

KP94 SERIES KP94P MINIATURE LINEAR POSITION SENSOR



The KP94 Series of KP94P 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 KP94P 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 mounting of Quick-Release Pop Joints, with a cable exit option of either Forwards or Backwards, allow 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
- Pop Joint Mounting
- 12.5mm to 175mm
- ±0.5% Linearity
- Long Life

Applications

- Damper Position
- Throttle Pedal
- Aero Surface
- Actuators

kasensors.com

sales@kasensors.com

+44(0)1476 568057

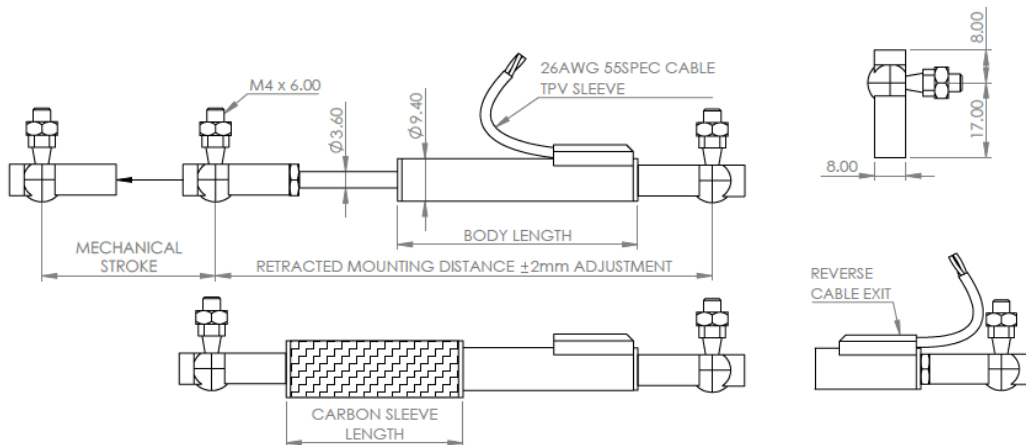
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PART NUMBER CONFIGURATOR

	KP94P	-	-	-	-	-	-	-
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						
Seal Rating	IP65	65						
	IP67 (Spring Return N/A)	67						
Cable Exit	Forward			F				
	Reverse			R				
Spring Return	No				0			
	Yes				1			
Flange Mount	No					0		
	Yes					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)	98	110	135	160	191	216	241	266
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)	19	21	25	29	33	37	41	45
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

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

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