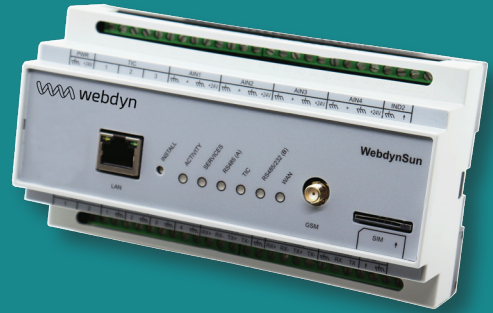# WebdynSun
Gateway for solar plants

The WebdynSun gateway is used to monitor and collect data from solar plants. In a single device, this gateway gathers all the indicators of the inverters, the electricity meters and the environmental sensors (intensity of sunlight, temperature, wind speed, etc.).

The device formats the data in CSV and sends it periodically via 4G or Ethernet to a server. Installation is simple and user-friendly using the embedded web server, and it can be done remotely. It allows to operate local actions controlling files from the central server.

Main Features

4G	RS485/RS422	TIC meter	Analog inputs	Digital I/O	Ethernet	DIN rail

Plug & Play	Remote configuration	Alarms

■ HARDWARE ■ SOFWARE

Strenghts & Benefits

- Up to 200 inverters monitored per gateway (depending on models/brands)
- Very low consumption of data on mobile networks
- Aggregation of the parameters at a single point
- Real-time supervision
- Optimization of electricity production efficiency
- Modbus and Sunspec (most known in solar apps.)

Applications

- Real-time monitoring of electricity production
- Preventive and curative remote maintenance of the plant

Specifications

WebdynSun 4G

4G: LTE-FDD B1/ B3/ B5/ B7/ B8/ B20/ B28; LTE-TDD B38/ B40/ B41;
2G: GSM B2/ B3/ B5/ B8

LTE-FDD Data Rate (Mbps): 10 (DL)/ 5 (UL)
LTE-TDD Data Rate (Mbps): 7.5 (DL)/ 1 (UL)

GPRS Data Rate (kbps): 85.6 (DL)/ 85.6 (UL)

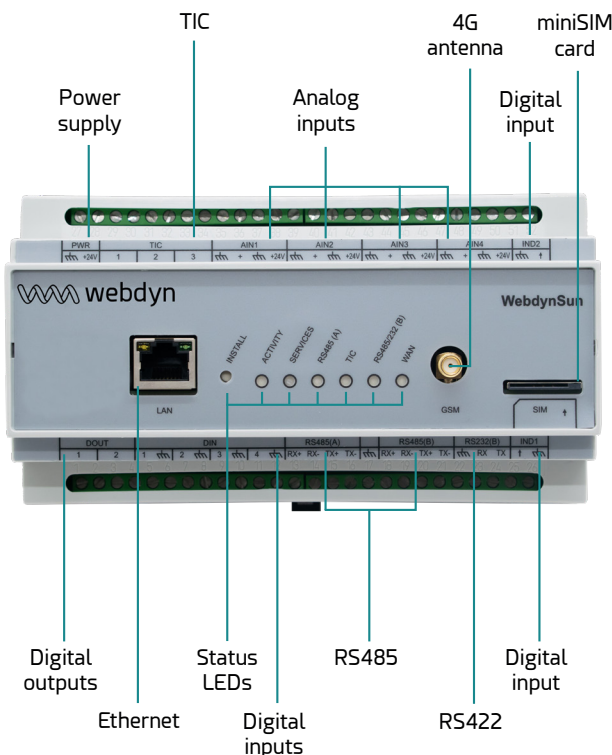**EDGE** Data Rate (kbps): 236.8 (DL)/ 236.8 (UL)

