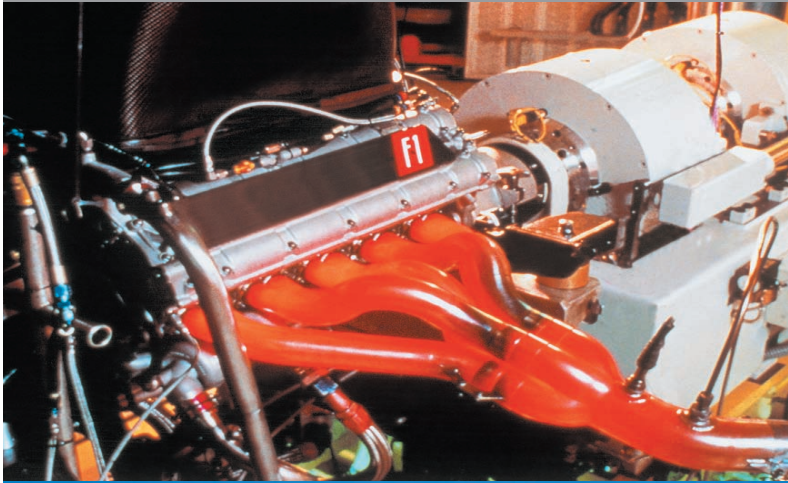


 Q.series

Gantner
instruments



MEASUREMENTS WITHOUT LIMITS

Intelligent Solutions for
Measurement and Test Automation

www.gantnerinstruments.com



Gantner Instruments

I/O WITH I/Q.

Gantner Instruments is an international manufacturer of high performance measurement and control instruments engineered specifically for the high-demand test and data acquisition markets. Our full range of universal measurement modules (up to 100KHz per channel @ 24-bit resolution), programmable automation controllers, and flexible software solutions provide a scalable and open approach to solving the most demanding automation requirements.



Gantner Instruments, Inc. - San Diego, CA

Founded in 1982, Gantner products are industry proven in more than 250,000 installations in engine and component test beds, industrial data acquisition installations, and critical measurement applications in a wide array of industries. Our equipment just works. All Gantner Instruments products are designed and built to provide high precision and reliable operation in the most extreme industrial environments. High temperatures and EMI conditions are no problem for us. Our products are manufactured to exacting ISO-9001 standards and have an average MTBF (Mean Time Between Failure) of over 20 years.

Gantner provides first class products with a scalable, modular structure that is built for the future. With Gantner Instruments your measurement and control system investment is 'future proof'. No where else will you find more value for the money. We provide extensive consultation before purchase, practical support during installation, and direct service for the life of the system.

When you need performance measurement without limits - think I/O with I/Q. Think Gantner Instruments.

Introducing Q.series

THE NEXT GENERATION IN PERFORMANCE MEASUREMENT & CONTROL



AUTOMATION LEVEL



CONTROLLER LEVEL



MEASUREMENT AND I/O LEVEL



Q.series

THE CONTROLLER LEVEL

The addition of a Test Controller transforms the Q.series measurement modules into a powerful test automation and control system. The Test Controller is the interface between the modules and the respective automation system, handling all of the synchronization, data buffering, control, and transfer of data to the automation system (typically on a PC). Different application requirements (number of points, maximum throughput rates, programming and control requirements, data storage capabilities, etc.) will dictate which test controller is best suited.



Q.gate IP

The Q.gate IP supports up to 32 Q.series modules (via 2 RS-485 ports) and provides Ethernet connectivity in addition to data synchronization, data buffering, local error checking, complex mathematical operations and local embedded control functions. Multiple Q.gates can be synchronized together to support larger systems.



Q.pac EC or DL

The Q.pac delivers all the functionality of the Q.gate and adds support for up to 64 modules (via 4 RS-485 ports) in addition to providing up to 128MB of RAM (DL version) and 128MB of Flash for support of local data logging and embedded control. The Q.pac EC also provides an EtherCAT interface for deterministic real-time control.



Q.station

The Q.station boasts the highest level of performance, supporting high speed data throughputs, faster Ethernet and EtherCAT connections, 2 CAN ports, 2 USB ports, 1GB of RAM, 4GB of Flash, and an optional 3.5" full VGA touch screen interface. Q.station provides the optimum in power, performance and programmability.

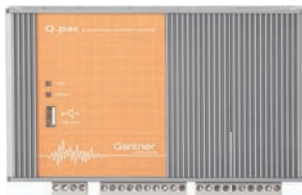
EtherCAT

Ethernet TCP/IP



With the Q.gate the following performance characteristics are possible via Ethernet:

- 128 Real variables @ 1 KHz (block transfer)
- 16 Real variables @ 10 KHz (block transfer)
- 64 Real variables @ 300 Hz (online)



With Q.pac:

