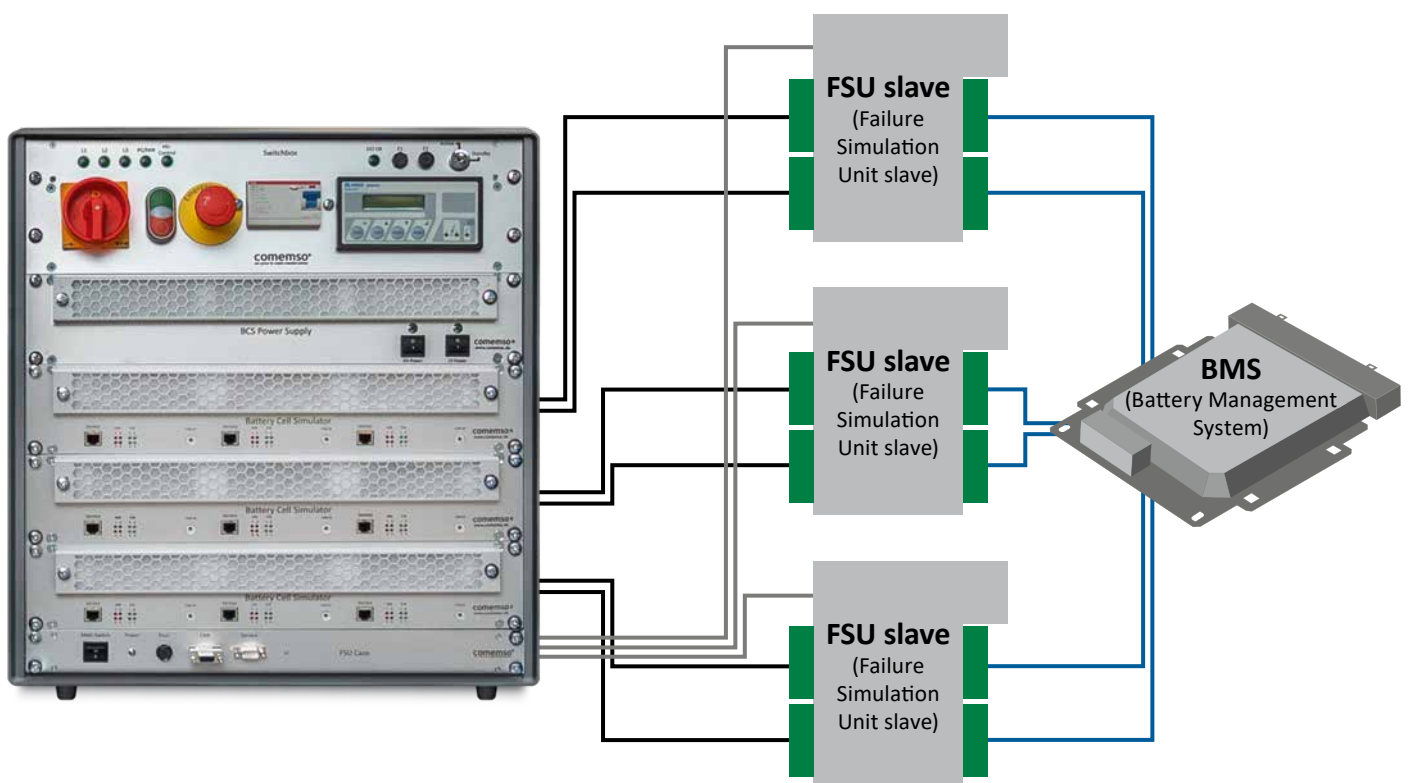


FAILURE SIMULATION UNIT (FSU)



FOR SIMULATION OF WIRING FAILURES.

To complete the failure simulation of the Battery Cell Simulator, an additional FSU is used to simulate the breaking of measurement wires between BMS and the cells.



