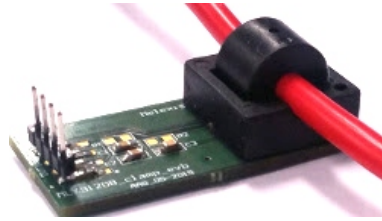


# Contactless Current Sensor Module for non-intrusive “clamp-on” installation



## Description

The clamp-on current sensor is designed for non-intrusive and isolated measurement of electric currents. Thanks to the clamp-on design, the contactless current sensor can be safely installed without the need to interrupt or cut the cable.

The module consists of a PCB including Hall sensor, clamp-on shield and the necessary components to straightforwardly install and operate. Supplied with a DC voltage of 5V, the module provides a linear analog output voltage between 500 mV and 4500 mV as a function of the primary input current.

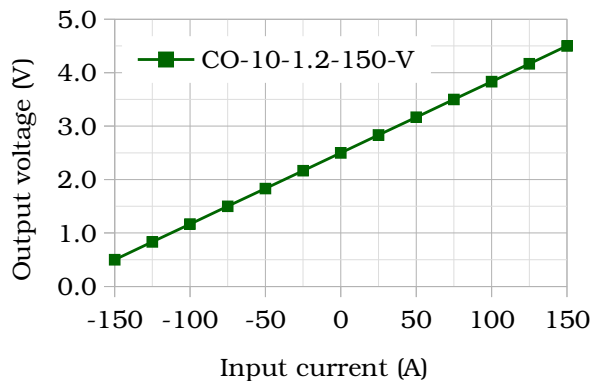
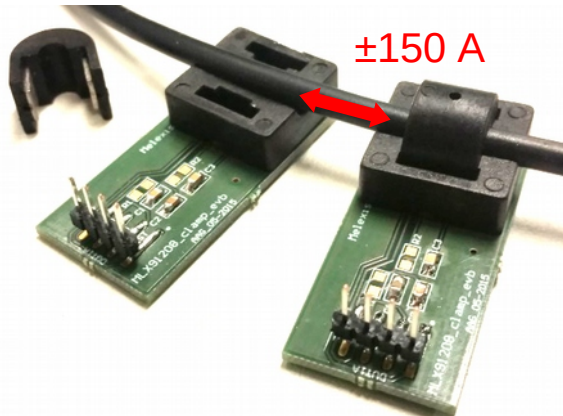
Applications include DC and AC current sensing up to 100 kHz, motor control, battery monitoring, charge control, white goods, and many more.

## Characteristics

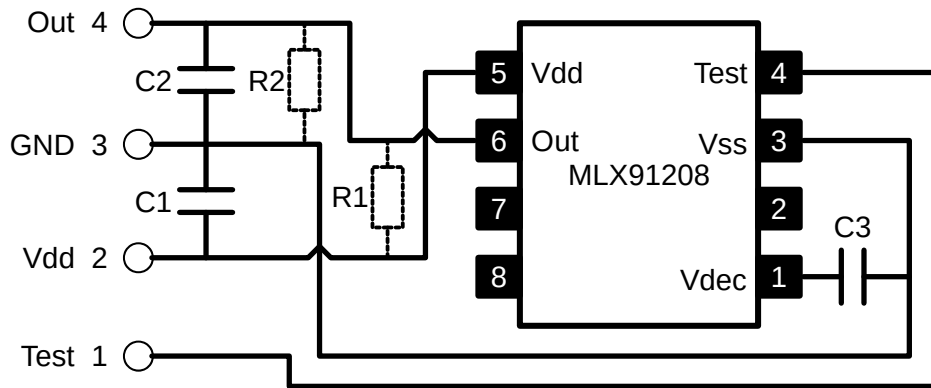
Parameter	Typical Value	Unit
Primary input current	$\pm 150$ <sup>1)</sup>	A
Output voltage	$\pm 2000$ (swing)	mV
	500...4500 (range)	mV
Sensitivity	13 <sup>1)</sup>	mV/A
Operation frequency range	DC...100	kHz
Operation temperature range	-40 ... 85	°C
Supply voltage	5	V
Supply current	10	mA

<sup>1)</sup> other values available on request, e.g.,  $\pm 50$  A (40 mV/A),  $\pm 100$  A (20 mV/A)

## Application Example

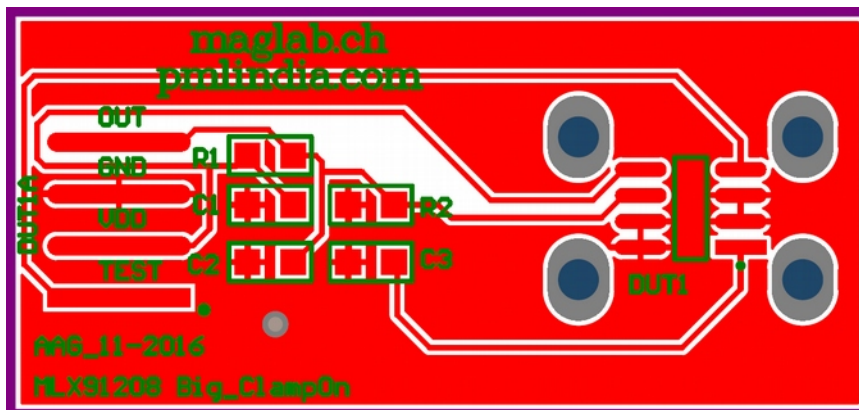


### Electrical Schematic & Pin-Out



Pin	Description	Comment
1	Test	not used
2	Vdd	5V supply voltage
3	GND	0V
4	Out	Hall sensor analog output

