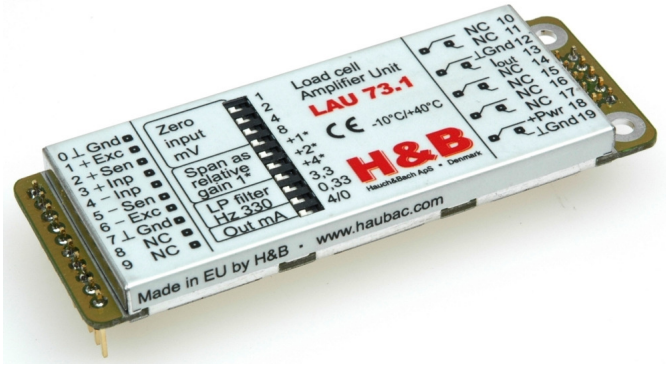
LAU 73.1 - Economy - Robust

Load cell Analog Unit 073.101.5. Ver. 1.40

LAU 73.1 provides analog current output from weighing operations based on strain gauge load cells. It is pin compatible with other members of the LAU family, (63.1) thus offering a selection of precision levels, speed and cost.
All LAU's are designed to be embedded into customers' equipment, to be plugged into a Unit Adaptor or otherwise integrated with a hosting device.

- **An economic solution** for simple load or force measurements to be read by a PLC or an analog instrument.
- Analog **0-20 or 4-20mA output** from a single, strain gauge load cell.
- **Easy to configure** as zero set, gain set and filter set takes place as binary organized steps.
- **Eases the design** of any device dealing with load cell input.
- Designed for **simplicity** of operation and **reliability** in electrically **hostile** environments.



LAU 73.1 Qualities

Amplify the output from a 2mV/V unidirectional load cell with an input resolution of 200nV i.e. the equivalent to 100,000 increments over the range.
The binary organised range of the zero band and the gain settings meet almost any demand for dead load compensation and amplification.

The active, low pass signal filter allow bandwidths from 0.33Hz up to 33Hz in four binary organized steps.
Current output ranges from 0-20mA or 4-20mA as selected. 0-10Vdc if a 500 ohm load is applied.
EMC compliance and surge protection provided by electrically robust shielding and T-filters at all pins.
The secured inputs and the protected output and power input withstand excessive actions.
To be designed into customers' PCB or bolted on the side a load cell.

Fits with a series of Unit Adaptors, i.e. providing DIN-rail mounting (TS35), a fuse and regular screw terminals for all connections.
In addition the UA73.20x. can be supplied with dual 25 turn ports for fine adjustment of zero and span.
A load resistor, 500 ohm can further be added the UA73.20x. thus providing a voltage output.

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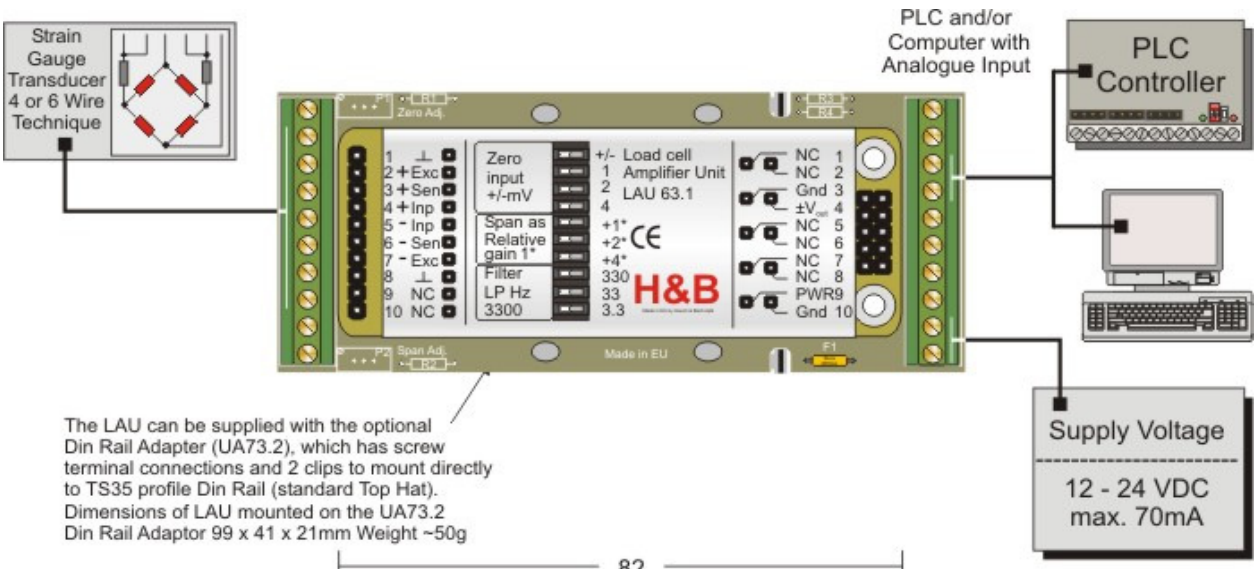

