



## GSS SERIES GEAR SHIFT LOAD CELL

The GSS Series of miniature load cells are designed for the detection and measurement of tension and compression forces in Gear Shift Application.

Construction is stainless steel with a built-in amplifier, allowing for a very simple installation with only a 3 wire connection needed. Mechanical mounting is via M6, M8 or 1/4" 28 UNF male or female threads, but custom designs are also possible.

The output signal is proportional to the amount of force and is linear 0.5 to 4.5Vdc suitable for most common ECU's. Configuration is available for either Sequential or 'H' Pattern Gearboxes. The Load Cell can be supplied without a cover, or with any of the cover options detailed on page 2.

The typical application is for uses such as: Flat Shift, Quickshifter, Torque Cut, Ignition Cut and Clutch-free Gearshift on race vehicles.

The Load Cells are generally installed into the actuator rod or cable and will detect the level of force applied by the driver to change gear.

## Sensors For Motorsport

### Features

- $\pm 55$  to  $\pm 450$ lbsf
- 5V or 8-16 Vdc Supply
- IP67 Sealing
- $\pm 1\%$  Accuracy
- Miniature Size

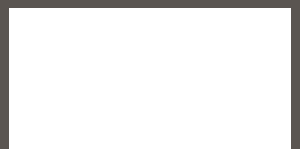
## TECHNICAL SPECIFICATIONS

<b>Range</b>	$\pm 55$ lbsf ( $\pm 250$ N) to $\pm 450$ lbsf ( $\pm 2000$ N)
<b>Safe Over Range</b>	150% of Range
<b>Accuracy</b>	$\pm 1\%$ FS Combined Linearity & Hysteresis (CNLH)
<b>Thermal Effects</b>	Zero $\pm 0.005\%$ FS/ $^{\circ}$ F (Sensitivity $\pm 0.005\%$ of Reading / $^{\circ}$ F)
<b>Output</b>	0.5V to 4.5V and 1mV/V (+V in Compression)
<b>Power Supply</b>	5V ( $\pm 0.5$ V) Ratiometric or 8-16Vdc
<b>Operating Temperature Range</b>	-5 $^{\circ}$ F to 250 $^{\circ}$ F (-20 $^{\circ}$ C to +125 $^{\circ}$ C)
<b>Compensated Temperature Range</b>	32 $^{\circ}$ F to 250 $^{\circ}$ F (0 $^{\circ}$ C to +125 $^{\circ}$ C)
<b>Construction</b>	Stainless steel and Aluminum
<b>Electrical Connection</b>	20" or 40", 55spec, 26AWG Cable + DR25 Sleeve
<b>Thread Size</b>	M6 x 1, M8 x 1.25 & 1/4" 28 UNF (Left Hand/Right Hand)
<b>Protection Class</b>	IP67
<b>EMC Protection</b>	EN 50082-1
<b>Vibration Protection</b>	Mil-Std-810C, Curve L, 20G
<b>Weight</b>	1.05oz - 1.41oz, Dependant on Thread Size (Excluding Cable)
<b>Options</b>	Connector Fitted, Labelling and Female Threads

### Applications

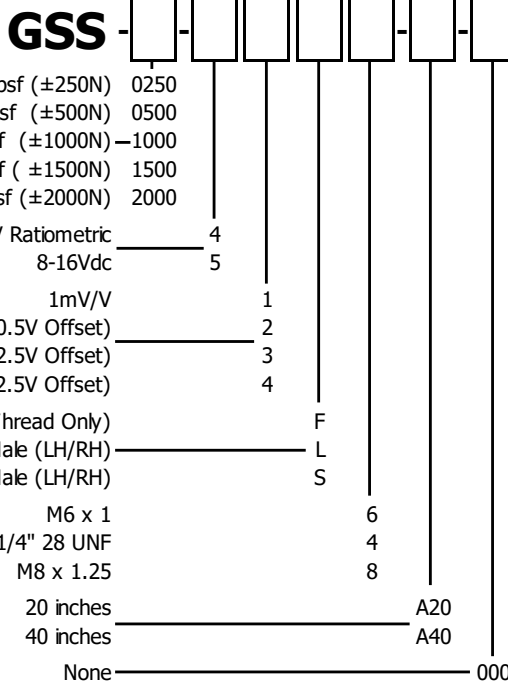
- Gear Shift
- Suspension
- Steering
- Pedal Force
- Aero Struts
- General Testing

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Represented by:



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

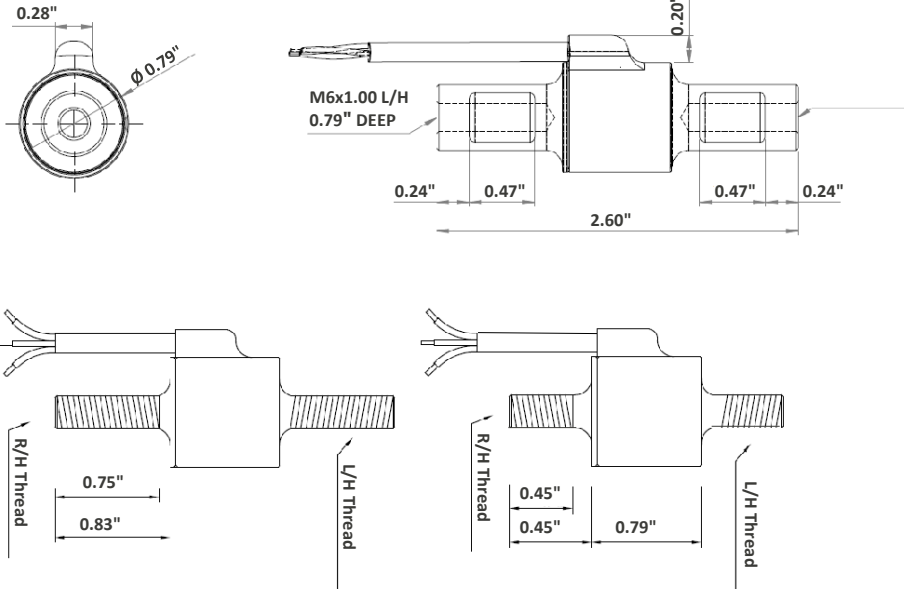
# PART NUMBER CONFIGURATOR



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

## MECHANICAL DETAILS

Dimensions in inches



## ELECTRICAL DETAILS

+Ve Supply	0V Supply	Signal
Red	Blue	White

*Sense  
Analyze  
Control*

### Sensors For:

- Temperature
- Acceleration
- Pressure
- Position
- Torque
- Speed
- Angle
- Force

### Services For:

- Data Logging
- Telemetry
- Controls
- Wiring

### Contact Us

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