

VRT Sensor – TA module

Internal Resistance, Voltage and Temperature Measurements

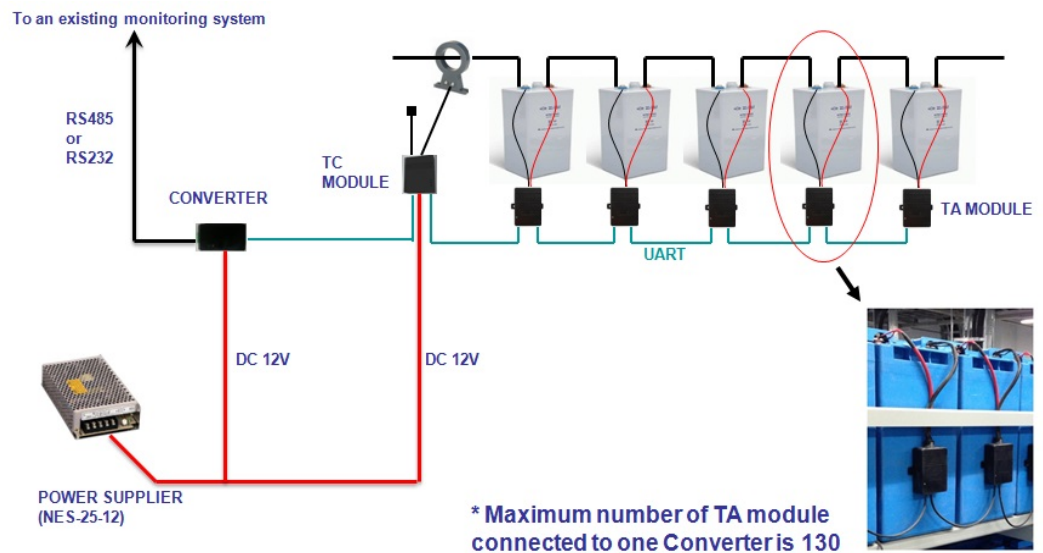


- Continuous 24/7 on-line monitoring
- One TA Module monitors one cell, including internal resistance, voltage and temperature
- Serial port with Optical isolation, meet MODBUS protocol, easy to be accessed by an existing monitoring system
- Easy to install without specialized training



Overview

The TA Module is designed specifically as a sensor integrated into an existing monitoring system. It monitors voltage, internal resistance and temperature for one battery, uploading the data via its serial port with optical isolation as well. The module can be pasted on the monitored battery's case directly or mounted an additional rail.



The TA module only with a UART port, the Converter is required to transfer it to a RS485 or RS232 bus to access to an existing monitoring system. TC module is optional for monitoring string current and ambient temperature.

Features

- Full resistance, battery temperature and voltage monitoring for comprehensive battery state of health analysis
- String current and ambient temperature monitoring (need TC module)
- All operating parameters can be set over through serial bus
- Supports MODBUS protocol with a RS485 or RS232 port (need Converter)
- Debug software is available

Specifications

Environmental

Operating temperature: $-5^{\circ}\text{C} \sim 50^{\circ}\text{C}$, $5\% \sim 90\% \text{RH}$

Storage temperature: $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$, $5\% \sim 90\% \text{RH}$

Used for

2V, 6V or 12V battery, capacity less than 2000AH

Power Requirements

TA Module : powered from the monitored battery , less than 60mA(2V) or 25mA(12V)

TC module : DC8 ~ 13V, 2W

Converter: DC8 ~ 13V, 0.3W

Protection

Test load and power paths are fused

Measurement Range & Accuracy

Cell voltage : $1.5 \sim 2.5\text{V}$, $\pm(0.1\%+1\text{mV})$

$9 \sim 15\text{V}$, $\pm(0.1\%+10\text{mV})$

Internal resistance : $100 \sim 65535\mu\Omega$

Battery temperature : $5^{\circ}\text{C} \sim 50^{\circ}\text{C}$, $\pm 1.5^{\circ}\text{C}$

Ambient temperature: $-10^{\circ}\text{C} \sim +70^{\circ}\text{C}$, $\pm 0.5^{\circ}\text{C}$

String current : $0 \sim 500\text{A}$,

$\pm 2\%$ (Full scale)

Communications Interfaces

TA Module : UART port, meet MODBUS protocol

TC module : UART port, meet MODBUS protocol

Converter: RS485 or RS232, meet MODBUS protocol, one Converter can drives up to 130 modules

Insulation

2000VAC

Installation

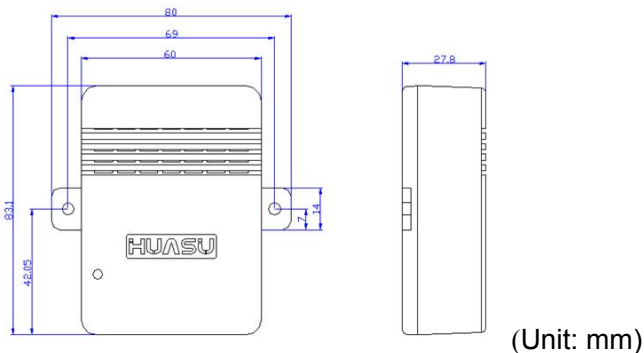
Paste on battery or rail mounting

Weight

CELLCHECK: 115g TC module: 260g

Converter: 40g

Dimensions



Applications

- UPS
- Telecommunications
- Battery supplied applications
- Utilities
- Fire & Safety system
- Remote monitoring

Options

1. TC Module
Monitors string current and ambient temperature.
2. Power Supplier
Outputs 12V DC for Converter and TC Module



Hangzhou Huasu Jada Technology Co., Ltd

No.16, Xiyuan Wu Road, Xihu Tech-economy Zone, Hangzhou, China PC: 310030

TEL: 0086-571-87963591 87967915 FAX: 0086-571-87968969

http: //www.huasucn.com sales@huasucn.com