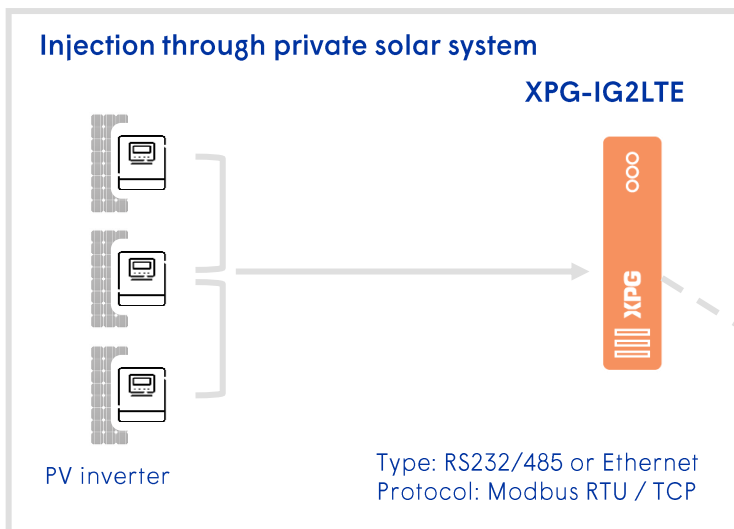


# XPG - Gateway DER

This solution allows the DSO to monitor and control energy injections into their grid via solar systems installed at its customers' premises. An interface is set up to integrate this data into the DSO's SCADA. Data from the solar systems is collected by XPG-IG2LTE gateways. The control units of the solar systems communicate in Modbus with gateways while data transmissions to the control centre are done via a supported protocol chosen by the DSO such as IEC 60870-5-104.

## Schematics

### Direct link to the inverter

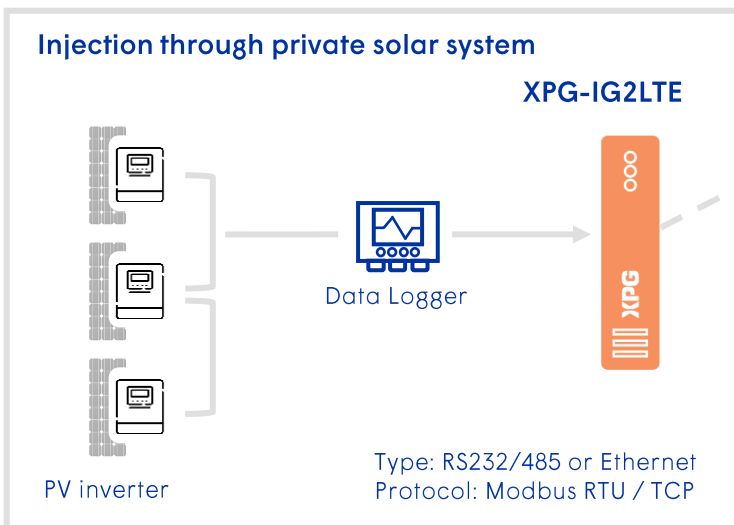


Ethernet or 3G/4G  
(5G to come)  
Protocol: IEC60870-  
5-104,  
IEC60870-5-101 ...



DSO's SCADA

### With data logger



### Hardware

#### XPG-IG2LTE Communication Gateway



XPG-IG2LTE, ISOS (Industrial Secure Operating System), Quad-core Cortex-A53, 1.8GHz Power supply 8-36 VDC, 2x Ethernet Ports, 3x Serial Ports, Temperature: 0 to 60°C, Dimension: 112 x 84 x 25 mm, RAM 2 GB, DIN Rail Mount, Modem for 3G/4G (5G to come) communications.

Check out our product sheet:

[IG2 device for XPG](#)

### Key features

#### Protocol

- IEC 60870-5-104 Client
- IEC 60870-5-104 Server
- Modbus RTU Master (serial)
- Modbus RTU Slave (serial)
- Modbus TCP Client
- Modbus TCP Server
- MQTT Publisher/Subscriber
- OPC UA Client
- OPC UA Server
- REST API (RESTful API)
- SNMP Client (v2c, v3)
- EtherCAT Client
- Etc.

#### Data

- Energy measurement
- Facility health info
- Control for a reactive power compensation function

#### Data inverter standard

- SunSpec

### Use Cases

The connection with the SCADA can be done by wire or by 3G/4G link (5G to come). In this case, a VPN tunnel (IPSec or OpenVPN) is established directly with the customer's firewall or with an application provided by Elvexys and installed in the centralised DSO infrastructure.



### Highlight

- Compliant with the highest cyber security
- Comprehensive online configuration management platform
- Minimal clutter for integration into the producer's or DSO's installation
- Easy to use management tools
- Customer support