

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 $+150^{\circ}\text{C}$.

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

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

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

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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

bf1systems.com

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KH41/42
KA026D-DS (rev1)

PART NUMBER CONFIGURATOR

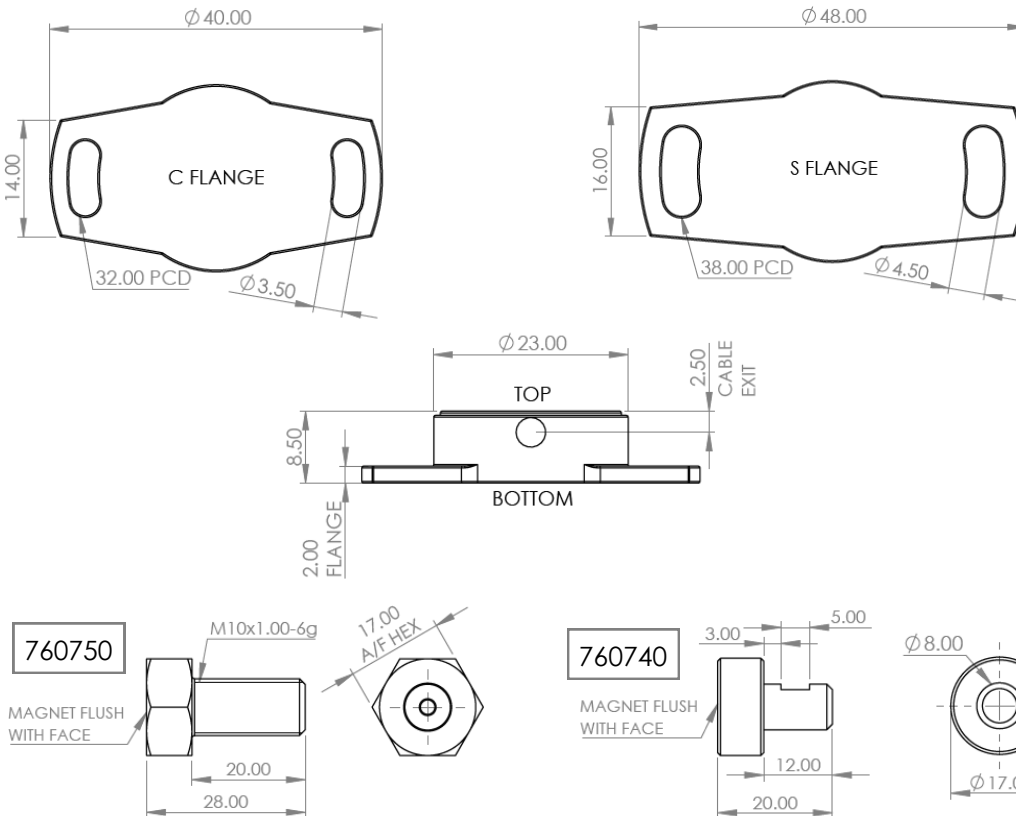
	KH	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	
Series	Channel 1	41																					
	Channel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

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Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

MECHANICAL DETAILS



Contact us

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CONNECTION DETAILS

	+Ve Supply	0V Supply	Signal
Single Output	Red	Black	Yellow
Dual Output	Brown	Blue	White