



### Feature

1. Non-contact angle/position sensor
2. Long life, over 10 Million cycles.
3. Programmable angular range from 15 to 360 degrees(without dead band).
4. Simple & Robust magnetic design

### Typical Applications

#### Industrial:

- Throttle/speed control,
- Foot pedal position,
- Tilt position,

#### Medical:

- Manipulator arm position

### FHS22 Series Contactless Sensor

### Electrical characteristics

• Output voltage .....	0.25Vdc to 4.75Vdc typical (see Voltage Output Codes)
• Output current .....	±8mA Max
• Input voltage .....	5Vdc±10%
• Supply current .....	±7.5mA typical, 11mA Max.
• Independent Linearity.....	±0.5% (±0.25% available)
• Output load .....	10KΩ typical, 1KΩ Min
• Output temperature characteristics.....	Within ±3% Vout/FS
• Effective electrical angle.....	15° to 360° (360° is typical)

### Mechanical characteristics

• Rotational torque .....	Within 5mN.m
	Within 20mN.m (O-ring seal)
• Total rotational angle .....	360°(Endless)
• Push strength .....	10Kg Min.
• Pull strength.....	10Kg Min.
• Shaft material.....	Stainless steel
• Bushing material.....	Phosphor bronze

### Environmental characteristics

• Storage temperature .....	-55°C to +125°C
• Operating temperature .....	-40°C to +125°C
• Rotational life .....	10 Million cycles Min (With bushing bearing)
• Shock .....	Per MIL R-39023, 6 ms Saw-tooth 100 G's, 18times
• Vibration.....	Per MIL R-39023, 10 G's, 100 to 500 Hz, 12Hrs
• ESD.....	8 KV max. (human body model)
	15KV air discharge.
• EMI.....	100V/m, 200MHz~1GHz
• Soldering condition.....	Manual solder: 350° Max., 3Sec. Max.
• IP Grade.....	IP50 Standard
	IP65 Option Available
• Exposure at High Temperature.....	1000 hours at +125°C
• Exposure at Low Temperature.....	24 hours at -50°C

### HOW TO ORDER

<b>FHS22-</b>	<b>W</b>	<b>W</b>	<b>A</b>	<b>S</b>	<b>1</b>	<b>1</b>	<b>A</b>	<b>360</b>	<b>A</b>
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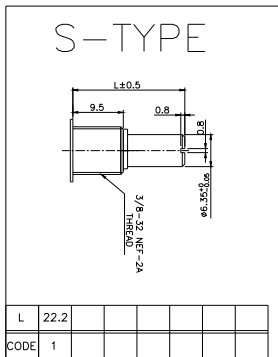
  

<b>Model Series</b>		<b>Shaft Type &amp; Length</b>		<b>Output Function</b>		<b>Linearity Tolerance</b>		<b>Electrical angle</b>	
Code	Terminal Option	See Note 1		See Note 2		Code	Linearity Tolerance	Code	Electrical angle
W	With cable wire					A	±0.5%	90	90°
Code	Proof Option							180	180°
D	Dustproof (IP50)							270	270°
W	Waterproof (IP65)							360	360°
Code	Bushing Option								
A	1/4" shaft, 3/8" bushing								

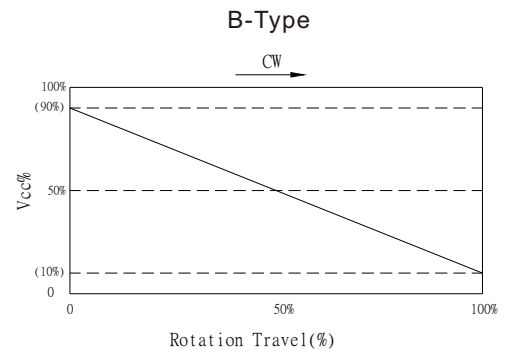
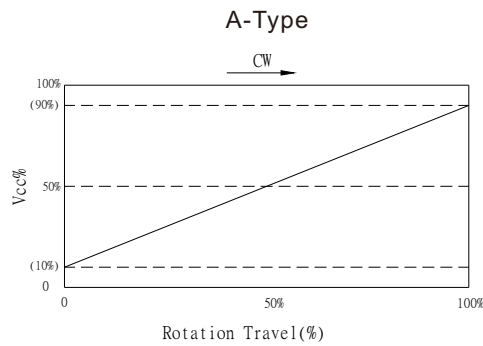
  

<b>Code</b>	<b>Voltage output code</b>
1	DC0.2V to 4.8V
2	DC0.25V to 4.75V
3	DC0.5V to 4.5V
4	DC0.75V to 4.25V
5	DC1.0V to 4.0V

#### Note 1: Shaft Type & Length



#### Note 2: Output Function



#### FHS22-WWA Waterproof with cable wire, 1/4" shaft, 3/8" bushing

