Vishay Spectrol



Full 360° Smart Position Sensor



FEATURES

- Ratiometric output over 360° range with no dead band
- Self-contained package not requiring external electronic interface
- Angular response 50μ secs
- · Reverse polarity protection
- · Absolute and non volatile positioning output

The model 601-1045 represents a new generation of Smart Sensors. This unique electronic device is a self-contained package which provides an analogue electrical output over a full 360° without the need of external electronics. The low power consumption and non-volatile output makes this universal sensor the real cost-effective alternative to encoders. It's versatile design makes it suitable for a variety of industries and applications, such as CCTVs, Medical Instruments, Robotic arm control, CNC machinery, Rotational control systems, Pick n' place machines and Angular feedback applications.

STANDARD ELECTRICAL SPECIFICATIONS		
PARAMETER		
Supply	4.5 to 5.5VDC	
Supply Current	20mA maximum	
Absolute Maximum Supply	6V	
Independant Linearity	± 1% Typical	
Resolution	Resolves down to a minimum of 0.5°	
Electrical Track	360° continuous	
Analogue Voltage Output	Not less than 90% of supply (ratiometric) - see graphs on next page	
Output Ramp Slope	Electrically switchable - see graphs P157	
Output Impedance	1Ω typical	
Temperature Characteristic	±1° max. over - 40/+ 70°C	
Insulation Resistance	1000MΩ minimum	
Dielectric Strength	1000V _{RMS} , 50/60Hz	

MECHANICAL SPECIFICATIONS		
Rotation	360° continuous	
Rotational Speed	5 maximum revs/sec (duration 60 secs)	
Operating Torque Maximum	3.68 (0.5) mNm (oz in)	
Weight	30gm	

ENVIRONMENTAL SPECIFICATIONS		
Operating Life	5,000,000 Cycles	
Operating Temp. Range	- 40°C to + 70°C	
Storage Temp. Range	-40°C to + 105°C	
Sealing	IP54	

ORDERING INFORMATION

601-1045 MODEL

XXXX STANDARD CONFIGURATION CODE

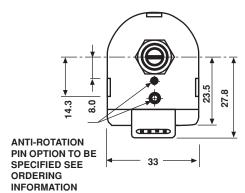
PRODUCT NUMBER	ø 1.57 PIN	ø 3.18 PIN
0000	Yes	Yes
0001	Yes	-
0002	-	Yes
0003	-	-

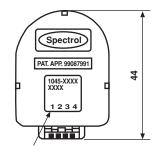
Example: 601 - 1045 - XXXX



Full 360° Smart Position Sensor

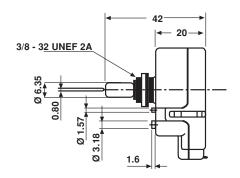
DIMENSIONS in millimeters





PRODUCT NO. DATE CODE AND TERMINAL I.D. LABEL

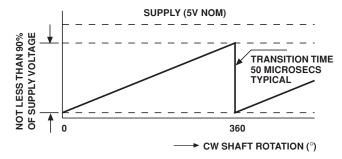
MATERIAL SPECIFICATIONS		
Housing	Plastic	
Bushing	Brass, nickel plated	
Shaft	Stainless steel	
Pin Terminal Connector	Gold Plated	
Output Connection	Pin header to suit IDC connectors. e.g. Panduit C100 - F22 and Molex 7880	
Bushing Mount Hardware		
Lock Washer, Internal Tooth	Steel, nickel plated	
Panel Nut	Brass, nickel plated	



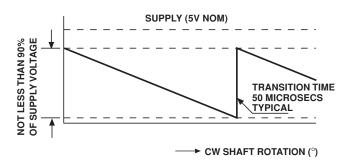
PIN CONNECTIONS	FUNCTION	
1 + 5V	Supply	
2 0V	Зарріу	
3 Output	O/P Voltage	
4 Direction	Ramp Polarity	



CABLE ASSEMBLY FOR CONNECTION	
Part Number	601-1056-0000
Description	Molex KK
	4-way crimp connector
	4 wire (250mm)



DEFAULT OUTPUT [Terminal #4 Open-Circuit]



REVERSE SLOPE [Terminal #4 Connected to OV]

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Legal Disclaimer Notice



Vishay

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