

OWECON OWA120/130 Loadcell Amplifier



The **OWECON OWA120/130 series amplifier** is a universal loadcell amplifier covering all types of standard loadcells in paper, foil and converting industry.

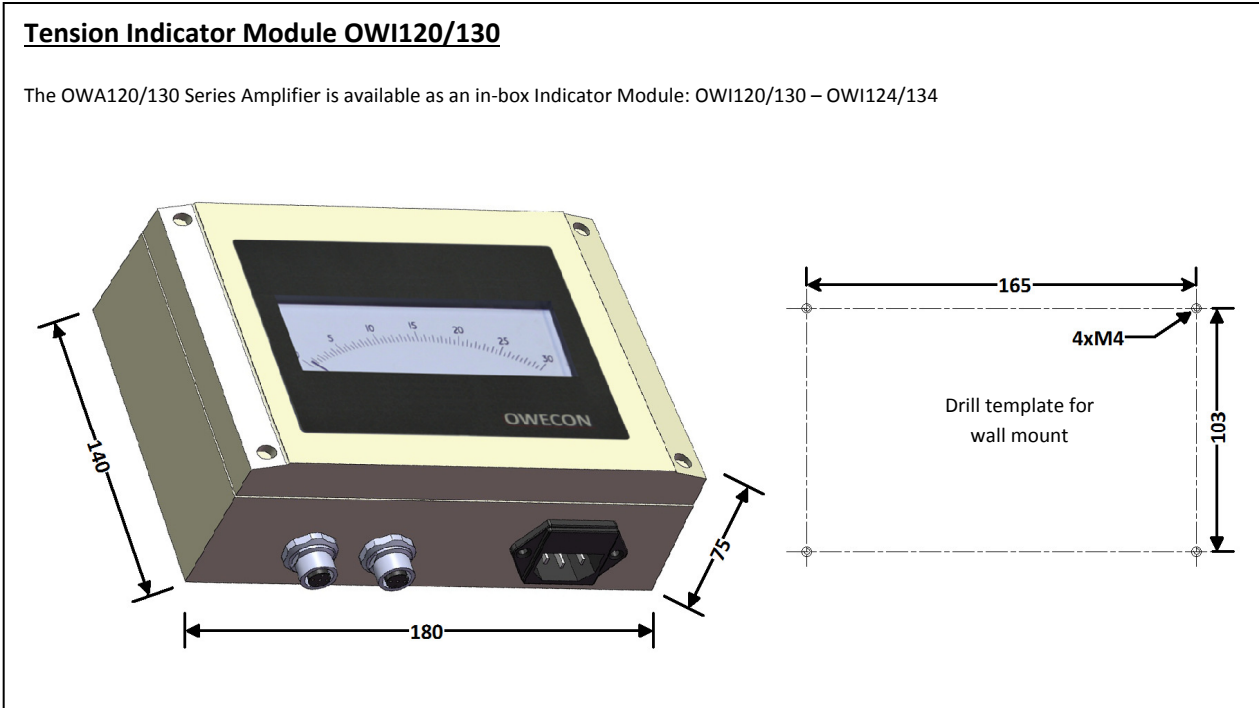
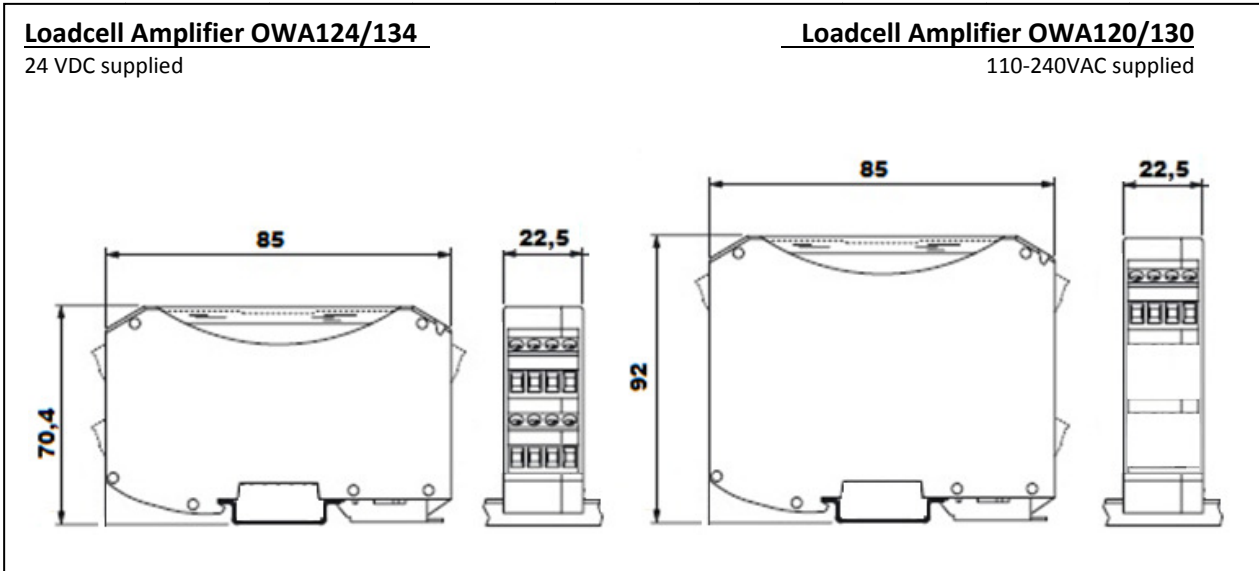
- Working Range: 1mV/V to 50mV/V loadcell signal
- Handles applications of : Constant Voltage or Constant Current – Bridge supply
- Cost / Performance effective
- Available in 24VDC and 110-240VAC models
- Extra flat, DIN Rail mount w./ metal foot catch

