SUNGATE

XEMEX
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TECHNOLOGIES

SUNGATE
The best way to guarantee solar panels function optimally

Innovative module for communicating energy data

- ✓ Secure GPRS communication, separate of local internet connection
- ✓ Data monitoring at lowest cost
- ✓ Works on any inverter
- ✓ Easy to integrate using existing customer portals
- ✓ Clear Sky Performance Index
- ✓ Durable cloud software
- ✓ Application programming interface (API) for data exchange

Reading energy data from solar panels efficiently and problem-free

Communicating energy data independently of the internet connections of residents and at low cost: the Sungate communication module by Xemex maximises the yield of solar panels on the roofs of ground-level and high-rise homes. The cloud software by Cast4All analyses the data and makes it possible to communicate this via an Application Programming Interface (API) with external software applications.

The Sungate is a handy and stylish communication module – fitted with a sim card – that is easy to install beside the inverter already present in the dwelling. The device is connected via a cable to the inverter's RS485 communication port, enabling it to read data directly from the inverter.

Brand-independent

What if there is no power supply present at the RS485 port of the inverter? Then a grid power adapter is a solution (optional). Thanks to this adapter, the module is available 24 hours a day. This is particularly beneficial in case of inverters that only supply power to the RS485 when energy is being generated. The action of the module – during both installation and use – is easy to control thanks to LED indication. The Sungate is brand-independent and works with any inverter. [1]

Secure GPRS communication

Communication runs via standard GPRS, but the module is suitable for future communication technologies, such as 4G, NB-IoT, LTE-M and LTE Cat 1. To keep the monthly data volume low, the log files are read twice a day. A higher frequency is of course also possible.

Integration with external information systems

The Cast4All web portal offers 24/7 access to the measurement data. Or would you rather interface the energy data to an existing CRM application, for instance to connect the invoicing system to customer and measurement data? That too is possible thanks to the API.

Basis for optimal yield

To optimise the yield of the solar panels, you naturally have to start by adequately monitoring yields. The Sungate contains an application with integrated problem detection and optimisation algorithms. The Clear Sky Performance Index is a unique, accurate and fast method for detecting performance losses. It identifies any performance losses fast by analysing trends. The last-gasp option also contributes to optimal yields. If the power to the inverter goes down, then the Sungate immediately sounds the alarm by sending an alarm SMS to the server application.

Transparent mode

Programme extra security, implement changes to the firmware or alter parameters remotely? This is all possible using the transparent mode (optional). Transparent mode is an extra configuration tool for modifying the inverter yourself.

Find out more?

For more information, use the following contact details sales@xemex.eu, sales@cast4all.com.

Or go to www.xemex.eu or www.cast4all.com.

1 The Sungate can currently only be used in combination with Zeversolar inverters. From Q4 2019, the communication module will be suitable for any SunSpec compatible inverter.

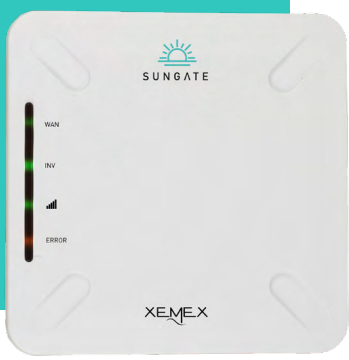
Technical specifications

Interfaces

Connection	RJ45 interface to inverter Power jack for optional DC power connection
User interface	4 leds for indication LED for WAN connectivity, strength, inverter connectivity, error
Communication technology	GPRS (roadmap: LTE-M, NB IoT) Dual band EGSM 900MHz / 1800MHz Output power: Class 4 (2W) @ 900Mhz (1W) / Class 2 @ 1800MHz Internal antenna
Communication protocols	Inverter interface: Sunspec / Zeversolar RS485 WAN: DLMS over IP

Technical

Operating voltage	RJ45 interface: nominal 7V DC (range 6,5V .. 18V) Power jack: nominal 12V DC (range 6,5V .. 18V)
Power consumption	idle: 0,6W / transmit: 2,6W
Temperature range	-20°C .. +55°C

Mechanical

Dimensions	120x120x25mm
Material	ABS
IP Rating	IP54