

## KP SERIES KP19S STANDARD HEAVY DUTY LINEAR POSITION SENSOR



The KP19S standard heavy duty 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 KP19S offers high performance and reliability under extreme temperature and vibration.

With standard measurement ranges from 1" to 18", 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.

Cable exit can be manufactured as either forward or reverse exit and a carbon sleeve option is also available to protect the shaft against debris and other damage.

For critical applications where redundancy is required, we can also offer a dual output sensor within the same package size.

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

## TECHNICAL SPECIFICATIONS

<b>Ranges (Inches)</b>	1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18
<b>Resolution</b>	Essentially Infinite
<b>Repeatability</b>	≤0.0004"
<b>Operational Speed</b>	10m/s Maximum
<b>Mechanical Life</b>	>25 Million Cycles
<b>Power Supply</b>	5V typical (40Vdc Maximum)
<b>Wiper Current</b>	<10µA
<b>Linearity</b>	≤0.5%
<b>Electrical Connection</b>	20" 26AWG, 55spec + TPV Sleeve
<b>Track Technology</b>	Conductive Plastic
<b>Operating Temperature Range</b>	-40°F to 300°F (-40°C to +150°C)
<b>Construction</b>	Aluminum housing and stainless steel shaft
<b>Protection Class</b>	IP65 or IP67
<b>Options</b>	Please see our separate KP Series Accessories Datasheet

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

## Sensors For Motorsport

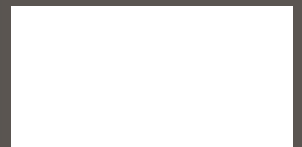
### Features

- 0.75" Diameter Body
- Ranges from 1" - 18"
- Carbon Sleeve
- Bearing Mounting
- ±0.5% Accuracy

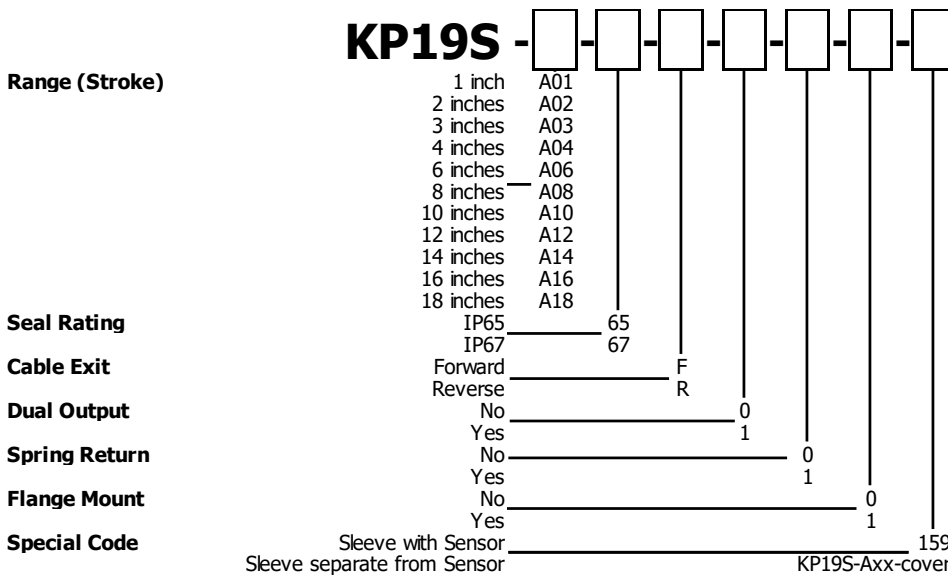
### Applications

- Damper Position
- Throttle Pedal
- Aero Surface
- Actuators

sales@pmc1.com  
www.kasensors.com  
Represented by:



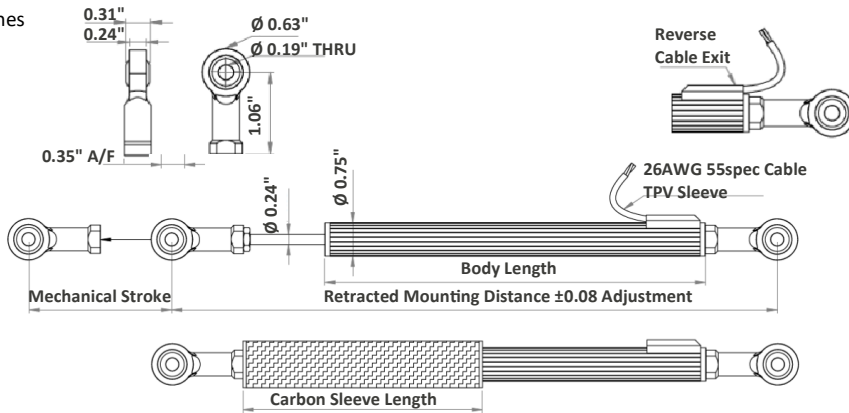
# PART NUMBER CONFIGURATOR



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

## MECHANICAL DETAILS

Dimensions in inches



<b>Active Electrical Stroke (inches)</b>	1.00	2.00	3.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
<b>Retracted Mounting Distance (inches)</b>	6.81	7.80	8.78	9.76	11.73	13.70	15.67	17.64	19.60	21.57	23.54
<b>Mechanical Stroke (inches)</b>	1.06	2.05	3.03	4.02	5.98	7.95	9.92	11.89	13.85	15.82	17.79
<b>Body Length (inches)</b>	4.21	5.20	6.18	7.17	9.13	11.10	13.07	15.04	17.00	18.97	20.94
<b>Weight Without Cable (oz)</b>	4.34	4.48	4.62	4.76	5.04	5.33	5.61	5.89	6.17	6.45	6.73
<b>Resistance (Kohms ±20%)</b>	1.70	3.40	5.00	6.70	10.00	13.40	16.70	20.00	23.3	26.6	29.9
<b>Carbon Sleeve Length (inches)</b>	1.5	2.5	3.5	4.5	6.5	8.5	10.5	12.5	14.37	16.33	18.30

## ELECTRICAL DETAILS

	<b>+Ve Supply</b>	<b>0V Supply</b>	<b>Signal</b>
Single Output	Red	Black	Yellow
Dual Output	Brown	Blue	White

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

**DO NOT** connect +Ve Supply to the Yellow or White 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@pmc1.com

www.kasensors.com