



APPLIED MEASUREMENTS LTD.

Transducer Specialists...

+44 (0) 118 981 7339

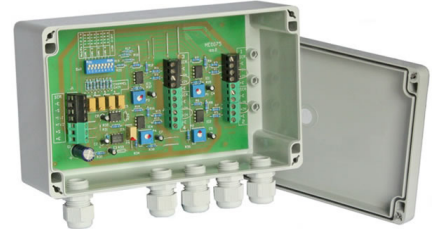
info@appmeas.co.uk

www.appmeas.co.uk

AMLJBA Active Load Cell Junction Box

Key Features:

- Connect up to 4 Load Cells or Other Strain Gauge Sensors
- Individual Sensor Gain Adjustment
- 6 Wire Connection (AMLJBA > Instrument)
- Robust IP65-rated ABS Enclosure
- IP67-Rated Cable Glands
- Wide Input Range - From 0.5 to 20mV/V
- Simplifies Installation of Multi-Cell Platforms, Silos, Tanks and Hopper Weighing Systems
- No Interaction Between Offset and Gain
- No Interaction Between Channels During Calibration
- 3 Year Warranty



The AMLJBA is an active junction box used to sum the outputs from up to 4 strain gauge transducers to allow them to be connected to a compatible strain gauge instrument, such as an indicator / controller, amplifier or digitiser. It is ideal for multiple load cell applications where it is important that the millivolt signals from each of the load cells is very closely matched. The AMLJBA junction box is typically used with load cells in weighing platforms, weighbridges and vessel weighing systems.

The individual channel gains can be set up via DIL switches and preset potentiometers to allow for 2, 3, or 4 strain gauge bridges. Gain is not interactive and offset is preset in order to speed up matching of transducer outputs.

The AMLJBA load cell junction box is housed in a robust polycarbonate enclosure with glanded entry for the load cell cables, making the AMLJBA suitable for use in harsh environments requiring a sealing rating up to IP65.

To enable swift and secure connection of the load cells a series of screw terminals are mounted on the internal circuit board of the junction box. Also mounted on the same board is a DIL switch to set the number of load cells being used and fine adjustment potentiometers to match the load cell sensitivities.

If you require a load cell junction box for interconnection only, please see our [AMLJBNA](#) which offers a lower-cost option. We can provide suitable instrumentation for connection through the AMLJBA active junction box, please speak to our [technical sales team](#).

Industries:

- Automotive
- Agriculture
- Silo and Weighing Industry
- Construction
- Alternative Energy
- Civil Engineering
- Lifting and Handling
- Waste Management

Applications:

- Weighing Platforms
- Vessel Weighing Systems
- Weighbridges
- Conveyor Weighing Systems
- Bridge Structure Monitoring
- Waste Management Systems
- Lifting and Handling
- Monitoring of Anchor Loads
- Truck Load Weight Monitoring
- Skip Weighing System
- Multi-Cell or Multi-Transducer Installations
- Monitoring of Building Foundations
- Force Measurement in Formula Racing
- Silo Weighing
- Measuring the Power Output of a Motor
- Weighbridges



Specification:

Input	Up to 20mV/V
Channel Gain	X 1 to x 0.25 to allow for 1-4 load cells, DIL switch selectable with potentiometer for fine trim
Dimensions	200 x 120 x 75mm ABS

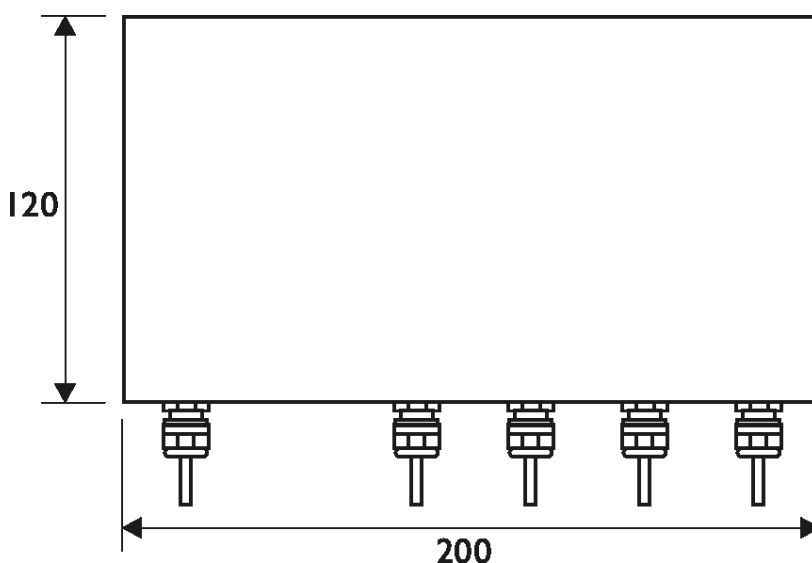
Switch Settings									
Number of Strain Gauges Connected	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8	Gain Range (via preset)
1	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	x 1 – 0.5
2	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	x 0.33 – x 0.5
3	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	x 0.25 – 0.33
4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	x 0.20 – 0.25

The unit is designed for 4 wire Strain Gauges, should 6 wire Strain Gauges be used, their excitation and sense wires should be both connected to the appropriate 'E' terminals. The 4 channels can be matched by adjusting the 'Channel Gain' potentiometers having first set the DIL switches for the number of Strain Gauges used. If access to individual Strain Gauges is possible eg before the platform or hopper is in position, then calibration can be carried out by placing a weight on one of the cells, and noting the change in display reading on the ADW15.

Repeat this for each remaining Strain Gauge, and adjust the 'Channel Gain' potentiometers, to give the same change in display reading for each cell used.

Should the platform already be in position it will be necessary to use a millivolt source to carry out the calibration. Apply a voltage of 10 times the millivolt/volt figure given for the appropriate Strain Gauge, to each channel in turn, adjusting the 'Channel Gains' to give equal changes in display readings for each cell used.

Dimensions (mm):





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Ordering Codes:

Core Product	Capacity (inc Engineering Units)	Cable Length (m)	Specials Code	Result
AMLJBA				AMLJBA

Associated Products:



[TR150 Handheld Indicator](#)



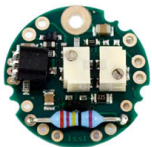
[T24 Wireless Telemetry Range](#)



[Intuitive4-L Panel-Mount Indicator](#)



[DSC-USB USB Signal Digitiser](#)



[ICA Miniature Strain Gauge Amplifier](#)



[SGA Signal Conditioner/Amplifier](#)