

Q.series X

Technical Guide

Version 1 / 2026



Q.series X Technical Guide

Here is what you can find in this presentation

• General Overview	Page 3
• Controller	Page 10
• Connectivity	Page 21
• I/O Modules	Page 26
• Special Products	Page 83
• Quiescent Current Measurement System	Page 84
• Power Analyzer GPA series	Page 86
• Stack Monitoring Unit	Page 88
• Electrochemical Impedance Spectroscopy EIS	Page 92
• SHM Solutions - Wireless Sensors	Page 96
• SHM Solutions - Q.solid Rugged Housings	Page 101
• Accessories	Page 104

General Overview



New Q.series X

A technological advancement of Q.series Classic Edition

Q.series Xtended Edition



- Powerful signal conditioning with flexibility in Interface and enclosure
- Higher ADC rate
- Higher data rate
- Distributed & Daisy Chained setup
- Re-configuration during operation
- Custom connector options

Q.series Classic Edition



- Good price / performance ratio
- Multi-channel application with high density
- High availability, short lead time
- Distributed & Daisy Chained setup
- DIN rail mount

Feature Comparison of Q.series X and Q.series Classic Edition

Feature	Q.series Xtended Edition	Q.series Classic Edition
Sampling rate e.g. of Multi Purpose Module	20kHz / 100kHz	10kHz / 100kHz
Amount of Input Channels at 100kHz	16	8
Baud rate per UART	48Mbaud	24Mbaud
No. of UARTs	5 (1 for configuration)	4
Re-configuration during operation	√	
Connector on Module Front	Customization possible	10-pole Standard
Enclosure	DIN rail, Portable, 19" Rack	DIN rail
Width on DIN rail of Controller Q.station	35mm	175mm
Interface Upgrade from UART to EtherCAT	√	
A141 Charge Amplifier	√	
A108 with excitation for MEMS sensors	√	
Q.Boost A101 MHz Module	√	
F108 Optical Gage Amplifier	√	
F100 Optical UART Extension	√	
Highest Order of Filter on Module	8 th	4 th
Time synchronization with Ethernet (PTP)	√	
Number of virtual variables (rms, avg, alarm...)	up to 32	16

Q.series X

Measurement and I/O Modules for all Relevant Signals

Dedicated Modules

- 8 strain gage quarter, half and full bridge
- 16 strain gage quarter bridge
- 8 thermocouples
- 8 voltages or current
- 4 Piezoelectric sensors

Multi Purpose Modules

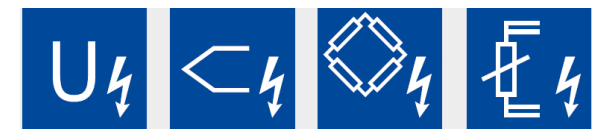
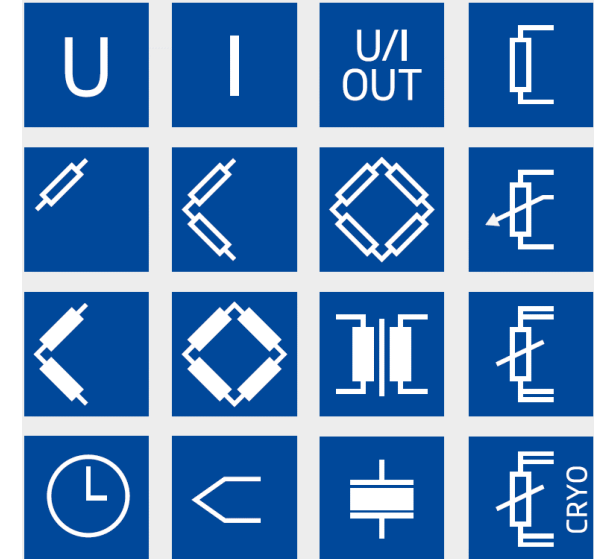
- 2 or 4 inputs for almost all sensors
- Strain gage module with DC and CF excitation

Digital Modules

- Frequency and PWM in and outputs
- Quadrature and up/down counter
- Specials like missing tooth detection and chronos method

