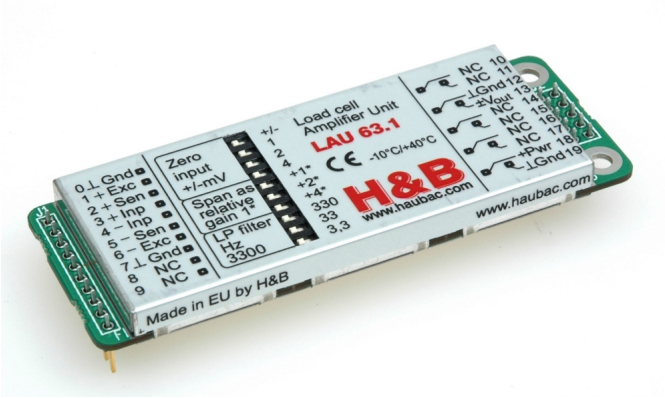
LAU 63.1 - High speed - Bi-polar

Load cell Analog Unit 063.101.5. Ver. 1.30 and 063.102.5. Ver. 1.01

LAU 63.101 and 63.102 provide bipolar, analog voltage output from force measuring and weighing operations based on strain gauge load cells. It is pin compatible with other members of the LAU family, (73.1), 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.

- For measuring of force and load at **high speed** and **wide band-width.**
- Produces ±10V **bi-polar voltage output** from an uno- or bi-directional load cell.
- **Easy to configure** as zero set, gain set and filter set takes place as binary organized steps.
- **An economic solution** for simple load, force and vibration measurements using analog instrumentation.
- **Eases the design** of any device dealing with a bi-directional load cell input.
- Designed for **simplicity** of operation and **reliability** in electrically **hostile** environments



LAU 63.1 Qualities

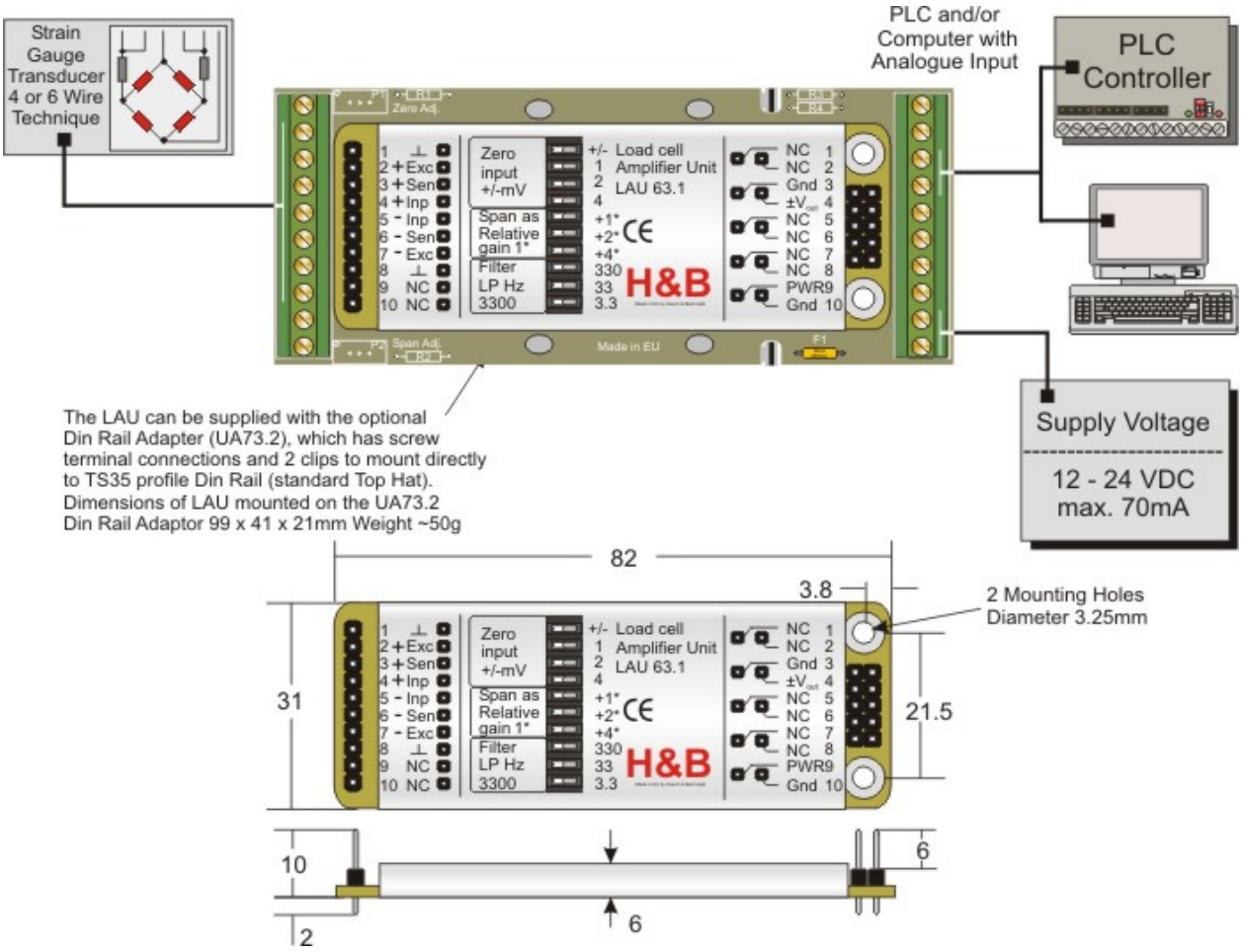
Amplify the output from a ±3mV/V bi-directional load cell with an input resolution of 200nV (50nV for the 63.102) i.e. the equivalent to 300,000 increments over the full range (1,200,000 incr. for the 63.102).
The binary organized range of the zero band and the gain settings meet almost any demand for dead load compensation and amplification.

The active, low pass signal filter allows bandwidths from 3.3 Hz up to 3.3 kHz in four binary organized steps.
Voltage output ranges from -10 to +10 Volt. Can drive 500 ohm load.
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 UA 73.20x. 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 voltage output.

Hauch & Bach ApS Femstykket 6 Telephone *+45 4816 0880* e-mail: *info@haubac.com*
Denmark DK 3540 Lynge Telefax *+45 4816 0870* http: *//www.haubac.com*



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	±3.2 mV/V equivalent to ±32 mVdc
	Load cell input resolution, 63.101	<200 nV/incr. (>200,000 incr. at 2 mV/V input)
	Load cell input resolution, 63.102	<50 nV/incr. (>800,000 incr. at 2 mV/V input)
	Zero off-set, fixed binary steps	±7 mV by 1 mV increments.
	Relative gain factor, fixed binary steps	Range 1-8*; by 1* increments. (i.e. min. ±4mV$_{inp}$ at ±10V$_{out}$)
	Signal filter, active, low pass	3300; 330; 33 or 3.3 Hz

General I/O's	Voltage output	±10 Vdc; max. 20mA (i.e. permit 500 ohm load)
	Power supply	12-24 Vdc max. 70mA (12-16 Vdc preferred)

Influences	Temperature effect on Zero	Typical 25 ppm/°K, Max 50 ppm/°K
	Temperature effect on Gain	Typical 25 ppm/°K, Max 50 ppm/°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	30 g (1 oz)
	I/O pins	2x5 pins, 2.54 mm pitch; 1x10 pins, 2.54 mm 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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