



Product Sheet | Version 1.2
CSP1+ High Accuracy Module

CSP1+

High Accuracy Module

CT Current Meter with P1 output

Product Overview



The Xemex CSP1+ module is a mains-powered CT (Current Transformer) current meter that features a P1 interface compliant with DSMR4 (Dutch Smart Meter Requirements) and SMR5 (Smart Meter Requirements). It comes in a Din rail housing, which makes it suitable for installation in electrical panels.

The CSP1+ module is designed to be used in various applications, including inverters, AC chargers, and heat pumps. The most common use cases are:

- Optimize self-consumption PV-panels
- Dynamic load management
- Peak shaving



Up to 3 CT transformers can be connected to the CSP1+ device. These CT transformers can be installed around the power lines (split core) without disrupting the wiring. The CSP1+ measures the RMS current values of the three current transformer values and their respective direction over a period of 1 second. At the end of the measurement cycle the new RMS values are sent out as a P1 formatted message. This process continuously repeats every second.

The CSP1+ can be used for both, single phase or poly phase installations.

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

+32 (0)3 201 95 95
info@xemex.eu
www.xemex.eu

NL | Burgemeester Burgerslaan 40
5245 NH Rosmalen
BE | Metropoolstraat 11a
2900 Schoten



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