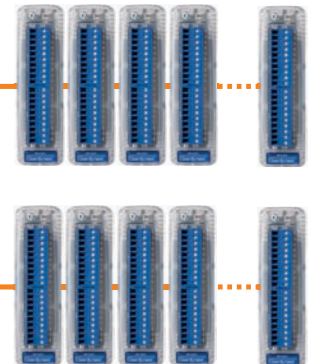
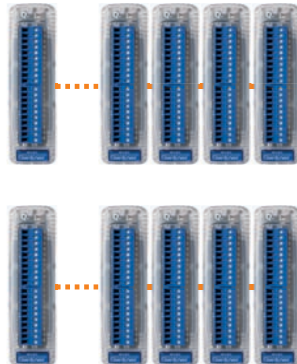
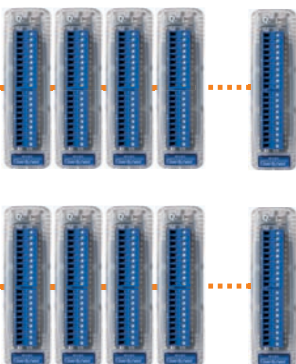
- 64 Real variables @ 10 KHz (real time)



With the Q.station the following performance characteristics are possible:

- via Ethernet
 - 16 Real variables @ 100KHz
 - 128 Real variables @ 10KHz
- via EtherCAT
 - 256 variables @ 10KHz (read and write)
- via USB (data storage)
 - 1 MB per second (256K samples/sec.)

Up to 16 modules per RS-485 port



FLEXIBLE PACKAGING SOLUTIONS

The overall design and packaging of a measurement and control system depends on the application requirements at hand: the environment, the available space, the desired signal interface methods, and the overall functionality to the end user. Because of this, the Q.series is offered in a number of different packaging configurations that are all based on standard, scalable solutions using a common set of components.

Q.bloxx - Modular

The Q.bloxx series is designed for the high speed, high accuracy measurements found in today's most demanding testing environments. Each Q.bloxx module is a 'stand alone' dynamic signal processor, capable of isolation, signal conditioning, filtering, processing and conversions at speeds up to 100KHz per channel. When connected to a Q.gate, Q.pac, or Q.station test controller, the Q.bloxx modules are transformed into a high performance automation system with precision synchronization and connectivity to virtually any host automation system.



Q.brixx - Portable

The Q.brixx series takes the performance of the Q.bloxx modules and delivers them in a portable rugged enclosure. Several I/O module types are available allowing you to 'mix and match' measurement features with your applications needs. Each Q.brixx module is individually packaged in a sturdy aluminum housing allowing easy expandability as system requirements grow. The integral Q.gate controller handles synchronization, buffering, time stamping, and communication to the automation system or PC over Ethernet, and continuous data storage via a USB port.



Q.raxx - High Density

For the highest point density in the least amount of space, Q.raxx was designed to take the Q.bloxx functionality to the 19" rack mount world that is typically found in test cell environments. The Q.raxx slimline supports up to 16 analog or 64 digital channels in a 1U (1.75") high package, complete with customer specified connectors (T/C, BNC, D-SUB). The Q.raxx 3U package provides the highest channel density, supporting more than 400 channels with multiple termination options and an integral Q.gate or Q.pac test controller all in a single 14-slot chassis.



Q.staxx - Robust

With the Q.staxx packaging configuration, Q.bloxx modules are housed in environmentally sealed enclosures, mounted onto a passive backplane that can be attached to a skid. Depending on the measurements desired in a given test, the modules can be interchanged on the backplane and the sensors connected directly to the modules, prior to the skid entering the test cell. With this approach a completely functional measurement system is configured, wired and verified before the skid goes into the test cell. Once in the test cell, only a single Ethernet connection is required.



Q.boxx - Customized

When applications call for customer specific requirements, Gantner can help. From integration in weatherproof enclosures, to complete custom hardware/software systems, Gantner has the experience to get the job done right. Since we design and manufacture our own products, Gantner has the capability to provide these products in multiple layouts that meet the needs of our customers. We will tightly integrate both the hardware and the software components to provide you with a 'seamless' product that meets your overall system requirements.



THE AUTOMATION LEVEL

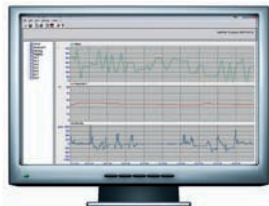
The Q.series software offering is designed with one goal in mind: maximum flexibility for the user. The key components of this platform include tools for system configuration, programming, data acquisition, visualization, and archiving. All of these tools are designed to be easy to use and easy to maintain. We also provide you with full support through a completely open (and free) interface to allow integration of the Q.series products into your platform of choice.



test.commander

For Overall System Configuration.

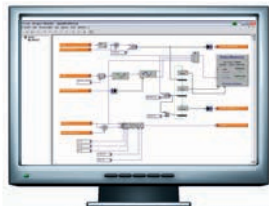
test.commander is the tool that allows complete system set up and configuration for all Q.series measurement modules and controllers, for simple to complex system requirements.



test.viewer

For Visualization of Measurement Data

test.viewer (a part of test.commander) provides powerful online visualization of real time and logged measurement data along with flexible data storage options in a number of popular file formats.



test.con

For Graphical Programming of the PAC Functionality

test.con allows efficient and effective graphical programming of automation, control, logging and test sequencing strategies that can be compiled and embedded into the Q.series controllers.



test.tools

For Easy Interface to 3rd Party Applications & Programs

test.tools is a collection of open source programs, drivers, APIs, and examples to support easy integration of the Q.series products into virtually any software (custom or off-the-shelf) -- on any platform.

Contact Gantner Instruments today for more information, or to arrange a free evaluation system.

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