Zeus Din is an innovative device that makes it possible to measure, store and control some significant parameters in the electrical system where it is installed. Installation is easy and fast, even in the control boards where there is little space, thanks to its small size: one Din module. Zeus Din interfaces are two: one USB host and one 10/100 Ethernet port. These connections offer easy transport links to the Internet and local devices. Zeus Din comes with an integrated web server that allows you to easy set up and manage configuration. All measurements are recorded permanently in the internal mass storage device. The stored data can be downloaded at any time with a common USB pen drive or the web interface. The software, which allows you to interpret the off-line data, can be freely downloaded from www.zeuslog.com website.

The measures monitored are: Active power and energy, reactive power and energy, Power Factor, RMS voltage, RMS current, RMS total leakage current and the resistive part of the RMS current leakage.

Package content

The package contains the following set:

- Zeus-Din device;
- Current transformer to measure the Main current (color: blue);
- Current transformer to measure the Leakage Current (color: black);
- Quick Guide

WARNING: Carefully read the quick guide before installing Zeus-Din device.

Installation

In the package there are, in addition to Zeus Din, two current transformers (CT): a blue one and a black one respectively to measure the Main Current and the Leakage Current. The following scheme is about how to install the device.

Zeus Din has 9 screw terminals disposed in three rows, one on the upper side and two on the lower one.

On the upper side there are two connectors used for the power supply and for the measurements of the line voltage. **If present, pay attention because the central connector is disconnected.**

The connectors on the lower part are reserved to link the measurement CT. The first three connectors, on the third row, must be connected to the blue CT (Main Current), the fourth row CT are intended for the black one (Leakage Current).

Pay attention to the blue CT that must be crossed just by the line conductor that involves the part of the system is necessary to monitor, whereas the black CT must be crossed by both line and neutral conductors that involve the same part of the system. A green dot indicates the correct crossing direction compared with the source and loads positions (look at the scheme).

WARNING: The device must be installed by qualified personnel

MAINS
L
N
Main Current
Diff. Current
LOAD
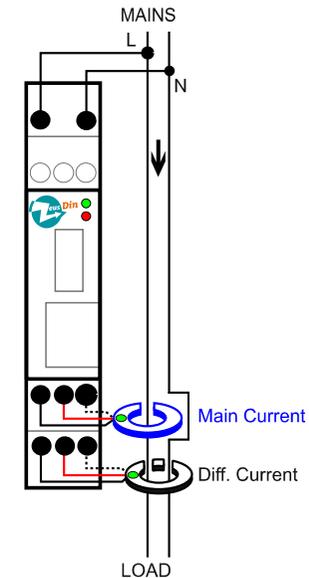
WARNING: Always protect the power supply device with a residual current device by 30 mA max

WARNING: The connections with the two external TA must be assumed as links to the main voltage.

First Configuration

Zeus Din needs to be synchronized with the clock for real-time measurements. There are two different ways to set up the device's internal clock:

- by USB pen drive
- by the Ethernet interface, using the integrated web server

Date and time settings using USB pen drive

Thanks to the software ZeusLog Viewer, at the menu Settings→ ZEUS, is possible, by selecting "Zeus-Din Home & Industrial", set up the date and time that we want to configure on Zeus Din. Firstly define the date and the time, then click on the button "Save" to create a file that must be copied in a USB pen drive. To set up the date on Zeus Din, the USB pen drive must be inserted in the USB port on the frontal panel and all is done: Zeus Din automatically gets the file from the USB pen drive and processes this command file to setting its date.

The action of the pen drive insertion on Zeus Din set up the device date and time, so it is strongly recommended, during the date and time settings software procedure, to type the time you will have the intention to insert the pen drive on the Zeus Din.

Date and time settings using Web interface.

A crossover Ethernet cable has to used to connecting directly at the device, otherwise it can be connected to a switch on the local area network (LAN), thanks to the Ethernet interface located on the front side of the device. Zeus Din defaults expected that DHCP is enabled.
If there is a DHCP server on the LAN, Zeus Din, at power up, automatically obtain an IP address issued by the server. In the event that the assigned IP address is unknown, you must use a USB stick to get the IP configuration. By inserting a pen drive, Zeus Din generate a file, named as "ZeusDIN.html", which contains the host name of the device, its IP address and a direct link to gain access to its home page. This is possible only if the computer and Zeus Din belong to the same subnet.
In case a DHCP server does not exist, or IP address hasn't been assigned, the device after the launch will have the following configuration:

IP Address: **169.254.254.254**
Netmask: **255.255.0.0**

To connect to the device, it is necessary to change your PC's NIC settings and configure an IP address that belongs the same subnet class, for example:

PC IP address: 169.254.254.1
PC Netmask: 255.255.0.0.

After the configuration of the correct IP address, to communicate and interact with Zeus Din it is needed to launch an internet browser (tested with Internet Explorer, Firefox, Chrome and Safari). Write on the URL bar the device's IP address, or **http://169.254.254.254** or **http://zeusdin/**

When the Zeus Din's Web Interface will appear, it is necessary, to get the access to the date settings menu, to select the menu Settings → Time on the left side. The configuration data are complex and sensitive, so they are protected with a password. The default log on credentials are:

user: **admin**
password: **zeusdin**

The date and time settings configuration web page allows to select the settings mode: automatic or manual.
Using the automatic setting it is needed to specify an external Time server that supports the NTP protocol. In that case you must be sure to be connected to a NTP server so the network configuration has to be verified and/or modified. It is possible to manually typing a Time server for the date and time synchronization. By clicking on the button "Save", the NTP server configuration will be saved and applied.
Using the manual setting it is possible to choose between the clock synchronization with the PC,and the typing of the correct date and time. When the button "SetTime" has been clicked on, the configuration is saved and applied to the device.

In this case every action is being done is in real-time, and it is done directly on the device.

Normal Usage

Under normal use, Zeus Din is used to get the measurements of the electric parameters of your electrical system and memorize them in its local memory. Thanks to the web interface, the real-time situation and a chart of the last minutes can be seen. To have a more specific analysis it is necessary to download the data and to display them off-line into the ZeusLog Viewer free software. The data could be downloaded in two ways: by inserting an USB pen drive in the device, or through the Web interface. In this case you have to use the "History" menu, on the left side of the main page, by clicking on the button "Download Now".

Look at the website **www.zeuslog.com** to download the ZeusLog viewer software and manual.

⚠️ **WARNING:use empty pen drives or without relevant data. The download procedure might damage the files placed in the pen drive.**

LED Meaning

LED	Light signalling
GREEN LED	1 sec flashing, normal usage
RED LED	Data download or alarm

To get more information about the LED meaning, look at the product manual.

Do not throw the device in the household waste.
Use the collection systems available in your country

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