

Accessories

Battery Cell Simulator NEW for Battery Measuring Module Series 2511

MODEL **2500-Z100**

Preliminary data sheet





Highlights

- Resistance simulation: 1 ... 300 mΩ
- Voltage simulation: 2.5 ... 4.5 V DC
- Accuracy: from 0.05 % of reading
- Compact housing for wall mounting or DIN rail installation
- Suitable for many common cell formats
- Optionally with custom resistance and voltage values

Options

- Wall mounting
- Top hat rail mounting

Product description

The Battery Cell Simulator serves to test Battery Measuring Modules in the 2511 series, which are used in battery module assembly applications (incoming goods inspection, BoL, EoL). The Battery Cell Simulator is able to emulate battery cells of different technologies with resistance and open circuit voltage simulation. The resistance simulation replicates the purely ohmic resistance of a cell. The Battery Cell Simulator runs on 24 V DC. The LED on the front indicates the different operating states. Resistance and voltage values can be defined from standard values or from a custom set of values.

| Resistance simulation | |
|------------------------------|---|
| Resistance range | 1 mΩ 300 mΩ |
| Standard values | 1 m Ω , 3 m Ω , 5 m Ω , 10 m Ω , 15 m Ω , 30 m Ω , 50 m Ω , 100 m Ω , 150 m Ω , 300 m Ω |
| Accuracy | from ±0.2 % |
| Max. simulation test current | ±0.8 A |
| Special values | on request |
| Voltage simulation | |
| Voltage range | 2.5 V DC 4.5 V DC |
| Standard values | 3.7 V, 3.9 V, 4.1 V |
| Accuracy | ≤ 0.05 % |
| Options | |
| 2500-Z100 | Please specify a desired standard resistance value and voltage value |
| 2500-Z100-S | Please specify a desired custom resistance value and voltage value in the range: Resistance: 1 m Ω 300 m Ω Voltage: 2.5 V DC 4.5 V DC |
| Housing | |
| Material | Aluminum |
| Dimensions (WxHxD) | 104 x 54.6 x 120 mm |
| Weight | Approx. 500 g |
| Protection class | IP54 |
| Connections | Power supply, signal output |
| General data | |
| Supply voltage | 11 30 V DC Galvanic isolation, inverse polarity protection, overvoltage protection |
| Power consumption | Approx. 3 W |
| Operating temperature range | 0 °C +50 °C |
| Storage temperature range | -10 °C +70 °C |
| Humidity | 0 70 % non-condensing |
| Installation | 4 rubberized feet (fitted as standard) Wall mounting (accessory) Mounting rail installation (accessory) (Mounting rail in accordance with DIN EN 50022) |

Example application

The 2511 Battery Measuring Module is used for 100 % testing of the internal resistance (AC/DC) and OCV of 21700 format round cells during the battery module assembly process.

The battery cells in the production line are connected from one side. To carry out spot checks on the measuring system, a Battery Cell Simulator with a cell-specific connection adapter is substituted in place of the round cells and measured. A connecting cable is used to correctly assign the connections to the Battery Cell Simulator.

Accessories

| Order code | |
|------------|--|
| 9900-K252 | Measuring cable 2.0 m cable length, 4-pin M8 socket, one end with free wire end ferrules |
| 2511-Z001 | Mounting kit for wall mounting |
| 2511-Z002 | Mounting kit for mounting rail installation |