Robotina d.o.o.
OIC Hrpelje 38
SI-6240 Kozina
Slovenia

1. BM-CS

BTMS Cell sensor

Order code:	**BM-CS-12**	for 12 V battery
	BM-CS-02	for 2 V battery
Mounting:	On battery, 3M double sided adhesive tape	
Dimensions:	60 × 95 × 25 mm	

1.1. Highlights & Features

- Real-time cell voltage measurement
- Internal resistance measurement on line
- Negative pole temperature measurement
- Balancing function

1.2. Technical specification

Power supply	BM-SS-02	2 VDC (1.6 .. 2.6 VDC)
	BM-SS-12	12 VDC (7.5 .. 15.6 VDC)
Power loss	BM-SS-02	110 mW
	BM-SS-12	90 mW
Operating temperature	standard	0 .. 45 °C
	max	-10 .. 55 °C
Storage temperature	-40 .. 70°C	
Operating humidity	5 .. 95 % RH, Non condensing	
Dimensions:	width	60 mm
	height	80 mm
	height max	95 mm
	depth	25 mm
Voltage measurements	BM-SS-02	1.6 .. 2.6 VDC
	BM-SS-12	7.5 .. 15.6 VDC
	accuracy	±0.2 %
	resolution	0.001 V

Resistance measurements	range	0.1 .. 50 mΩ
	consistency	±(1.5 % + 25 µΩ)
	repeatability	±(1.0 % + 25 µΩ)
	resolution	0.001 mΩ
Balancing	Current	0.2 A
	Time	1 min

LED indicator

Normal operation	Green LED breathing mode
Alarm	Red LED flashing

Battery SOC is calculated using the default battery characteristic parameters:

Battery voltage level	**2 V**	**12 V**
Float range	-0.02 C* .. +0.02 C*	
Float voltage	2.23 V	13.38 V
Cut-off voltage	1.75 V	10.8 V
Recovery voltage	2.12 V	12.68 V

* C is the battery capacity

1.3. Wiring