

Product Code: CS020B

## Introduction

The **Close Loop type Current Sensor** is an accurate hall-effect current measurement device. The rugged, closed-loop design allows the sensor to be mounted directly on a power cable, which makes the installation easier, improves calibration stability, and eliminates the heat generation issue at high currents.



## Applications

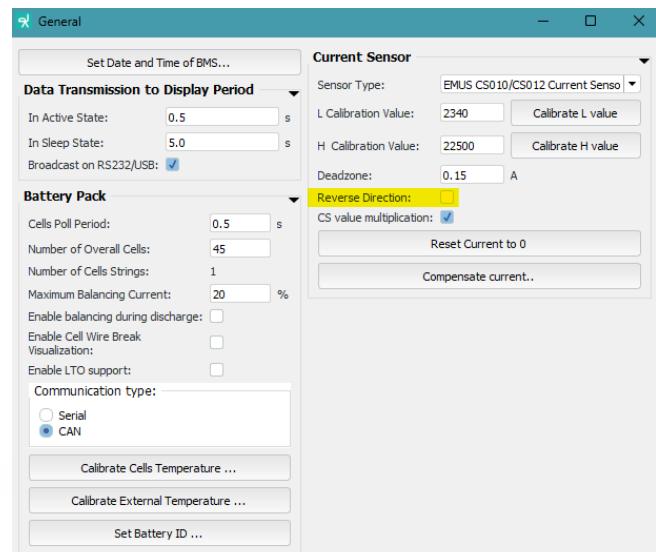
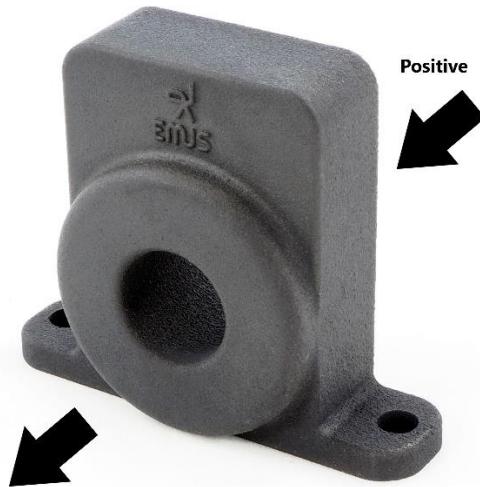
- Specifically designed to be used in EMUS battery management system.
- Under high currents, recalibration maintenance could be needed

## Features

- Two separate measurement channels with different sensitivity, which allows to accurately measure small currents without sacrificing the range of measurable values
- Hall-effect current measurement method which provides the characteristic galvanic isolation between the sensor and the conductive part

## Measurement Direction

The Close Loop Type Current Sensor is intended to measure positive current in the direction detailed in the picture below. It is possible to change the direction parameter using EMUS G1 Control Panel. Charging currents must always be perceived as Positive by the current sensor for correct functioning.



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## Mechanical Information

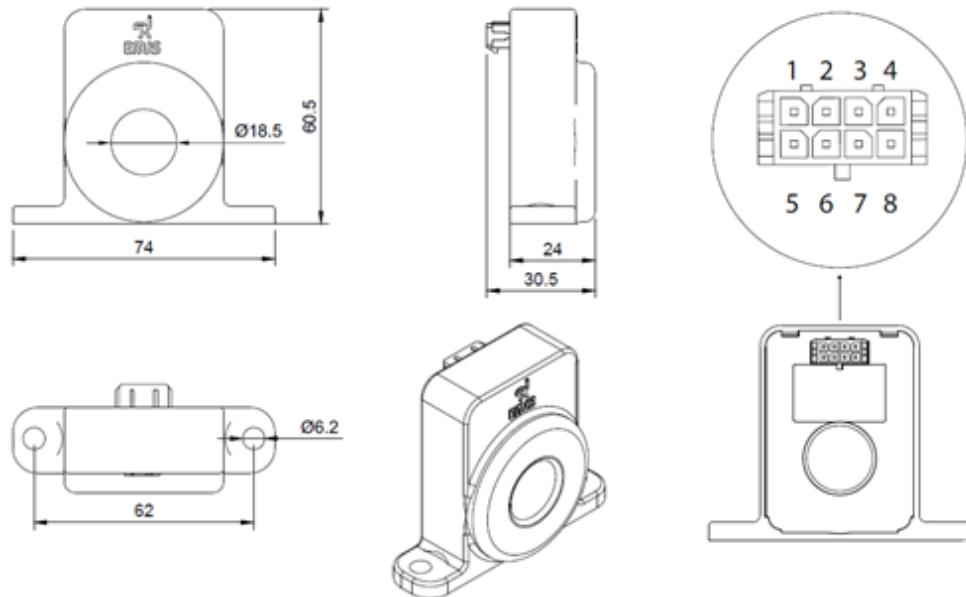


Table 1. CS020B pin assignment

Pin No.	Assignment	Mating Housing	Terminal
1	LOW RANGE	8 Pin Molex Micro-fit Header 43025-0800	43030-0003 (recommended crimp tool Molex Hand Crimp Tool P/N: 638190000)
2	HIGH RANGE		
3	GND		
4	N.C		
5	REFERENCE		
6	N.C		
7	+5V		
8	N.C		

## Electrical Characteristics

Table 2. CS020B electrical specifications

Item	Conditions	Value
Nominal current measuring range	-	±800 A
Peak current measuring range	Short bursts with less than 2% duty	±1200 A
Accuracy	When calibrated, at room temperature	0.5 %
Supply voltage	-	5.0 VDC
Current consumption	At typical supply voltage	19.5 mA
Isolation voltage	-	>1.0 kV
Conductor resistance	-	-



# Current Sensor Close Loop Type

Battery Management Systems

battery made simple

Remote Monitoring ready

Reviewed by I.R.R on 2024-April-16

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## Other Specifications

Table 3. CS020B other specifications

Item	Value
Operating temperature	-40 to +85°C
IP rating	IP54
Weight	84 g (114 g with cable)
Signal cable length	1.0 m

WEB

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