



MONITORING SOLUTIONS

FOR STRING OR CENTRAL INVERTERS AND HBS STORAGE SYSTEMS

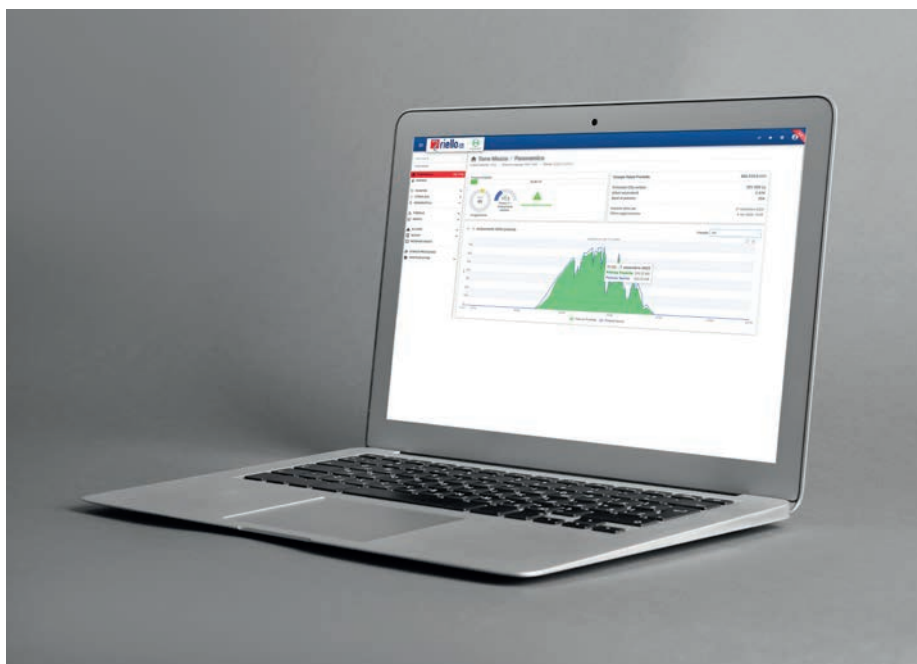
SunGuard

WEB PORTAL

Every day, more and more photovoltaic systems, both civil and industrial, are installed without providing for adequate maintenance.

When undergoing significant development, technological systems require routine and non-routine maintenance operations to be carried out by specialised technicians. However, this does not guarantee the complete and constant efficiency of the photovoltaic system and, even less, preventive interventions in the case of imminent energy loss or malfunction due to exogenous and/or endogenous causes. That's why SunGuard has been developed.

It's a professional system that closely monitors every type of photovoltaic plant, as well as the environment where it is installed. Useful for smaller installations, necessary for medium to large plants. SunGuard communicates data and information in real time both to the operators who perform the monitoring and to the specialised technicians, thereby allowing for targeted, timely and preventive interventions. SunGuard provides for the real-time monitoring of the system's performance and, via the SunGuard Box interface, sends the data to the central calculation unit over an SNMP Protocol. The elaboration of this data, in addition to those received from weather stations, pyranometers, toroids and video cameras positioned on the plant, provides for the constant supervision of our systems and enables us to offer a service even more oriented towards maximum customer satisfaction.



TECHNICAL SPECIFICATIONS

- Can also be used for Riello Solartech inverters in the RS and Sirio ES range;
- Remote web-based management through UMTS, GPRS, Ethernet and Wi-Fi connectivity;
- Monitoring of each single inverter;
- Connection to every type of environmental sensor;
- Numerical and graphical display of the periodic data and reports regarding the plant's production;
- Notifications sent by email and SMS;
- Pro-active management of maintenance interventions;
- Web-based plant management for the installers, maintenance personnel, technical assistance, help desk and end customer, through dedicated administration panels.

MAIN FUNCTIONS

- Centralised multi-system management;
- Multi-user functionality with various access levels;
- Data storage in SQL databases;
- Advanced formula editor;
- Events and actions management;
- Reporting system;
- Performance analysis;
- Graphics management;
- Integrated video camera management;
- SNMP standard for extended monitoring;
- Access to collected data.

