# Vishay Spectrol



# Industrial Sensor for Harsh Environment (Throttle Position/Through Hole)



#### **FEATURES**

- Fully "sealed" robust package
- Electrical connection: AMP superseal 1.5 series integrated connector
- Through hole D drive
- · Mountable on both faces
- · Reference index indent
- · Return spring option
- Standard electrical resistance (and custom options)

The Model 970 has been specifically developed to operate and maintain high functional performance under harsh environmental conditions. These include: extremes of temperature, continuous vibration, chemical exposure and water immersion. This universal device is fully sealed to ingress protection IP67 providing high mechanical durability and long electrical life. This industrial sensor is suitable for a different variety of applications within the automotive, medical and robotic industries.

ELECTRICAL SPECIFICIATONS		
PARAMETER		
Standard Resistance	5 kΩ, ± 20 °C	
Resistance Tolerance	± 30 %	
Linearity (Absolute)	± 2 %	
Electrical Angle	Standard version 200° continuous rotation version 346°	
Output Smoothness	0.5 %	
Maximum Voltage	30.0 V <sub>DC</sub>	
Temperature Coefficient of Resistance	600 ppm/°C	

MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation (Options)	190° with mechanical stops 190 with mechanical stops and return spring 360 continuous	
Stop Strength	680 mNm minimum	
Fixed Torque (Recommended)	2 to 3 Nm	
Spring Torque	Minimum return 20 Nmm Maximum wind-up 115 Nmm	
Mounting Pitch	41 mm	

ORDERING INFORMATION/DESCRIPTION		
970 - 1036	0000	BO100
MODEL	VERSION	PACKAGING
	0000 Without spring return 0001 With spring return 0002 Continuous rotation	Box of 100 pieces

SAP PART NUMBERING GUIDELINES			
970	1036	0000	B30
MODEL	STYLE	CONFIGURATION	PACKAGING

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For technical questions, contact: sfer@vishay.com

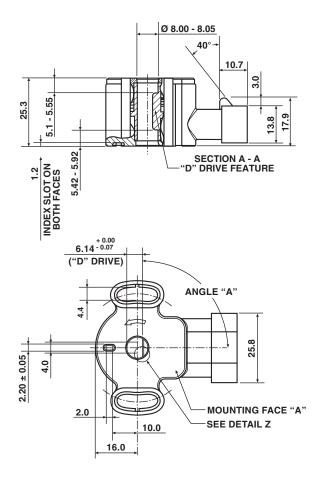
Document Number: 57001 Revision: 20-Mar-07

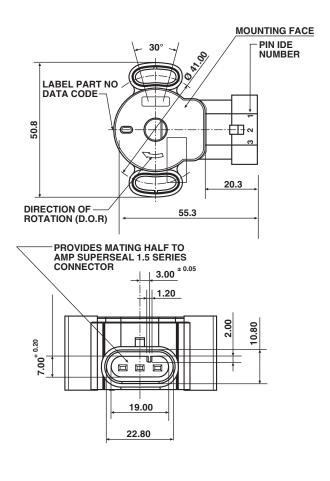


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### **DIMENSIONS** in inches (millimeters)





ENVIRONMENTAL SPECIFICATIONS	
PARAMETER	
Vibration	15 g thru 2000 Hz
Shock	50 g
Rotational Life	5 000 000 full cycles 10 000 000 dither cycles (second rotation)
Load Life	900 h
Temperature Range	- 40 °C to + 130 °C
Sealing	IP67
Humidity	96 % at 40 °C (500 h)
Salt Spray	5 % solution at 40 °C (300 h)

MARKING	
Unit Identification	Manufacturer's name and model number, resistance value, tolerance, data code and terminal identification

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Document Number: 91000 www.vishay.com
Revision: 11-Mar-11 1