KA Sensors offers a fully custom service to fit wireless dynamic torque measuring sensor to a drive shaft.

Available to both race teams and race car manufacturers the sensor can be designed, manufactured, calibrated and supplied to fit to a wide range of drive shaft diameters.

Having quickly understood customers’ requirements, we will prepare the supplied shaft to have the strain gauging bonded on to it. By using leading edge strain gauging techniques and smart amplifiers we are able to measure, amplify and correct temperature errors in one compact assembly. The whole assembly is then fitted with a wireless transmitter with a built in long-life battery pack, along with a rugged receiver unit.

Every sensor is tested and issued with traceable calibration certification before shipping.

With over 30 years of sensor design experience, we are able to offer sensor solutions for almost any application.

### Technical Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>±180lbft to ±7500lbft (±250Nm to ±10000Nm)</td>
</tr>
<tr>
<td>Safe Over Range</td>
<td>150% of Range</td>
</tr>
<tr>
<td>Linearity</td>
<td>±0.1% FS</td>
</tr>
<tr>
<td>Wireless Signal</td>
<td>2.4Ghz Radio</td>
</tr>
<tr>
<td></td>
<td>Up to 12 channels - encrypted (Range 5M)</td>
</tr>
<tr>
<td>Housing Materials</td>
<td>Sensor/Transmitter: Nylon</td>
</tr>
<tr>
<td></td>
<td>Receiver: Nylon</td>
</tr>
<tr>
<td>Sensor Supply</td>
<td>3.6V Internal Battery</td>
</tr>
<tr>
<td></td>
<td>(&gt; 100Hrs Dependant on the Sample Rate Selected)</td>
</tr>
<tr>
<td></td>
<td>Current draw 40mA</td>
</tr>
<tr>
<td>Transmission Rate</td>
<td>800Hz</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-5°F to +185°F(-20°C to +85°C)</td>
</tr>
<tr>
<td>Electrical Connection</td>
<td>Deutsch ASX Connector</td>
</tr>
<tr>
<td>Receiver Supply Voltage</td>
<td>5V to 16V</td>
</tr>
<tr>
<td>Receiver Output</td>
<td>0.5 –4.5V with 2.5V offset</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP65</td>
</tr>
<tr>
<td>Options</td>
<td>Amplifier, Connector Fitting and Labelling</td>
</tr>
</tbody>
</table>

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

Ordering Information: Since this product is custom there is no standard configuration. Please contact KA Sensors to order.

TRANSMITTER - MECHANICAL DETAILS

Dimensions in inches

Strain Gauge Protected by Nylon Clamp

3.75”

Clamped with M5 Bolts (x4)

Shaft diameter +2 Inches

RECEIVER - MECHANICAL DETAILS

Dimensions in inches

+Ve Supply | 0V Supply | Signal | RX | TX
---|---|---|---|---
Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5

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

ELECTRICAL DETAILS