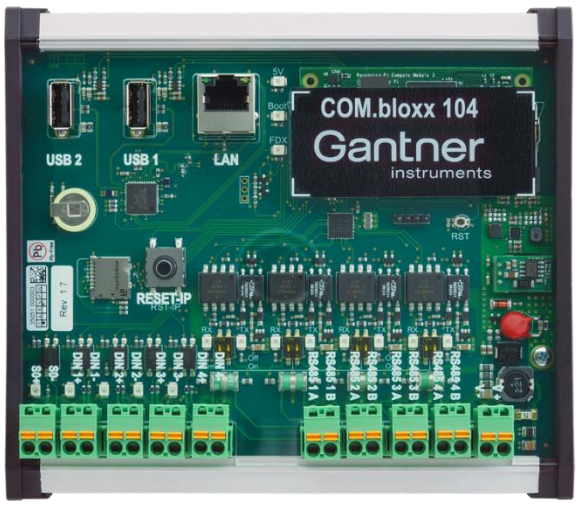
COM.bloxx 104 “Q.reader”

data logger and a power plant controller



The “Q.reader” is a data logger and a power plant controller “PPC”.

The Q.reader can handle the logging and control of all information needed to operate a PV power plant:

- string level (current, voltage)
- inverter data
- meteorological data from weather stations
- grid measurements
- other state variables (switch gear, transformer status).

At the same time, it also serves as power plant controller “PPC” for the grid operator. The accurate data acquisition and control concept is inverter independent and gives feedback about losses due to inverter malfunction, soiling, shading, PV Module degradation etc..

The Linux based platform can control up to 10MW plants with just one controller and fulfils all international requirements e.g. VDE-AR-N 4110 and VDE-AR-N 4120.

Features of the PPC:
Absolute production constraint
Power gradient constrain
Voltage Control
Reactive Power Control
Power Factor Control
Frequency Control

The data acquisition can be performed with a resolution of up to one second. This is often required by utilities during grid impact tests.

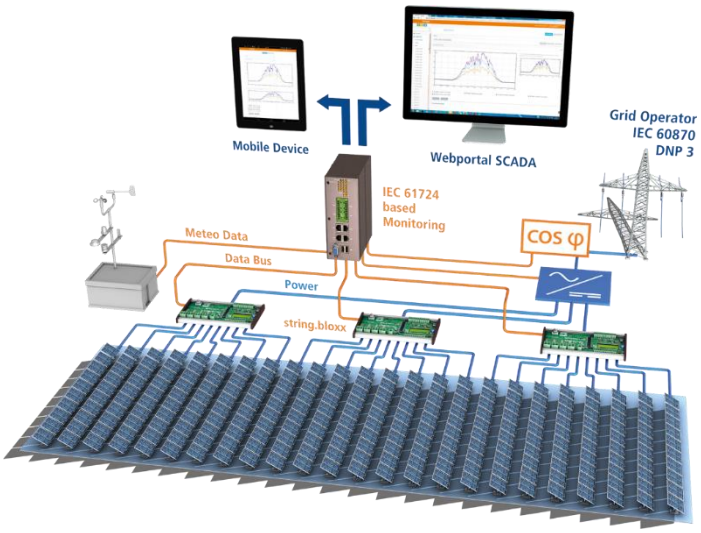
Signal conditioning, data storage and transfer, compression and multi-path communication are the strengths of this flexible data solution.The data transmission is possible via cable (Ethernet / LAN) or wireless with an external router (4G, WiFi). The Q.reader meets the latest industrial security requirements.

The data acquisition system grows with the requirements and distributed Z.bloxx and Q.series measurement modules can be integrated at any time.

Key features:

MADE IN GERMANY

- **Data logger and Power Plant Controler for reactive power, ramp rates etc.**
  can handle up to 10MW per device (scalable)
- **4 x RS485 fieldbus interface**
  Up to 115,2 kbps
  galvanic isolated
- **4 Digital Inputs**
- **1 Digital Counter Input (S0) up to 1kHz**
- **Ethernet interface for configuration and data transfer**
  TCP/IP, UDP, FTP Server and FTP Client functionality
  Configurable functions
- **Analog and digital channel extension via Z.bloxx or Q.series modules**
  up to 24 bit resolution, sample rate 1 s up to 24 h
- **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
  1 s up to 24 h, individual per channel
- **Configurable monitoring**
  local arithmetic functions
- Direct link to the **gantner.webportal** for **worldwide data access**
- Operating system Linux



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data logger and a power plant controller

Data logging and control	
Logging interval	1 s up to 24 h individual per channel with local arithmetic functions
Data memory	8GB industrial flash
Grid control, interaction	DNP 3, others
Operating system	Linux
Communication Interface	
RS485	4 galvanically isolated
Ethernet TCP/IP	1
USB	2
Protocols	Modbus-RTU, Modbus TCP, inverter protocols
Data Transfer	FTP Server and FTP Client functionality
Data format	Comma-separated values “CSV”
SCADA Integration	via OPC-Server or Modbus TCP/RTU
Connection	0.25 mm² - 1.5 mm² push-in spring-cage connection
Digital Inputs	
Number	4
Input	State
Connection	0.25 mm² - 1.5 mm² push-in spring-cage connection
Digital Inputs Counter	
Number	1
Input	Counter/S0 up to 1 kHz
Connection	0.25 mm² - 1.5 mm² push-in spring-cage connection
Configuration Interface	
Web frontend	web browser
Recommended web browser	Latest Google Chrome
Default IP	192.168.1.1
Default Login user	Admin
Default Login password	1234
Power Supply	
Power supply	10 up to 36 VDC, overvoltage and overload protection
Power consumption	approx. 3 W

Environmental	
Operating temperature	-10 °C up to +55 °C
Storage temperature	-40 °C up to +85 °C
Relative humidity	5 % up to 95 % at 50 °C, non-condensing
Mechanical	
Case	Polyamide/PA
Dimensions (H x W x D)	165x145x55 mm
Weight	approx. 320 g
Mounting	DIN rail mounting (EN 50022)

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