magnetic rotary sensor using a Hall element and digital signal processing; sensor output is ratiometric. The angular position is provided by a two pole magnet integrated in the sensor shaft.

The main benefit of this sensor is its contactless Hall effect technology and its robust design for motorsport applications which includes fully redundant power and ground.

Application

Application	0 to 360° possible
Operating temperature range	0 to 150°C
Max. vibration	200 m/s ² at 5 to 2,000 Hz

Technical Specifications

Mechanical Data

Weight w/o wire	< 36 g
Protection class	IP58
Mounting	2 x M4 screw
Lifetime	5 x 10 ⁶ operations of ±65°
Housing	Aluminum

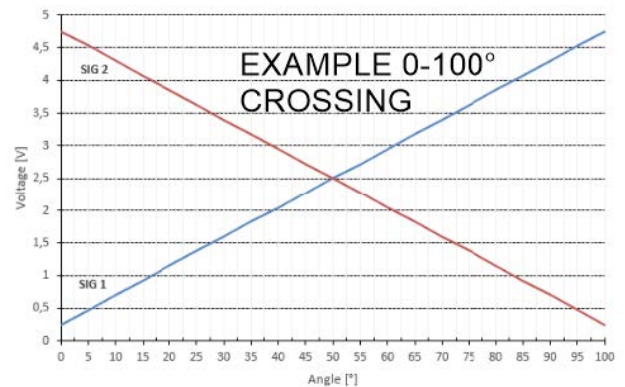
Electrical Data

Power supply U _s	5 ± 0.5 V regulated
Max. overvoltage	24 V
Half voltage tolerance	± 2°
Supply current	< 12.5 mA
Resolution	< 0.1°

Output voltage range	Ratiometric analog
Output load	> 10 kOhm

Characteristic

Max. rotation speed	600 ^{RPM}
Temp. coefficient	± 0.008° Rotation/°C 30°C nominal
Direction of rotation	Both
Redundancy	Yes



Flying lead and Wires

Red	U _s 1
Blue	Gnd 1
White	Sig 1
Orange	U _s 2
Green	Gnd 2
Yellow	Sig 2
Sleeve	DR-25
Wire size	AWG 26
Wire length L	100 cm

Represented by:

Europe:
Bosch Engineering GmbH
Motorsport
Robert-Bosch-Allee 1
74232 Abstatt
Germany
motorsport@bosch.com
www.bosch-motorsport.de

North America:
Bosch Engineering North America
Motorsport
38000 Hills Tech Drive
Farmington Hills, MI 48331-3417
United States of America
motorsport@bosch.com
www.bosch-motorsport.com

Asia-Pacific:
Bosch Engineering Japan K.K.
Motorsports Department
1-9-32 Nakagawachuo, Tsuzuki-ku
Yokohama-shi
Kanagawa, 224-8601
Japan
motorsport@jp.bosch.com
www.bosch-motorsport.jp

Australia, New Zealand and South Africa:
Robert Bosch Pty. Ltd
Motorsport
1555 Centre Road
Clayton, Victoria, 3168
Australia
motor.sport@au.bosch.com
www.bosch-motorsport.com.au