

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.

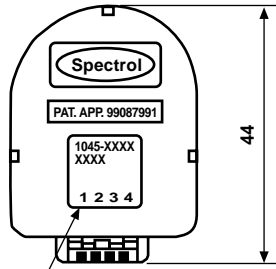
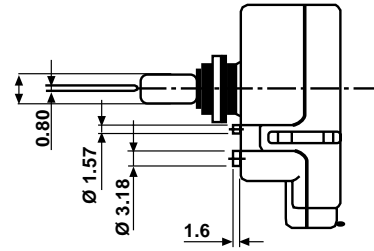
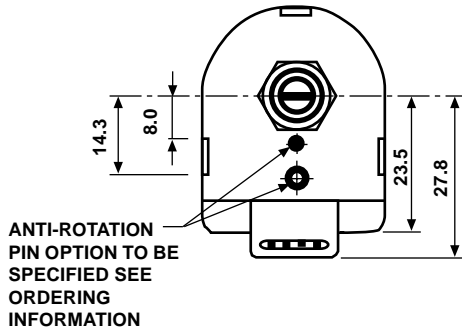
STANDARD ELECTRICAL SPECIFICATIONS	
PARAMETER	
Supply	4.5 to 5.5VDC
Supply Current	20mA maximum
Absolute Maximum Supply	6V
Independant Linearity	± 1% Typical
Resolution	Resolves down to a minimum of 0.5°
Electrical Track	360° continuous
Analogue Voltage Output	Not less than 90% of supply (ratiometric) - see graphs on next page
Output Ramp Slope	Electrically switchable - see graphs below
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	30g

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																	
<p>601-1045 MODEL</p>	<p>XXXX STANDARD CONFIGURATION CODE</p>																
<p>Example: 601 - 1045 - XXXX</p>		<table border="1"> <thead> <tr> <th>PRODUCT NUMBER</th> <th>∅ 1.57 PIN</th> <th>∅ 3.18 PIN</th> </tr> </thead> <tbody> <tr> <td>0000</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>0001</td> <td>Yes</td> <td>-</td> </tr> <tr> <td>0002</td> <td>-</td> <td>Yes</td> </tr> <tr> <td>0003</td> <td>-</td> <td>Yes</td> </tr> </tbody> </table>	PRODUCT NUMBER	∅ 1.57 PIN	∅ 3.18 PIN	0000	Yes	Yes	0001	Yes	-	0002	-	Yes	0003	-	Yes
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DIMENSIONS in millimeters



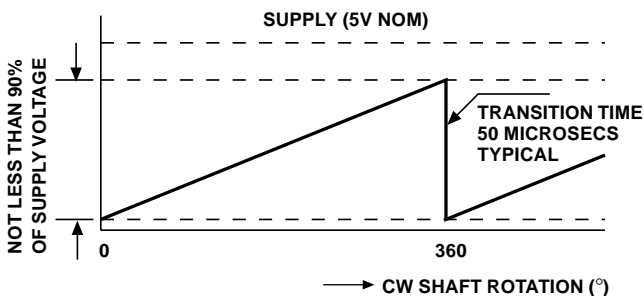
PRODUCT NO. DATE CODE AND TERMINAL I.D. LABEL

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

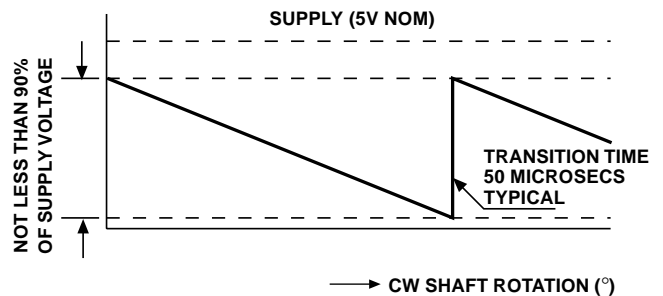
MATERIAL SPECIFICATIONS	
Housing	Plastic
Bushing	Brass, nickel plated
Shaft	Stainless steel
Pin Terminal Connector	Gold Plated
Output Connection	Pin header to suit IDC connectors. e.g. Panduit C100 - F22 and Molex 7880
Bushing Mount Hardware	
Lock Washer, Internal Tooth	Steel, nickel plated
Panel Nut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



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 0V]