



Zeus Din Home Standard Kit

Multifunctions energy data logger complete with sensors



Product Number: TP-014-100

General Features

Zeus Din Home Standard Kit consists of the following parts:

<i>Description</i>	<i>Product Number</i>
Zeus DIN Home	TP-014-001
CT Sensor for leakage current	TP-014-002
CT Sensor for main current	TP-014-004

Zeus Din Home

Multifunctions energy data logger



- 230 Vac Power supply
- Fast Ethernet Interface MDX
- USB 2.0 Mass storage interface
- Small footprint: 1 DIN module only
- Internal clock with backup battery
- Firmware upgrade via USB or Ethernet interface
- Integrated web server
- Works as a standalone device
- Time resolution: 1 minute
- Leakage current monitoring
- Recording of the electrical parameters before an interruption occurs

Product number: **TP-014-001**

General features

Zeus Din device measures, memorizes and monitors the main parameters of an electrical system. With its small footprint, it takes the space of just one DIN module, it is easy to install especially when there's not much space available.

Zeus Din is equipped with two interfaces: USB Mass storage and Ethernet 10/100. It can be easily connected to the internet, giving the users a easy way to get their data. Zeus Din is simple to configure and manage thanks to its integrated web server.

All the data gathered by the device are recorded and permanently stored into the internal memory. The recorded data can be downloaded via web interface or through a USB pen drive. By analysing the stored data it's possible to highlight any anomalies related to the electrical system. The Energy data logger viewer is freely downloadable from www.zeuslog.com website.

Electrical parameters measured are: active power and energy, reactive power and energy, power factor RMS voltage, RMS main current, RMS leakage current.

Applications

- Logging and verification of energy consumption
- Logging and verification of energy exchanged
- Logging and verification of energy generated by renewable sources such as solar, eolic, etc.
- Logging and verification of leakage current
- Verification of correct intervention of magnetothermal circuit breaker and Residual Current Circuit Breaker
- Verification correct power factor

Parameters measured

<i>Instantaneous measurements</i>	<i>Recorded measurements</i>
RMS Voltage	RMS Voltage
RMS Main Current	RMS Main Current
RMS Leakage Current	Active Power with sign (consumed or generated)
Real and imaginary part of RMS Leakage current	Reactive Power with sign (inductive or capacitive)
Active Power	RMS Leakage Current
Reactive Power	Real parts of RMS Leakage Current
Internal Temperature	Recording the last 128 ms of the instantaneous electrical parameters before an interruption occurs
	Recording the last 128 ms of the instantaneous electrical parameters before a power problem

Advanced features

Recording the last 128 ms of the instantaneous electrical parameters before a power problem or interruption occurs. Zeus Din logs the intervention of a circuit breaker: magnetothermal or Residual Current.

Specifications

Power supply

Voltage	110V-230V
Power Consumption	< 1,6 W with active ethernet interface
Terminals	Screw terminals for conductors: 0.05 mm ² (30AWG) - 2.5 mm ² (14 AWG)

Voltage sensor input (the same of power supply)

Max. voltage	250V
Min. voltage	100 V
Operating frequency	50Hz-60Hz

CT sensor input for main current

Max. current	Up to 85 A (CT sensor depend)
Terminals	Screw terminals for conductors: 0.05 mm ² (30AWG) - 2.5 mm ² (14 AWG)

CT sensor input for leakage current

Max. current	Up to 500 mA (CT sensor depend)
Terminals	Screw terminals for conductors: 0.05 mm ² (30AWG) - 2.5 mm ² (14 AWG)

Accuracy

Voltage	1,0 %
Main current	1,0 %
Active and reactive power	1,0 %
Active and reactive energy	1,0 %
Leakage current	1,0 %

Interfaces

Ethernet port	10/100 Mbit/s IEEE802.3/802.3u (Fast Ethernet)
USB	Version 2.0

Housing

Fastening	DIN Rail
Dimensions	17,5x90x56,4 one DIN module
Weight	69g
Material	PA
Flame protection	PA - UL 94 V0

Enviromental Condition

Operating Temperature	-10°C e +60°C
Storage Temperature	-20°C e +75°C
Humidity	80% max without condensation

