

Q.gate DPT

Controller

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 32 Q.bloxx modules**
via 2 UARTS, Baud rate up to 24 MBaud each UART Recording of up to 256 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**
FTP, TCP/IP, UDP optional fieldbus interface Profibus-DP, 12 Mbps
- **FTP Server and FTP Client functionality**
configurable function
- **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 16 MByte**
Data buffer at block transfer of measurements, different logger possibilities, extendable by USB device
- **PAC functionality**
Sequences, data logger, PID-controller, transfer functions, mathematic, numeric, Boolean combinations, functions generator
- **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 Profibus-DP

Electrical standard	RS 485
Data format	8E1
Baud rate	9,6 kbps to 12 Mbps
Connectable devices	max 32, without-, max 127 with repeater
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	2
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
Isolation voltage	500 V

Data Memory

RAM	16 MByte (optional 90 MByte), cycle buffer
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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

Operating System Independent

Standardized interface	Ethernet (FTP/Berkeley-Socket)
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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

PAC Functionality

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

Programming Tool test.con

using test.con for programming of the PAC-function in a graphical way:

The image displays two screenshots of the Gantner test.con programming tool. The top screenshot shows a complex block diagram for a control system, featuring various mathematical and logic blocks connected in a network. The bottom screenshot shows a similar diagram but with two real-time plots: a sine wave and a hysteresis loop. A library of blocks is visible on the right side of the interface, listing various functions like Arithmetic, Comparison, and Logic.

Mechanical information

Material	Aluminum and ABS
Measurements (W x H x D)	27 x 120 x 105 mm
Weight	approx. 200 g

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Ordering Information

Article number	589135
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