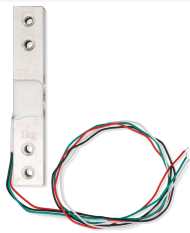


PRODUCT DATASHEET · VARIANT OF 555026



# High-Precision Load Cell Module

## 10kg

555081

The High-Precision Load Cell Module accurately measures weight with a Wheatstone bridge circuit, ideal for digital scales.

Full product documentation, files and tutorials: [solde.red/555081](https://solde.red/555081)

## CORE ATTRIBUTES

SKU 555081

WEIGHT 32 g

## DESCRIPTION

The **High-Precision Load Cell Module** is a compact device designed to accurately measure and weigh the physical load applied to it. At its core, the sensor incorporates a Wheatstone bridge circuit consisting of two fixed and two variable resistors.

When weight is applied, the load cell produces a very small output voltage. Because this voltage is too low to be read directly, it must be amplified using an operational amplifier or an ADC with a built-in op-amp, such as our **HX711 breakout**, before the data can be processed by a microcontroller like our **NULA boards**.

In practical applications like a **digital scale**, the load cell is typically mounted securely inside an enclosure with one end fixed and the other supporting the weighing platform. As a physical weight is placed on the scale, the metal body of the load cell bends slightly, which deforms the internal strain gauges and creates the measurable spike in output voltage.

## TECHNICAL DETAILS

- Max. load: Available in 1kg, 2kg, 5kg, 10kg, and 20kg variants
- Voltage: 5-10V
- Output:  $2 \pm 0.1$  mV/V
- Wiring configuration: Black wire → Input-, Red wire → Input+, White wire → Output-, Green wire → Output+
- Dimensions (1kg variant): 12 × 13 × 75 mm / 0.5" x 0.5" x 3"
- Dimensions (2kg, 5kg, 10kg, and 20kg variants): 12.7 × 12.7 × 80 mm / 0.5" x 0.5" x 3.1"

## GALLERY

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