

Battery Management Systems

battery made simple

www.emusbms.com

EMUS CAN Filter (CSL022A)

INTRODUCTION

CAN Filter is a device that isolates/separates internal and external CAN buses, therefore minimizing CAN bus utilization (bus load) and establishing Master/Slave functionality. The device has external and internal CAN bus terminals. The internal CAN bus terminal connects to the internal BMS network, which consists of the EMUS G1 Control Unit, CGMs/CCGMs, and possibly other CAN devices. Common CAN bus connects to other CAN Filters, 3rd party CAN devices.



APPLICATIONS

- Master/Slave systems which requires more than one control unit therefore it is necessary to use CAN filters to ensure proper communication.
- Isolate internal CAN traffic from external CAN traffic.
- Energy storages
- Vehicles

FEATURES

- Two separate (internal / external) CAN data interfaces. Enables to communicate with CAN equipped EMUS G1 Control Unit and external devices.
- Supports 50, 125, 250, 500, 800 kbit/s and 1 Mbit/s CAN baud rates (default 250kbit/s).
- Firmware update via CAN interface using EMUS G1 Control Unit and EMUS Control Panel Application.

MECHANICAL INFORMATION







GND CAN L







battery made simple

www.emusbms.com

Table 1 CAN filter wire assignment

Assignment	Mating Housing	Terminal	
PWR	2x microfit 43025-0600		
GND		43030-0003 (recommended crimp tool Molex Hand Crimp Tool P/N: 638190000)	
CAN_H			
CAN_L			

ELECTRICAL CHARACTERISTICS

Table 2 CAN filter electrical characteristics

Item	Conditions	Value
Supply voltage		9.0 VDC to 64.0 VDC
Power supply reverse protection		Yes
	In active mode, supply voltage = 12VDC	24.6 mA
Current consumption	In active mode, supply voltage = 24VDC	13.0 mA
Isolation voltage		450V
CAN Speed		50kbps, 125kbps, 250kbps, 500kbps, 800kbps, 1Mbps
Transient/overvoltage protection between CAN H/CAN L and GND (and vice versa)		-24 to 24 V

OTHER SPECIFICATIONS

Table 3 CAN filter other specifications

ltem	Conditions	Value
Operating temperature		-40 to +85 °C
IP rating		IP53
Weight		15 g