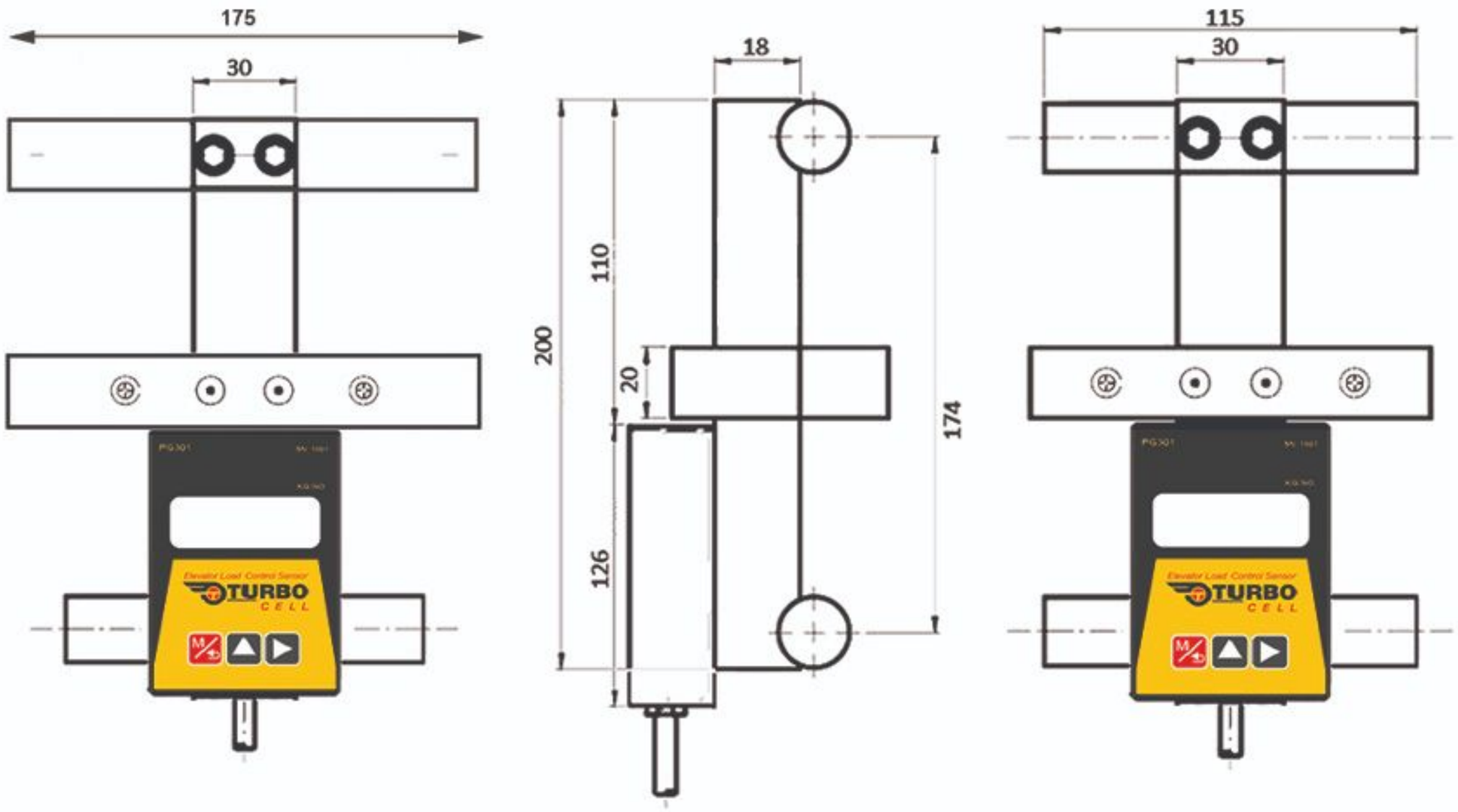
Elevator Load Control Sensor

TURBO CELL

Installation Manual

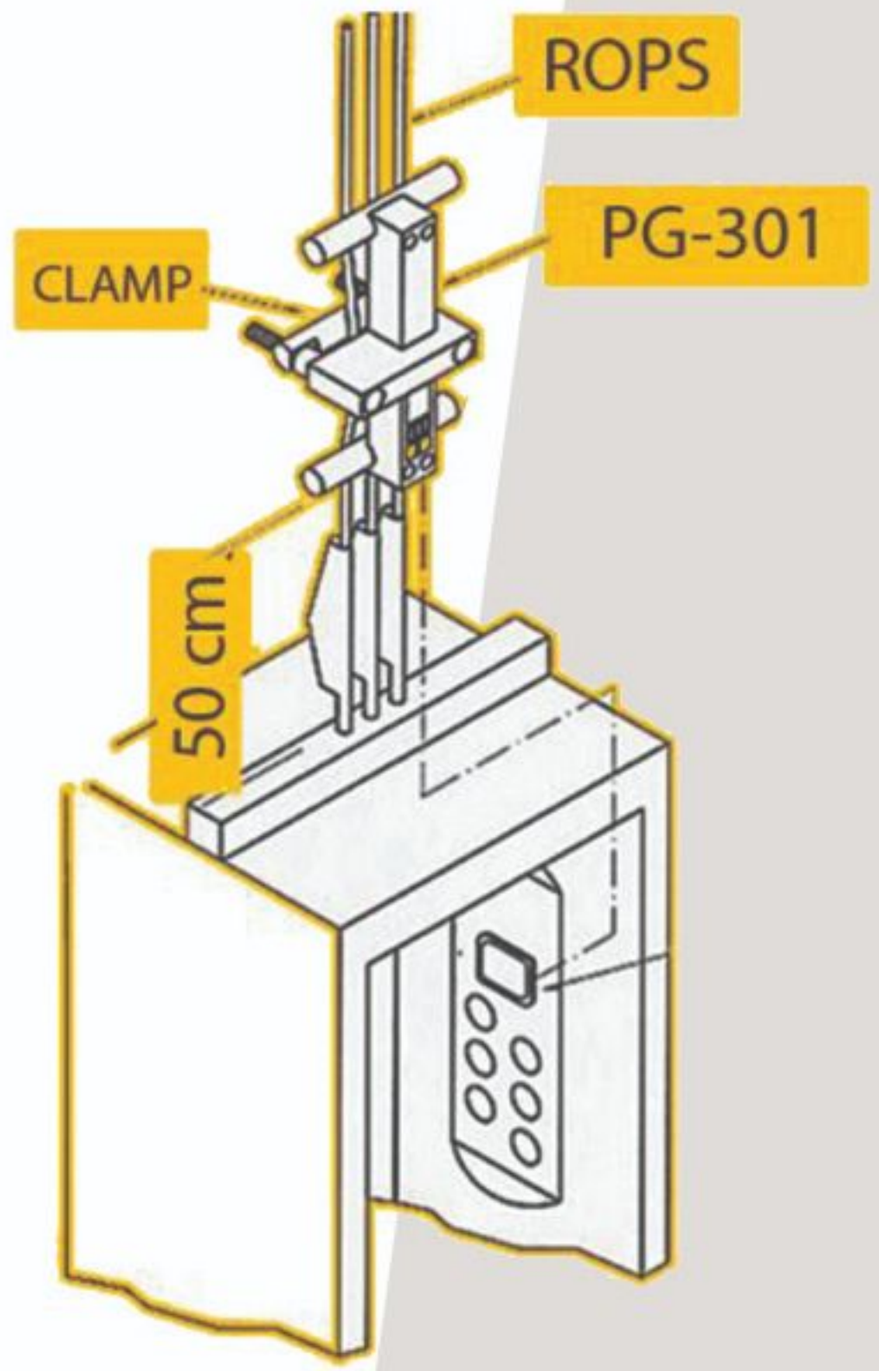
PG301/PG311



Specifications - Loadcell Sensors	
Nominal Weight	2 Ton(for 1:1) 4Ton(for2:1)
Maximum Load Capacity	3000 kg
Sensor Excitation Voltage	≥ 10 V
Output Type	4-wire load cell
Sensitivity	2 ± 0.1% mV/V
Accuracy	±0.1% FS
Operating Temperature	-20°C to +60°C
Body Material	Chrome-Nickel coated steel