Grade Protection

Housing IP30

Terminals IP20

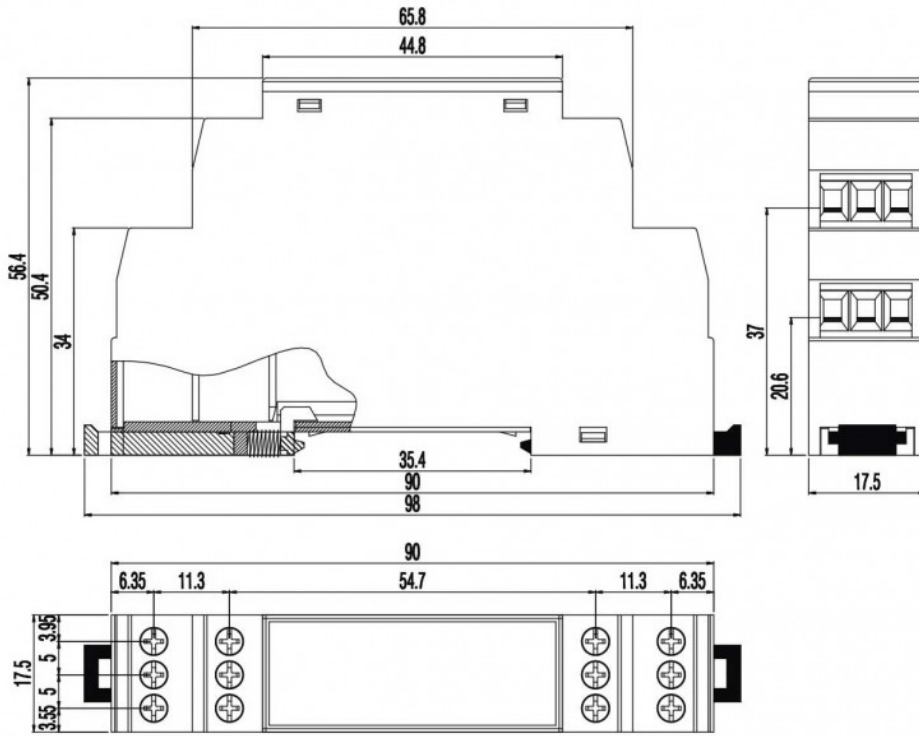
Compliance

Security CEI EN 61010-1

EMC EN61326-1



Technical Drawings



CT Sensor (standard kit)

Current transformer for main current



Product Number: TP-014-004

General features

The **Current transformer (CT)** is a device that allows to read the current of a conductor by reading the magnetic field generated by the latter when it is traversed by an alternating current. The current transformer is inserted around the conductor carrying the current to be measured.

A current transformer has a primary winding, an air core and a secondary winding. The alternating current in the primary produces an alternating magnetic field in the core, which then induces an alternating current in the secondary. Accurate current transformers have to close coupling between the primary and secondary to ensure that the secondary current is proportional to the primary current over a wide current range. So the conductor corresponds to the primary winding and the secondary winding is a conductor wrapped in a toroidal core around the conductor.

The output current on the secondary winding is proportional to the measured current and the relationship between the primary and secondary current is equal to the ratio between the turns (1: N).

Applications

- Current Measurement
- Instruments and sensors
- Energy and sub-metering products

Specifications

Technical features

Measured current	0 – 30 A
Transformer ratio	1:1000
Output current	0 – 30 mA
Accuracy	±0,2%
Operating Frequency	50 – 400 Hz

Housing

Shape	Toroidal
Ext. Dimension	Diam. 22 mm
Int. Dimension	Diam. 9 mm
Weight	about 20g
Material	ABS + epoxy resin + PVC