Applications:

The OWECON OWA amplifier and OWI Indicator are used with OWECON - or thirdparty loadcells to indicate web tension on all types of web- process and converting machines. The output can be used to drive a tension meter. For processing, the output can be interfaced to a PLC, PC or motor-drive

Mechanical specifications

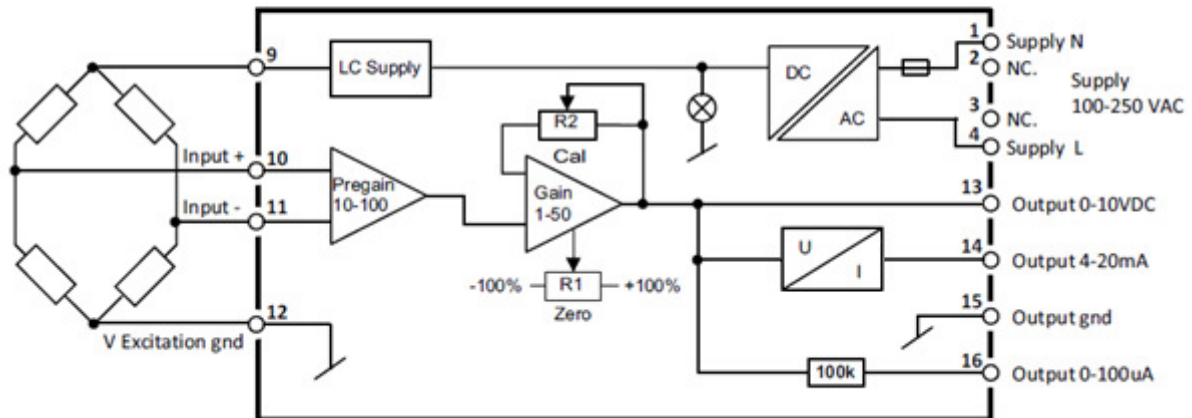
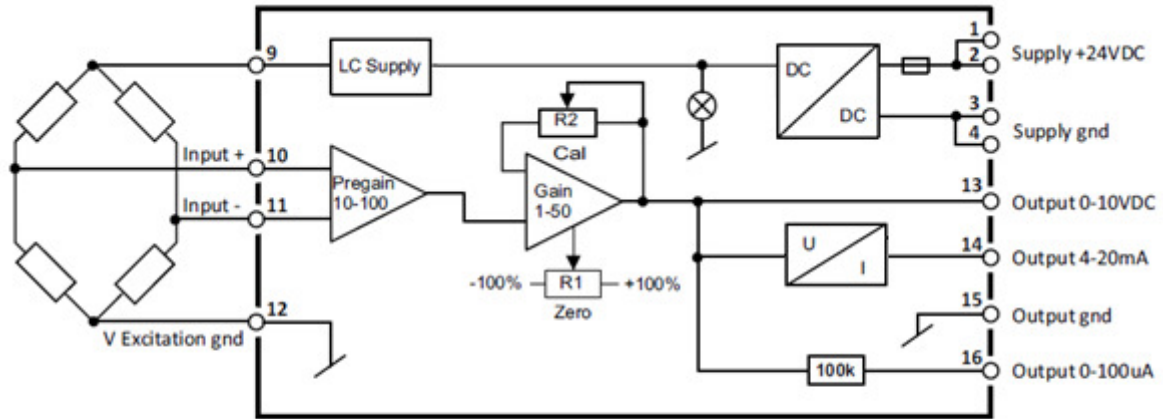
Outline, mechanical dimensions:



Electrical

Loadcell Installation

The OWA120/130 Series Amplifier is compatible to all types of loadcells in the market.



