

**KH SERIES  
KH41 & 42  
SHAFTLESS ROTARY**



The KH41/42 Series of Non-Contact 1 or 2 Channel Rotary Position Sensors are designed to withstand the harsh environments of motorsport and automotive testing applications. By using a proven 'Hall Effect' technology, the KH41/42 offers high performance, reliability and operational excellence in extreme temperature environments between -40°C to +150°C.

The sensor has no moving parts; a magnet is inserted into the moving component with its Polarity Identifier in line with the cable exit. The sensor detects rotational movement and provides a linear output signal proportional to the rotational angle. This output can be measured on both Top and Bottom sides of the sensor body.

With a small and lightweight 23mm diameter body and standard size Flange Mountings, the KH41/42 Sensor is designed for use on throttle bodies, other installations include: gearbox and pedal position. This IP67 rated sensor is available with either Single (3 wire) or Dual (6 wire) outputs.

**TECHNICAL SPECIFICATIONS**

<b>Electrical Angles (Degrees)</b>	60° to 360° in 1° Increments. Standard Angles: 60°, 100°, 240°, 360°
<b>Supply</b>	5V (±0.5V) Ratiometric
<b>Output</b>	Please See Part Number Configurator For Options
<b>Resolution</b>	12 Bit
<b>Accuracy, Linearity</b>	±0.1%
<b>Accuracy, Hysteresis</b>	<0.1°
<b>Update Rate</b>	5KHz
<b>Mechanical Life</b>	> 25 Million Cycles at Max 150RPM
<b>Operating Temperature Range</b>	-40°C to +150°C
<b>Housing Material</b>	Aluminium
<b>Air Gap / Concentricity</b>	1-3mm Air Gap / 1-2mm Concentricity
<b>Track Technology</b>	Hall Effect, Non Contact
<b>Electrical Connection</b>	50cm 26AWG, 55 Spec, FDR 25 Sleeve
<b>Protection Class</b>	IP67
<b>Weight</b>	20g

KA Sensors adopts a continuous development program which sometimes necessitates specification changes without notice.

*Sense  
Analyse  
Control*

**Features**

- Shaftless Design
- Excellent Linearity
- High Temperature
- Lightweight
- IP67 Standard Sealing
- Rugged Construction

**Applications**

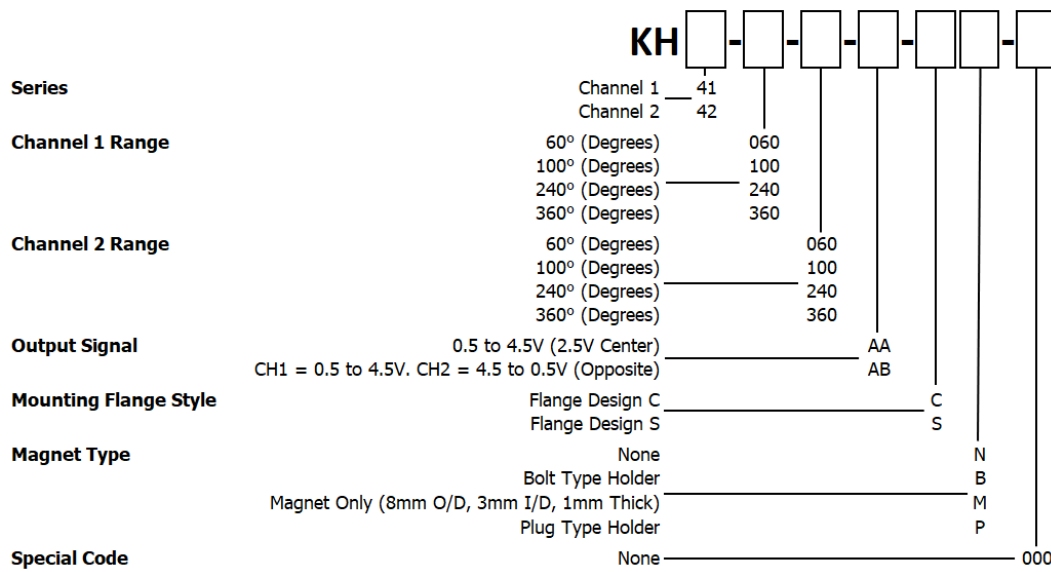
- Throttle Position
- Steering Angle
- Pedal Position
- Gear Position
- Aero Surfaces
- Actuators