DATALOGGER Z SERIES FOR PHOTOVOLTAIC PLANTS

The SunGuard Z series Datalogger uses an Ethernet port or Wi-Fi connected to an ADSL router/modem to send data to the SunGuard web server, which generates automatic messages on faults or malfunctions. Via any web browser and with an internet connection, you can access your own private interface and monitor and analyse all the photovoltaic plants equipped with a SunGuard datalogger.

PLANT COMPATIBILITY:

- XSOL082A SGB-DATALOGGER Z1 0-20 kW 1 x RS485 (COM2);

- XSOL083A SGB-DATALOGGER Z2 20-50 kW 1 x RS485 (COM2);
- XSOL084A SGB-DATALOGGER Z3 50-200 kW 2 x RS485 (COM2-COM3);
- XSOL085A SGB-DATALOGGER Z4 200-500 kW 3 x RS485 (COM2-COM3-COM4);
- XSOL086A SGB-DATALOGGER Z5 500-1000 kW 4 x RS485 (COM2-COM3-COM4-COM5).

MAIN FEATURES

- Mounting: on DIN rail for both Datalogger (4 modules) and power supply unit (4 modules);
- Power supply unit: 24VDC included;



- Converter: Isolated USB/485 included (in the RS485 COM N° indicated in plant compatibility);
- Consumption: max 20 W;
- Operating range: 0 to 50 °C;
- LAN: 10/100 Mbps Ethernet controller, Wi-Fi;
- COM1 communication interfaces: N°1 RS232/RS485 (on board Datalogger).

MODULE IRRADIANCE AND TEMPERATURE SENSOR ENVIRONMENTAL SENSORS

The SunGuard Sensor Irradiation Light 485 is a digital photovoltaic irradiance sensor equipped with a monocrystalline silicon cell laminated in high-performance glass. Output: digital irradiance and temperature value (bus RS485). Code XSOL090A.

MAIN FEATURES

- Power supply: 12-30 VDC
- Measuring range: 0 - 1600 W/m²
- Output: RS485
- Resolution: 1 W/m²
- Irradiation precision: +- 5% (2.5% @S.T.C. (25 °C))



- Temperature precision: +- 1°C
- Operating temperature: -30 +85 °C
- Consumption: 85 mW
- Cable length: 60cm
- Dimensions: 98x55x25 mm

LED DISPLAY OUTDOOR

AVAILABLE VERSIONS

- LED display;
- LED display with network analyser.

MAIN FEATURES

- Display: 2 lines of 16 alphanumeric characters;

- Type: page or scrolling (max 512 scrolling characters);
- Management: via RS485 to the network analyser or Ethernet;
- Power supply: 220 V / 50 Hz;
- Dimensions: 1500x75x700 mm (WxDxH);
- Weight: 15 kg.



SUNGUARD VIDEO DISPLAY SIGNAL SPLITTER FOR VIDEO SYSTEMS

AVAILABLE VERSIONS

- SunGuard Video Display;
- SunGuard Video Display Wi-Fi.

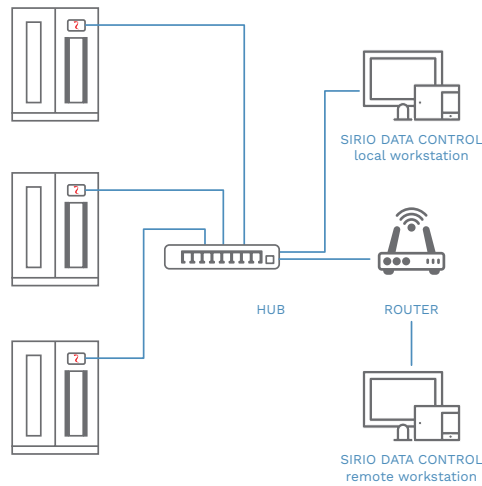
The SG-VIDEO-DISPLAY is connected to a monitor with a HDMI port and to the internet. In cycles of about 5 seconds, it displays the various slides related

to the performance of one or more photovoltaic plants monitored with the SunGuard monitoring system. It displays the following data: daily production, total production, saved trees, equivalent barrels of petroleum, weekly production, monthly production, avoided CO₂ emissions, instantaneous power.

