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

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.

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)

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, conductive plastic
Output type	Connector
Market appliance	Industrial
Dimensions	50.8 mm x 55.3 mm

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_{DC}
Temperature coefficient of resistance	600 ppm/°C

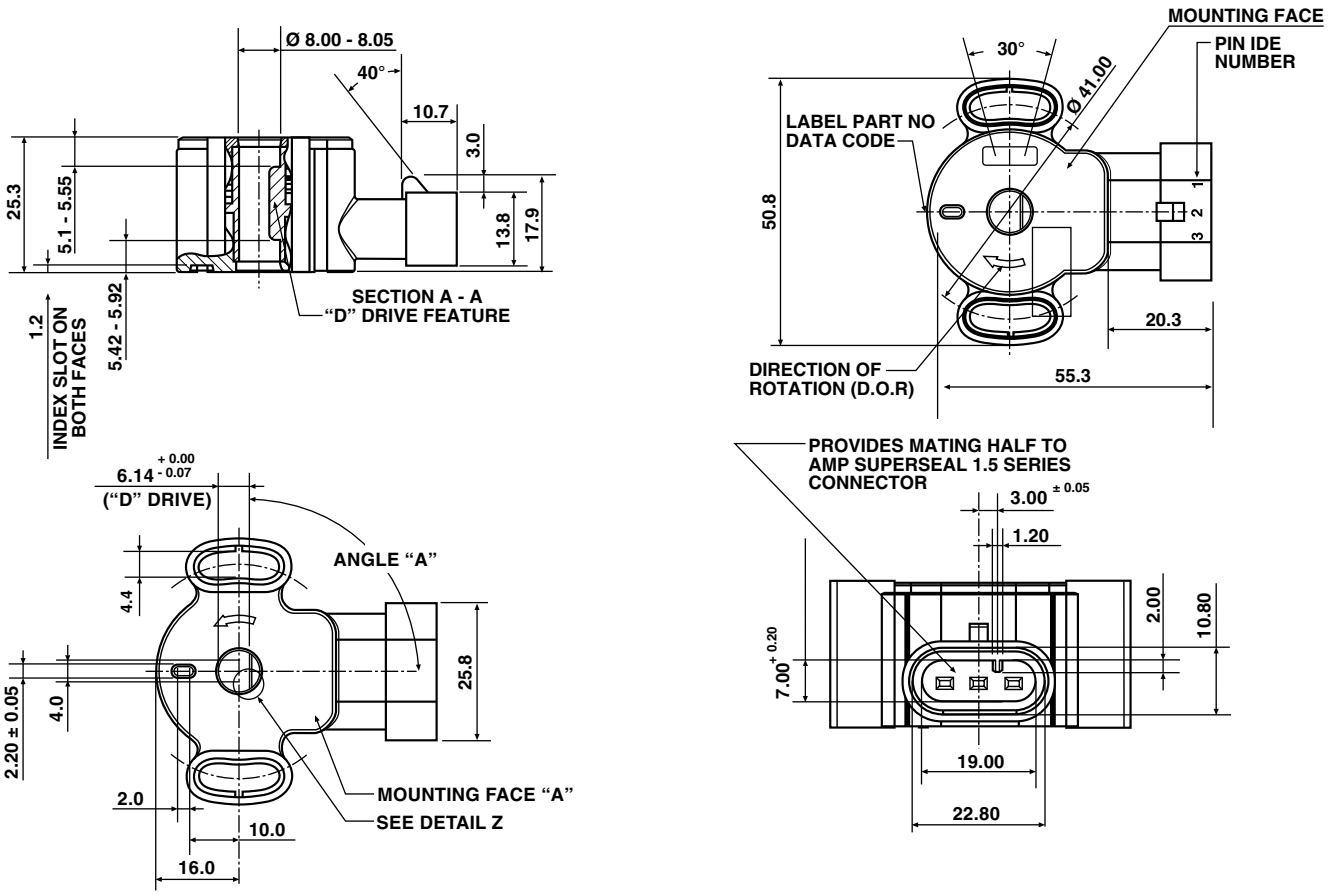
MECHANICAL SPECIFICATIONS	
PARAMETER	
Rotation (options)	190° with mechanical stops 190 with mechanical stops and return spring 360 continuous
Stop strength	680 mNm minimum
Fixed torque (recommended)	2 Nm to 3 Nm
Spring torque	Minimum return 20 Nmm Maximum wind-up 115 Nmm
Mounting pitch	41 mm

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

For technical questions, contact: sferprecisionpot@vishay.com

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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