The KP Series of KP13C Compact Light Duty 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 KP13C offers high performance and reliability under extreme temperature and vibration.

With standard measurement ranges from 25mm to 150mm, 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.

Cable exit can be manufactured to have to be either Forward or Reverse exit. Also, 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.

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranges (Zero mm to:)</td>
<td>25, 50, 75, 100, 125, 150</td>
</tr>
<tr>
<td>Resolution</td>
<td>Essentially Infinite</td>
</tr>
<tr>
<td>Repeatability</td>
<td>≤0.01mm</td>
</tr>
<tr>
<td>Operational Speed</td>
<td>10m/s Maximum</td>
</tr>
<tr>
<td>Mechanical Life</td>
<td>&gt;25 Million Cycles</td>
</tr>
<tr>
<td>Supply</td>
<td>5V typical (40Vdc Maximum)</td>
</tr>
<tr>
<td>Wiper Current</td>
<td>&lt;10μA</td>
</tr>
<tr>
<td>Linearity</td>
<td>≤0.5%</td>
</tr>
<tr>
<td>Electrical Connection</td>
<td>50cm 26AWG, SS5Spec + TPV Sleeve</td>
</tr>
<tr>
<td>Track Technology</td>
<td>Conductive Plastic</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-40°C to +150°C</td>
</tr>
<tr>
<td>Construction</td>
<td>Aluminium Housing and Stainless Steel Shaft</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP65 or IP67</td>
</tr>
<tr>
<td>Options</td>
<td>Please see our separate KP Series Accessories Datasheet</td>
</tr>
</tbody>
</table>

KA Sensors adopts a continuous development program which sometimes necessitates specification changes without notice.
The KA configuration tool is used to specify a standard KA Sensor, other options are available.

**PART NUMBER CONFIGURATOR**

**KP13C**

- **Range (Stroke):**
  - 25 mm 0.05
  - 50 mm 0.05
  - 75 mm 0.075
  - 100 mm 0.1
  - 125 mm 0.125
  - 150 mm 0.15
- **Seal Rating:**
  - IP65 65
  - IP67 67
- **Cable Exit:**
  - Forward F
  - Reverse R
- **Dual Output:**
  - No 0
  - Yes 1
- **Spring Return:**
  - No 0
  - Yes 1
- **Flange Mount:**
  - No 0
  - Yes 1
- **Special Code 1:**
  - None
- **Special Code 2:**
  - Carbon Fibre Sleeve 000
  - None 199

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

**MECHANICAL DETAILS**

**Connection Details**

<table>
<thead>
<tr>
<th></th>
<th>+Ve Supply</th>
<th>0V Supply</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Output</td>
<td>Red</td>
<td>Black</td>
<td>Yellow</td>
</tr>
<tr>
<td>Dual Output</td>
<td>Brown</td>
<td>Blue</td>
<td>White</td>
</tr>
</tbody>
</table>

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.

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

K13C 10.18