

SPCD Differential Series Hall Effect Speed Sensor



The SPCD Series are designed for 'True Zero & Direction Capable Detection' of speed in the demanding motorsport and automotive testing industries.

The main construction is aluminium which provides for a robust sensor, even in exposed areas such as the engine bay or wheel hub. The sensor will continuously operate at temperatures up to 150°C.

By using a proven 'Differential Hall Effect' technology, the SPCD detects a change in magnetic field as the target passes the sensors tip. The output transistor switches its state as the target passes, a change in direction inverts the signal and hence the direction can be determined. The measurable pulse train can be used within standard data logging equipment or ECU's.

Technical Specifications

Measurement Frequency	20KHz
Sensor Type	Differential Hall Effect
Mounting	Single Flange: Flange with Single Screw Fitting
Target Size (Width x Length)	See drawing on page 2
Sensing Range (Air Gap)	0.5 to 2mm
Output	NPN. Internal Pullup Resistor Value 1KΩ
Max Load Current	25mA Max
Supply	5-24Vdc (10mA)
Operating Temperature Range	-40°C to +150°C
Construction	Anodised Aluminium
Electrical Connection	100cm 26AWG 55 spec wire + DR25 sleeve
Cable Exit	Straight or Right Angle
Mechanical Dimensions	18mm long x 9mm dia below flange 14mm long x 8.95mm dia below flange
Protection Class	IP67, Dust tight & water immersion to 1m for 30mins
Weight (Excluding Cable)	Approx 8g

bf1systems adopts a continuous development program which sometimes necessitates specification changes without notice.

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The Competitive Advantage

Features

- True Zero Speed
- Direction Detection
- NPN Output
- 5-24V Supply
- Flange Mounting

Applications

- Speed
- Crank Speed / Position
- Wheel Speed
- Drive Shaft Speed
- Traction Control
- Launch Control

Contact Us:

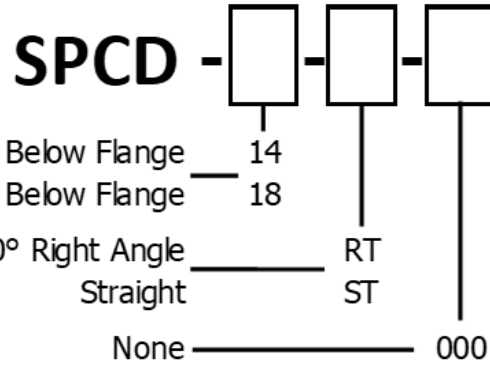
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Part Number Configuration

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The Competitive Advantage



14mm x 8.95mm Diameter Below Flange
 18mm x 9mm Diameter Below Flange

90° Right Angle
 Straight

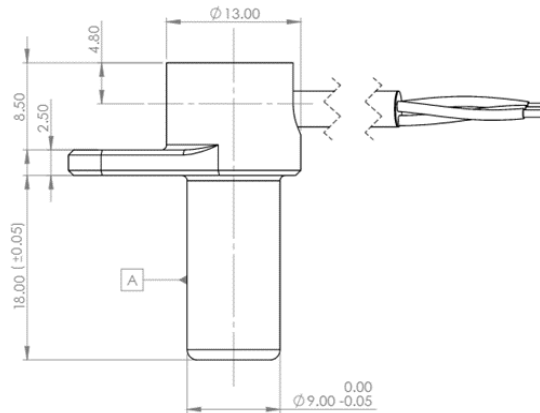
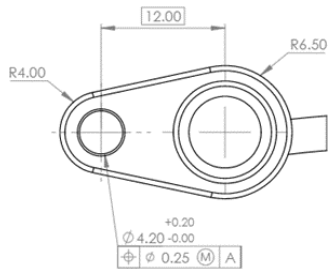
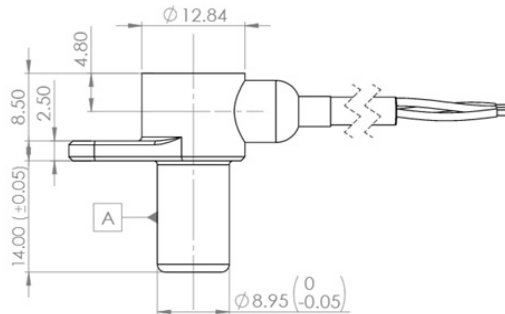
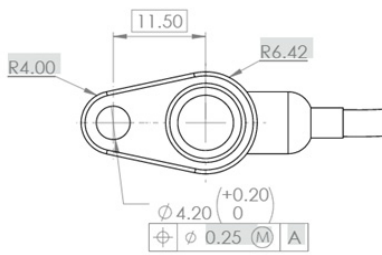
None — 000

The bf1systems configuration tool is used to specify a standard bf1 sensor, other options are available.

Features

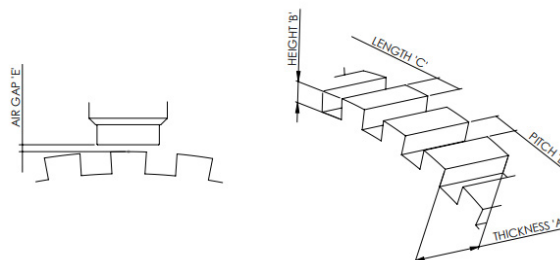
- True Zero Speed
- Direction Detection
- NPN Output
- 5-24V Supply
- Flange Mounting

Mechanical Details



Trigger Wheel Dimensions

Thickness 'A'	8mm
Height 'B'	3mm
Length 'C'	3mm
Pitch 'D'	6mm
Air Gap 'E'	0.5 to 2mm



Connection Details

+VE Supply	0V Supply	Signal
Red	Black	White

Applications

- Speed
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