Connections

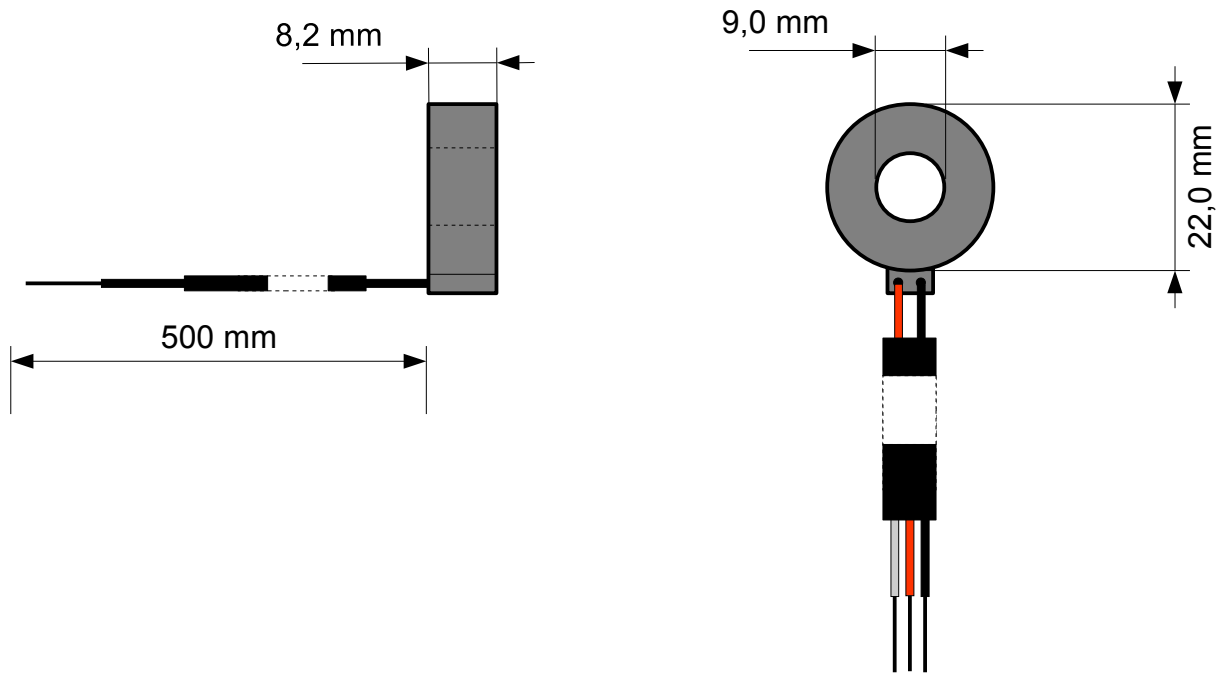
Cable	Shielded type UL E301305
Connection terminals	2 x AWG 24 (0,205 mm ²) sensors 1 x AWG 18 (0,823 mm ²) shield

Compliance

Standard	CEI EN 60044-1 e ANSI C57.13
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Technical Drawings



CT Sensor (standard kit)

Current transformer for leakage current



Codice prodotto: TP-014-002

General features

The **Current transformer (CT)** is a device that allows to read the current of a conductor by reading the magnetic field generated by the latter when it is traversed by an alternating current. The current transformer is inserted around the conductor carrying the current to be measured.

A current transformer has a primary winding, an air core and a secondary winding. The alternating current in the primary produces an alternating magnetic field in the core, which then induces an alternating current in the secondary. Accurate current transformers have to close coupling between the primary and secondary to ensure that the secondary current is proportional to the primary current over a wide current range. So the conductor corresponds to the primary winding and the secondary winding is a conductor wrapped in a toroidal core around the conductor.

The output current on the secondary winding is proportional to the measured current and the relationship between the primary and secondary current is equal to the ratio between the turns (1: N).

Applications

- Current Measurement
- Instruments and sensors
- Energy and sub-metering products

Specifications

Technical features

Measured current	0 – 20 A
Transformer ratio	1:1000
Output current	0 – 20 mA
Accuracy	±0,2%
Operating Frequency	50 – 400 Hz

Housing

Shape	Toroidal
Ext. Dimension	Diam. 30 mm
Int. Dimension	Diam. 14,6 mm
Weight	about 30g
Material	ABS + epoxy resin + PVC

Connections

Cable	Shielded type UL E301305
Connection terminals	2 x AWG 24 (0,205 mm ²) sensors 1 x AWG 18 (0,823 mm ²) shield

Compliance

Standard	CEI EN 60044-1 e ANSI C57.13
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Technical Drawings

