

## Load cell Analog Unit

**Applications.** Any automatic or manual weighing- or force measurement device demanding electrical robustness and simple installation. The LAU meet common requirements to precision and speed at very low cost. The LAU provides an analog current output for a PLC or a digital field bus-converter etc. of weighing or measuring operations based on a single strain gauge load cell. Zero set, gain set and filter set takes place as binary organized steps accessed direct at the unit. Voltage output and fine trimmed zero and span are options. The LAU is made for electrically hostile environments where reliability and simplicity is of major importance.

### Input compliance

Convert the output from one load cell at excellent resolution and linearity. The full 10V load cell supply further add to this quality.

### Easy configuring

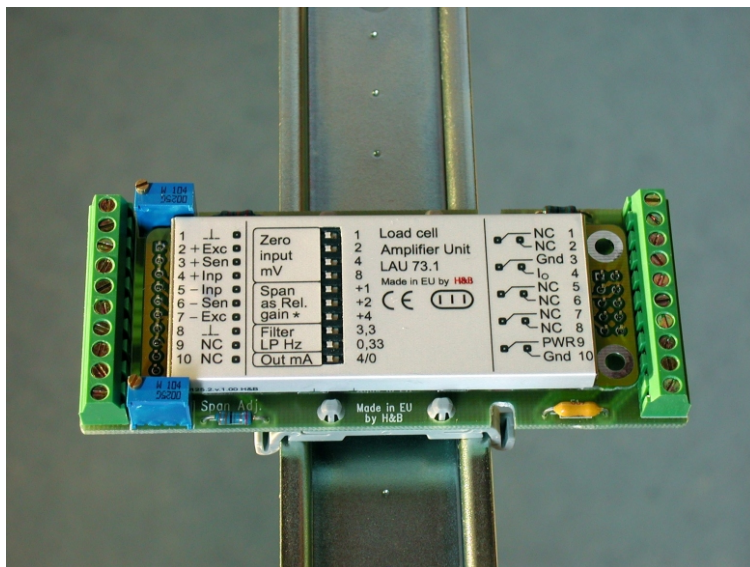
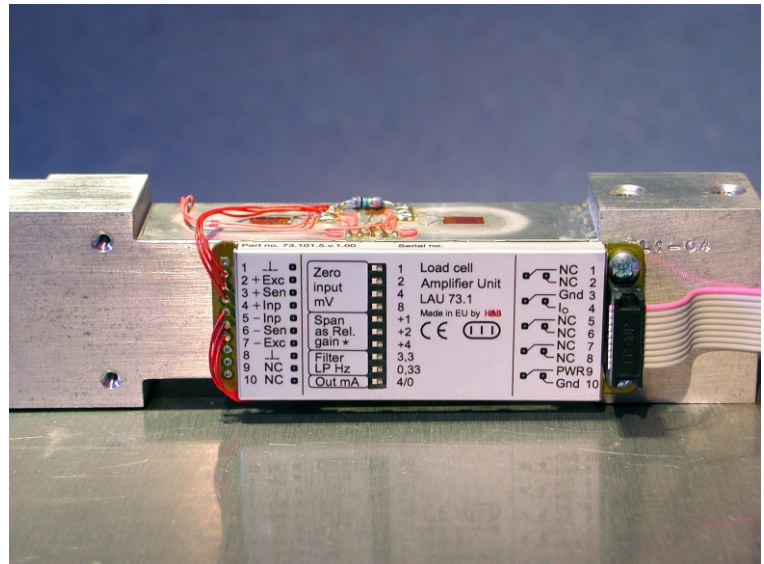
The wide range of both the zero band, the gain settings and the three LP filters comply with almost any demand.

### Outstanding stability

Is achieved owing to the quality components and the binary set-up switches which avoid pots.

### Pre-calibration

Owing to the binary switches coarse set-up (within 1/500) can be performed before installation or substitution.



### Current communication

Is robust and very easy to install. It provide point-to-point transfer and allow several units to be paralleled.

