

SGF SERIES STRAIN GAUGING — FORCE



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

A Strain Gauge measuring Force (tension and compression) is suitable for: suspension pull and push rods, rod ends, wishbones, aero load on wings and many more applications. For torque, twisting, measurements we also offer a Strain Gauge Torque Service — please see separate datasheet.

Strain Gauges are bonded onto customers supplied components. If required, an amplifier will also be fitted and the whole assembly secured, sealed, tested and calibrated.

By using leading edge Strain Gauging techniques and smart amplifiers we are able to measure, amplify and correct for 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	±10 to ±30KN or ±1000 to ±3000KG
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	Connector Fitting and Labelling

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

Sensors For Motorsport

Features

- ±10 to ±30KN
- ±1000 to ±3000KG
- Amplified Output
- 5V or 8-16V Supply
- Full Custom Service

Applications

- Suspension
- Push / Pull Rods
- Rod Ends
- Wishbones
- Wing Supports

kasensors.com

sales@kasensors.com

+44(0)1476 568057

SGF 10.18

PART NUMBER CONFIGURATOR

	SGF	-	[]	-	[]	-	[]	-	[]	-	[]
Range (Force)	±10 Kilo Newton		10KN								
	±15 Kilo Newton		15KN								
	±20 Kilo Newton		20KN								
	±30 Kilo Newton		30KN								
	±1000 Kilogram Force		1000KGF								
	±1500 Kilogram Force		1500KGF								
	±2000 Kilogram Force		2000KGF								
	±3000 Kilogram Force		3000KGF								
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

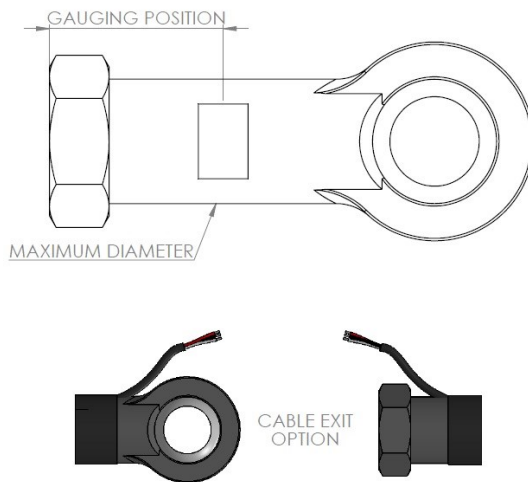
The KA configuration tool is used to specify a standard KA Sensor, other options are available.

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

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

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