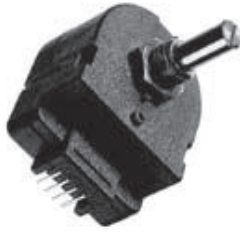


## Full 360° Smart Sensor (Hall Effect Technology)



### FEATURES

- Absolute ratiometric output over 360° range with no dead band
- Self-contained package not requiring external electronic interface
- Contactless technology
- Reverse polarity protection
- Non volatile positioning output
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### QUICK REFERENCE DATA

Sensor type	ROTATIONAL, single turn hall effect
Output type	Output by pins (connector)
Market appliance	Industrial
Dimensions	33 mm x 44 mm x 20 mm

The model 601-HE represents a new generation of smart sensors in contactless technology based on the hall effect principle. 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.

### STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	
Supply	4.5 V <sub>DC</sub> to 5.5 V <sub>DC</sub>
Supply current	16 mA max.
Over voltage protection	10 V
Independent linearity	± 1 %
Electrical track	360° continuous
Analog voltage output	5 % to 95 % of supply (ratiometric) CW or CCW see graphs on next page
Output ramp slope	Electrically switchable - see graphs
Temperature coefficient	V <sub>out</sub> /ΔT 125 μV/°C typ.
Hysteresis static	0.8° max.

### MECHANICAL SPECIFICATIONS

Rotation	360° continuous
Rotational speed (max.)	120 RPM
Operating torque max.	0.25 oz.-in (18 g-cm)
Weight	30 g

### ENVIRONMENTAL SPECIFICATIONS

Operating life	5 000 000 Cycles
Operating temperature range	- 45 °C to + 85 °C
Storage temperature range	- 45 °C to + 85 °C
Sealing	IP54

### ORDERING INFORMATION/DESCRIPTION

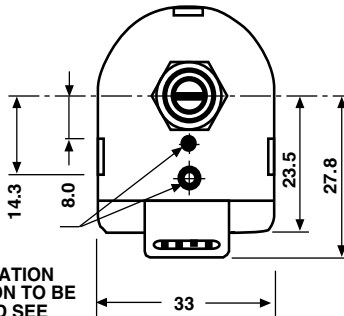
601 HE	0000	BO1	e4														
MODEL	CONFIGURATION CODE	PACKAGING	LEAD FINISH														
		Box of 1 piece															
	<table border="1"> <thead> <tr> <th>Product Number</th> <th>Ø 1.57 PIN</th> <th>Ø 3.18 PIN</th> </tr> </thead> <tbody> <tr> <td>0000</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <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>-</td> </tr> </tbody> </table>	Product Number	Ø 1.57 PIN	Ø 3.18 PIN	0000	Yes	Yes	0001	Yes	-	0002	-	Yes	0003	-	-	
Product Number	Ø 1.57 PIN	Ø 3.18 PIN															
0000	Yes	Yes															
0001	Yes	-															
0002	-	Yes															
0003	-	-															

### SAP PART NUMBERING GUIDELINES

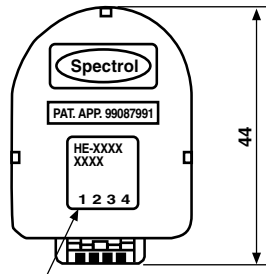
601 HE	0001	B01
MODEL	PIN CONFIGURATION	PACKAGING



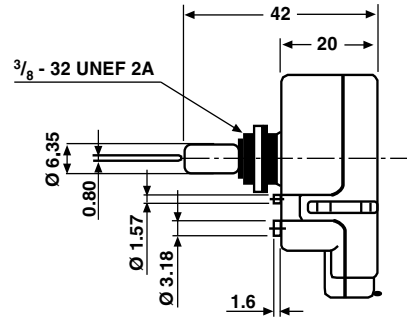
**DIMENSIONS** in millimeters



ANTI-ROTATION PIN OPTION TO BE SPECIFIED SEE ORDERING INFORMATION



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

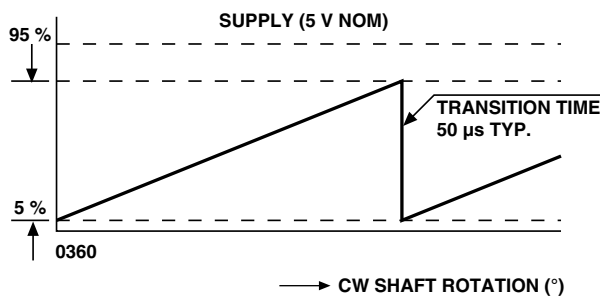


PIN CONNECTIONS	FUNCTION
1 + 5 V	Supply
2 0 V	
3 Output	O/P voltage
4 Direction	Connected to 0 V: CCW Open circuit or connected to 5 V: CW

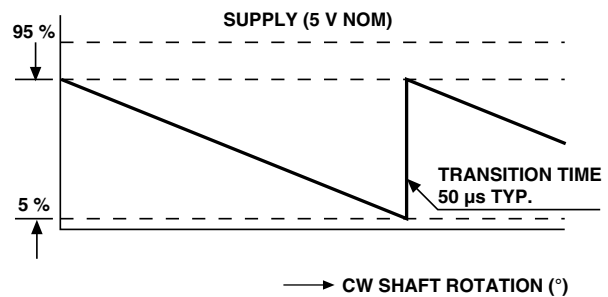
MATERIAL SPECIFICATIONS	
Housing	Plastic
Bushing	Brass, nickel plated
Shaft	Stainless steel
Pin terminal connector	Gold plated
Output connection	Pin header to suit IDC connectors. e.g. Panduit C100 - F22 and Molex 7880
Bushing mount hardware lock washer, internal tooth	Steel, nickel plated
Panel nut	Brass, nickel plated



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



MODEL: 601 HE when pin 4 connected to 5 V or open circuit



MODEL: 601 HE when pin 4 connected to 0 V



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