



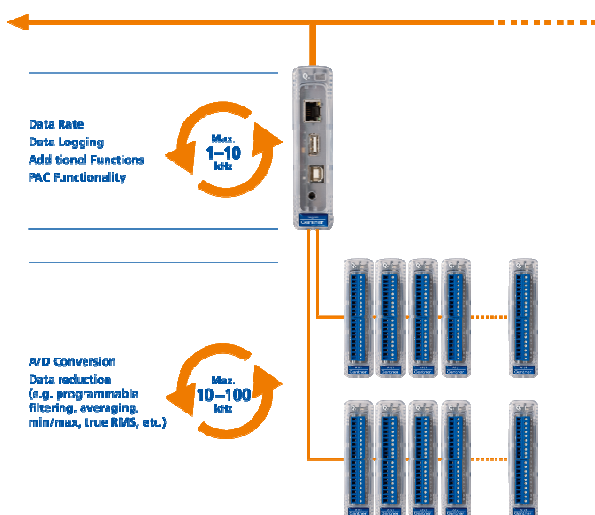
The Q.series has been designed for demanding measurements found in today's most industrial measuring and testing environments. The range of applications starts from single stand-alone solutions up to networked multi-channel applications in the field of component testing, engine testing, process performance testing and structural monitoring.

The range and flexibility of the modules allows an optimized solution for each single task:
Dynamic signal acquisition up to 100 kHz, in/outputs for all types of signals, galvanic isolation of in/outputs, multi-channel solutions, high density packaging and intelligent signal conditioning.

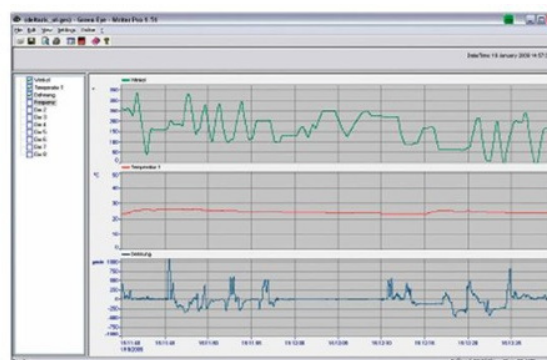
Data exchange between Test Controller and automation level is communicated via Ethernet TCP/IP or fieldbus system Profibus-DP. Ethernet-based industrial standards are in preparation.

Most important 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
- **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 12 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
- **Electromagnetic Compatibility**
according EN 61000-4 and EN 55011
- **Power supply 10...30 VDC**
- **DIN rail mounting (EN 50022)**



**Ethernet
TCP / IP**
PROFIBUS



**Q.gate IP / DP**

Test Controller

Host Interface Ethernet	
Protocols	TCP/IP, UDP, PING, ASCII, Modbus TCP/IP
Services	DHCP, FTP-Server, FTP-Client, e-Mail-Send-Client (SMTP)
Baud rate	10/100 Mbps
Data rate	max. 800 kByte/s
Number of simult. Clients	10
Isolation voltage	500 V
Host Interface Profibus-DP (Q.gate DP only)	
Standard	RS 485
Data format	8E1
Baud rate	9.6 kbps up 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
Slave Interfaces RS 485	
Number of interfaces	2
Standard	RS 485
Data format	8E1
Protocol	Local Bus
Baud rate	9,6 kbps up to 24 Mbps
Connectable devices	max. 16 modules at one UART line
Isolation voltage	500 V
Operating System Independent	
Standardized interface	Ethernet (FTP/Berkeley-Socket)
Synchronization of a Multi Test Controller System	
Interface	RS485 Standard
Mode	Master Slave principle, IRIG standard
	DCF77, AFNOR etc, GPS over IRIG standard
	GPS NMEA over RS232
	SNTP over Ethernet

