

HALL EFFECT POSITION SENSOR

351 HE



Single-Turn, Bushing-Mount, Hall-Effect Sensor "Mount and Forget!"



KEY BENEFITS

- Accurate linearity down to $\pm 0.5\%$
- All electrical angles available up to 360°
- Long life > 10 million cycles
- No-contact, Hall effect technology
- Designed for use in harsh environments
- Size 09 (22.2 mm)

APPLICATIONS

- Foot-pedal position sensors
- Throttle position sensors
- Steering position sensors
- Rudder positioning
- Auto pilot feedback
- Drive-by-wire
- Lift-and-shuttle position sensors
- Tilt control and tilt positioning feedback
- Suspension-system position sensors

RESOURCES

- Datasheet: 351 HE - <http://www.vishay.com/doc?57099>
- For technical questions contact sfer@vishay.com

Resistors - Long Life of 10 000 000 Cycles

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components



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351 HE



Single-Turn, Bushing-Mount, Hall-Effect Sensor "Mount and Forget!"



FEATURES

- Accurate linearity down to: $\pm 0.5\%$
- All electrical angles available up to: 360° (no dead band)
- Long life: greater than 10M cycles
- Non contacting technology: Hall effect
- Model dedicated to all applications in harsh environments



RoHS
COMPLIANT

ELECTRICAL SPECIFICATIONS

PARAMETER	STANDARD	SPECIAL
Electrical Angle	$90^\circ, 180^\circ, 270^\circ, 360^\circ$	Any other angle upon request
Linearity	$\pm 1\%$	$\pm 0.5\%$
Supply Voltage	$5 V_{DC} \pm 10\%$	Other upon request
Supply Current	10 mA typical	16 mA for PWM output
Output Signal	Analog ratiometric 10 % to 90 % of V_{supply} Or PWM 10 % to 90 % duty cycle	Other upon request
Over Voltage Protection		+ 20 V_{DC}
Reverse Voltage Protection		- 10 V_{DC}
Load Resistance Recommended		Min. 1 k Ω for analog output and PWM output
Hysteresis		< 0.2 %

MECHANICAL SPECIFICATIONS

PARAMETER	
Mechanical travel	360° continuous, stops upon request: $340^\circ \pm 3^\circ$
Bearing type	Sleeve bearing
Standard	IP 50; other on request
Weight	20 g \pm 2 g

ORDERING INFORMATION/DESCRIPTION

351HE	0	A	1	W	A	1S22	XXXX	BO 10	e1
MODEL	FEATURES	LINEARITY	ELECTRICAL ANGLE	OUTPUT TYPE	OUTPUT SIGNAL	SHAFT TYPE	SPECIAL REQUEST	PACKAGING	LEAD FINISH
0:	Continuous rotation and antirotation pin	A: $\pm 1\%$ B: $\pm 0.5\%$	1: 90° 2: 180° 3: 270° 4: 360° 9: Other angles	W: Wires Z: Custom	A: Analog CW B: Analog CCW C: PWM CW D: PWM CCW Z: Other output	0: 6 mm 1: 6.35 mm 2: 3.175 mm 9: Special P: Plain S: Slotted Z: Other type		Box of 10 pieces	
1:	Continuous rotation and no antirotation pin								
2:	Stops at 340° and antirotation pin								
3:	Stops at 340° and no antirotation pin								
Shaft length from mounting face 22 mm to 72 mm max. per step of 5 mm									

SAP PART NUMBERING GUIDELINES

351HE	1	B	9	Z	C	0P27	XXXX
MODEL	MECHANICAL FEATURES	LINEARITY	ELECTRICAL ANGLE	OUTPUT TYPE	OUTPUT SIGNAL	SHAFT TYPE	SPECIAL REQUEST

Revision 15-Nov-07

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