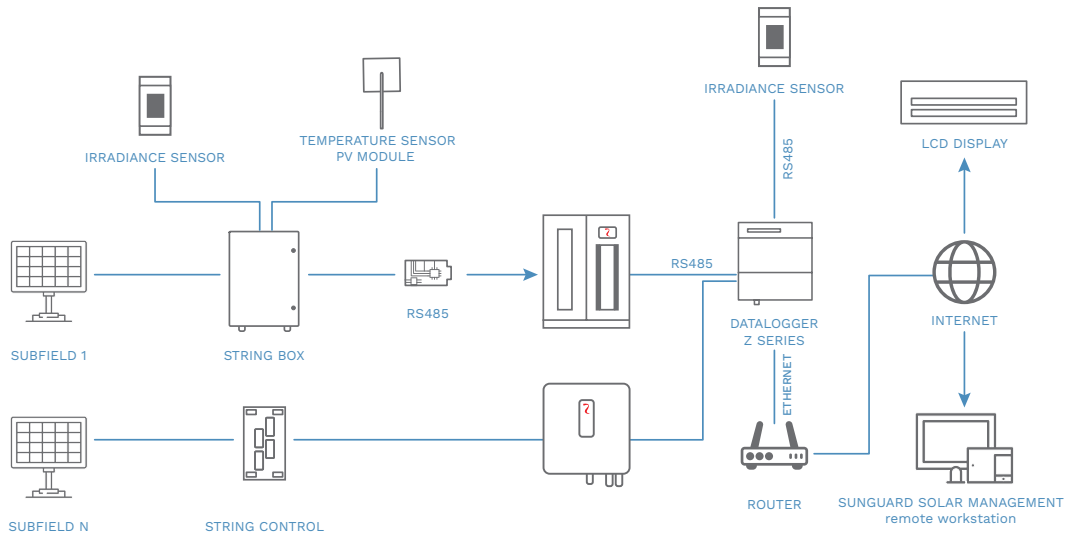
MAIN FEATURES

- Power supply unit: 5 Vdc/10 W including wall mount;
- Operating range: 5°C to 50 °C;
- Communication interfaces: 1 RJ45 Ethernet, HDMI, Wi-Fi.

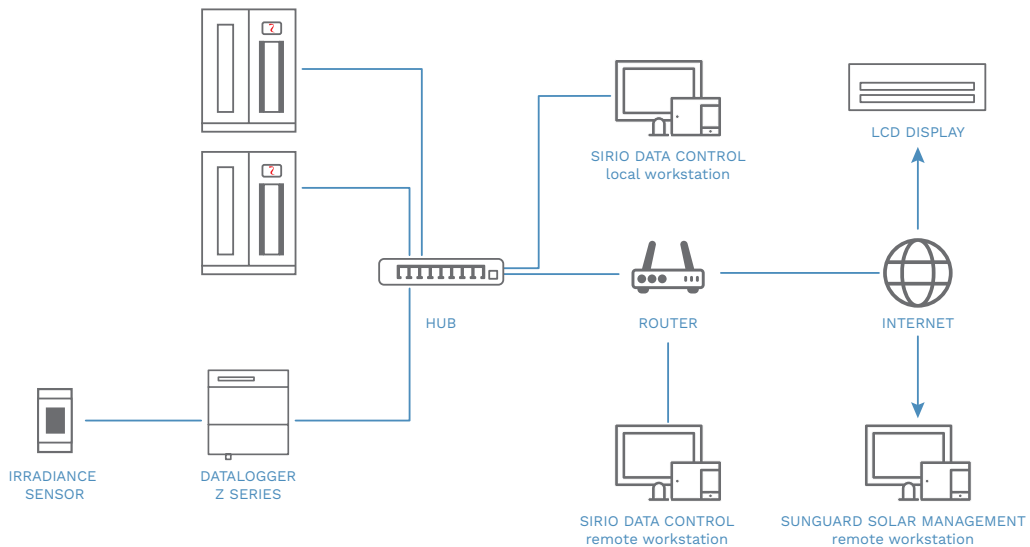
MONITORING WITH SIRIO DATA CONTROL VIA LAN



MONITORING WITH SUNGUARD SOLAR MANAGEMENT VIA RS485 BUS



MONITORING ON LAN WITH SIRIO DATA CONTROL AND/OR SUNGUARD SOLAR MANAGEMENT



The product photos are merely an indication. Due to technical and/or regulatory updates, the product features may change at any time without notice.

