ka sensors
SENSE | ANALYZE | CONTROL

GST Series
Dual Axis Gear Lever
Load Cell

The GST Series of gear lever load cells are designed for the detection and measurement of tension and compression forces in gear shift application.

Construction is aluminum with a built-in amplifier, allowing for a very simple installation with only a 4 wire connection needed. Mechanical mounting is via various available threads, with custom designs also possible. Forward and Right will give +V readings (2.5v to 4.5V), Backwards and Left will give –V readings (2.5v to 0.5v).

The output signal is proportional to the amount of force and is linear 0.5 to 4.5V output 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 on top of the gear change lever and will detect the level of force applied by the driver to change gear.

Technical Specifications

Range	±35lbsf to 220lbsf (±150N to ±1000N)
Safe Over Range	450lbsf (±2000N)
Accuracy	±0.5% FS Combined Linearity & Hysteresis (CNLH)
Thermal Effects	Zero ±0.005% FS/°F (Sensitivity ±0.005% of Reading /°F)
Output	0.5V to 4.5V (+V Direction Arrows Engraved on Sensor)
Operating Temperature Range	-5°F to 185°F (-20°C to +85C)
Compensated Temperature Range	32°F to 185°F (0°C to +85C)
Construction	Aluminum
Electrical Connection	40", 55spec, 26AWG Cable + DR25 Sleeve
Thread Sizes	Please See Part Number Configurator - page 2
Protection Class	IP67
EMC Protection	EN 50082-1
Vibration Protection	Mil-Std-810C, Curve L, 20G
Weight	No Cover: 3.5oz (Excluding Cable) With Aluminum Cover: 5.6oz With Nylon Cover: 9.2oz
Options	Connector Fitted, Thread Size, Cover Fitted and Labelling

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

Sensors For Motorsport

Features

- 'H' Pattern Gearboxes
- ±35lbsf to ±220lbsf
- Built-in Amplifier
- 5V or 8-16 Vdc Supply
- ±0.5% Accuracy

Applications

- Gear Shift
- Steering
- General Testing

sales@pmcl.com
www.kasensors.com
Represented by:

Part Number Configurator

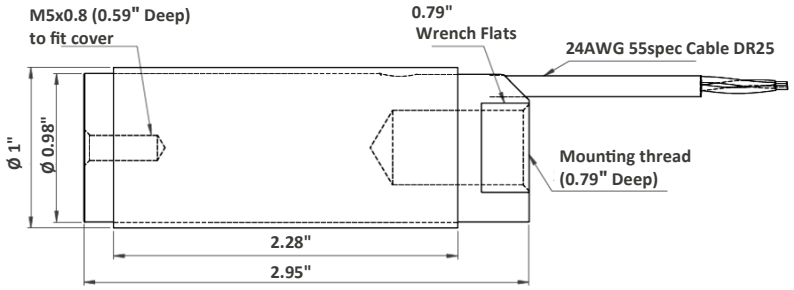
GST - [ ] - [ ] [ ] [ ] - [ ] - [ ] - [ ]

Range	±35lbsf (±150N) x & y Axis	0150
	±55lbsf (±250N) x & y Axis	0250
	±110lbsf (±500N) x & y Axis	0500
	±220lbsf (±1000N)x & y Axis	1000
Supply	5V Ratometric	4
	8-16Vdc	5
Output	0.5V to 4.5V (2.5V Offset)	3
Thread Size	M10 x 1.5	1
	M12 x 1.75	2
	M12 x 1.25	3
	9/16" 18 UNF	4
	Quaife 12.7mm (1/2 Inch) Diameter Plain Shaft	6
	M14 x 1.25	7
	M12 x 1.5	8
Cable Length	40 inches	A40
Special Code: One	No Cover	000
	Aluminum Domed - 207300	ADM
	Aluminum Straight - 207350	AST
	Nylon Domed - 207100	NDM
	Nylon Straight - 207150	NST
Special Code: Two	None	000

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

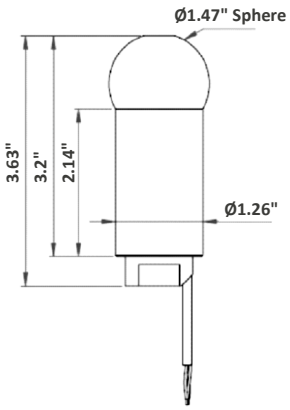
Mechanical Details

Dimensions in inches

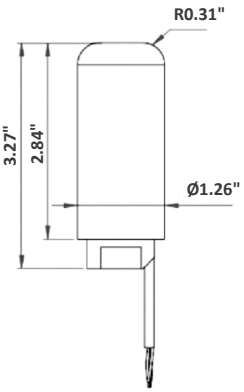


Cover Options:

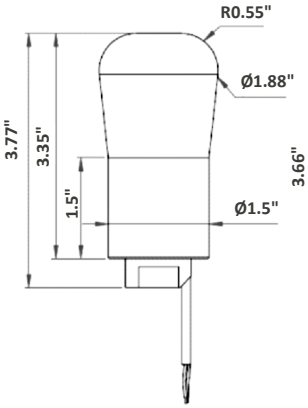
Aluminum Domed - 207300



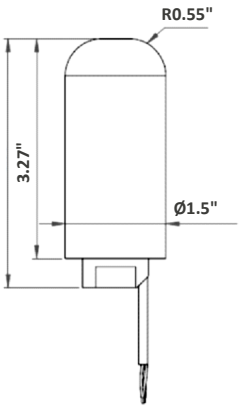
Aluminum Straight - 207350



Nylon Domed - 207100



Nylon Straight - 207150



All covers are fitted with an M5 countersunk screw, sub-flush from the top of the cover.

Electrical Details

+Ve Supply	0V Supply	Fwd (+V) / Back (-V)	Right (+V) / Left (-V)
Red	Black	Green	White

Sense
Analyze
Control

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