### PCB Layout



### Bill of Material

DUT1: MLX91208V (magnetic sensitivity 60 mV/mT)

C1: 100 nF

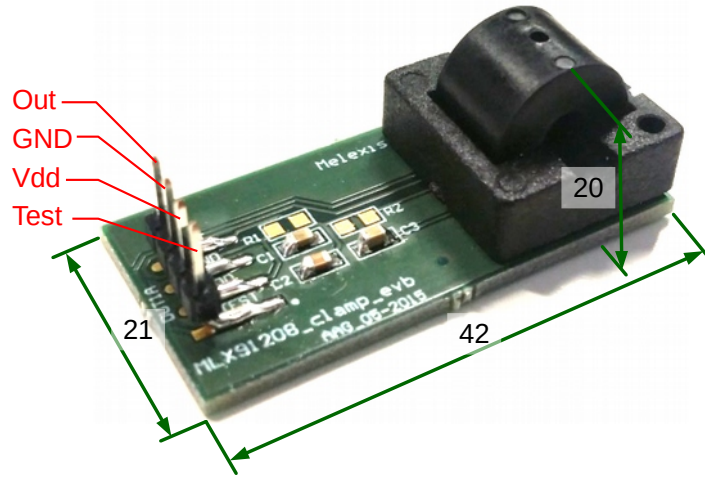
C2: 10 nF

C3: 47 nF

R1 or R2: 6 kOhm ... 100 kOhm (Pull-up or pull-down resistor for diagnostics)\*

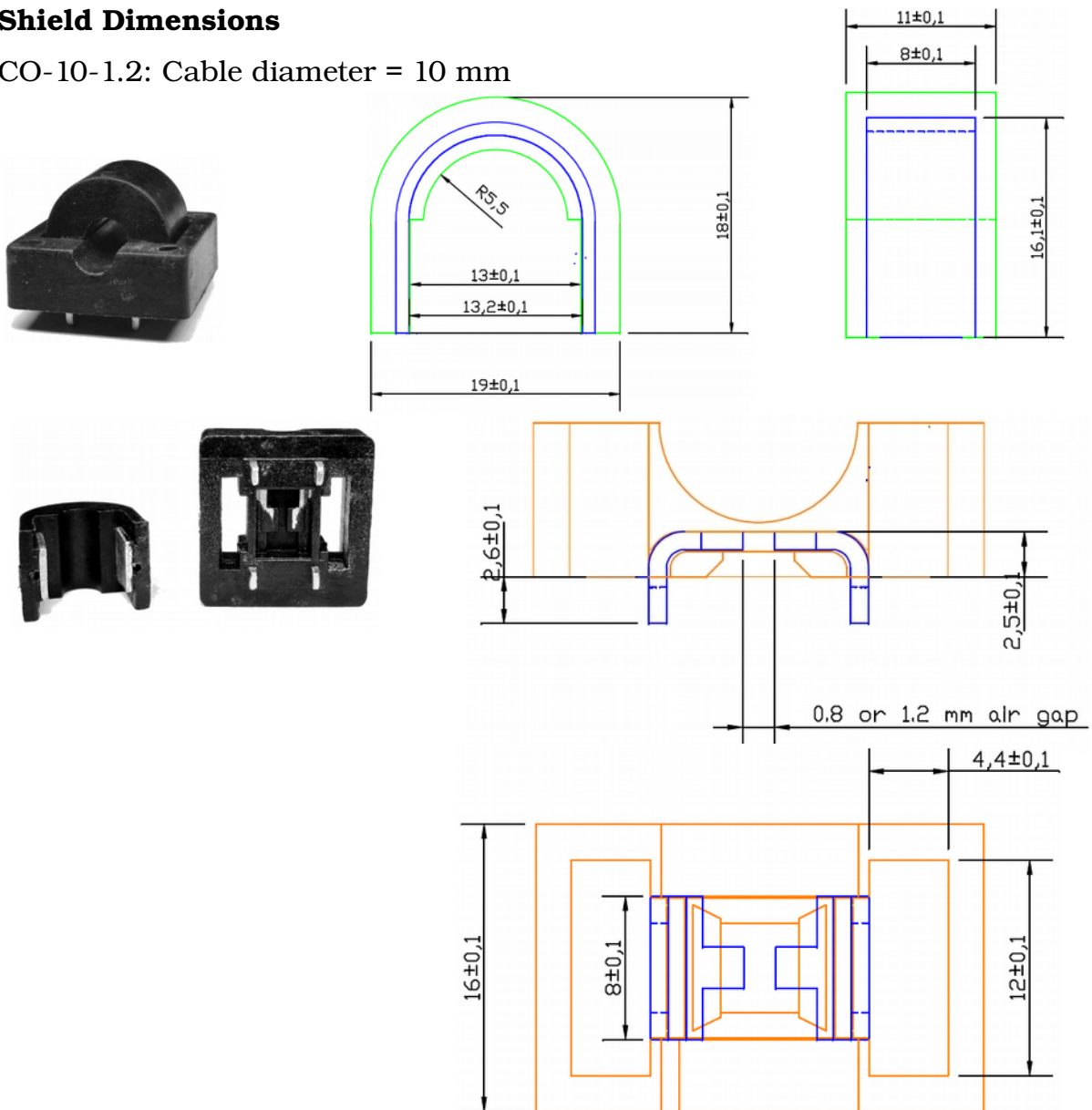
\*For further information, please refer to the MLX91208 datasheet [available online].

### Module Dimensions



### Shield Dimensions

CO-10-1.2: Cable diameter = 10 mm



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