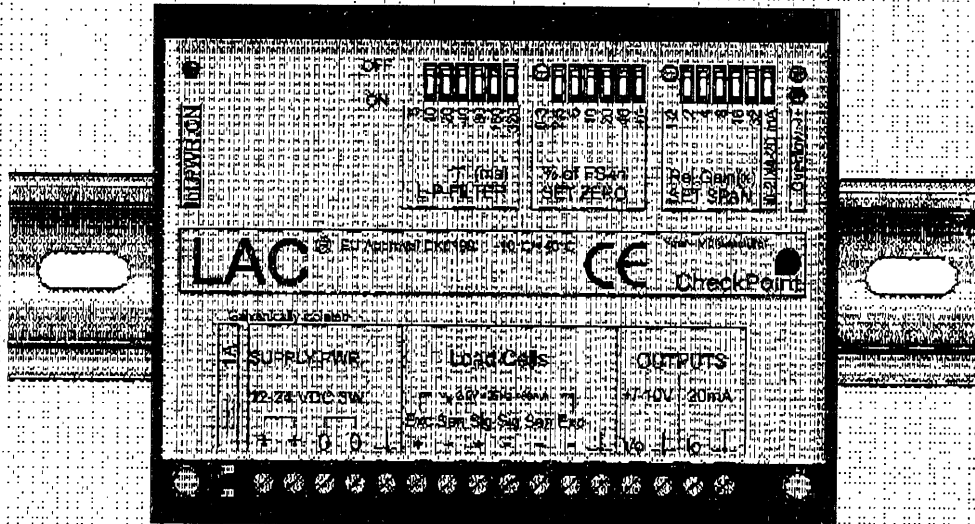


**LAC**  
Universal Load Cell Amplifier Module

**SENSOR**  
TECHNIQUES LIMITED



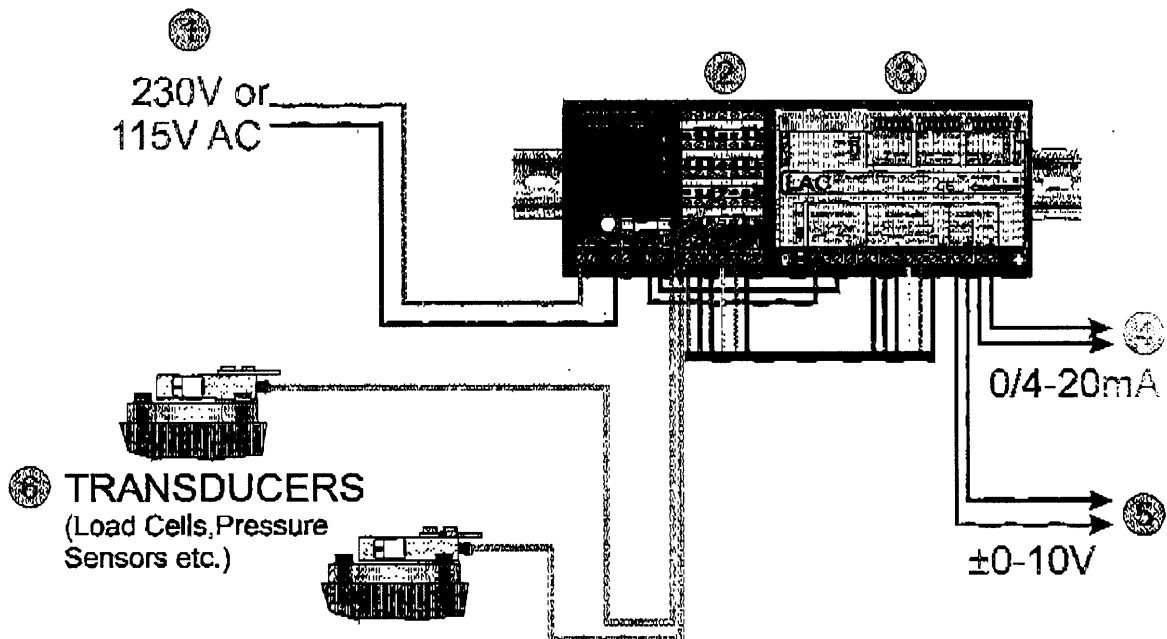
## Load Cell Amplifier Module Model LAC

- Linearity better than 0.010 % of full scale
- Analogue outputs of both 0/4...20mA and +/- 10V DC
- Independently EMC tested and fully CE approved
- Capable of driving up to four 350 Ohm Load Cells
- Active low pass filter from 0.25 Hz to 32 Hz
- Supply voltage 12 - 24 VDC +10/-15%
- Zero offset up to  $\pm 80\%$  of full scale
- Input signal range up to  $\pm 3.3$  mV/V
- Zero and Span coarse and fine adjustment
- Steel case mounted on Phoenix DIN rail module



