

Half-bridge Body Scale Load Cell Sensor 50Kg



Overview:

The interior is a 1000-ohm half-bridge strain gauge, a 50kg load cell with a half-bridge structure.

When measuring, the external force is correctly applied on the outer edge. The strain beam part of the E-shaped sensor (ie, the beam arm with the white glue on the middle of the strain gauge) and the outer edge should form a shearing force in the opposite direction, that is, the middle the strain beam must be able to bend under stress, and there must be no obstruction on the other side of the strain beam.

Inside this sensor is a set of half-bridge strain gauges, which can be used in the following three ways:

1. Use a sensor with external resistance to form a full-bridge measurement. The range is the range of one sensor: 50kg. High requirements on external resistance.
2. Two sensors are used to form a full-bridge measurement, and the range is the sum of the ranges of the two sensors: $50\text{kg} \times 2 = 100\text{kg}$
3. Four sensors are used to form a full-bridge measurement, and the range is the sum of the ranges of the four sensors: $50\text{kg} \times 4 = 200\text{kg}$

Specifications:

- Capacity: 50Kg
- Output Sensitivity: $1 \pm 0.1 \text{ mv/v}$
- Nonlinearity: 0.03 %FS
- Repeatability: 0.03 %FS
- Input Resistance: 1000Ω
- Insulation Resistance: 5000Ω
- Cable Length: 35cm
- Size: 34mm x 34mm x 8mm
- Weight: 145g