

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 4.5V and can be connected to most common ECU's. The typical application is for use 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.

TECHNICAL SPECIFICATIONS

Range	±250N to ±2000N
Safe Over Range	150% of Range
Accuracy	±1% FS Combined Linearity & Hysteresis (CNLH)
Thermal Effects	Zero ±0.01% FS/°C (Sensitivity ±0.01% of Reading /°C)
Output	0.5V to 4.5V (±0.5%) (+V in Compression)
Supply	5V (±0.5V) Ratiometric or 8-16V
Operating Temperature Range	-20°C to +125°C
Compensated Temperature Range	0°C to +125°C
Construction	Stainless Steel and Aluminium
Electrical Connection	50cm or 100cm, 55Spec, 26AWG Cable + DR25 Sleeve
Thread Size	M6 x 1, M8 x 1.25 & 1/4" 28 UNF (Left Hand/Right Hand)
Protection Class	IP67
EMC Protection	EN 50082-1
Vibration Protection	Mil-Std-810C, Curve L, 20G
Weight	30g—40g, Dependant on Thread Size (Excluding Cable)
Options	Connector Fitted, Labelling and Female Threads

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

Sensors For Motorsport

Features

- ±250 & ±2000N
- Miniature Size
- 5V or 8-16V Supply
- IP67 Sealed
- ±1% Accuracy
- Rugged Construction

Applications

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

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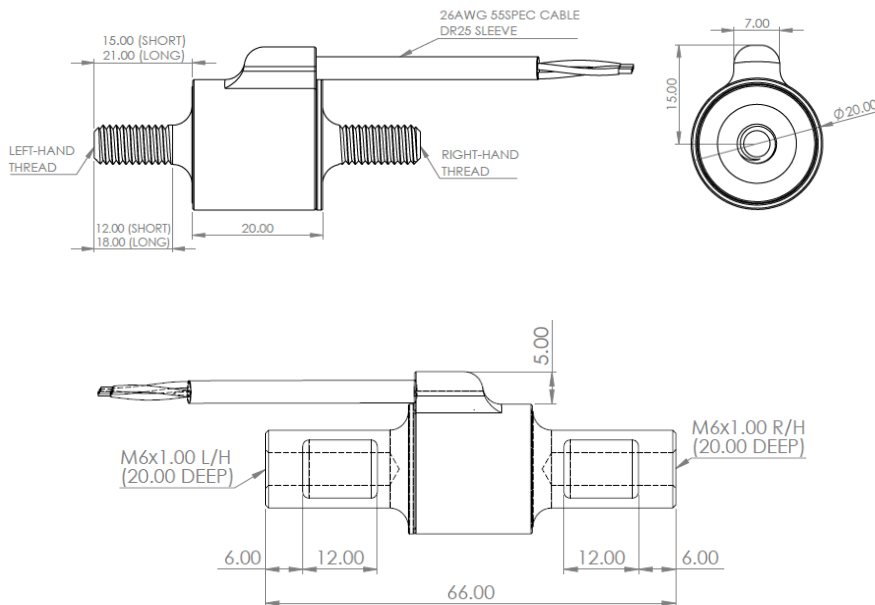
GSS 01.21

PART NUMBER CONFIGURATOR

	GSS						
Range	0-250N or ±250N	0250					
	0-500N or ±500N	0500					
	0-1000N or ±1000N	1000					
	0-1500N or ±1500N	1500					
	0-2000N or ±2000N	2000					
Supply	5V Ratiometric		4				
	8-16V		5				
Output	0.5V to 4.5V (0.5V Offset)			2			
	0.5V to 4.5V (2.5V Offset)			3			
	Dual Output 0.5V to 4.5V (2.5V Offset)			4			
Thread Length / Type	Female/Female (M6 x 1 Thread Only)				F		
	Long Male/Male (LH/RH)				L		
	Short Male/Male (LH/RH)				S		
Thread Size	M6 x 1				6		
	1/4" 28 UNF				4		
	M8 x 1.25				8		
Cable Length	50cm					050	
	100cm					100	
Special Code: 1	None						000
Special Code: 2	None						000

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

MECHANICAL DETAILS



CONNECTION DETAILS

+Ve Supply	0V Supply	Signal
Red	Black	White

*Sense
Analyse
Control*

Services for:

- Data Logging
- Telemetry
- Controls
- Wiring

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