

## KH SERIES KH41 & 42 SHAFTLESS ROTARY POSITION SENSOR



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  $-40^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$ .

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 DC Regulated
<b>Output</b>	Please See Part Number Configurator For Options
<b>Resolution</b>	12 Bit
<b>Accuracy, Linearity</b>	$\pm 0.1\%$
<b>Accuracy, Hysteresis</b>	$< 0.1^{\circ}$
<b>Update Rate</b>	5KHz
<b>Mechanical Life</b>	> 25 Million Cycles at Max 150RPM
<b>Operating Temperature Range</b>	$-40^{\circ}\text{C}$ to $+150^{\circ}\text{C}$
<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.

## Sensors For Motorsport

### 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

kasensors.com

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# PART NUMBER CONFIGURATOR

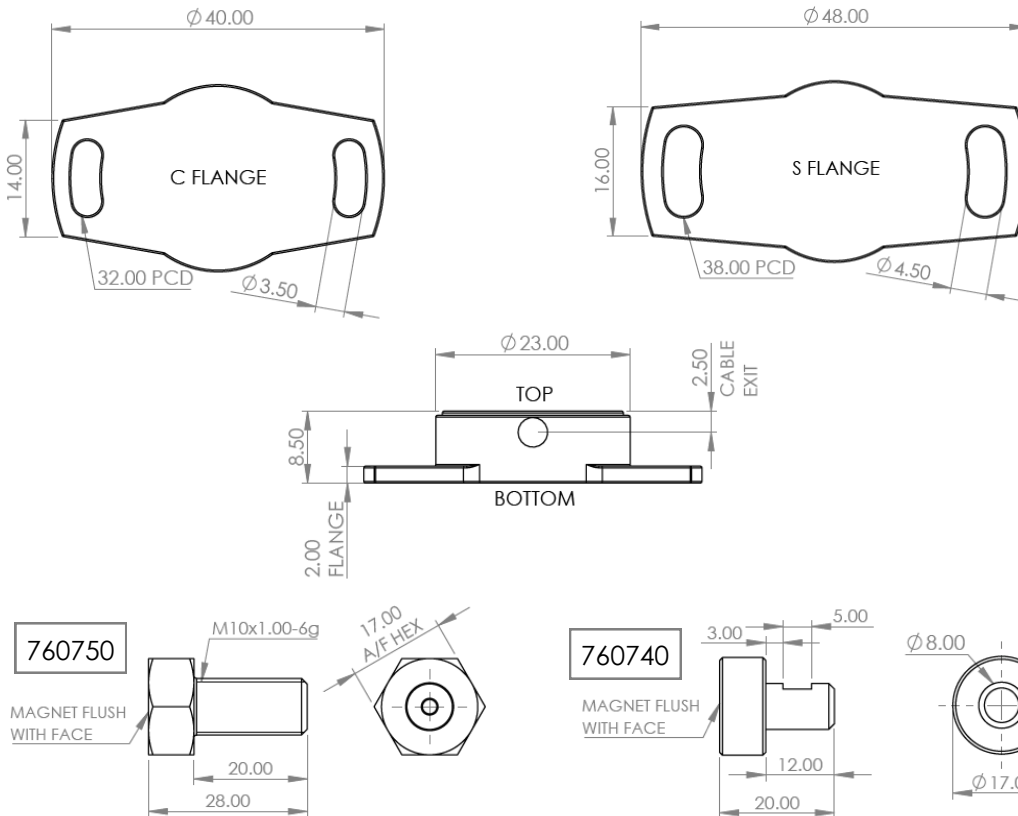
	<b>KH</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Series</b>	Channel 1	41							
	Channel 2	42							
<b>Channel 1 Range</b>	60° (Degrees)		060						
	100° (Degrees)		100						
	240° (Degrees)		240						
	360° (Degrees)		360						
<b>Channel 2 Range</b>	60° (Degrees)			060					
	100° (Degrees)			100					
	240° (Degrees)			240					
	360° (Degrees)			360					
<b>Output Signal</b>	0.5 to 4.5V (2.5V Center)				AA				
	CH1 = 0.5 to 4.5V. CH2 = 4.5 to 0.5V (Opposite)				AB				
<b>Mounting Flange Style</b>	Flange Design C						C		
	Flange Design S						S		
<b>Magnet Type</b>	None							N	
	Bolt Type Holder - 760750							B	
	Magnet Only (8mm O/D, 3mm I/D, 1mm Thick) - 760730							M	
	Plug Type Holder - 760740							P	
<b>Special Code</b>	None								000

*Sense  
Analyse  
Control*

## Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

## MECHANICAL DETAILS



## Contact us

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NG31 7FZ

## CONNECTION DETAILS

	<b>+Ve Supply</b>	<b>0V Supply</b>	<b>Signal</b>
Single Output	Red	Black	Yellow
Dual Output	Brown	Blue	White

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