High Isolation Modules

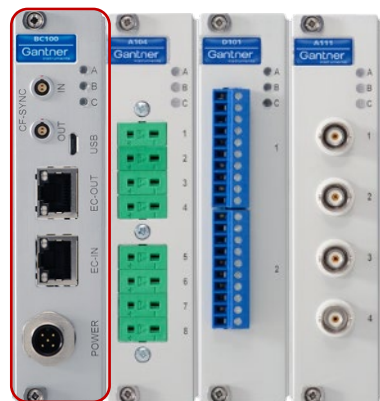
- Isolation 1200 VDC
- Inputs for voltage, current, thermocouples, Pt100, NTC, IEPE, strain gage full and half bridge



Q.series X

Select your Interface with the same I/O Module

EtherCAT

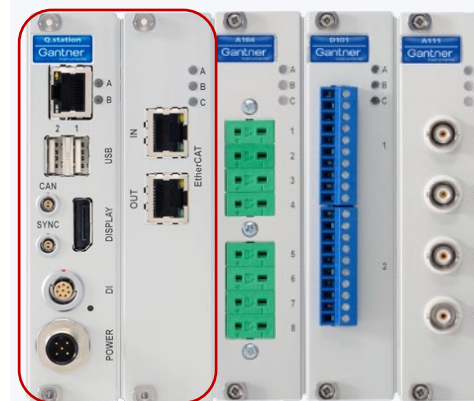


EtherCAT 

Using bus coupler BC with XE I/O Modules

full EtherCAT functionality like XFC,
10 kHz real read and write

EtherCAT, ProfiNet, CAN, Ethernet



EtherCAT 

PROFI
NET

 **Modbus**

CAN

 **OPC UA**

Using Test Controller Q.station X with XL I/O Modules

up to 20 powerful data loggers, up to 100 kHz per channel
Powerful arithmetic functions, lots of interfaces available

Q.series X

Whichever form factor you like!



Portable System (Combine 1+2)



Rail Assembly (Combine 1+2+3)

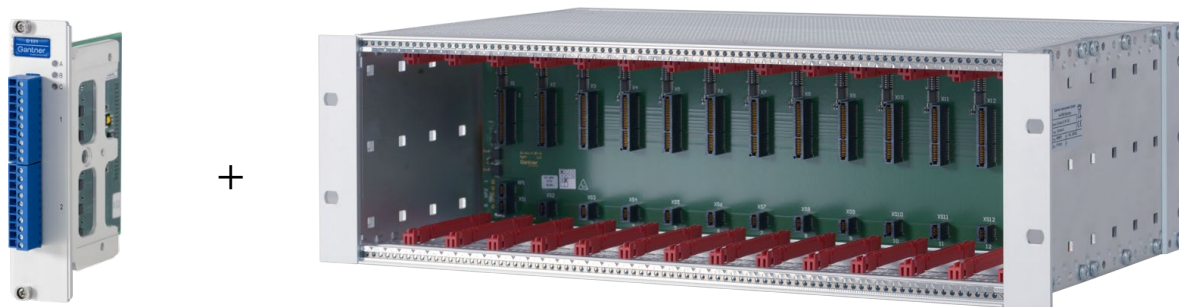


19" System, 3 U (Use part 1)



Q.series X

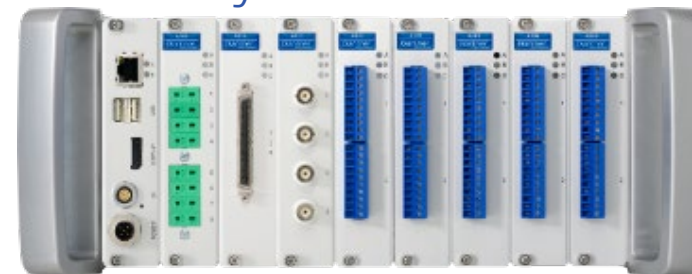
Whichever form factor you like!



19" Rack 3 HU - **raxx**



Portable System - **brixx**



Din Rail System - **bloxx**



- 1 I/O Module for raxx, brixx, bloxx
- 2 Cassette only for brixx & bloxx
- 3 Backplane with 14 slots mounted in 19" (3U) rack for raxx
Backplane in aluminum housing for brixx,
Backplane for bloxx

Controller



DAQ Controller

Q.station X (B / T)

- For computer independent data logging
- Up to 64 I/O modules connectable
- Distributed and Daisy Chained I/O modules or connected directly to the controller
- Multiple sampling rates
- RT linux as operating system for reliable 24/7 operation
- CAN bus port (CAN-FD with external adapter)
- ModbusTCP, Modbus RTU with external adapter (e.g. RS485 to USB)
- 2 USB ports for e.g. GPS mouse
- Time synchronization with NTP, PTP, IRIG
- With test.con (T option),
- Multiple interface options like OPC UA



