

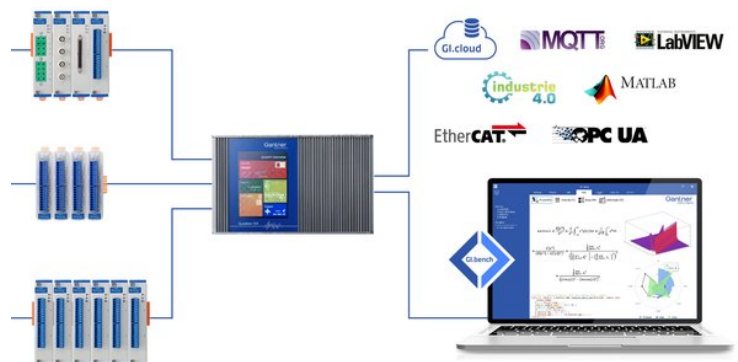
Q.bloxx is the ideal DAQ solution for widely distributed installations, electrical panels, and environmental enclosures. Q.bloxx measurement modules provide integrated signal conditioning and arithmetic functions, packaged in modular, DIN Rail mountable enclosures that easily snap together for quick system expansion. Flexibility in distribution allows for highly synchronized data that is less prone to noise due to shorter sensor cable runs to the actual point of measurement.

- RS 485 fieldbus interface up to 24 Mbps: LocalBus up to 115.2 kbps: Modbus-RTU, ASCII
- Electromagnetic Compatibility according to EN61000-4 and EN55011
- Connectable to any Controller, e.g. Q.station, Q.gate or Q.pac
- Power supply 10 ... 30 VDC
- DIN rail mounting (EN60715)



Key Features

- **Connection of up to 64 Q.bloxx modules**
via 4 UARTS, Baud rate up to 24 MBaud each UART
Recording of up to 254 variables (real format 4 Byte)
- **Synchronization and time stamp of measurement values**
IRIG based master slave principle on RS485 standard
DCF77, AFNOR etc, GPS time and position data, SNTP over Ethernet
- **Ethernet interface for configuration and data output**
configurable function
- **PAC functionality with extensive function block library**
Sequences, data logger, PID-controller, transfer functions, mathematic, numeric, Boolean combinations, functions generator
- **Optional fieldbus interface EtherCAT**
EtherCAT according specification ETG,
1024 read and 1024 write variable with 10 kHz
- **High data rate over Ethernet**
128 real variables with 1 kHz (block transfer)
16 real variables with 10 kHz (block transfer)
64 real variables with 300 Hz (online)
- **Data buffer memory dyn. 16 MByte (RAM), stat. 128 MByte (flash)**
- **Galvanic isolation**
of power supply and interfaces



Technical Data

Host Interface Ethernet

Protocols	TCP/IP, UDP, PING, ASCII, Modbus TCP/IP
Service	DHCP, FTP-Server, FTP-Client, e-Mail-Send-Client (SMTP)
Baud rate	10/100 Mbps
Data rate	max 800 kByte/s
Number of simultaneous clients	10
Isolation voltage	500 V

Host Interface EtherCAT

Electrical standard	Ethernet
Channels of channels	1024 Byte read and write data, 254 variables
Baud rate	100 Mbps
Cycle time	≥100 µs
Isolation voltage	500 V

Host Interface USB

Version	USB 2.0
Data rate	typ. 100 kByte/s
Devices	Data storage, formatted with FAT or FAT 32

Module Slave Interface (UART)

Number of interfaces	4
Electrical standard	RS 485
Data format	8E1
Protocol	Local Bus
Baud rate	9,6 kbps to 24 Mbps
Connectable devices	max. 16 modules at one UART line
Isolation voltage	500 V

Digital inputs

Input voltage	max 30 VDC
Input current	max 1,5 mA
Upper threshold	> 3,5V (high)
Lower threshold	< 1 V (low)

Digital Outputs

Type	Open Drain p-Kanal MOSFET
Output voltage	max 30 VDC
Output current	max 100 mA

PAC Functionality

Cycle time	≥1 ms
Processing	cyclic or synchronized with data acquisition

Data Memory

RAM	16 MByte (optional 90 MByte), cycle buffer
Flash	128 MByte

Operating system independent

Standardized interface	Ethernet (FTP/Berkeley-Socket)
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Synchronization of a Multi Controller System

Interface	RS 485 Electrical standard
Mode	Master Slave principle, IRIG electrical standard
	DCF77, AFNOR etc. GPS over IRIG electrical standard
	GPS NMEA over RS232
	SNTP over Ethernet

Power Supply

Input voltage	10 to 30 VDC, overvoltage and overcurrent protection
Power consumption	approx.. 3 W

Environmental

Operating temperature	-20°C to +60°C
Storage temperature	-40°C to +85°C
Relative humidity	5 % to 95 % at 50°C, non-condensing

Mechanical Information

Material	Aluminum
Measurements (W x H x D)	175 x 110 x 55 mm
Weight	approx. 900 g

Ordering Information

Article number	521424
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