

KP94 SERIES KP94B MINIATURE LINEAR POSITION SENSOR



The KP94 Series of KP94B Miniature Linear Position Sensors are designed to withstand the harsh environments within motorsport and automotive testing applications. By using a proven conductive plastic, track technology and multi-fingered contacts, the KP94B offers high performance and reliability under extreme temperature and vibration.

With standard measurement ranges offered from 12.5 to 175mm, the Stainless Steel Shaft is fitted with sealing to IP65 (our standard option) however we also offer an IP67 option which helps protect against the harshest conditions. A Carbon Sleeve option is also available to protect the shaft against debris and other damage.

Industry Standard 3mm bearing mounting, with a cable exit option of either Forwards or Backwards, allowing for easy integration into existing or new applications.

TECHNICAL SPECIFICATIONS

Ranges (Zero mm to:)	12.5, 25, 50, 75, 100, 125, 150, 175
Resolution	Essentially Infinite
Repeatability	≤0.01mm
Operational Speed	10m/s Maximum
Mechanical Life	>25 Million Cycles
Supply	5V typical (40Vdc Maximum)
Wiper Current	<10μA
Linearity	≤0.5%
Electrical Connection	50cm 26AWG, 55Spec + TPV Sleeve
Track Technology	Conductive Plastic
Operating Temperature Range	-40°C to +150°C
Construction	Aluminium Housing and Stainless Steel Shaft
Protection Class	IP65 or IP67
Options	Please see our separate KP Series Accessories Datasheet

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

Sensors For Motorsport

Features

- 9.4mm Ø Body
- IP67 Sealed
- Bearing Mounting
- 12.5mm to 175mm
- ±0.5% Linearity
- Long Life

Applications

- Damper Position
- Throttle Pedal
- Aero Surface
- Actuators

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PART NUMBER CONFIGURATOR

Range (Stroke)

Range (Stroke)	Code
12.5 mm	012
25 mm	025
50 mm	050
75 mm	075
100 mm	100
125 mm	125
150 mm	150
175 mm	175

Seal Rating

IP65	65
IP67	67

Cable Exit

Forward	F
Reverse	R

Spring Return (IP65 Option Only)

No	0
Yes - 12.5 to 75mm Ranges Only	1

Flange Mount

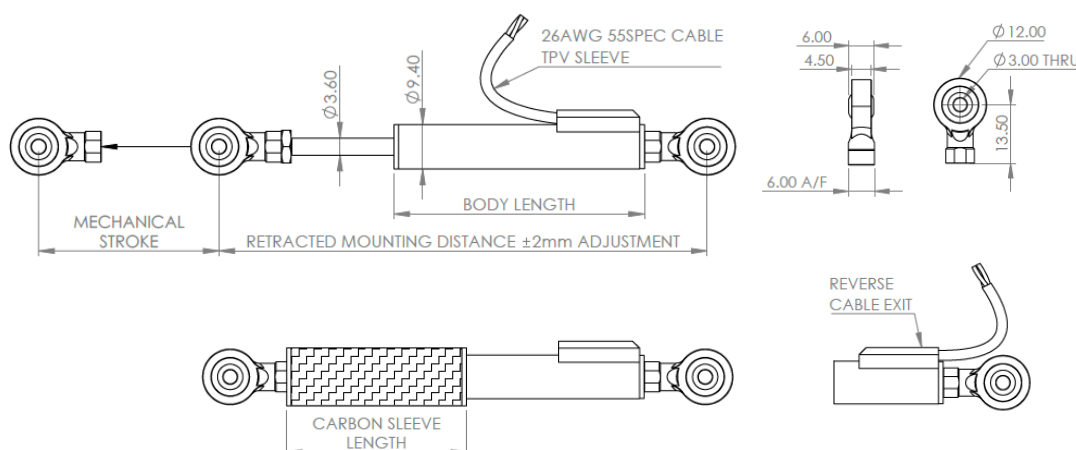
No	0
Yes - Not with Carbon Fibre Sleeve Option	1

Special Code

None	000
Carbon Fibre Sleeve	159

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

MECHANICAL DETAILS



Active Electrical Stroke (mm)	12.5	25	50	75	100	125	150	175
Retracted Mounting Distance (mm)	86	98	123	148	179	204	229	254
Mechanical Stroke (mm)	14.5	27	52	77	102	127	152	177
Body Length (mm)	53	66	91	116	147	172	197	222
Weight Without Cable (g)	15	17	21	25	29	33	37	41
Resistance (KOhms±20%)	0.8	1.7	3.4	5	6.7	8.4	10	11.7
Carbon Sleeve Length (mm)	24.5	37	62	87	112	137	162	187

CONNECTION DETAILS

+Ve Supply	0V Supply	Signal
Red	Black	Yellow

Output signal may be reversed by swapping connections to the Red and Black wires.

DO NOT connect +Ve Supply to the Yellow wire as this will cause damage to the sensor element.

*Sense
Analyse
Control*

Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

Contact us

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