



VISHAY INTERTECHNOLOGY, INC.

SENSORS

Manufacturer of the
World's Broadest Line
of Discrete Electronic
Components



Model 601-1045

Smart Position Sensor Features Absolute Analog Output Over 360°, Requires No External Electronics

- 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

The datasheet for the model WSF Resistors is available on our web site at www.vishay.com/doc?57000

www.vishay.com

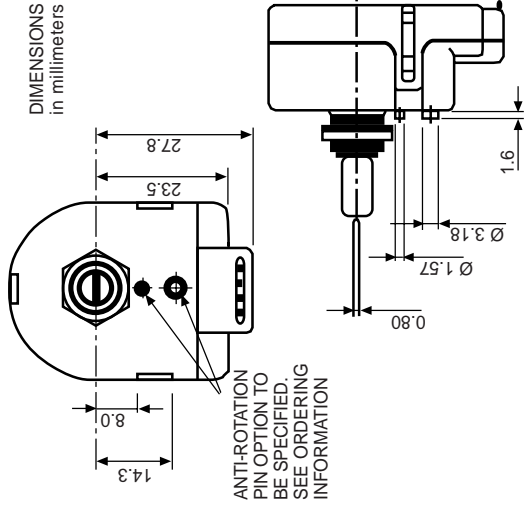
Full 360° Smart Position Sensor



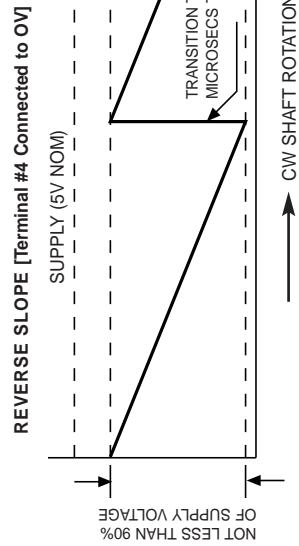
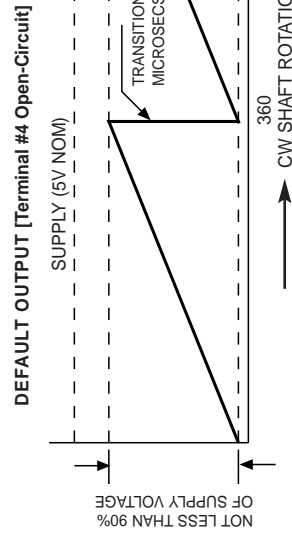
FEATURES

- Ratiometric output over 360° range with no dead band
- Self-contained package not requiring external electronic interface
- Angular response 50µ sec
- 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. 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.



CABLE ASSEMBLY FOR CONNECTION	
Description	Molex KK
	4-way crimp connector
	4 wires (250mm)



STANDARD ELECTRICAL SPECIFICATIONS	
PARAMETER	UNIT
Supply	Vdc 4.5 to 5.5
Supply Current	mA 20 max.
Absolute Maximum Supply	V 6
Independent Linearity	°C 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	Ω 1 Typical
Temperature Characteristic	°C ±1 max. over -40/+70
Insulation Resistance	MΩ/min. 1000
Dielectric Strength	Vrms 1000, 50/60Hz

MECHANICAL SPECIFICATIONS	
Rotation	° 360° continuous
Rotational Speed	5 max. revs/sec (duration 60 secs)
Operating Torque Max.	3.68 (0.5) mNm (Ox 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

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

ORDERING INFORMATION	
601-1045 MODEL	XXXX STANDARD CONFIGURATION CODE
	C CABLE HARNESS
PRODUCT NUMBER	φ 1.57 PIN φ 3.18 PIN
0000	Yes Yes
0001	Yes
0002	Yes
0003	Yes