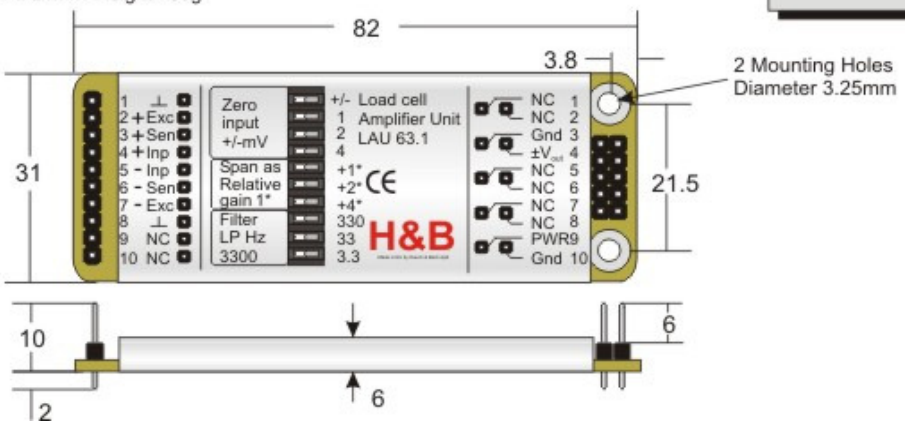

Input and A/D	Linearity	<0,01 % of full scale (1/10,000)
	Load cell excitation voltage	10 Vdc
	Load cell drive capability	200-2000 ohm
	Load cell wiring system	4 wires (no separate sense input)
	Load cell input range	-2mV/V to +2.3mV/V
	Load cell input resolution, 63.101	<200nV/incr. (>200,000 incr. at 2 mV/V input)
	Zero off-set, fixed binary steps	+15mV by 1mV increments.
	Relative gain factor, fixed binary steps	Range 1-8*; by 1* increments. (i.e. min. +4mV$_{inp}$ at 20mA$_{out}$)
	Signal filter, active, low pass	33; 3.3 or 0.33Hz

General I/O's	Voltage output	0-20mA or 4-20mA (0-10Vdc at 500 ohm load)
	Power supply	12-24Vdc max. 70mA (12-16Vdc preferred)

Influences	Temperature effect on Zero	Typical 25ppm/°K, Max 50ppm/°K
	Temperature effect on Gain	Typical 25ppm/°K, Max 50ppm/°K
	Temperature range	Operating: -10°C/+40°C; Storage -30°C/+70°C
	Relative humidity	0-95 % non condensing
	EMI	10 V/m (1-2000 MHz)
	General I/O protection, all pins	Reversed polarity, excess voltage and surge
	Vibration	2.5 G operational; 5 G non-operational
	Protection, environment	IP40

Dimensions	Height /length/width	H 5.6 mm excl. pins; L 81.3 mm; W 30.5
	Weight	27 g (1 oz)
	I/O pins	2x5 pins, 2.54mm pitch; 1x10 pins, 2.54mm pitch

Standards	Conform to Council directives	CE in accordance with 73/23/EEC; 93/98/EEC and 89/336/EEC
	Certificate of approval	-
	Certified accuracy	-

Accessories, optional

Enclosures: A number of metal or plastic enclosures are available, all IP65 proofed.

Extensions: A number of Unit Adaptors provides screw terminals, fuse protection, DIN TS35 rail mounting and pre-load components.
The Unit Adaptors are frequently built to specific customer demands.

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