

CSP1 MODULE

CT Current Meter with P1 output

Product Overview

The Xemex CSP1 module is a CT current meter with a DSMR4 P1 Interface in a Din rail housing used for Active Load Balancing in EV charging applications.

It measures the current consumption of the household. Real time total current consumption is available to the charge point via P1 DSMR4 formatted messages. With this information the charge point can calculate the current capacity which is available for charging a car.

Up to 3 CT transformers can be connected to the CSP1 device. These CT transformers can be installed around the power lines without disturbing the installation. The CSP1 can be used for both, single phase or poly phase installations.

The unit is powered via external DC power adapter.

User interface is covered by 3 LED's on the front side of the module:

- PWR: Power present
- CS: Current Indicator
- P1: P1 msg request is active

The Xemex CSP1 module is ideal for P1 based Active Load Balancing applications in EV charging installations where no DSMR smart meter is available.





Specifications

Physical Characteristics

- Housing: DIN 43880 / 1 unit
- Dimensions: 90 x 18 x 65 mm

Environmental conditions

- Protection class II
- Operating temperature -25 °C - +75 °C
- Storage temperature -40 °C - +85 °C
- Relative humidity < 75 % year's average at 21 °C
- < 95 % less than 30 days/year, at 25 °C
- Pollution Degree 2
- Altitude < 2000m
- Application area Residential, Indoors in suitable meter cabinet

Power Requirements

- DC adapter 12 V, < 65mA

Modbus Interface

- Connector Screw terminal connector for A, B and Shield
- Bus termination 120 Ohm, switchable on/off
- Protocol modbus RTU over RS485
- Max cable length: 100 meter
- Cable location: indoor + outdoor

Metering Interface

- Connector Screw terminal connectors for max 3 Current Transformers
- Measuring principle Current measurement by Current transformer
- Current range 1A ... 80A
- CT ratio 2000
- Input impedance 20 Ohm
- Accuracy Typically <5 % at 23 °C
- Max Cable length 1 meter

Standards and certifications

- Safety: IEC 60950-1, IEC 62052-11
- EMC: IEC 61000-4-2, IEC 61000-4-3
- IEC 61000-4-4, IEC 61000-4-5
- IEC 61000-4-6, IEC 61000-4-11