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**KH41/42  
KA026D-DS (rev2)**

# PART NUMBER CONFIGURATOR



*Sense  
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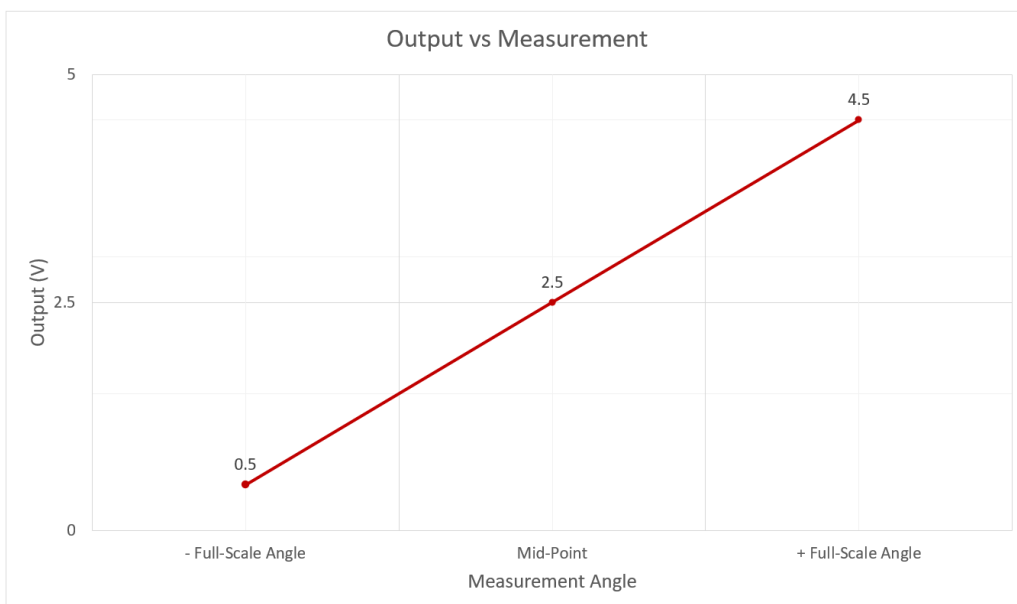
## Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

# CONNECTION DETAILS

Channel	+Ve Supply	0V Supply	Signal
1	Red	Black	Yellow
2 (KH42 Only)	Brown	Blue	White
50cm 26AWG, 55 Spec wire + FDR 25 Sleeve (Flying Lead)			