Technical data

Communication: CAN-Bus 500kBd / 1 MBd

Temperature range: Lab conditions

Connector: 115V / 230V

Cascading of 12 emulated cells to a stack (per slave)

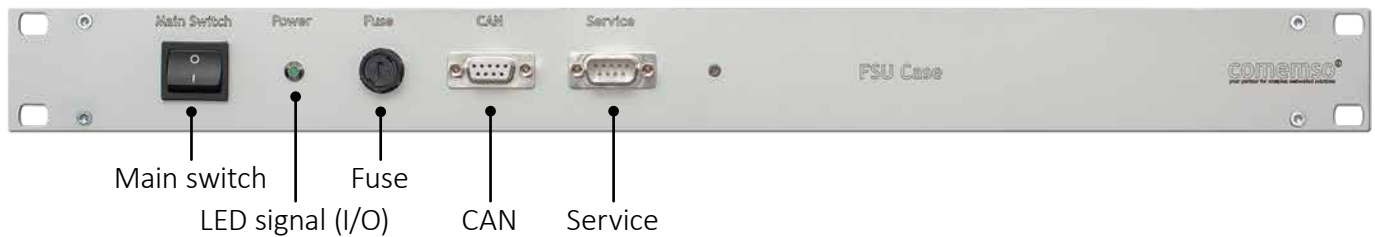
Up to 10 slaves per master (via ethernet cable)

Cable break of measurement line

Different settings for each measurement line

Close-up view.

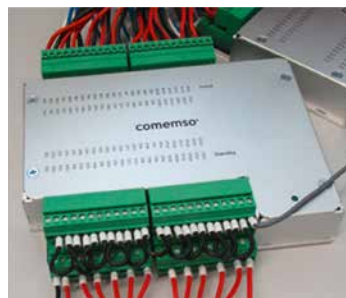
FSU master front



FSU master rear



FSU slave for 12 cells

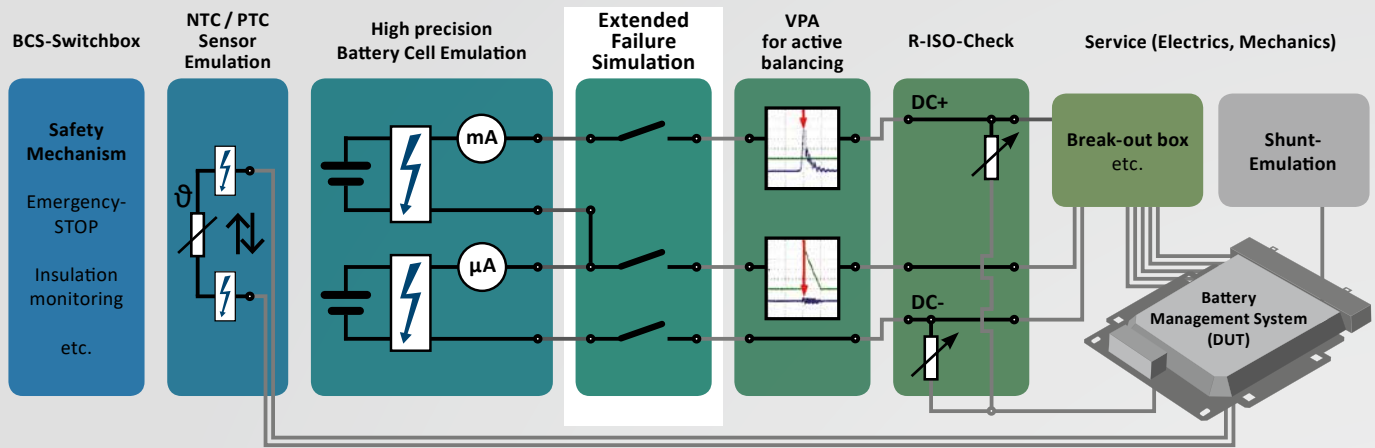


Up to 10 units for
120 cells possible.

The comemso Failure Simulation Unit (FSU) is used to extend the failure simulation of the Battery Cell Simulation (BCS). The following test cases of the Battery Management System are possible:

Test case failure simulation	Sketch	Realisation
<p>Cable break of voltage measurement cable.</p> <p>Cause: Mechanical stress.</p>	<p>The sketch shows a circuit with three battery symbols connected to a 'Cell Controller / Monitor' block. One of the voltage measurement lines is shown with a break, indicated by a red circle.</p>	<p>The diagram shows the connection between the BCS (Battery Cell Simulation) and the FSU (Failure Simulation Unit) to the Cell Controller / Monitor. The FSU is shown as a green block with multiple relays. One relay is highlighted with a red circle, indicating it is open.</p> <p>Setting BCS: Set cell 'n' to LOAD_ONLY mode FSU: Open relay 'n' BCS: Set cell 'n' back to NORMAL mode</p>

Furthermore a ripple filter is added to the voltage and sense lines of BCS.



Extended fault insertion for your Battery Cell Simulator.



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