



Single Turn Servo Mount Hall Effect Sensor in Size 05 (12.7 mm)



FEATURES

- Accurate linearity down to: $\pm 0.5\%$
- All electrical angles available up to: 360° (no dead band)
- Long life: Greater than 50M cycles
- Non contacting technology: Hall effect
- Smallest size available
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS COMPLIANT

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, single turn hall effect
Output type	Wires
Market appliance	Professional
Dimensions	1/2" (12.7 mm) dia.

ELECTRICAL SPECIFICATIONS		
PARAMETER	STANDARD	SPECIAL
Electrical angle	90°, 180°, 270°, 360°	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 max.	16 mA for PWM output
Output signal	Analog ratiometric 10 % to 90 % of V _{supply} or PWM 1 kHz, 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 static	< 0.2° max.	

MECHANICAL SPECIFICATIONS	
PARAMETER	
Mechanical travel	360° continuous
Bearing type	2 ball bearings
Standard	IP 51; other on request

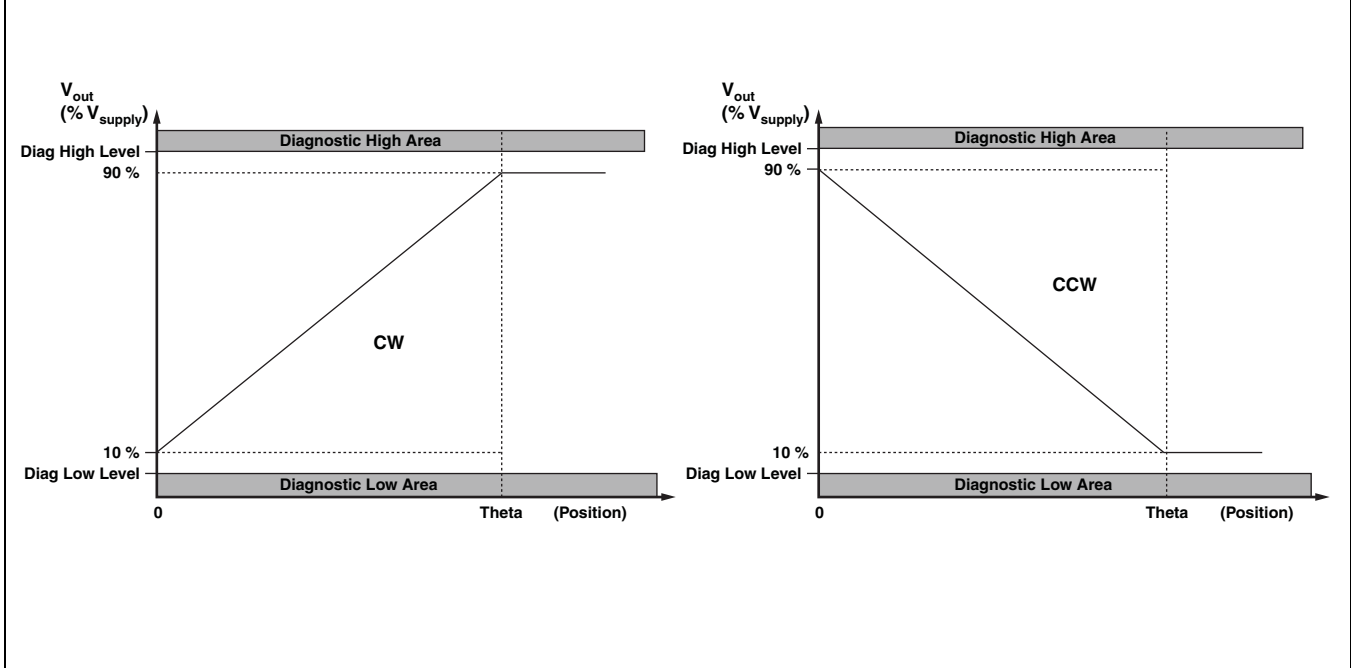
ORDERING INFORMATION/DESCRIPTION									
50 SHE	1	A	1	W	A	2S13	XXXX	BO 10	e1
MODEL	NUMBER OF CUP	LINEARITY	ELECTRICAL ANGLE	OUTPUT TYPE	OUTPUT SIGNAL	SHAFT TYPE	SPECIAL REQUEST	PACKAGING	LEAD FINISH
	1:1 Cup	A: $\pm 1\%$ B: $\pm 0.5\%$	1: 90° 2: 180° 3: 270° 4: 360° 9: Other angles	W: Wires Z: Custom	A: Analog CW B: Analog CCW C: PWM CW D: PWM CCW Z: Other output	2: 3.175 mm 9: Special P: Plain S: Slotted Z: Other type		Box of 10 pieces	
Shaft length from mounting face, standard: 13 mm									

SAP PART NUMBERING GUIDELINES							
50 SHE	1	B	9	Z	C	2P22	XXXX
MODEL	1: 1 cup	LINEARITY	ELECTRICAL ANGLE	OUTPUT TYPE	OUTPUT SIGNAL	SHAFT TYPE	SPECIAL REQUEST
	OUTPUT SIGNAL						



V_{OUT} ANALOG

Operating temperature	85 °C	125 °C
Diagnostic high level	96 % min.	96 % min.
Diagnostic low level	2 % max.	4 % max.



V_{OUT} PWM