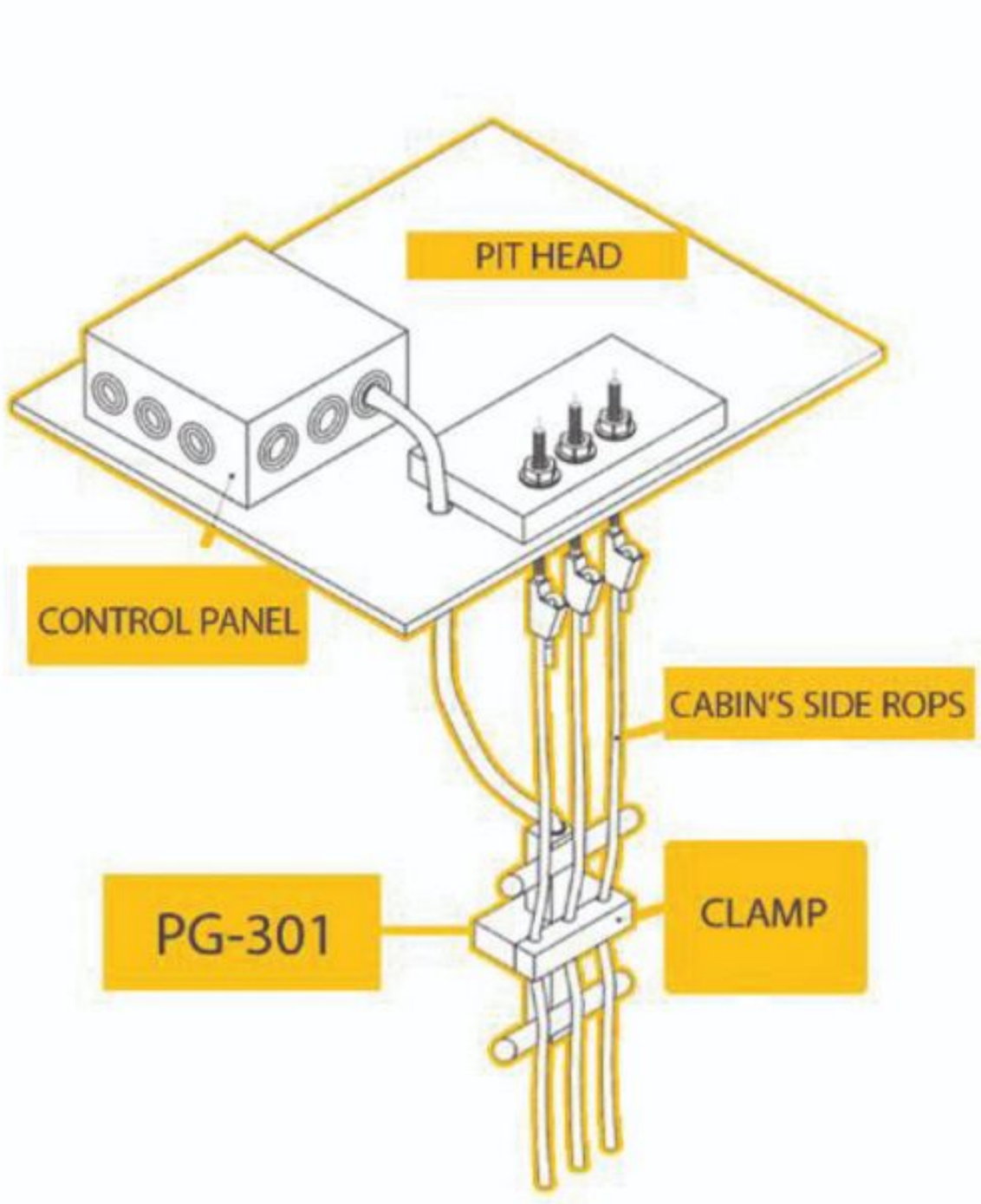
Specifications - Controller	
Protection Class	IP64
Input Voltage	18-30 VDC (24V standard)
Max Current Consumption	Less than 300 mA
Cable Length	2m

Step 1: Mechanical Installation



For 1:1 Systems:

Mount the overload device on the ropes above the shackles, ensuring at least **50 cm distance** from the rope ends.



For 2:1 Systems:

Mount the device under the concrete slab, on the ropes on the cabin side, maintaining the **50 cm distance** from the rope ends.

Step 2: Electrical Connections

1. Connect the device's power supply as shown in the wiring diagram:
    - **Red:** +24V
    - **Black**: 0V (Ground)
2. Connect the output wires:
    - **Blue**: Overload signal
    - **Green**: Full Load signal
    - **Yellow:** Common (COM) for relay outputs.

Step 3: Calibration

1. **Zero Calibration**:

   - Empty the elevator cabin completely, ensuring no load is present.

   - Hold the **M key** for 3 seconds until the **ZERO** menu appears.

   - Press the **Right key** once to initiate zeroing. The device will display **LOAD** after completion.

2. **Load Calibration**:

   - Press the **M key** once. The device will display four zeros.

   - Place a known weight (e.g., cement bags or people) in the cabin.

   - Use the **Up** and **Right keys** to input the exact weight value.

   - After entering the value, press the **M key** once to confirm. The **AL2** menu will appear.

3. **Full Load Configuration:**

   - From the **AL 2** menu, input the **Full Load** value based on the cabin's specifications.

   - Use the **Up** and **Right keys** to input the exact weight value.

   - After entering the value, press the **M key** once to confirm. The **OVL** menu will appear.

4. Cabin Capacity

- In the **OVL** menu, press the **M key** and input the cabin's over load capacity.
- Use the **Up** and **Right keys** to input the exact weight value.
- Press **M key** again to save the value. The system will return to the **STAT** menu.

5. Relay Status Adjustment

- To change the relay status from **Normally Open (NO)** to **Normally Closed (NC)**, access the **STAT** menu and toggle the settings as required

6. Exit the calibration

Exit the calibration mode by holding the **M key** for 3 seconds. The device will now display the real-time load.

Installation Notes

1. Ensure the elevator system is in good condition (e.g., aligned rails, calibrated shoes) before installation.

2. The device supports rope diameters between **6mm and 13mm** and comes in **6-slot** and **10-slot** models.

3. Tighten the device firmly on the ropes for maximum accuracy.

4. .

5. This device is unsuitable for systems with rear-mounted dual doors.

Testing and Verification

- Verify the accuracy of load readings by testing with known weights.

- Check the output signals to ensure proper integration with the elevator's control system.

For further assistance, refer to the technical support team.

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