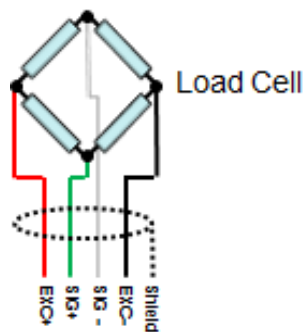


# LCELL-500 Load Cell 500kg (1100lbs)



**Red** = excitation +ve  
**Black** = excitation -ve  
**Green** = signal +ve  
**White** = signal -ve

## Overview-

Brake type dyno's apply a load (e.g. using an Eddy current brake) against the engine and the torque applied is measured on a 'load cell'. They are also commonly used in weighing and scale systems.

Load cells consist of 4 'strain gauge' resistors arranged in a 'bridge' configuration and bonded to a frame so that force applied will flex them (resistance changes). An excitation voltage is applied and the output signal voltage is amplified.

This is a precision 'S' type load cell-

- Suitable for tension or compression measurements
- 500kg (1100lbs) capacity
- Class C3 accuracy
- Easy mounting (M12 x 1.75) for eyelets, rose joints or bolts

## Connection notes-

Load cells also require an amplifier (also called 'signal conditioner', 'transmitter' or 'strain gauge' amplifier) to provide them with power and to increase their output voltage to a usable range. Please see [www.DTEC.net.au](http://www.DTEC.net.au) for a suitable amplifier.

When connected correctly the output voltage should rise as you apply force in the appropriate direction to the load cell. If the output decreases then simply reverse either the excitation wires or the signal wires from the load cell.

If extending the cable be sure to use good quality shielded cable and take care that the shield screening is also joined and covering the wires. A small piece of aluminium foil wrapped over the joined shield screening will ensure this.

Avoid routing the sensor wiring past or with any other wires carrying high currents.

## Technical specifications-

Accuracy class	C3
Sensitivity	2.000 mV/V $\pm$ 0.1
Temperature range	-10°C to +70°C
Excitation voltage	5V to 15VDC
Material	Alloy steel
Safe load limit	150% FS
Output / Input resistance	350 $\Omega$ / 400 $\Omega$
Cable	Shielded
Dimensions	76mmx51mmx25mm (mounting holes M12x1.75)