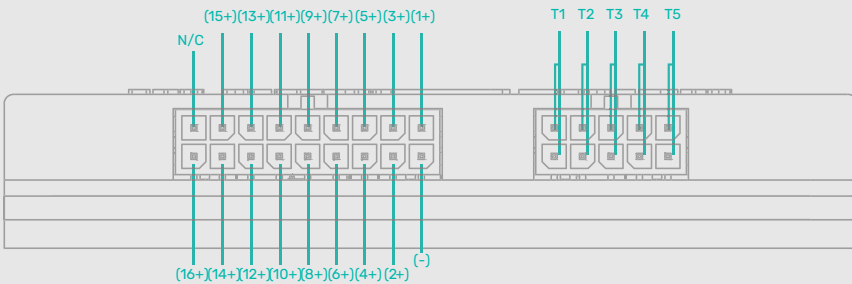
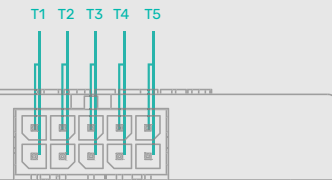


Cells Layout:

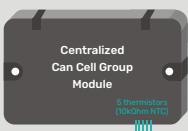


Ext. Temperature Sensors Layout:



- (A)** CNT01 - 120 Ohm CAN Terminator
- (B)** CNC03 - 3Way Connector/CCGM Connection cable (30cm, 100cm, xx cm by request)
- (C)** CNC04 - G1 CAN Connection cable (100cm, xx cm by request)
- (D)** C3WC01A - 3 Way CAN Connector

1 Centralized Cell Group Module (CCGM)



EMUS Centralized Cell Group Module (CCGM) is a battery cells communication adapter (or "Slave unit") equipped with two CAN connectors for easy BMS system assembly and integrated proprietary EMUS software allows data transfer within 100ms frequency. It also have 5 external temperature sensors to monitor ambient temperature. Each CCGM is capable to manage from 6 up to 16 lithium cells and total 32 CCGM units can be connected in series, parallel or mixed topology. Meaning with one Control Unit client is capable to monitor up to 512 cells battery pack.

2 Current Sensor



EMUS support three types of current sensors: busbar dual range, closed loop hall effect and third party "Isabellenhütte" IVT series current sensors.

3 Control Unit



EMUS G1 Control Unit (or simply Control Unit) is the main controller that autonomously executes all core and utility functions of battery management. It connects to user's PC via USB port and allows to make BMS system configuration via EMUS Control Panel.

EMUS G1 Control Unit is also equipped with a non isolated CAN interface. This interface is multipurpose and enables the Control Unit to:

- Communicate with other CAN equipped EMUS G1 BMS components
- Control certain third-party charging devices
- Transmit BMS activity data (either periodically or by request)
- Receive new configuration parameter values and other special messages