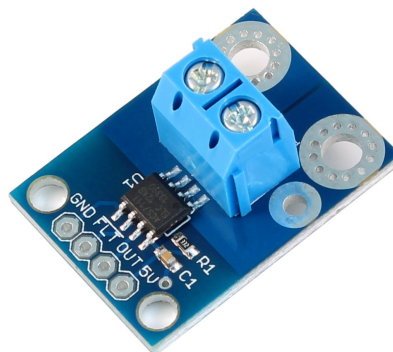


Name: **$\pm 12.5\text{A}$ Linear Current Sensor**
 Code: **MR003-009.1**



This board carries the Allegro's ACS711ELCTR-12B-T hall effect-based linear current sensor, which offers a low-resistance ($\sim 1.2\text{m}\Omega$) current path.

The sensor operates at 3.3V (up to 5V) and its analog voltage output has a sensitivity of 110mV/A centered at 1.65V (if powered at 3.3V) with a typical error of $\pm 1\%$ and a 100kHz bandwidth.

Optimized bidirectional current range is from -12.5A to +12.5A, but its robustness allows survival of the device at up to $5\times$ overcurrent conditions. Top silkscreen shows the direction that is interpreted as positive current flow.

The $\overline{FLT}$ pin trips when measured current reaches $\pm 100\%$ of its full-scale. It is an open-drain pin so it is necessary use an external pull-up resistor. Its value is active low.

CONNECTIONS

OUT	Analog output
GND	Ground
$\overline{FLT}$	Overcurrent Fault
+5V	Supply power (+3.3V to +5V)

Tab.1 – Connections

SPECIFICATIONS

Supply voltage	+3.3V to +5V
Supply current	4mA typ. (5.5mA max.)
Current range	From -12.5A to +12.5A
Internal resistance	1.2m Ω
Sensitivity	110mV/A
Typical output error	$\pm 1\%$
Interface	Analog
Operating temperature	-40 / +85°C
Dimensions	1.1" x 0.8" (27.9 x 20.3 mm)
Weight	0.12 oz (3.5 g)

Tab.2 – Specifications