Interfaces

- 4G connectivity
- 1x RS485
- 1x RS485/RS422
- 3x TIC meters
- 4x analog inputs
- 6x digital inputs
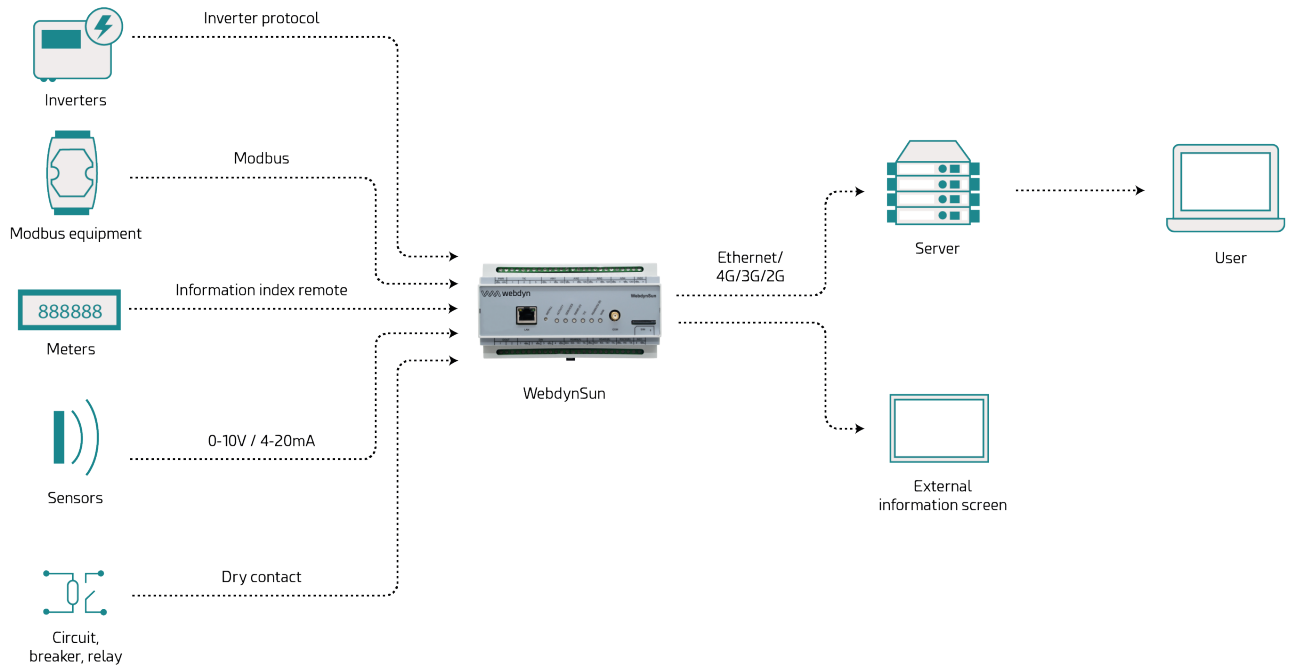- 2x digital outputs
- 1x Ethernet

Connectors

- 1x SMA F connector: GSM
- 1x RJ45: Ethernet
- 2x terminal blocks: power, RS485/422, TIC, analog inputs, digital I/O
- 1x miniSIM card holder

Characteristics

- Status LEDs
- DIN rail
- DC input: +12 to +24 Vdc
- Consumption: 4W max.
- Temperature range: -5 - 50°C
- Storage temperature: -20 - 85°C
- Dimensions: 157x86x59mm
- Weight: 300gr
- Certifications: EMI: EN55022 class B, CE: EN50082

Architecture

Inverters — Inverter protocol →
Modbus equipment — Modbus →
Meters (888888) — Information index remote →
Sensors — 0-10V / 4-20mA →
Circuit, breaker, relay — Dry contact →

WebdynSun — Ethernet/ 4G/3G/2G → **Server** → **User**

WebdynSun → **External information screen**

Software Features

- Inverters (possible to manage more than 200 inverters depending on models/brands)
- Modbus RTU or TCP slaves supervision
- Environment (sunlight, temperature, etc.)
- Dry contact inputs (circuit breakers, break-in, etc.)

References

PRODUCTS

- WebdynSun 4G **WG0508-A07**

ACCESSORIES

- Antenna GSM5+LTE700/2600 SMA M -IP67- RG58 - 5m **AC0201-11**
- Antenna GSM5+LTE700/2600 SMA M -IP67- RG58 - 10m **AC0201-13**
- Antenna GSM5+LTE700/2600 SMA M -IP67- RG58 - 20m **AC0201-12**