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

Hall Current 14 Click





PID: MIKROE-5239

Hall Current 14 Click is a compact add-on board that contains a precise solution for AC/DC current sensing. This board features the MCS1801, a fully integrated Hall-effect-based isolated linear current sensor designed for the current range of ± 25 A from Monolithic Power Systems (MPS). The galvanic isolation between the pins of the primary copper conductive path and the sensor leads allows the MCS1801 to replace optoisolators or other isolation devices. Applied current flowing through this copper conduction path generates a magnetic field that the differential Hall sensors convert into a proportional voltage, where after that, the user is given the option to process the output voltage as an analog or digital value. This Click board is ideal for applications requiring a combination of high-current monitoring and high isolation voltage between the primary high-current and low-voltage sides.

Hall Current 14 Click is supported by a $\underline{\mathsf{mikroSDK}}$ compliant library, which includes functions that simplify software development. This $\underline{\mathsf{Click}}$ board $\underline{\mathsf{mikroBUS}}^{\mathsf{mikroBUS}}$ comes as a fully tested product, ready to be used on a system equipped with the $\underline{\mathsf{mikroBUS}}^{\mathsf{mikroBUS}}$ 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.





health and safety management system.



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Specifications

Туре	Current sensor
Applications	Can be used for applications requiring a combination of high-current monitoring and high isolation voltage between the primary high-current and low-voltage sides
On-board modules	MCS1801 - linear Hall-effect current sensor for AC or DC current sensing from Monolithic Power Systems (MPS)
Key Features	Output voltage proportional to AC or DC currents, ratiometric output from supply voltage, high reliability, factory-trimmed for accuracy, possibility of signal processing in analog and digital form, immune to external magnetic fields by differential sensing, and more
Interface	Analog,I2C
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V or 5V

Resources

mikroBUS™

 $\underline{\mathsf{mikroSDK}}$

Click board™ Catalog

Click boards™

Downloads

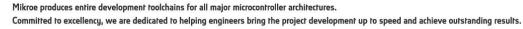
Hall Current 14 click example on Libstock

MCP3221 datasheet

MCS1801 datasheet

Hall Current 14 click 2D and 3D files

Hall Current 14 click schematic







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