

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 (0.5V or 2.5V Offsets) and 1mV/V
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 10.18

PART NUMBER CONFIGURATOR

	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										
Number of Axis	1mV/V								1						
	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.

*Sense
Analyse
Control*

Services for:

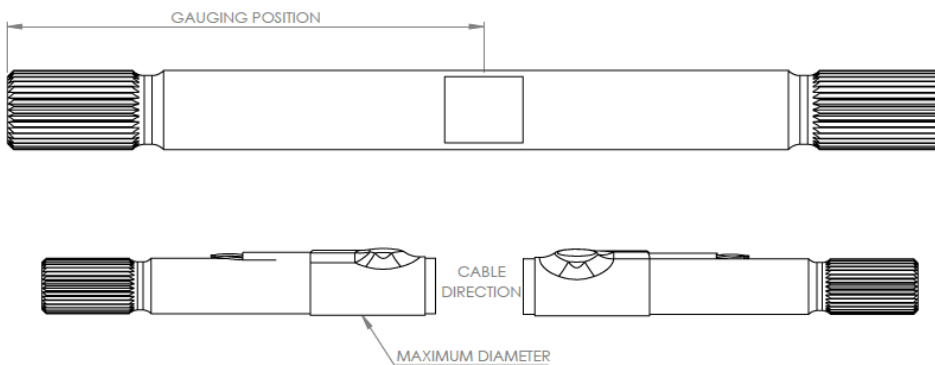
- Data Logging
- Telemetry
- Controls
- Wiring

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

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