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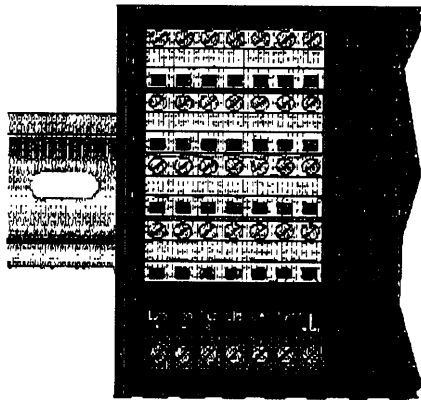


- 1 Mains Input Option.** Input either 115V or 230V AC. Output 18V DC to drive main LAC amplifier. Simply link the DC output of the supply to the DC input of the LAC.
- 2 Input Extender option.** Allows up to four, six wire load cells plus screen to be connected and viewed as one input by the LAC. Simply link the summing output of the extender to the Load Cell terminals of the LAC.
- 3 LAC Amplifier.** Microprocessor-based DC powered DIN rail mounted amplifier which drives up to four 350 Ohm Load Cells and amplifies the returning signal. The LAC can accept zero offsets of up to 80% of the input signal and still offer full scale amplification of the remaining 20%. Calibrated by simply adjusting coarse zero and span DIL switches, and then fine zero and span potentiometers. Adjustable low pass filter, 0.25Hz - 32Hz, effectively damps noisy signals.
- 4 Current Output.** Select either 4-20mA or 0-20mA. Then calibrate to "scale" your input signal as required. Can then be used to drive local loop-powered displays, and be fed into the analogue input card of a PLC or PC. This output is available at the same time as the voltage output.
- 5 Voltage Output.** Calibrate to "scale" your input signal between 0 to  $\pm 10$ V DC, as required. For applications where signals are positive-going or negative-going, the LAC will respond accurately from -10 V through zero to +10 V.
- 6 Transducers.** Between 1 and 4 transducers with sensitivities up to 3.3 mV/V can be connected to the LAC amplifier, either directly or via the Input Extender module.



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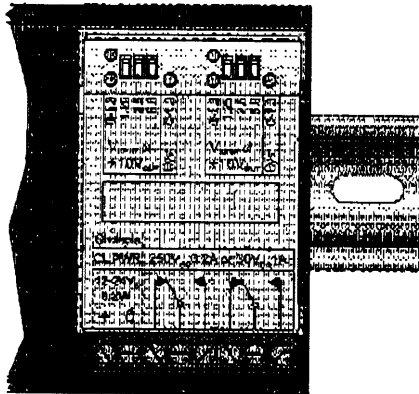


### Input Extender Card

Allows up to four 6 wire load cells to be connected in parallel, giving one 6 wire output to the LAC amplifier.

DIN rail mounted on Phoenix UMK-BE plastic profile, it can easily be added to any existing LAC amplifier.

Increases overall length of the LAC by 45mm.

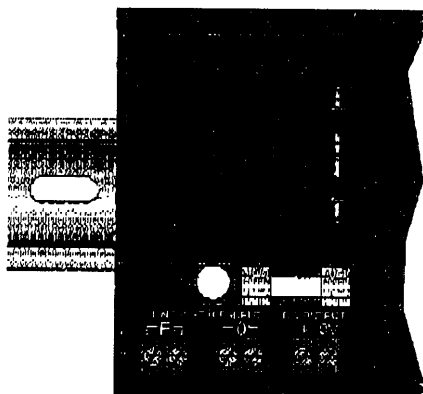


### Dual Setpoint Module

Attached directly to the module connector on the right hand edge of the LAC providing two individual set points. The relay contacts are rated at a maximum load 0.2A (250 VAC) or 1A (30V DC) Non-Inductive. This unit can be cascaded to give up to 8 setpoints.

DIN rail mounted on Phoenix UMK-BE plastic profile, it can easily be added to any existing LAC amplifier.

Increases overall length of the LAC by 45mm.



### Mains Power Supply Unit

Converts either 230 V or 115VAC to 18 VDC 170mA to power the LAC amplifier.

DIN rail mounted on Phoenix UMK-BE plastic profile, it can easily be added to any existing LAC amplifier.

