

SGT SERIES STRAIN GAUGING —TORQUE



KA Sensors offers a full Strain Gauge Service to both race teams and race car manufacturers.

A Strain Gauge measuring Torque (twisting) is suitable for: drive and prop shafts, steering columns, anti roll bars and many more applications. For force, tension and compression measurements we also offer a Strain Gauge Force Service — please see separate datasheet.

Having quickly understood customers requirements we will prepare the parts supplied to have the Strain Gauge bonded on. If required, an amplifier will also be fitted and the whole assembly secured, sealed, fully tested and calibrated.

By using leading edge Strain Gauging techniques and smart amplifiers we are able to measure, amplify and correct temperature errors in one compact assembly.

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

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

TECHNICAL SPECIFICATIONS

| | |
|--------------------------------------|---|
| Range | ±25 to ±100Nm or ±20Lbft to ±75Lbft |
| Safe Over Range | 150% of Range |
| Accuracy | <±0.5% FS Combined Linearity & Hysteresis (CNLH) |
| Thermal Effects | Zero ±0.01% FS/°C (Sensitivity ±0.01% of Reading /°C) |
| Output | 0.5V to 4.5V with 0.5V or 2.5V Offsets |
| Supply | 5V (± 0.5V) Ratiometric or 8-16V |
| Operating Temperature Range | -20°C to +120°C |
| Compensated Temperature Range | 0°C to +100°C |
| Electrical Connection | 100cm, 55Spec, 26AWG Cable + DR25 Sleeve |
| Protection Class | IP66 |
| Options | Amplifier, Connector Fitting and Labelling |

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

Sensors For Motorsport

Features

- ±25 to ±100Nm
- ±20Lbft to ±75Lbft
- Amplified Output
- 5V or 8-16V Supply
- Full Custom Service

Applications

- Steering Columns
- Anti Roll Bars
- Drive Shafts
- Prop Shafts

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SGT 06.20

PART NUMBER CONFIGURATOR

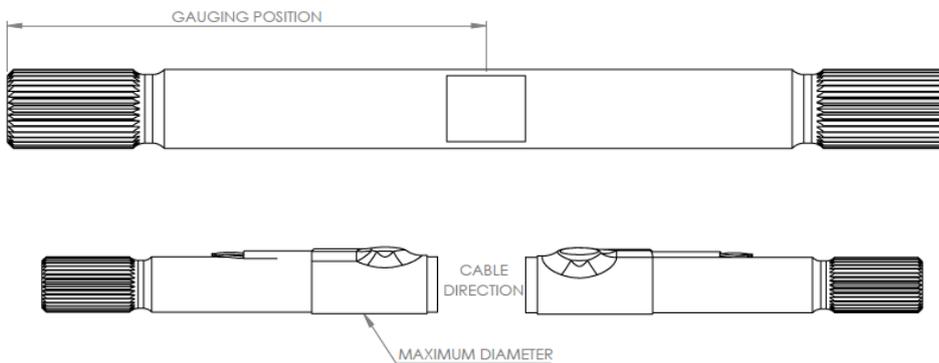
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|----------------------|--|---|-------|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|
| | SGT | - | [] | - | [] | - | [] | - | [] | - | [] | - | [] | - | [] |
| Range (Force) | ±25NM | | 25NM | | | | | | | | | | | | |
| | ±50NM | | 50NM | | | | | | | | | | | | |
| | ±75NM | | 75NM | | | | | | | | | | | | |
| | ±100NM | | 100NM | | | | | | | | | | | | |
| | ±150NM | | 150NM | | | | | | | | | | | | |
| | 20Lbft | | 20LB | | | | | | | | | | | | |
| | 40Lbft | | 40LB | | | | | | | | | | | | |
| | 60Lbft | | 60LB | | | | | | | | | | | | |
| | 75Lbft | | 75LB | | | | | | | | | | | | |
| | 100Lbft | | 100LB | | | | | | | | | | | | |
| Supply | 5V | | | | | | | | | | | | | 4 | |
| | 8-16V | | | | | | | | | | | | | 5 | |
| Output | 0.5V to 4.5V (0.5V Offset) | | | | | | | | | | | | | | 2 |
| | 0.5V to 4.5V (2.5V Offset) | | | | | | | | | | | | | | 3 |
| Cable Length | 100cm, 55Spec, 26AWG Cable+DR25 Sleeve | | | | | | | | | | | | | | 100 |
| Special Code | None | | | | | | | | | | | | | | 000 |

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

MECHANICAL DETAILS

Whilst the above information, provided in the Part Number Configurator, provides most of the information KA Sensors requires. To fit a Strain Gauge to your part it is vital that we also know if an amplifier is to be fitted and its position; either with the gauge or an inline in the cable assembly.

Additionally, if a connector is to be fitted, details or supply of the item and the pin-outs are also required. Of equal importance is the routing of the cable and also the position of the gauging on the part. A simple drawing showing where the gauge is to be placed and the way the cable is to exit, if the part is to be close to other components or body work this should be indicated to avoid fouling.



CONNECTION DETAILS

| +Ve Supply | 0V Supply | Signal |
|------------|-----------|--------|
| Red | Black | White |

*Sense
Analyse
Control*

Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

Contact us

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