

MIKROELEKTRONIKA D.O.O, Batajnički drum 23, 11000 Belgrade, Serbia VAT: SR105917343 Registration No. 20490918
Phone: + 381 11 78 57 600 Fax: + 381 11 63 09 644 E-mail: office@mikroe.com

# **Load Cell 2 Click**





PID: MIKROE-4047

**Load cell 2 Click** is a weight measurement click which utilizes a load cell element, in order to precisely measure the weight of an object. The Load Cell 2 Click can be used with the strain gauge type of load cells with external differential reference voltage range from 0.1V to 5V. The strain gauge load cell is typically a circuit made of four strain gauges, connected in the Wheatstone bridge configuration. Very small voltage changes need to be accurately detected and converted into a digital form. The Load Cell 2 Click is based around the NAU7802, which is a 24-bit analog-to-digital converter, operated via a simple I2C command, from Nuvoton. This sensor has many features that make it a perfect solution for small designs, one of these features is certainly its high level of integration that allows a minimal number of external components.

Load Cell 2 Click is supported by a mikroSDK compliant library, which includes functions that simplify software development. This Click board  $^{\text{TM}}$  comes as a fully tested product, ready to be used on a system equipped with the mikroBUS  $^{\text{TM}}$  socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.





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### **Specifications**

Туре	Force
Applications	NAU7802 provides a complete front-end solution for bridge/sensor measurement such as in weigh scales, strain gauges, and many other high resolution, low sample rate applications.
On-board modules	NAU7802 24-Bit Dual-Channel ADC For Bridge Sensors
Key Features	NAU7802 is a precision low-power 24-bit analog-to-digital converter (ADC), with an onboard low-noise programmable gain amplifier (PGA), onboard RC or Crystal oscillator, and a precision 24-bit sigma-delta (Σ-Δ) analog to digital converter (ADC)
Interface	I2C
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V

#### Resources

mikroBUS™ Standard specification

LibStock: mikroSDK

Click board catalog

#### **Downloads**

Load Cell 2 click example on Libstock

Load Cell 2 click 2D and 3D files

NAU7802 datasheet

Load Cell 2 click schematic

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