

SENSOR BOARD FOR BATTERY MODULES

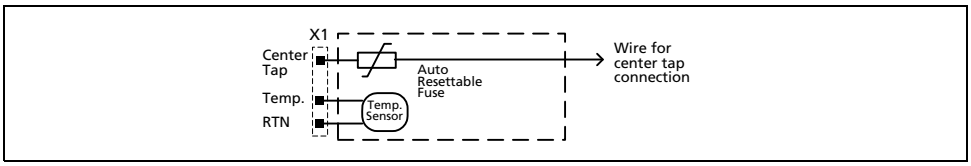
- Suitable for most of the PULS DC-UPS Control Units
- Includes a PT1000 Temperature Sensor
- Includes an Auto-Resettable Fuse for the Center-Tap Connection

1. PRODUCT DESCRIPTION

This sensor board contains a PT1000 temperature sensor and an auto-resettable fuse, which is suitable for charging currents up to 3.5A. The fuse protects the center-tap wire between the battery module and the DC-UPS control unit. The UZS24.100 is compatible with most of the PULS DC-UPS control units and enables all the benefits of the PULS 1-Battery-Concept. This makes the use of matched replacement batteries unnecessary and allows a precise battery charging and testing which results in the longest possible battery life.

2. FUNCTIONAL DIAGRAM

Fig. 2-1 **Functional diagram**



ORDER NUMBER

UZS24.100 Sensor board comprising a PT1000 temperature sensor and an auto-resettable center-tap fuse

3. INSTALLATION AND WIRING

The sensor board shall be installed close to the batteries in order for a precise temperature measurement of the batteries.

A Temperature Sensor
Connect pin 11 (Temp.) and pin 12 (RTN) to the corresponding pins on the DC-UPS control unit.
The temperature sensor is a PT1000 sensor with SMD technology, which is placed close to the terminal block.

B Center-tap
Connect pin 13 (Center-Tap) to the corresponding pin on the DC-UPS control unit. Connecting the center-tap wire to the DC-UPS control unit enables all the benefits of the PULS 1-Battery-Concept. This makes the use of matched replacement batteries unnecessary and allows a precise battery charging and testing which results in the longest possible battery life. Using the center tap connection is optional. Without this connection, the DC-UPS will function like a traditional UPS system without the above mentioned benefits.

C Battery wire
Connect the blue wire (AWG18, length 0.5m) to the interconnection between the two batteries. Shorten the wire to the required length. Between pin 13 (center-tap) and this wire is an auto-resettable fuse included in order to protect the wire between the sensor board and the DC-UPS control unit. The maximal allowed charging current is 3.5A.

Fig. 3-1 **Wiring**

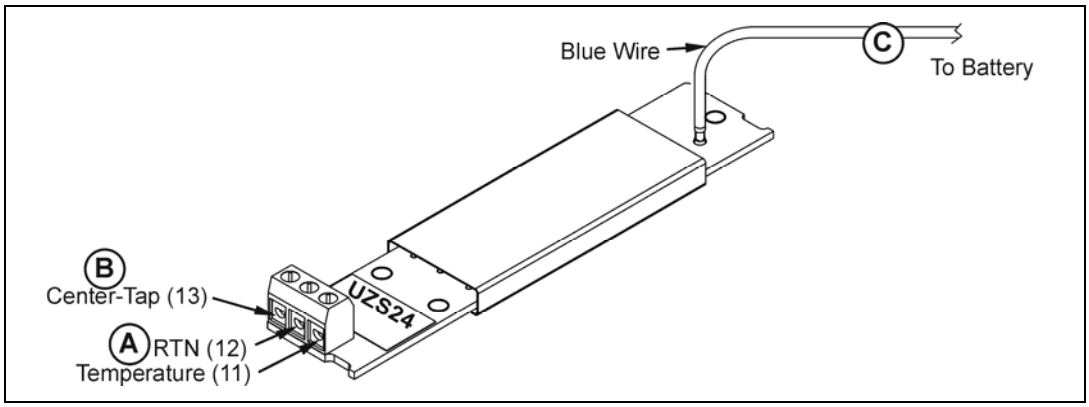
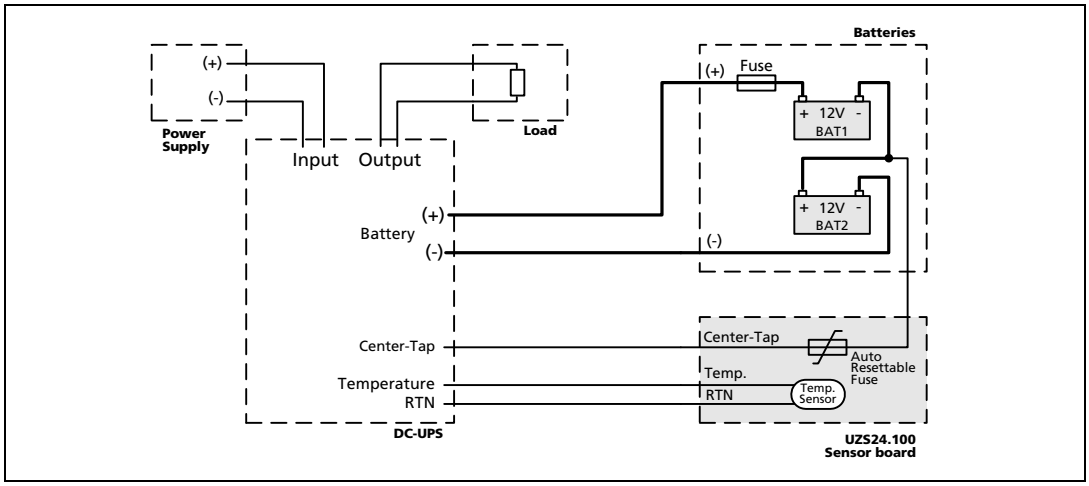


