

0075/0076/0078 Junction Boxes



0075

0076

0078

Installation

Cable glands that are not used need to be closed with suitable plugs. It has a 5-way terminal strip for each load cell, enabling connection of 4 wire load cells with shield connection. Terminal strips are screw-operated cage clamp design. To overcome disturbance, make sure not to create ground-loops whilst connecting the cable shields. Trimming of signal output is accomplished using 30-turn trim potentiometers.

Remove the cover and connect the load cell cables to the circuit board and the circuit board output to the associated indicator. Each load cell terminal strip has the same sequence for connecting the respective wires as the output terminal strip. Be sure that all terminal strip connections are tight and that the cables are not damaged. The load cells used should be of the same model, capacity and have the same rated output (mV/V). Tinning the leads is not recommended for vibrant applications. Make sure all screws and gasket are tight when putting the cover back on. Make sure to properly tighten the cable glands to keep the sealing intact.

Mounting

The Junction Box can be mounted through the 2 or 4 mounting holes. When installing the junction box, be sure that the enclosure is connected to the scale framework with the lowest risk to get wet.

Specification

	0075	0076	0078
Shell Material	Polymer	Stainless-Steel	Stainless-Steel
Connections	5 x PG7 Polymer Glands	5 x PG7 Polymer Glands	5 x PG7 Metal Glands
Signal Trimming	Yes		
Trim Potentiometers	30 Turns		
Connection Type	5-way terminal strip (4-Wire Connection)		
Dimensions	180mm x 65mm x 43mm (7.08in x 2.56in x 1.69in)	175mm x 91mm x 42mm (6.89in x 3.58in x 1.65in)	192mm x 124mm x 43mm (7.56in x 4.88in x 1.69in)
Environmental protection	IP65	IP6X	IP68
Mounting Holes	(0.26in) 6.50mm (0.14in) 3.5mm	[0.24in] 6.00mm (0.15in] 3.70mm	[0.28in] 7.00mm [0.43in] 11.00mm

Note: **0075-M12** is the M12 cable extension variant for 0075. This model contains 4 Female 5 pin M12 headers (loadcells) and 1 Male 5 pin M12 header (indicator).



Connection Diagram



Trimming

After all wiring is completed and the scale instrument is powered up, check the scale for repeatability and correct any problems. The potentiometers nearest to the terminal strip (W1-W4) adjusts the respective load cell connected to it.

Trimming is a process of equalizing the output from multiple individual load cells by adjusting each matched potentiometer. Corner adjusting method described below can be used to achieve the best possible performance.

- 1- Each potentiometer should be at the halfway point before start trimming, please turn it up or down 15 turns (Max Turns/2) from the clicking point.
- 2- Connect each load cell cable to the matched terminal of Junction box through PG9 as figure shown above, connect indicator with a cable through PG9 to Junction box as well. Set the indicator to Zero, then place test weights over each load cell (each corner) and on the centre point in turn. For a four load-cell scale, it's recommended using a weight of 25% of full-scale capacity.
- 3- Record the value displayed on the indicator after test weight is placed in turn on each corner and centre. Select the lowest corner value comparing with centre value, adjust the potentiometer of the corner by clockwise turn to increase the value of this corner, or select the greatest value comparing with centre value, then trim the potentiometer of the corner by counter clockwise turn to decrease the value of this corner.
- 4- Replace the same test weight over each cell and centre in turn. Adjust the potentiometers to trim each load cell up or down to equal the value of each corner to the centre. Check all cells again for repeatability, repeat steps 2 and 3 if necessary, until all the value is within the required range.



Dimension





