

Two-wire In-line Amplifier

Preliminary data sheet:

Load cell Analog Box LAB101.1(*)

Scope: The two wire Load cell to current In-line Amplifier convert and condition the output from load cells to 4-20mA output over the supply wires. The unit is robust, compact, low profile and offers outstanding stability over time and temperature.

The LAB104 is especially designed for heavy duty industrial use as it is splash proof and approved (pending) for explosion hazardous areas. In addition the device withstands severe EMI and rough handling.

The building concept is a full metal encapsulated unit with genuine O-ring sealed in- and outlets.

Product Highlights

- 4-20mA output to instrumentation, PLC or alike.
- Robust for heavy duty, industrial use.
- IP65 splash proof.
- Ex II approved (pending) for explosion hazardous areas
- Unaffected by severe Electro Magnetic Influence beyond 10V/m.
- Surge, excessive voltage and reversed polarity protected
- Withstand vibrations and chocks up to 5G.
- Good output stability over time and temperature.
- Full metal enclosure with O-ring sealed cable glands and cover.



Specifications	Linearity	<0,01 % of full scale.
	Load cell Excitation voltage	2,5Vdc
	Load cell Drive capability	1000 ohm only
	Load cell wiring system	Four wires inclusive sense
	Load cell input range for 4mA output	-0,5 to +0,8mV/V to set in 8 binary steps + pot. adjust.
	Load cell input range for 20mA output	0,5 – 4,0 mV/V to set in 8 binary steps + pot. adjust.
	Load cell input resolution	<1 μ V _{pp} i.e. >10000 incr. at 2mV/V input
	Signal filter cut off frequencies	33; 3,3 or 0,33 Hz
	Power consumption	4 mA max
	Supply voltage	16-28Vdc

Influences	Temperature effect on Zero	Typical 10ppm/°K, Max 20ppm/°K
	Temperature effect on Span	Typical 20ppm/°K, Max 40ppm/°K
	Ambient temperature	Operating: -10°C/+50°C; Storage -30°C/+70°C
	Relative humidity	0-95% non condensing
	EMI	10V/m (1-2000MHz)
	Protected electrically	Reversed polarity, excess voltage and surge.
	Vibration	2,5 G operational; 5 G non-operational
	Protection proof	IP65

Dimensions	Height above	16,5mm
	Length	115mm inclusive cable glands and cover
	Width	50mm
	Weight	105 gram; 3.7oz

Standards	CE EMC directive 89/336	
	EN 61326/A1 Table A.1. passed.	

*) The LAB is the trade name for the H&B family of analog, in-line amplifiers mounted in full metal boxes. The LDB is the trade name for the H&B family of digital, in-line amplifiers mounted in full metal boxes. The boxes are IP65 proof and supplied with cable glands etc. The boxes may be bolted to the support by use of the grooves on either side of the boxes.