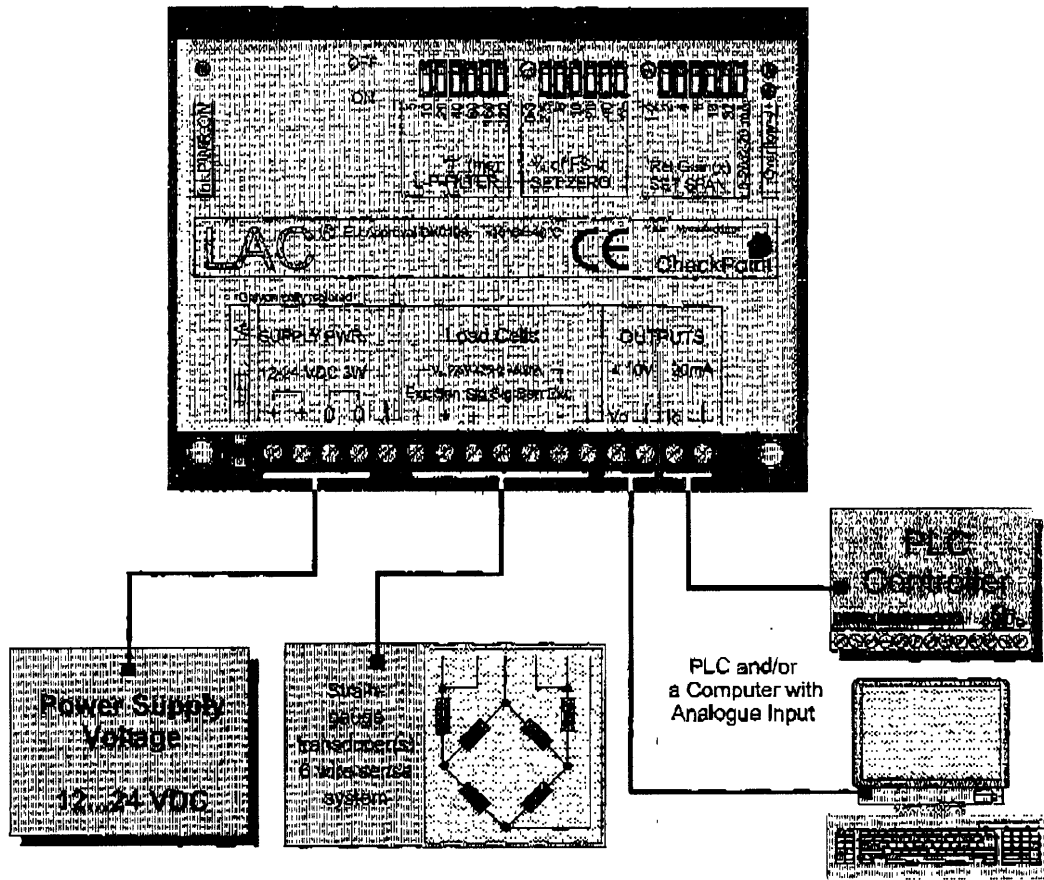
Increases overall length of the LAC by 45mm.

Modules can be used separately or combined to form one complete DIN rail mounted unit.



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**Specification**

Specifications are subject to change without prior notice

|                         |   |
|-------------------------|---|
| Linearity               | ± 0.010 % F.S.  |
| Excitation Voltage      | 2.5V AC 425Hz with sense circuit, driving up to 4 transducers with 350 Ohm bridges      |
| Input Signal Range      | 0.17...5.3mV/V in 32 steps  |
| Signal Filter           | 0.25...32 Hz active low pass filter in 64 steps   |
| Indicators              | LEDs to show Positive or Negative Signal Overflow and Internal Power ON                 |
| Tare offset             | ± 80% of full scale while still allowing the remaining 20% to be scaled 4-20mA or 0-10V |
| Current Output          | 4 - 20mA or 0 - 20mA  |
| Voltage Output          | 0 to ±10V   |
| Temperature Effect Zero | ± 50ppm/°C  |
| Temperature Effect Span | ± 25ppm/°C  |
| Temperature Range       | -10°C to +40°C  |
| Housing                 | Plated steel case mounted on a Phoenix UMK DIN rail module                              |
| Dimensions              | 113 x 77 x 37 mm (W x D x H)  |
| Weight                  | Approx. 0.2 Kg  |
| Power Supply            | 12...24 VDC ±10% 15% , 3W max.  |

DSLAC-3, 10/99

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Precision Load Cells  
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