



- *A completely passive unit.*
- *Excitation Led*
- *+/- polarity switch.*
- *+/- sense-test switch.*
- *Steps from 0 to 3 mV / V and continuous.*
- *Number of loadcells switch.*
- *Low drift / High accuracy.*
- *"Pocket-sized" only 65 x 217 x 55 mm.*
- *Accuracy +/- 0.025%. Temp.coeff. 25 ppm/C*
- *Includes 1,25 m. interconnect cable with plug.*
- *Resistance equal to 350 Ohm loadcell.*

The **LCS-3** is a simulator used as a substitute for strain-gage transducers to generate the precise mV/V signals required in the development, checkout and pre-calibration of signal conditioners, digital and analog readouts and data loggers. It has seven output steps 0, 0.5, 1, 1.5, 2, 2.5, 3 mV/V, load simulation of 1 to 4 loadcells and sense test. Resistance equal to 350 ohm loadcells. Vernier knob for variable output ca. -2 mV/V to +2 mV/V. (not calibrated) Includes 4 ft removable interconnect cable. with connector.



SIMULATOR ACTIVE LED

Lights when simulator is connected to the amplifier /indicator excitation.

+/- POLARITY SWITCH

Sets the output signal polarity (plus or minus).

+/- SENSE-TEST SWITCH

Connects two resistors (up to 75 Ohms each) in series with plus and minus excitation voltage. (total 30 - 150 Ohms)
This function tests the sense capability of the indicator by adding these resistors in series with the excitation voltage.
This can be useful when safety barriers are in use.

OUTPUT SIGNAL SWITCH

Sets the output signal between 0 and 3 mV/V in 0.5mV/V steps
The zero position can be used to test the zero drift of the system.
The actual signal can be calculated if the excitation voltage is known.
e.g. 2 mV/V with 10 V excitation = 20 mV.

NUMBER OF LOADCELLS SWITCH

Simulates the electrical load caused by up to four 350 Ohm load cells wired in parallel.

+/- VARIABLE OUTPUT POTENTIOMETER

When the output signal switch is set to the VAR. position, the output signal can be continuously varied between approx.. -2mV/V and +2mV/V via this ten turn potentiometer.
This function can be used to simulate an increasing or decreasing weight value.

Service Tip:

$$\text{DISPLAY} = \frac{\text{mV/V Simulator}}{\text{mV/V Load cell}} \times \text{cell capacity.}$$

Example:

A load cell has an output of 1.9876 mV/V and a capacity of 1000 kg.
Connect simulator to Indicator.

Adjust the simulator at 2 mV/V. (+/- sense = 0, loadcells = 1)

$$\text{Enter display reading} = \frac{2}{1.9876} \times 1000 = 1006,2 \text{ kg}$$

Connect load cell to indicator and zero the device.
Indicator is calibrated.



wiring connections

Specifications:

Inaccuracy:	+/- 0.025% typical.
Temperature effects:	25 ppm / degree C.
Temperature range:	-10 to +50 degree C.
Input:	15V max.
Output:	0, 0.5, 1, 1.5, 2, 2.5, 3 mV/V and variable.
Weight:	ca. 400g.
Dimensions:	65 x 217 x 55 mm excl. cable and connector.
Case:	extruded anodized aluminum with brushed finish. Black ABS plastic sides.

Technical improvements may cause the specifications to change.

THAMES SIDE SENSORS LTD

Unit 10, io Trade Centre, Deacon Way,
Reading, Berkshire RG30 6AZ

tel: +44 (0) 118 941 1387
fax: +44 (0) 118 941 2004

sales@thames-side.co.uk
www.thames-side.com