# OUTPUT DETAILS



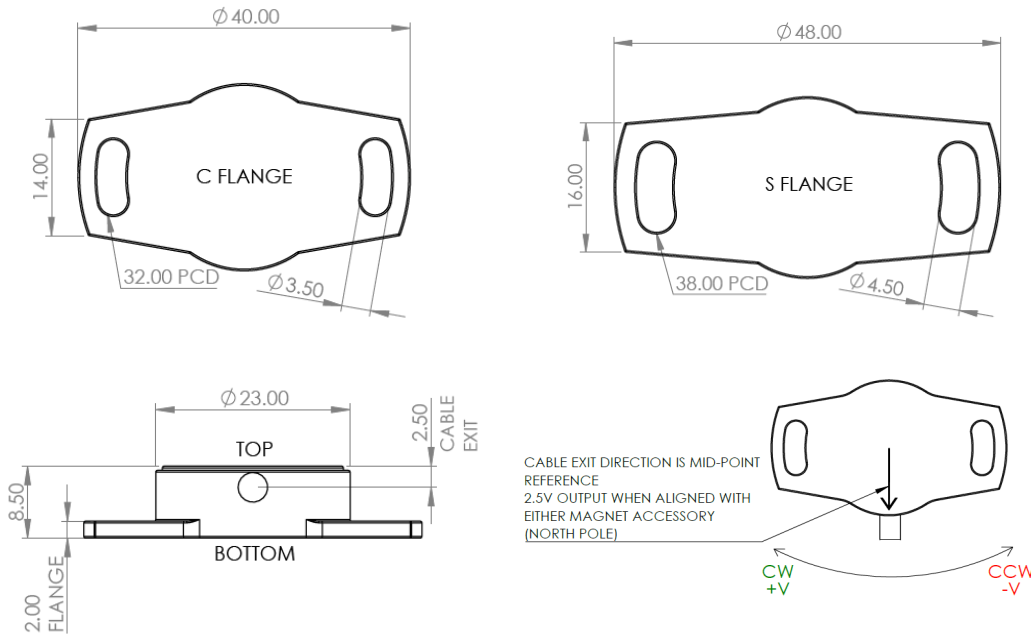
## Contact us

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KH41/42  
 KA026D-DS (rev2)

# MECHANICAL DETAILS



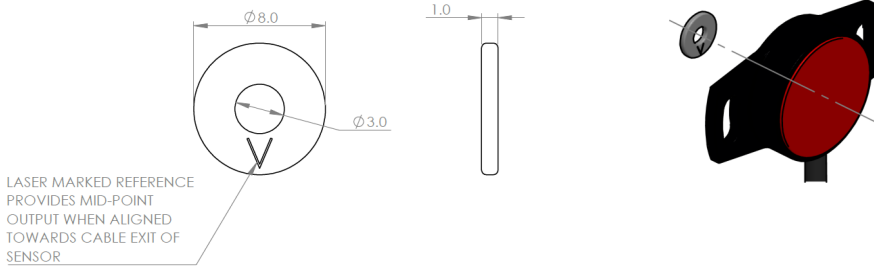
*Sense  
 Analyse  
 Control*

## Services for:

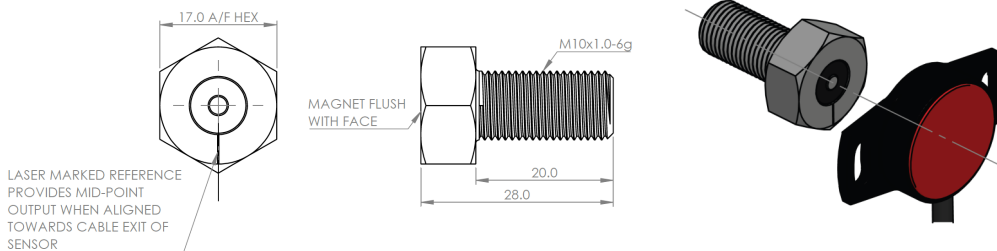
- Data Logging
- Telemetry
- Controls
- Wiring

# ACCESSORIES

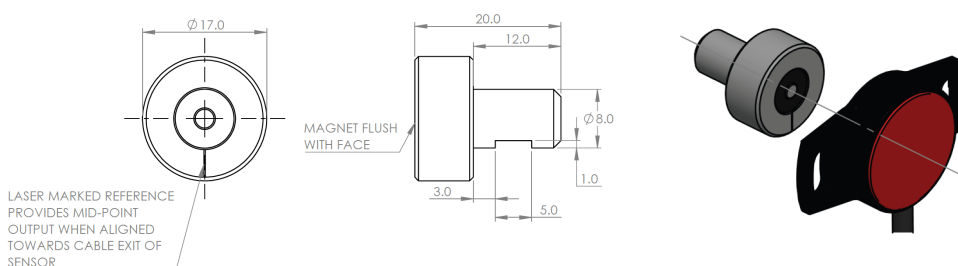
## Magnet (M)



## Bolt Type Magnet Holder (B)



## Plug Type Magnet Holder (P)



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