

# QLJ 67.1

Load Cell Junction Box

**SENSOR**  
TECHNIQUES LIMITED



This junction box is designed to connect up to 4 load cells (in parallel) to the instrumentation/load cell amplifier. More than 4 load cells can be connected (if the instrumentation can drive more than 4 load cells) by cascading 2 or more QLJ 67.1 together.

The individual load cell cables are fed through the smaller cable glands (M12). Using the cable saddle clamps and screws provided, the screen of each load cell cables should be clamped and grounded to the PCB just after the cable has passed through the cable gland. The cable screen should be pulled back over the cable outer and the saddle clamp should then clamp down onto the screen/outer.

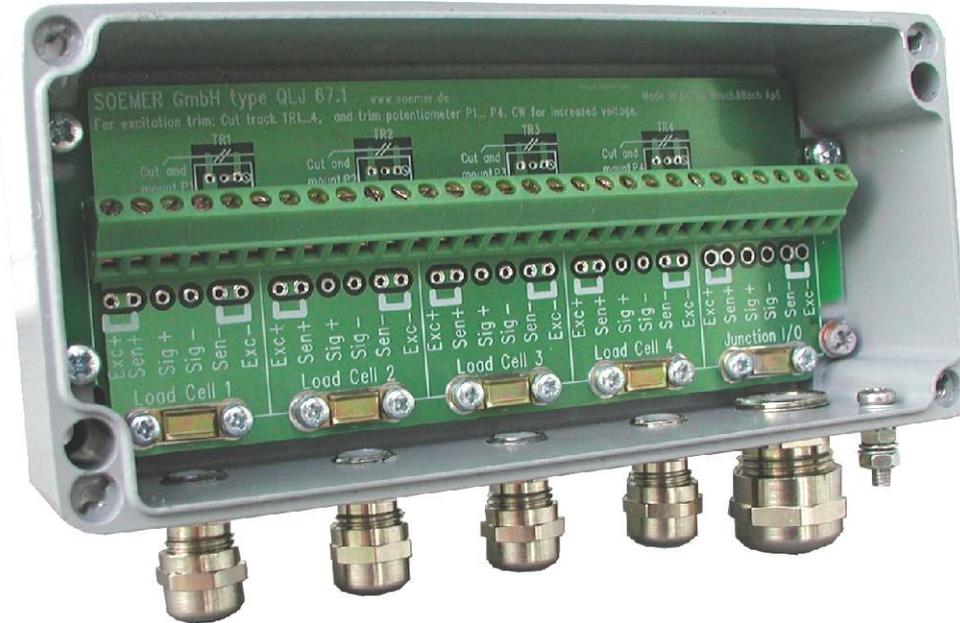
Each load cell wire can either be soldered directly to the appropriate solder pad on the PCB or it can be clamped in the corresponding terminal. This should be repeated for each load cell in turn. There is provision on the PCB for either 4 or 6 wire load cells. With 4 wire load cells simply connect the +Exc wire to the Exc + terminal or solder pad. Similarly for the -Exc wire connect to the Exc - terminal or solder pad. The Sense wire connections are automatically shorted to the appropriate excitation terminal/solder pad on the PCB so no links are required.

The cable to the instrumentation should be fed through the large cable gland (M20). If the diameter of the instrumentation cable is too small, the clear 10 mm diameter tube provided can be slipped over allowing the cable gland to grip the cable when tightened up.

If any cable glands are not used, the red blanking inserts can be used to seal the enclosure. Simply unscrew the cable gland outer cap nut and push the red blanking insert into the cable gland bore. Replace the outer cap nut and tighten to seal the entry.

If you need to cascade 2 or more QLJs, simply link the instrumentation output of junction box 1 to the load cell 1 input of junction box 2. A further 3 load cells can then be added to junction box 2.

# QLJ 67.1 FASTENINGS KIT CONTENTS



 <b>3 off</b>	<p>Blanking insert for M12 Glands. Any unused M12 glands can be blanked off and sealed using these caps. Simply unscrew the cable gland outer cap nut and push the red blanking insert into the cable gland bore. Replace the outer cap nut and tighten to seal the entry.</p>
 <b>Tube (1 off)</b>	<p>28 mm long clear tube 10 mm diameter. Allows smaller diameter cables to be used in the M20 output gland. Simply slip over smaller diameter cable and push into the M20 gland. The larger diameter created by the tube allow the cable gland to grip the cable when tightened up</p>
 <b>5 off</b>	<p>Cable saddle clamps. Used to clamp and ground the cable screen to the PCB just after the cable has passed through the cable gland. The cable screen should be pulled back over the cable outer and the saddle clamp should then clamp down onto the screen/outer.</p>
 <b>M3 x 10 (10 off)</b>	<p>Cable saddle clamp screws. Used with cable saddle clamps above.</p>
 <b>M4 x 20 (4 off)</b>	<p>Junction box lid retaining screws</p>