

Throttle Position Sensor in Hall Effect Technology Hollow and D-Shaft Versions



FEATURES

- Accurate linearity down to: $\pm 0.5\%$
- Easy mounting principle
- Non contacting technology: Hall effect
- Model dedicated to all applications in harsh environments
- Spring loaded types 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	Industrial
Dimensions	47 mm x 22 mm

ELECTRICAL SPECIFICATIONS

PARAMETER	STANDARD	SPECIAL
Electrical angle	90°, 120°, 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 (D-shaft version)	< 0.3°	

MECHANICAL SPECIFICATIONS

PARAMETER	
Mechanical travel	360° continuous, stops upon request: 124° $\pm 3^\circ$
Bearing type	Sleeve bearing
Standard	IP 50; other on request
Weight	19 g ± 2 g hollow shaft model/22 g ± 2 g D-shaft model

ORDERING INFORMATION/DESCRIPTION

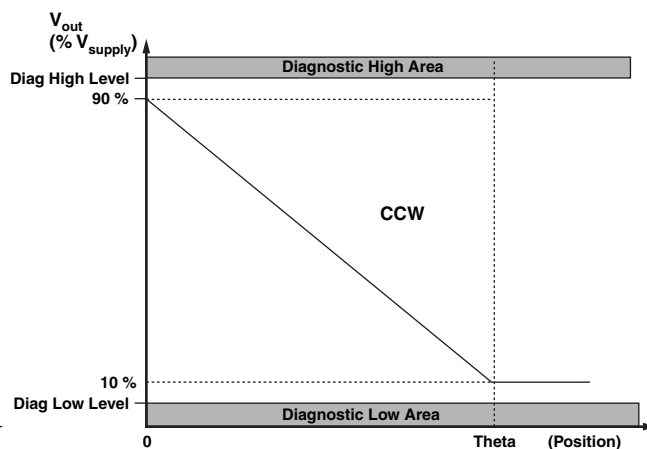
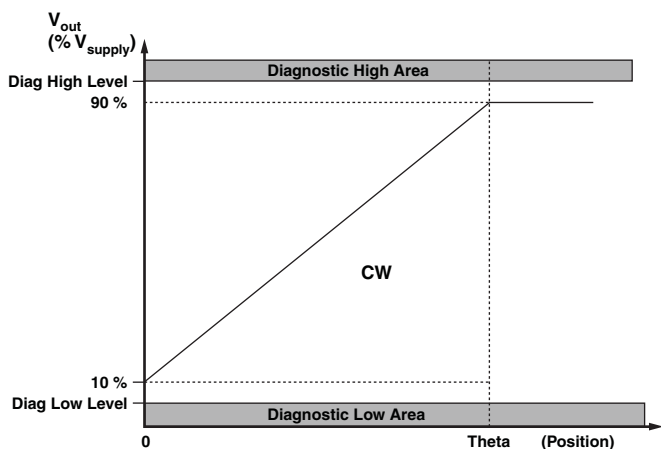
981HE	0	A	1	W	A	1F16	XXXX	BO 10	e1
MODEL	FEATURES	LINEARITY	ELECTRICAL ANGLE	OUTPUT TYPE	OUTPUT SIGNAL	SHAFT TYPE	SPECIAL REQUEST	PACKAGING	LEAD FINISH
0:	Continuous rotation	A: $\pm 1\%$	1: 90°	W: Wires	A: Analog CW	1: 6.35 mm		Box of 10 pieces	
1:	Mechanical stops	B: $\pm 0.5\%$	2: 180°	Z: Custom	B: Analog CCW	9: Special			
2:	Spring return CW		3: 270°		C: PWM CW	P: Plain			
3:	Spring return CCW		4: 360°		D: PWM CCW	F: Flatted			
	For 1, 2, 3: Max. electrical angle is: 120°		5: 120°		Z: Other output	S: Slotted			
			9: Other angles			Z: Other type			
						Shaft length from mounting face (standard: 16 mm)			
						8H00 hollow shaft			
						8H01 hollow D-shaft			

SAP PART NUMBERING GUIDELINES

981HE	1	B	9	Z	C	8H01	XXXX
MODEL	MECHANICAL FEATURES	LINEARITY	ELECTRICAL ANGLE	OUTPUT TYPE	OUTPUT SIGNAL	SHAFT TYPE	SPECIAL REQUEST



V_{OUT} ANALOG



V_{OUT} PWM

