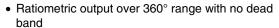
# Vishay Spectrol



## Full 360° Smart Position Sensor



#### **FEATURES**





- Self-contained package not requiring external electronic interface
- Angular response 50 μs
- · 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 analog 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 5.5 V <sub>DC</sub>	
Supply Current	20 mA max.	
Absolute Maximum Supply	6 V	
Independent Lineaity	± 1 % typical	
Resolution	Resolves down to a min. of 0.5°	
Electrical Track	360° continuous	
Analog Voltage Output	Not less than 90 % of supply (ratiometric) - see graphs on next page	
Output Ramp Slope	Electrically switchable - see graphs	
Output Impedance	1 Ω typical	
Temperature Characteristic	± 1° max. over - 40/+ 70 °C	
Insulation Resistance	1000 MΩ min.	
Dielectric Strength	1000 V <sub>RMS</sub> , 50/60 Hz	

MECHANICAL SPECIFICATIONS	
Rotation 360° continuous	
Rotational Speed	5 max. revs/s (duration 60 s)
Operating Torque Maximum	3.68 (0.5) mNm (oz in)
Weight	30 g

ENVIRONMENTAL SPECIFICATIONS	
Operating Life	5 000 000 cycles
Operating Temperature Range	- 40 °C to + 70 °C
Storage Temperature Range	- 40 °C to + 105 °C
Sealing	IP54

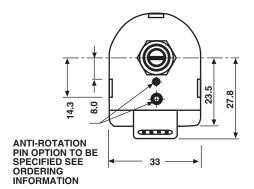
ORDERING I	ORDERING INFORMATION/DESCRIPTION				
601-1045		XXXX		BO1	e4
MODEL	STANDAF	STANDARD CONFIGURATION CODE		PACKAGING	LEAD FINISH
	PRODUCT NUMBER	Ø 1.57 PIN	Ø 3.18 PIN	7	
	0000	Yes	Yes		
	0001	Yes	-		
	0002	-	Yes		
	0003	-	-		

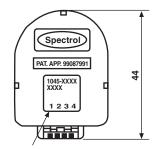
SAP PART NUMBERING GUIDELINES			
601	1045	0001	B01
MODEL	STYLE	PIN CONFIGURATION	PACKAGING
	1045 or 1056		



#### Full 360° Smart Position Sensor

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

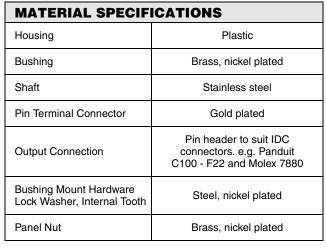


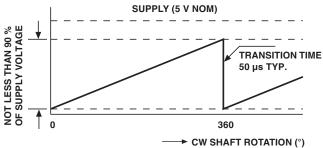


PRODUCT NO. DATE CODE AND TERMINAL I.D. LABEL

	<b>←</b> 42 →
<sup>3</sup> / <sub>8</sub> - 32 UNEF 2A	20 →
Ø 6.35	
∞  🚞	
<u>t.</u>	
Ø 3.18	1.6

PIN CONNECTIONS	FUNCTION
1 + 5 V	Supply
2 0 V	-
3 Output	O/P voltage
4 Direction	Ramp polarity

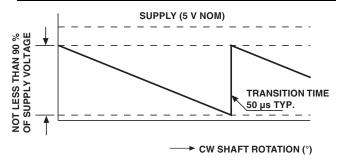




**DEFAULT OUTPUT** [Terminal #4 Open-Circuit]



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



REVERSE SLOPE [Terminal #4 Connected to OV]

# **Legal Disclaimer Notice**



Vishay

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