control solutions
TERACOM

TSV200-60i

1-Wire voltage sensor

Short description

TSV200-60i is a voltage sensor with a 1-Wire digital interface and galvanic isolated input. It provides a low-cost option for DC voltage monitoring.

The sensor can be used for power measurements of telecommunication systems (-48VDC standard), solar systems, monitoring and control of batteries, industrial automation etc.

TSV200-60i has two RJ11 connectors, for easy daisy chain arranging of the 1-Wire bus.

Technical parameters

Supply voltage range (1-Wire bus)	4.5 to 5.5 V
Maximum supply current (1-Wire bus)	40 mA
Input DC voltage range	0 to 60 VDC
Resolution	0.1 V
Accuracy	±2 %
Isolation voltage	1000 VDC
Operating temperature range	0 to +40 °C
Operating relative humidity range	0 to 85 %RH (non-condensing)
Dimensions	85 x 35.1 x 23.5 mm

Usage

Can be used with following TERACOM controllers:

- TCW241
- TCW220

Pinout

Pin	Description	Corresponding UTP wires color
1	1-Wire GND	White/Brown
2	1-Wire GND	White/Green
3	1-Wire Data	Green
4	1-Wire GND	White/Orange
5	1-Wire +VDD	Orange
6	1-Wire +VDD	Brown

LED indicator

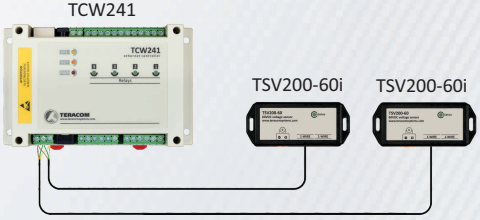
The status of the device is shown by single LED, located on the front panel:

- If the LED blinks on a period of 1 second, the sensor works properly;
- If the LED blinks on a period of 3 seconds, there isn't communication with the controller;
- If LED doesn't blink, there isn't power supply.

Sensor connection

It is strongly recommended to use only UTP/FTP cables. It is strongly recommended to use daisy-chained (linear) topology for multiple sensors and keep total cable length up to 30 meters.

"Star" topology can be used only as a last resort for up to 4 sensors and total cable length up to 10 meters.



1-Wire Bus

1-Wire is a registered trademark of Maxim Integrated Products, Inc. We strongly recommend read Maxim's 1-Wire tips at https://www.teracomsystems.com/wp-content/uploads/1-wire/guidelines-for-reliable-long-line-1-wire-networks.pdf