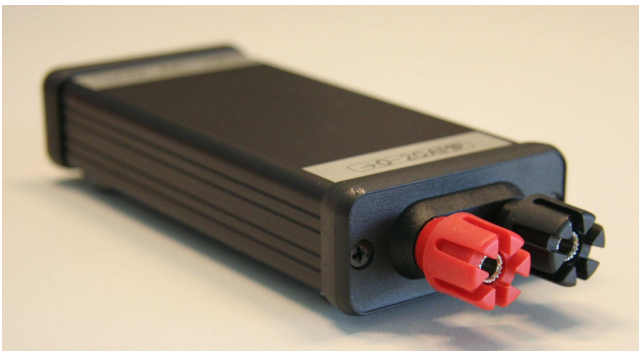


## Low loss Current shunt sensor type Excs02

### Overview

The EXcs02 is a very low resistance current shunt especially for laboratory use. The device is particularly useful for use as a low loss current sensing device for low voltage applications such as MBR cells. For high current applications it has the advantage of very low loss and therefore no or low rise in temperature compared with a traditional shunt resistor current measurement.

The current sensing terminals are galvanic isolated from the rest of the system, enabling a fully floating operation. The output is a voltage signal which can be logged by a data logger or displayed with a multimeter.



*figure: sensing side of the EXcs02*

### Technical specifications

- Robust current terminals
- Current sensing up to 30 Amperes
- less than 1 Milli Ohm total resistance.
- Calibrated output 50 mV/A at 100 Ohm output impedance
- Offset compensated
- Shielded BNC output connector
- 12 VDC operation, max 100mA

### Operation

#### Setting up the device

- Connect current leads to the measurement terminals, for lowest resistance do **not** use banana plugs, but use bare uninsulated wire instead for a lower contact resistance. Using banana plugs may well increase the total resistance from less than milli-ohms to more than 50 milli Ohms.

- The terminals can be opened by turning them anticlockwise until a sideways hole is visible, insert the wire ends into the hole and tighten the clamps by turning with manual force. The device is rated for 30 Amps maximum.

- Connect the wall adapter to the power input. Do preferably not use any other adapter than supplied. If using other power supplies, do not exceed 14 Volts DC and use DC only. The device is reverse polarity protected and middle pin is positive supply.

- Current may be measured in both directions, current entering the red and leaving the black terminal results in a positive output voltage, reversed current direction results in a negative voltage. The signal is available at the output BNC connector. Calibration is set to 50 mV per ampere.

#### Notes

Although the device is rated max. 30 Amps, it is able to measure correctly up to 50 Amperes, malfunction due to measuring outside specifications voids warranty and liability.