Fig. 3-2 **Typical wiring scheme**



4. TERMINALS

The screw terminals are IP20 Finger safe constructed and suitable for field and factory wiring.

Solid wire	0.5-1.5mm²
Stranded wire	0.5-1.5mm²
American Wire Gauge	AWG 20-12
Max. wire diameter	1.5mm (including ferrules)
Wire stripping length	6mm / 0.25inch
Screwdriver	3 x 0.5mm slotted
Recommended tightening torque	0.5Nm / 4lb-in

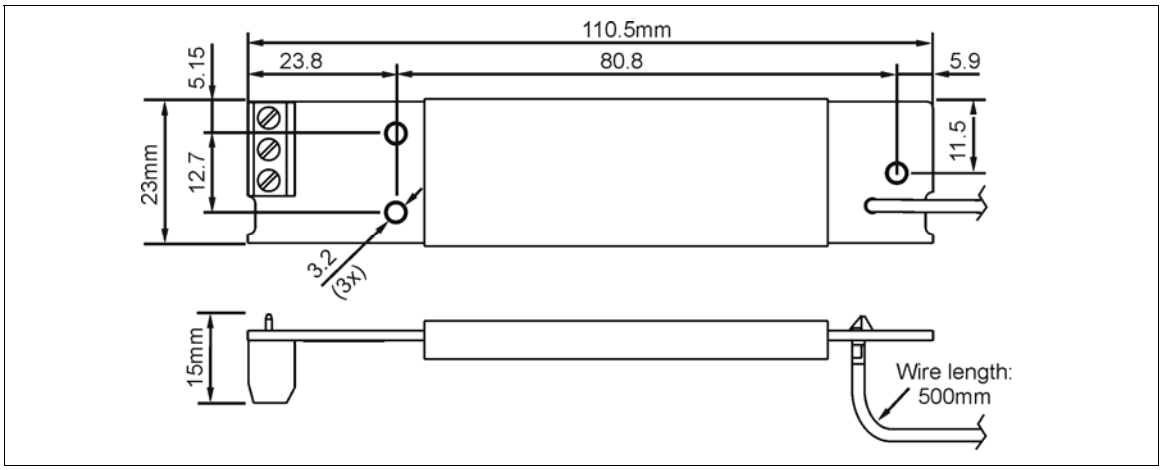
5. APPROVALS

EC Declaration of Conformity	CE	The CE mark indicates conformance with the - Low-voltage directive (LVD) 2006/95/EC and - RoHS directive 2011/65/EU.

6. PHYSICAL DIMENSIONS AND WEIGHT

Dimensions	110.5 x 23 x 15mm
Wire length	500mm
Weight	30g / 0.07lb

Fig. 6-1 **Physical Dimensions**



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