

601-1045

Full 360° Smart Position Sensor



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 for external electronics. The low power consumption and non-volatile output makes this universal sensor the real cost-effective alternative to encoders. Its 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.

PRODUCT HIGHLIGHTS

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

ELECTRICAL

Supply:

4.5 to 5.5V DC

Supply Current:

20 mA max.

Absolute Max. Supply:

6V

Independent Linearity:

$\pm 1\%$ 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 below

Output Ramp Slope:

Electrically switchable - see graphs below

Output Impedance:

1 ohm typical

Temperature Characteristic:

$\pm 1^\circ$ max. over -40/+70°C

Insulation Resistance:

1000M ohm min.

Dielectric Strength:

1000V RMS 50/60 Hz

MECHANICAL

Rotation:

360° continuous

Rotational Speed:

5 revs/sec max. (duration 60 seconds)

Operating Torque Max:

Starting and running 3.68 mNm (0.5Oz in)

Weight:

30 gms

ENVIRONMENTAL

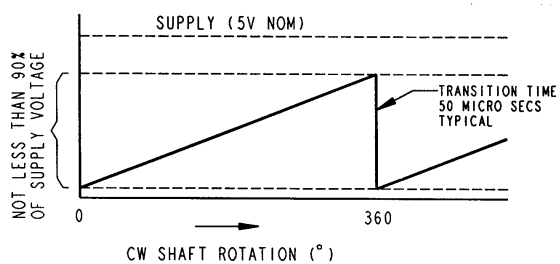
Operating Life: 5,000,000 cycles

Operating Temp. Range: -40°C to 70°C

Storage Temp. Range: -40°C to 105°C

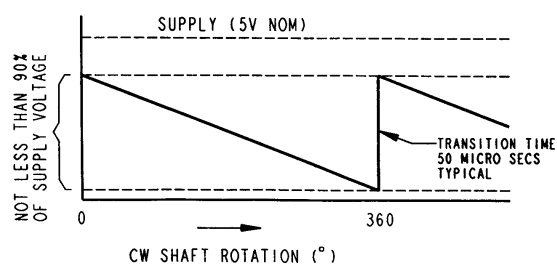
Sealing: IP54

DEFAULT OUTPUT (TERMINAL #4 OPEN-CIRCUIT)



Graph 1

REVERSE SLOPE (TERMINAL #4 CONNECTED TO 0V)

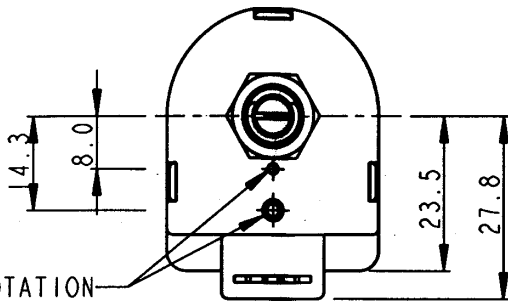


Graph 2

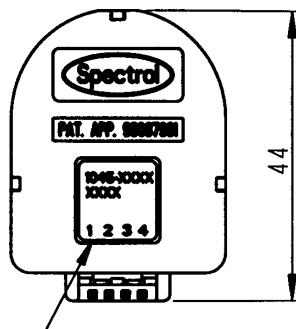
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DIMENSIONS



ANTI-ROTATION PIN OPTION TO BE SPECIFIED. SEE TABLE 2



PRODUCT No, DATE CODE AND TERMINAL I.D. LABEL

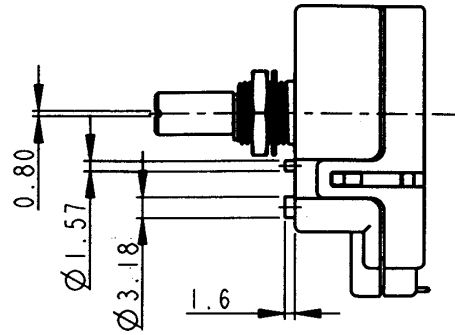
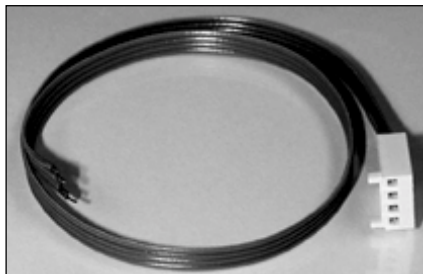


Table 1

Pin Connections	Function
1 +5V	Supply
2 0V	
3 Output	O/P Voltage
4 Direction	Ramp Polarity

Materials	
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: Supplied loose	
Description:	4 way IDC connector 4 way ribbon cable (300mm)

ORDERING INFORMATION

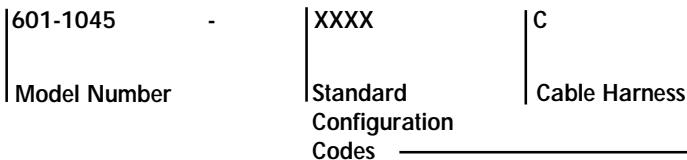


Table 2

Product Number	Ø1.57 PIN	Ø3.18 PIN
0000	YES	YES
0001	YES	-
0002	-	YES
0003	-	-