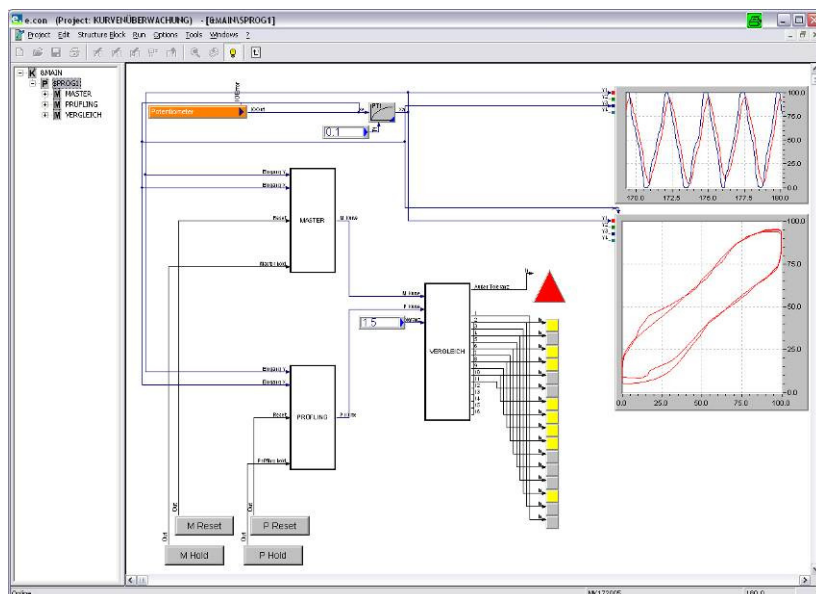
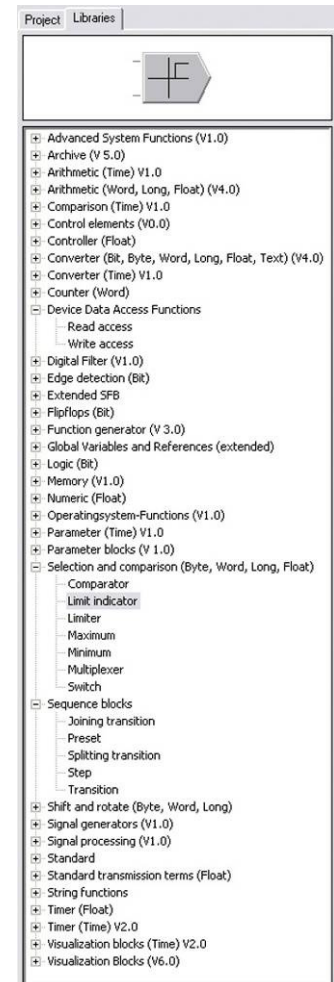
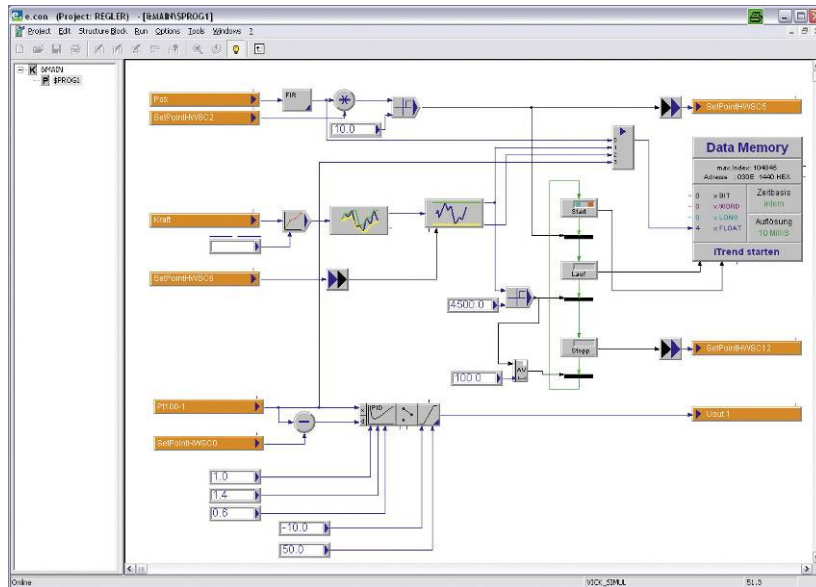
**Q.gate IP / DP**

Test Controller

Power Supply		
Power supply	10 up to 30 VDC, over voltage and overload protection	
Power consumption	approx. 2 W	
Mounting	DIN EN-rail	
Environmental		
Operating temperature	-20 °C up to +60 °C	
Storage temperature	-40 °C up to +85 °C	
Relative humidity	5 % up to 95 % at 50 °C, non condensing	
Mechanical		
Case	Aluminum and ABS	
Dimensions (W x H x D)	(27 x 120 x 125) mm	
Weight	approx. 250 g	
Mounting	DIN EN-rail	
PAC Functionality		
Performance examples	no. of channels at data rate	
Function	Rate 1000/s	Rate 500 Hz/s
PID controller	20	44
FIR Filter 100 coefficients	4	20
Alarm and limit control	30	60
Linearization, 16 pole interpolation	20	40
Arithmetic	90	180

Programming Tool test.con

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



Valid from April 15th 2010. Specification subject to change without notice
DB_Q.gate_E_12.doc