

KP94 SERIES KP94B MINIATURE LINEAR POSITION SENSOR



The KP94B miniature linear position sensors are designed to withstand the harsh environments within motorsport and on-vehicle 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 0.5" to 7", the stainless steel shaft is fitted with sealing to IP65 as a standard but with an option of IP67 to protect against even the harshest conditions. A carbon sleeve option is available to protect the shaft against debris and other damage.

Industry standard 0.11" bearing mounting, with a cable exit option of either forward or reverse, allow for easy integration into existing or new applications.

Other accessories including flange mount, return spring, etc. are available and detailed on a separate KP Series Accessory Data Sheet.

Sensors For Motorsport

Features

- 0.37" Diameter Body
- Ranges from 0.5" - 7"
- Carbon Sleeve
- Bearing Mounting
- $\pm 0.5\%$ Accuracy

TECHNICAL SPECIFICATIONS

Ranges (Inches)	0.5, 1, 2, 3, 4, 5, 6, 7
Resolution	Essentially Infinite
Repeatability	$\leq 0.0004"$
Operational Speed	10m/s Maximum
Mechanical Life	>25 Million Cycles
Power Supply	5V typical (40Vdc Maximum)
Wiper Current	<10 μ A
Linearity	$\leq 0.5\%$
Electrical Connection	20" 26AWG, 55spec + TPV Sleeve
Track Technology	Conductive Plastic
Operating Temperature Range	-40°F to 300°F (-40°C to +150°C)
Construction	Aluminum housing and stainless steel shaft
Protection Class	IP65 or IP67
Options	Please see our separate KP Series Accessories Datasheet

Applications

- Damper Position
- Throttle Pedal
- Aero Surface
- Actuators

sales@pmc1.com

www.kasensors.com

Represented by:

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

PART NUMBER CONFIGURATOR

KP94B - - - - - -

Range (Stroke)

0.5 inch
1 inch
2 inches
3 inches
4 inches
5 inches
6 inches
7 inches

A05
A01
A02
A03
A04
A05
A06
A07

Seal Rating

IP65
IP67 (Spring Return N/A)

65
67

Cable Exit

Forward
Reverse

F
R

Spring Return

No
Yes

0
1

Flange Mount

No
Yes

0
1

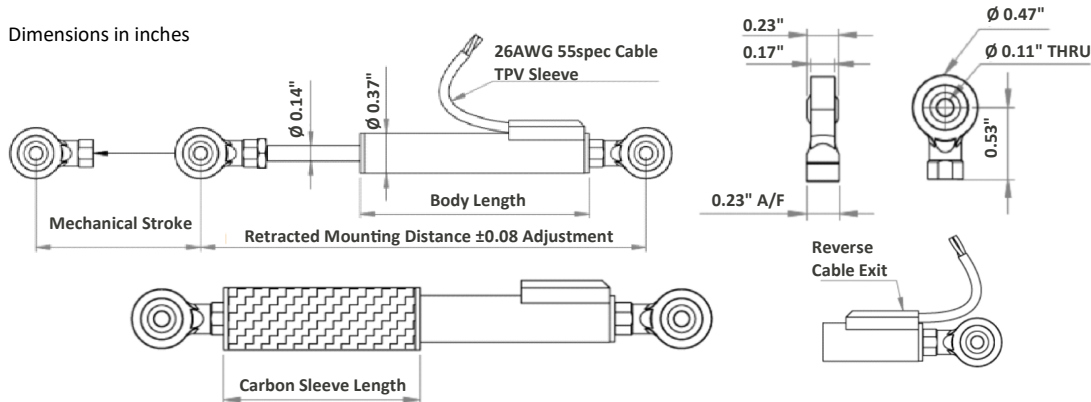
Special Code

Sleeve with Sensor 159
Sleeve separate from Sensor KP94B-Axx-cover

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

MECHANICAL DETAILS

Dimensions in inches



Active Electrical Stroke (inches)	0.50	1.00	2.00	3.00	4.00	5.00	6.00	7.00
Retracted Mounting Distance (inches)	3.39	3.86	4.84	5.83	7.05	8.03	9.02	10.00
Mechanical Stroke (inches)	0.57	1.06	2.05	3.03	4.02	5.00	5.98	6.97
Body Length (inches)	2.09	2.60	3.58	4.57	5.79	6.77	7.76	8.74
Weight Without Cable (oz)	0.53	0.60	0.74	0.88	1.02	1.16	1.31	1.45
Resistance (Kohms ±20%)	0.80	1.70	3.40	5.00	6.70	8.40	10.00	11.70
Carbon Sleeve Length (inches)	1	1.5	2.5	3.5	4.5	5.5	6.5	7.5

ELECTRICAL 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
Analyze
Control*

Sensors For:

- Temperature
- Acceleration
- Pressure
- Position
- Torque
- Speed
- Angle
- Force

Services For:

- Data Logging
- Telemetry
- Controls
- Wiring

Contact Us

KA Sensors
Division of
PMC Engineering LLC
11 Old Sugar Hollow Rd
Danbury, CT 06810
USA

Tel: 203-792-8686
Fax: 203-743-2051

sales@pmcl.com
www.kasensors.com