

Time-saving embedded tools

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Load Cell 4 Click





PID: MIKROE-4458

Load Cell 4 Click is a compact add-on board that contains a resistive sensor signal conditioner with a fast power-up data output response. This board features the ZSC31014, a CMOS integrated circuit for highly accurate amplification and analog-to-digital conversion of differential and half-bridge input signals from Renesas. This Click board[™] is well suited for sensor-specific correction of bridge sensors and adjustable to nearly all piezo-resistive bridge sensors. Digital compensation of signal offset, sensitivity, temperature drift, and non-linearity is accomplished via an internal signal processor running a correction algorithm with calibration coefficients stored in a non-volatile EEPROM. This Click board[™] has many features that make it a perfect solution for safety-critical and weight measurement applications.

Load Cell 4 Click is supported by a <u>mikroSDK</u> compliant library, which includes functions that simplify software development. This <u>Click board</u>TM comes as a fully tested product, ready to be used on a system equipped with the <u>mikroBUS</u>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.



ISO 27001: 2013 certification of informational security management system. ISO 14001: 2015 certification of environmental management system. OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).



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Specifications

Туре	Force
Applications	Can be used for safety-critical and weight measurement applications.
On-board modules	Load Cell 4 Click is based on the ZSC31014, a CMOS integrated circuit for highly accurate amplification and analog-to-digital conversion of differential and half-bridge input signals from Renesas.
Key Features	High accuracy, digital compensation of sensor offset, sensitivity,temperature drift, and non- linearity, eight programmable analog gain settings, internal temperature compensation for sensor correction and for corrected temperature output, and more.
Interface	I2C
ClickID	No
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V or 5V

Resources

<u>mikroBUS</u>™

<u>mikroSDK</u>

Click board[™] Catalog

Click boards™

Downloads

ZSC31014 datasheet

Load Cell 4 click 2D and 3D files

Load Cell 4 click schematic

Load Cell 4 click example on Libstock

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