



# JUNCTION BOX **JB**

## User Manual

v.201811



**HiWEIGH**  
Weighing system & solution

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Value Each Gram

## 1. Technical Description

JB summing junction boxes designed for parallel connection of analogue load cells, it contains the wiring terminals for 4 | 6 | 8 | 10 | 12 load cells, quality or imported potentiometers and corner trimming circuits. The load cell connectors are 4+1 (shield) wire, the indicator connector are 4+1(shield) or 6+1(shield) wire.

### JBA | JBW

- ABS enclosure
- For 4 load cells
- IP65 | IP67
- JB4AI with IP68 Hummel glands

### JBC | JBG | JBWS

- SUS304 stainless steel enclosure
- JBC | JBG for 4 | 6 | 8 | 10 | 12 load cells
- JBWS for 4 load cells
- JBG with Bourns potentiometer and IP68 glands
- IP65 | IP67

### JBL

- Aluminum enclosure
- For 4 load cells
- IP65

## 2. Dimensions of Boxes (L x W x H)

- JB4C | JB4G - 203 x 96 x 36mm
- JB6/8/10/12C | JB6/8/10/12G - 252 x 173 x 46mm
- JB4A | JB4AI - 175 x 66 x 41mm
- JB4L - 182 x 82.3 x 40mm
- JB4W - 153 x 103 x 35mm
- JB6/8/10/12W - 219 x 175 x 40mm

## 3. Installation

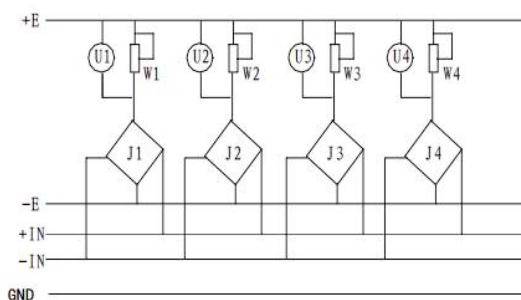
The mounting location should keep away from vibration and heat, fasten well the PG glands, to avoid liquid entering the enclosure.

## 4. Connection

For connectors 4+1 wire:

- |        |   |                     |
|--------|---|---------------------|
| +E     | - | Excitation Positive |
| -E     | - | Excitation Negative |
| +S/+IN | - | Signal Positive     |
| -S/-IN | - | Signal Negative     |
| GND    | - | Shield              |

example of wiring chart of 4 load cells:



**For connector 6+1 wire:**

+Exc	-	Excitation Positive
-Exc	-	Excitation Negative
+Sen	-	Sense Positive
<i>* short connect with +Exc for 4 wires load cell</i>		
-Sen	-	Sense Negative
<i>* short connect with -Exc for 4 wires load cell</i>		
+Sig	-	Signal Positive
-Sig	-	Signal Negative
Shield	-	Shield

## 5. Corner Adjustment

Corner adjustment must be performed before calibration of the scale!

- All load cells should be leveled and load distributed equally before trimming the outputs.
- Place the test weight on each corner of the platform in turn and record all readings and location. The lowest reading will be used as the target weight.
- Replace the test weight on each of the corner in turn and if necessary, adjust the corresponding potentiometer so that the weight indicated matches the target weight.
- Place the test weight on each corner as the 1st step and record this weight as the new target weight and repeat the following steps until all cells are matched and all the scale corners read the same.

*\*Adjust the potentiometer clockwise, the resistance get increase and it will get decrease while adjusting it anticlockwise, if the reading is bigger, adjust it clockwise and vice versa.*

## 6. Troubleshooting

- **Corner readings are not equal**
  1. Repeat the corner adjustment and trimming the output.
  2. If the reading still not the same, please check the damage of the load cell.
- **Reading drift rapidly:**
  1. Check the load cell/indicator cables damage or not
  2. Disconnect the load cell one by one to check which load cell get damaged.
  3. Check whether the junction box get water entered
  4. Check the indicator damaged or not

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