JBox-LCI
Smart junction box monitoring the load cells integrity
Measurement made easy
Smart junction box designed for parallel connecting of 2 to 4 load cells to a measurement electronics and ensuring the monitoring of their proper function.

Control of
- Load cell out of present balance range
- Load cell out of present operating range
- Low / high excitation
- Open circuit to any load cell on each connection
- Short circuit on any load cell connection
- Internal load cell fault (bridge imbalance)

Ensure the positive safety for load limitation systems based on multiple load cells parallel connected (hoisting devices).

Options
- ABS housing available with DIN rail mounting accessories
- PCB available without ABS housing
Applications

The JBox-LCI is perfectly designed to the following applications:
- Load limitation for hoisting equipment based on several load cells.
- Industrial weighing with improved reliability.

Functions

- Easy calibration by keys and 4 digits display.
- Indication of the signal (mV) of each sensor, the average signal an error message (number of sensor and type of error).
- Relay normally energized.
- Protection of parameters by secret code.

Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>JBox-LCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Smart junction box</td>
</tr>
<tr>
<td>Input range</td>
<td>1 to 5 mV/V</td>
</tr>
<tr>
<td>Sensor excitation</td>
<td>10 VCD ± 20 %*</td>
</tr>
<tr>
<td>Display</td>
<td>4 digits</td>
</tr>
<tr>
<td>Linearity error</td>
<td>&lt;±0.0015 % F.S.</td>
</tr>
<tr>
<td>Temperature coefficient of the sensitivity</td>
<td>&lt; ± 0.005 % F.S./10 °C</td>
</tr>
<tr>
<td>Temperature coefficient of zero signal</td>
<td>&lt; ± 0.005 % F.S./10 °C</td>
</tr>
<tr>
<td>IP rating</td>
<td>IP65</td>
</tr>
<tr>
<td>Qty of relay</td>
<td>1</td>
</tr>
<tr>
<td>Relay type</td>
<td>SPCO relay</td>
</tr>
</tbody>
</table>

**Temperature data**

<table>
<thead>
<tr>
<th>Temperature data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service temperature range</td>
<td>-40 to 85 °C (-40 to 185 °F)</td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>-40 to 95 °C (-40 to 203 °F)</td>
</tr>
</tbody>
</table>

**Electrical data**

<table>
<thead>
<tr>
<th>Electrical data</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>8.2 to 10 VDC</td>
</tr>
<tr>
<td>Contact rating</td>
<td>0.5 A / 50 VDC max.</td>
</tr>
</tbody>
</table>

* Provided by measurement electronics / 52 mA (except the consumption of the sensors).

Table 1: (F.S.: full scale)
Dimensions

Smart junction box model JBox-LCI

All specified dimensions are in mm (in.)

![Dimensions Diagram](image)

Figure 1: Dimensions

Terminals

**Load cells**

![Load Cells Terminal Diagram](image)

**Relay**

![Relay Terminal Diagram](image)

Wiring:
- +Exc. (Brown)
- -Exc. (Yellow)
- +Sig. (Green)
- -Sig. (White)
- SCR (Screen cable)

Figure 2: Other view

1 2-part plug-in connectors wire max. 2.5mm²
Notes
Notes