



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Dual Output Hall Effect Sensor
Fully Redundant, Non-Contacting Rotary

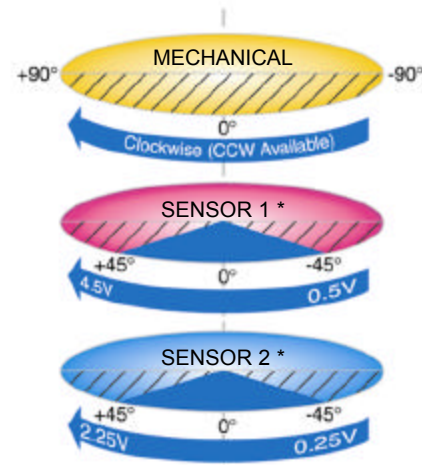
9900 Series

The BEI Sensors 9900 Series offers a non-contacting Hall effect sensor in a rugged design, ideally suited for tight packaging constraints while providing superior reliability and durability. Unlike most similar products, the 9900 provide the full redundancy of two independent Hall detectors in a common package (single output sensors also available). Each Hall detector is rigidly supported to meet the severe durability requirements of demanding applications as automotive and off-highway. Rotating sintered magnets enable the stationary detectors to perform with improved accuracy and reliability, including excellent temperature stability and corrosion resistance. One-time factory programmability allows for greater flexibility in design and custom outputs.

Fully sealed, (meeting and/or exceeding IP66/IP67 standards) the 9900 is impervious to contamination and moisture. An integrally molded, 6-pin connector makes a sealed connection with industry standard Packard Electric connectors.

9900 Series Features:

- Rotating magnet/Fixed sensor configuration**
Provides improved accuracy and reliability
- Two independent outputs for redundancy**
Full redundancy assures back-up safety
- Fully programmable**
Outputs; offset, gain, slope and temperature compensation
- Sintered Alnico-8 magnets**
Provide excellent temperature stability and corrosion resistance
- Ratiometric Output**
- Factory programming through connector**
After completion of assembly provides high accuracy
- Sealed construction**
IP66/IP67, 6-pin I/O Interface to Packard Electric Connector
- Extended temperature range**
-40° to +150°C available optionally
- Return spring (CW standard, CCW optional)**
Eliminates mechanical backlash
- Extended operating life**
35 million operational cycles



* OTHER OPTIONS AVAILABLE

Ordering Information:

990X XXX XX XX

- Temperature Rating:
Blank = Standard 85C, HT = 125C
- Spring Return:
CW = Clockwise, CCW = Counter Clockwise, NS = No Spring Return
- Electrical Angle:
ie. 090 = ±45°, 120 = ±60°
- Number of Sensors:
1 = Single Output, 2 = Dual Output

SAMPLE: 9902 090 CW

- Standard 85C
- CW = Clockwise Spring Return
- 90° (±45°) Electrical Angle
- Dual Output

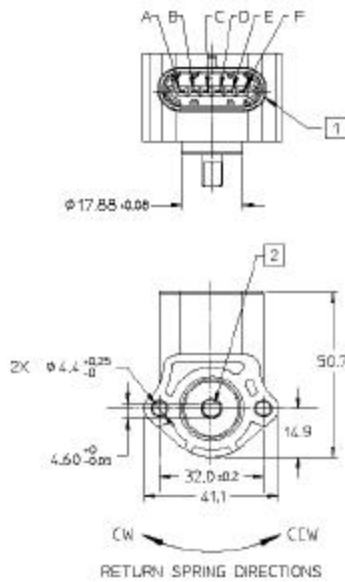


Tel: 805-968-0782 / 800-350-2727 | Fax: 805-968-3154 / 800-960-2726
7230 Hollister Ave., Goleta, CA 93117-2807 | www.beisensors.com

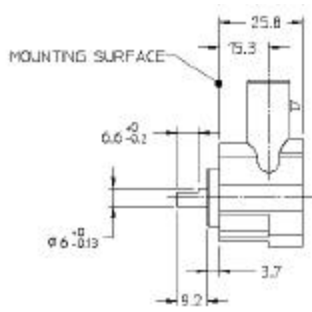
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ISO9001 Certified/ QS9000 Registered

Dual Output Hall Effect Sensor 9900 Series

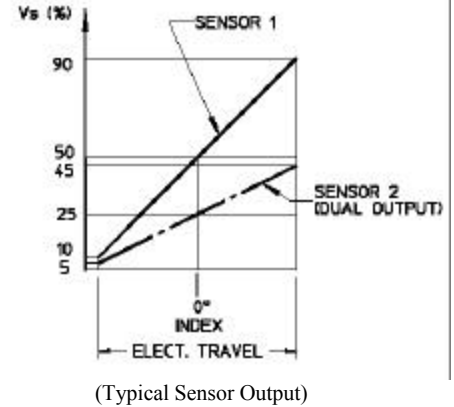


- 1 Connector mates with Packard Electric METRI-Pack 150.2 series (pull-to-seat 6 pin sealed connector assemblies) (i.e. 12162261, 12162260 or 12162210)
- 2 Shaft flat is shown with:
sensor 1 output at 50% V_s (input voltage).
sensor 2 output at 25% V_s (input voltage).



NOTE: All dimensions are shown in millimeters.

CONNECTOR PIN OUTPUT		
	SENSOR 1	SENSOR 2
V_s (input)	F	B
GROUND	E	A
OUTPUT	C	D



Mechanical Specifications

Mechanical Travel	-90° to +90° (180° total rotation)
Frequency Response	1,000Hz minimum
Rotational Torque	0.025 – 0.110 N-m
Weight	35 grams (approx.)

Electrical Specifications

Mechanical Input Range	-45° to +45° (other angles available)
Input Voltage	5.0 V \pm 0.25V DC
Input Current	10mA maximum per output 20mA maximum total
Sensor 1 Output	0.5V - 4.5V
Sensor 2 Output	0.25V – 2.25V (Different output voltage range for sensor outputs available as a custom option)
Accuracy	\pm 2.0% of full scale at room temperature \pm 3.0% of full scale over operating temperature range
Resolution	Analog (continuous)

Environmental Specifications

Electromagnetic Compatibility	100V/meter, 14kHz – 1GHz range
Vibration	10G peak, 20 – 2,000 Hz
Shock	50Gs, half sine pulse, 5 m sec duration
Side Load	1kg for 1 million cycles
Operating temperature range	-40°C to +85°C (wider operating temperature -40° to +150°C available as a custom option)
Storage temperature range	-55°C to +105°C (-55°C to +165°C)

Specifications subject to change without notice. BE2023

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