### Electrically robust

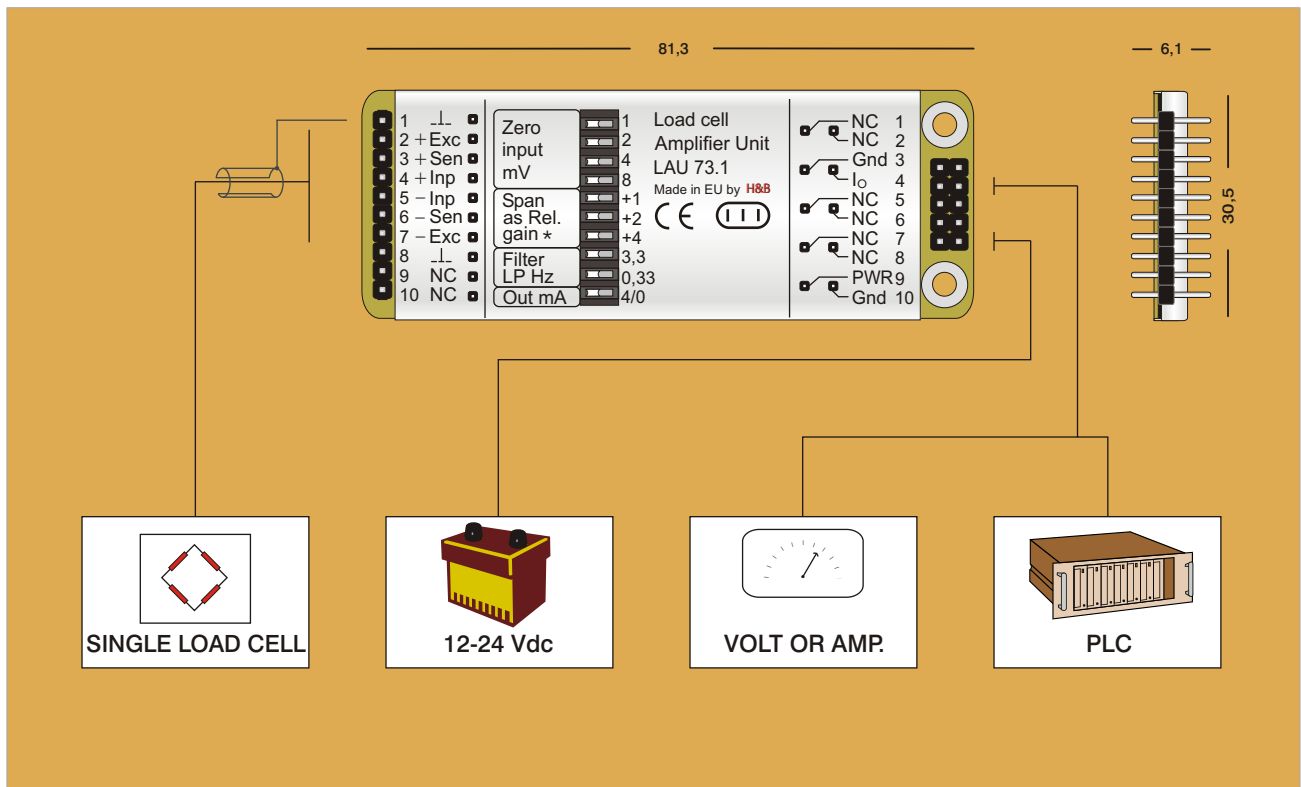
Shielding and T-filters at all pins provides EMC compliance and surge protection. The power input withstand excessive actions and offer a wide supply range.

### Installation

The LDU can be bolted on side of a load cell or designed into customers PCB etc.

### Functionality options

The LAU is compatible with a Unit Adaptor for DIN rail mounting, providing a fuse and regular screw terminals. The UA is available with an additional current load resistor and quality 20 turn Zero- and Span pots for fine adjustments.



## Specifications

Load cell input range:	-2 to +23mV input (i.e. +2,3mV/V). Pins for sense wires are available.
Load cell drive capability:	One load cell: >350 <2000 . Excitation voltage 10Vdc.
Zero set, fixed binary steps:	Range 0 to +15mV as 16 increments of 1mV per incr. for 0 or 4mA output.
Zero set, fine trim <i>option</i> :	Range -1,5mV (25 turn pot, i.e. 1μV per 6°revolution of the pot.).
Gain set, fixed binary steps:	Range 1* to 8* as 8 increments of 1* per incr. 1*: 20mV input for 20mA output; 8*: 2,5mV input for 20mA output.
Gain set, fine trim <i>option</i> :	Range -1,2* (25 turn pot).
Filter set, fixed steps:	33; 3,3 and 0,33 Hz low pass frequency. (Time constants 5-500ms).
Current output:	Select: 4-20mA or 0-20mA.
Voltage output <i>option</i> :	0-10Vdc via a 1k //1k built in load resistors.
Power supply:	12-24Vdc, Max ripple 1,2Vpp; Supply current 50-80mA. Non-isolated. Excess voltage and reversed polarity protected.
Linearity:	<0,01% deviation from a straight line between zero and max.
Resolution:	1/100000 i.e. input equivalent LF noise floor: <0,2μV.
Temperature effects: Zero:	<50 ppm/°C at 0 mV input; Span: <50 ppm/°C of Full Scale.
Temp.range:	Compensated: -10°C/+40°C; Storage: -20°C/+50°C.
Conform to Council Directive:	CE in accordance with 73/23/EEC; 93/98/EEC and 89/336/EEC.
Basic unit size:	Single PCBoard: L81,3*W30,5*H6,1mm. full metal encapsulated IP40.
Wiring terminals:	10 pc single row and 10 pc. dual row 2,54 mm pitch lugs for standard pins.
Mounting, std.:	Two ø3,5mm holes at the power/output end i.e. to bolt the device inside a load cell.

## Accessories, optional

Enclosures:	A number of metal or plastic enclosures are available, all IP65 proof.
Extensions:	UA73.2 provides 2*10 pos. screw terminals, a 0,5A fuse and dual DIN TS35 clips. UA73.3 provides in addition the three <i>options</i> as noted in the above (i.e. pots etc.).