

1-Wire voltage sensor TSV200-60i



Short description

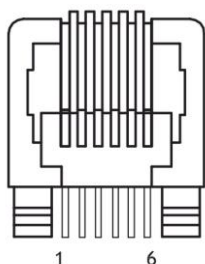
TSV200-60i is a voltage sensor with 1-Wire digital interface and galvanic isolated input. It provides a low cost option DC voltage monitoring. The sensor can be used for power measurements of telecommunication systems (-48VDC standard), solar systems, monitoring and control of batteries, industrial automation etc.

TSV200-60i has two RJ11 connectors, for easy daisy chain arranging of 1-Wire bus. It is supported by TCW2xx Ethernet controllers.

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
Dimensions	85 x 35.1 x 23.5 mm
Operating temperature range	0 to +40 °C
Operating humidity range	0 to 70 %RH

Pin out of RJ-11 connectors



Pin	Description	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 device is shown by single LED, located on the front panel:

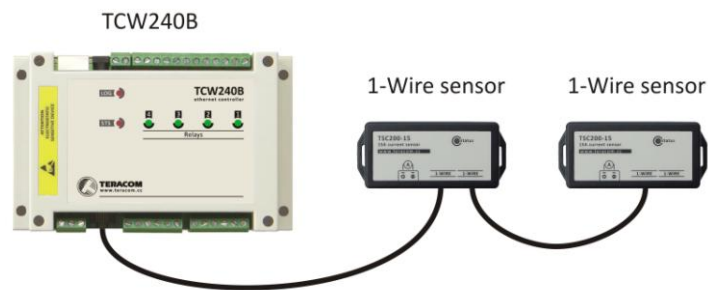
- If the LED blinks on period of 1 second, sensors works properly;
- If the LED blinks on period of 3 seconds, there isn't communication with TCW2xx controller;
- If LED doesn't blink, there isn't power supply.

Sensor connection

1-Wire is a registered trademark of Maxim Integrated Products, Inc. It is designed to connect several sensors over a short wiring. It is not suitable for long distances or environments with EMC interference. Guidelines for reliable long line 1-wire networks can be found at <http://www.maxim-ic.com/app-notes/index.mvp/id/148>.

It is strongly recommended to use only UTP/FTP cables and keep total cable length up to 30 m.

It is strongly recommended to use "daisy chained" (linear topology) for multiple sensors:



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

