ka sensors
SENSE | ANALYSE | CONTROL

KH Series
KH21 & KH22
Non-Contact Rotary Position Sensor

The KH21/22 Series of Non-Contact Rotary Position Sensors are designed to withstand the harsh environments of motorsport and automotive testing applications.

By using a proven 'Hall Effect' technology, the KH21/22 offers high performance and reliability at temperatures up to +150°C. Alternatively, they are capable of operational excellence in cold environments down to –25°C.

With a small and lightweight 22.5mm diameter body, the KH21/22 Sensor is ideal for many applications within both motorsport and automotive testing and development programs. Typical applications include: throttle, gearbox and pedal position.

Available in either Single (3 wire) or Dual (6 wire) outputs, the modular design allows for various mounting arrangements with different Shaft/Drive types.

Technical Specifications

Electrical Angles (Degrees)	30°, 60°, 120°, 240°, 360°, Custom Angles Available
Supply	5V or 6-30V (Max 32mA) Reverse Polarity Protected
Output	Please See Part Number Configurator For Options
Output Centre Position (Voltage)	2.5V When Shaft Ident Is In Line With The Cable Exit
Resolution	12 Bit
Accuracy, Linearity	±0.1%
Accuracy, Hysteresis	<0.1°
Update Rate	5KHz
Mechanical Life	> 25 Million Cycles at Max 150RPM
Operating Temperature Range	-25°C to +150°C
Housing Material	Aluminium
Shaft Material	Stainless Steel
Track Technology	Hall Effect
Electrical Connection	50cm 26AWG, 3/6 Wire, 55spec, FDR 25 Sleeve
Protection Class	IP65 or IP67
Weight	20g
Options	Cable Length, Labelling, Mounting Flange & Shaft Drive

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

Sensors For Motorsport

Features

- Compact Design
- Excellent Linearity
- High Temperature
- Lightweight
- IP65 or IP67 Sealing
- Rugged Construction

Applications

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

kasensors.com
sales@kasensors.com
+44(0)1476 568057

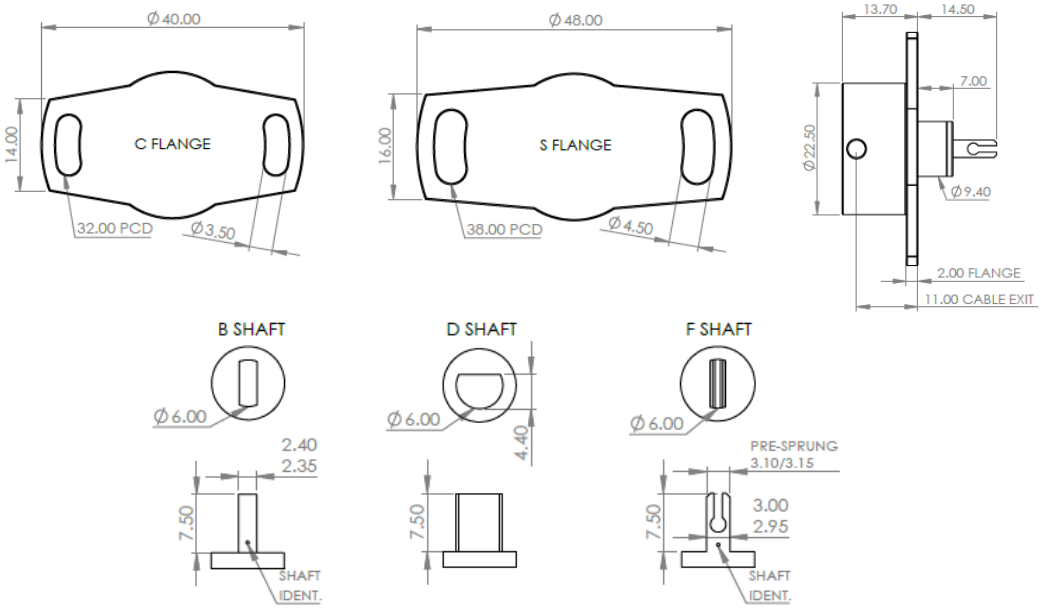
Part Number Configurator

KH □ - □ - □ - □ □ - □ - □ - □ - □

Series	Channel 1	21
	Channel 2	22
Channel 1 Range	30° (Degrees)	030
	60° (Degrees)	060
	120° (Degrees)	120
	240° (Degrees)	240
	360° (Degrees)	360
	Insert Required Range in Place of XXX°	XXX
Channel 2 Range	30° (Degrees)	030
	60° (Degrees)	060
	120° (Degrees)	120
	240° (Degrees)	240
	360° (Degrees)	360
	Insert Required Range in Place of XXX°	XXX
Supply	5V	4
	6-30V	5
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
	PWM Logic 0 at 100%	P0
	PWM Logic 1 at 100%	P1
Mounting Flange Style	Flange Design C	C
	Flange Design S	S
Seal Rating	IP65	65
	IP67	67
Shaft Style	Shaft Design B	B
	Shaft Design D	D
	Shaft Design F	F
Special Codes	None	000

The KA configuration tool is used to specify a standard KA Sensor, other options are available.

Mechanical Details



Connection Details

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

Sense
Analyse
Control

Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

Contact us

KA Sensors Ltd
Unit 14 & 15
The Old Malthouse
Springfield Road
Grantham
Lincolnshire
United Kingdom
NG31 7BG

kasensors.com
sales@kasensors.com
+44(0)1476 568057