Field Point Extension

Performance Monitoring and Control

Key features:

- **Extension cabinet for Data logger with integrated Plant control for reactive power, ramp rates etc.**
  Up to 100MW of logging and control per device
  Control according to IEC 60870 (communication protocol for supervisory control and data acquisition)

- **Analog and digital inputs and outputs via Q.series I/O modules**
  24 bit resolution, sample rate 0.1 s up to 24 h

- **4 x RS485 fieldbus interface**
  Up to 115,2 kbps

- **Ethernet interface for configuration and data transfer**
  TCP/IP, UDP, FTP Server and FTP Client functionality
  Configurable functions

- **Connectivity**
  Protocols from all leading inverter manufacturers are integrated
  I/O devices (e.g. weather stations, medium voltage parameters)

- **Data memory with individual logging interval**
  8GB flash
  0.1 s up to 24 h, individual per channel

- **Configurable monitoring**
  with auto-alarming via e-mail or SMS
  local arithmetic functions

- Direct link to the **gantner.webportal** for **worldwide data access**
  Operating system Linux

Effective PV Monitoring requires constant, solid and traceable PV Plant monitoring data in order to determine actual performance and fulfil owner/investor expectations.

Operators are interested to identify errors and losses in a reliable way to trigger appropriate actions for maximizing energy harvest during the total system lifetime.

The Field Point Extension is a part of the "Q.reader" data logger which can does the logging and control of all required PV plant information:
string level (current, voltage), inverter data, meteorological data from weather stations, grid measurements and other state variables (switch gear, transformer status). At the same time, it also acts as the power controller for the grid operator.
This accurate data acquisition and control concept is inverter independent and gives feedback about losses due to inverter malfunction, soiling, shading, PV Module degradation etc..

Data collection can be down to one second or more, which is often required by utilities to zoom for grid impacts tests.

Signal conditioning, data storage and transfer, compressing, and communication in many ways are the strengths of this flexible data solution. For communication industry standard Modbus protocols for easy and fast integration is used which enables reliable data exchange within the network. For longer communication distances fiber optic technology is used. Data transfer is possible by cable (Ethernet/ LAN) or wireless (GPRS/3G or 4G, WiFi) – the loggers meet all standard security requirements (SSL) with lowest power consumption.

The data acquisition system grows with the requirements and distributed Q.series measurement modules can be integrated at any time. (i.e.: further modules or Field Point Extensions)