Adjustment procedure:

- Check for correct mounting of sensing roller
- Use a multimeter, VDC range, connected between terminals 13 (+) and 15 (-). (For the **OWI**, read the present meter).
- At zero tension, adjust ZERO until 0 V is measured or read out on the meter.
- Thread a rope around the center of the sensing roller, let it pass at least one roller before and one after the sensing roller.
- Attach a weight of known value to the rope, at least 25% of full scale. Rotate rollers in webdirection.
- Adjust CAL until the multimeter shows a value calculated with the following formula:

$$V = (\text{cal. Weight} / \text{CAL. Full scale value}) \times 10\text{Volts}$$

OR for the **OWI**, the meter reads the calibration weight.

- A negative reading indicates that the loadcell signals are reversed. Switch the wires between terminals 10 and 11.
- Remove the weight and check that outputs return to 0. If not, repeat procedure steps from top.

Electrical specifications:

Supply Voltage OWA/OWI124/134.....24VDC +/-15%
 Supply Voltage OWA/OWI120/130.....90-264VAC
 Overvoltage Category3kVAC (Class II)
 Maximum Power Consumption4 W
 Maximum Supply Fuse Size1 A
 Load Cell Input± 1-50 mVDC
 Input Impedance100 kΩ
 Load Cell Supply±2.50 VDC ±1%
 Zero Range Adjustment 100% of Load Cell Rating (± 50mVDC)
 Gain Adjustment10 to 5000 depending on type
 Accuracy Better Than 1%
 Meter Output.....0 to 100 µA
 Process Output4 to 20 mA and 0 to 10VDC
 Process Output Maximum Load (Current)≤ 500 Ω
 Process Output Maximum Load (Voltage)≥ 5000 Ω

Standard Scales OWI Indicator.....0-100, others on request
 ConnectionsRemovable Terminal Blocks
 Mounting BracketDIN Rail
 Mounting OrientationNot Critical
 Ambient Temperature Range: Operating-10°C to 50°C
 Ambient Temperature Range: Storage-10°C to 80°C
 Humidity<95% Non-Condensing
 Degree of ProtectionIP54 (IEC 529)
 EMC-ImmunityEN 50082-2 Industry
 EMC-EmissionEN 50081-1 Trade and Light Industry
 Electrical Safety Standard Meets.....UL-60950-1
 Material Degree of Inflammability MeetsUL 94
 Installation Environment (Pollution Degree)2
 Weight OWA0.10 /0.12 kg
 Weight OWI1.5 kg
 Size OWA 124/134(WxDxH).....22,5mm x 70,4mm x 85mm
 Size OWA 120/130(WxDxH).....22,5mm x 92mm x 85mm

Ordering Information for the OWA / OWI series products:

All 24VDC supplied:

<u>Type</u>	<u>Description</u>	<u>Part No.</u>	<u>Order</u> <input checked="" type="checkbox"/>
OWA124	Loadcell amplifier, semiconductor type,	11240100	<input type="checkbox"/>
OWA134	Loadcell amplifier, foil/resistor type,	11340100	<input type="checkbox"/>
OWI124	Tension Indicator Box, semiconductor type	21240100	<input type="checkbox"/>
OWI134	Tension Indicator Box, foil/resistor type	21340100	<input type="checkbox"/>

All 90-260VAC Supplied:

<u>Type</u>	<u>Description</u>	<u>Part No.</u>	<u>Order</u> <input checked="" type="checkbox"/>
OWA120	Loadcell amplifier, semiconductor type,	11200100	<input type="checkbox"/>
OWA130	Loadcell amplifier, foil/resistor type,	11300100	<input type="checkbox"/>
OWI120	Tension Indicator Box, semiconductor type	21200100	<input type="checkbox"/>
OWI130	Tension Indicator Box, foil/resistor type	21300100	<input type="checkbox"/>