

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 from 12.5mm to 175mm, the Stainless Steel Shaft is fitted with IP67 rated seals which helps protect against the harshest conditions. With regards to operational temperature range, the KP94B offers high performance and reliability at temperatures up to +150°C. Alternatively, it is capable of operational excellence in cold environments down to -40°C.

A Carbon Sleeve option is also available to protect the shaft against debris and other damage. Industry Standard 3mm bearing mountings, with a cable exit option of either Forwards or Backwards allows 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 + FDR Sleeve
Track Technology	Conductive Plastic
Operating Temperature Range	-40°C to +150°C
Construction	Aluminium Housing and Stainless Steel Shaft
Protection Class	IP67
Options	Please see our separate KP Series Accessories Datasheet

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

Sense
Analyse
Control

Features

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

Applications

- Damper Position
- Throttle Pedal
- Aero Surface
- Actuators

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KP94B
KA031D-DS (rev1)

PART NUMBER CONFIGURATOR

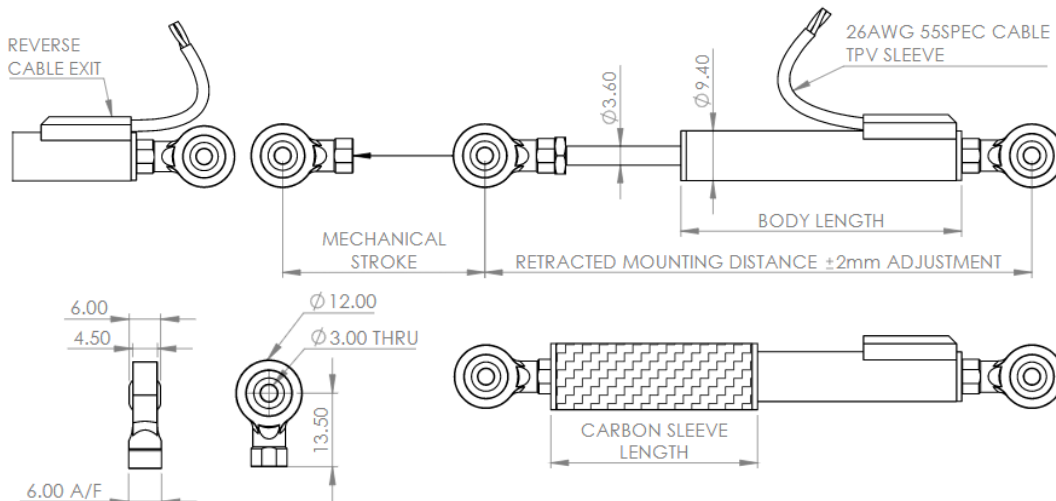
	KP94B	-	-	-	-
Range (Stroke)	12.5 mm	012			
	25 mm	025			
	50 mm	050			
	75 mm	075			
	100 mm	100			
	125 mm	125			
	150 mm	150			
	175 mm	175			
Cable Exit	Forward		F		
	Reverse		R		
Flange Mount	No			0	
	Yes - Not with Carbon Fibre Sleeve Option			1	
Special Code	None				000
	Carbon Fibre Sleeve				159

Sense
Analyse
Control

Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

MECHANICAL DETAILS



Contact us

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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.