[Click on image to download datasheet](#)

Product Codes

As bloxx (DIN Rail)

Q.station-XB

Q.station-XT

As brixx (portable)

Q.brixx-X station B

Q.brixx-X station T

As raxx (19In Rack)

Q.raxx-X station B

Q.raxx-X station T

DAQ Controller

Q.station X (B / T) PN



- Q.station standard or T version but with extension for Profinet
- Send process variable with 1kHz to PLC
- Footprint: Double-slot
- 2x RJ45 Connector
- Conformance class CC-A, Addressing DCP
- Supports topology detection, automatic addressing and media redundancy protocol



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Product Codes

As bloxx (DIN Rail)

Q.station-XB PN
Q.station-XT PN

As brixx (portable)

Q.brixx-X station B
PN
Q.brixx-X station T
PN

As raxx (19In Rack)

Q.raxx-X station B PN
Q.raxx-X station T PN

DAQ Controller

Q.station X (B / T) EC

EtherCAT[®]

Gantner
instruments

- Q.station standard or T version but with extension for EtherCAT
- Footprint: Double-slot
- Acting like an EtherCAT slave, but with additional functionality of Q.station e.g. local data logging / evaluation
- Configurable with standard EC master like TwinCAT or KPA
- 253 variable read/write with 100Mbps
- Cycle time 100µS
- Isolation voltage of RJ45 Interfaces: 500V DC



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Product Codes

As bloxx (DIN Rail)

Q.station-XB EC

Q.station-XT EC

As brixx (portable)

Q.brixx-X station B

EC

Q.brixx-X station T EC

As raxx (19In Rack)

Q.raxx-X station B EC

Q.raxx-X station T EC

DAQ Controller Q.series X bus coupler

EtherCAT[®]

Gantner
instruments

- Bus coupler as EtherCAT slave
- Connectable with 10 XE I/O modules with power supply and interface link



Product Codes
As bloxx (DIN Rail)
Q.bloxx-XE BC

As brixx (portable)
Q.brixx-XE BC

As raxx (19In Rack)
Q.raxx-XE BC

Also available with blanket front and all connections on rear as Q.raxx 19" System

[Click on image to download datasheet](#)

DAQ Controller

Q.station X (B / T) SSD-1TB

- Q.station standard or T version
but with extension with 1TB SSD
- Footprint: Double-slot



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Product Codes

As bloxx (DIN Rail)

Q.station-XB SSD-1TB

Q.station-XT SSD-1TB

As brixx (portable)

Q.brixx-X station B

SSD-1TB

Q.brixx-X station T

SSD-1TB

As raxx (19In Rack)

Q.raxx-X station B

SSD-1TB

Q.raxx-X station T

SSD-1TB

DAQ Controller

Q.station X (B / T) ETH

- Q.station standard or T version but with extension with additional Ethernet Interface
 - For operation in two independent networks
 - RJ45 1Gbit
- Footprint: Double-slot



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Product Codes

As bloxx (DIN Rail)

Q.station-XB ETH

Q.station-XT ETH

As brixx (portable)

Q.brixx-X station B ETH

Q.brixx-X station T ETH

As raxx (19In Rack)

Q.raxx-X station B ETH

Q.raxx-X station T ETH

DAQ Controller

Q.station XB SSD-1TB 4xCAN-FD

- Q.station standard but with extension with 1TB SSD and 4 x CAN-FD (as additional CAN interface to the inbuild standard CAN port (lemo))
 - 4x DB9 Connector
 - For standard CAN and CAN-FD
- Footprint: Double-slot



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Product Codes

As bloxx (DIN Rail)

Q.station-XB SSD-1TB,
4xCAN-FD

As brixx (portable)

Q.brixx-X station B SSD-
1TB, 4xCAN-FD

As raxx (19In Rack)

Q.raxx-X station B SSD-
1TB, 4xCAN-FD

DAQ Controller

Q.core 101 / 102

- High performance edge controller with Gl.bench, inbuild i7 CPU with Q.station Operating system and firmware
- Inbuild 1TB SSD for storage of large data streams from up to 6 Q.stations, extendable by NAS
- Central Data Logger configuration with pre- and post triggering
- Very high data rates up to 96 channel with 100 kHz each from Q.stations (Ethernet) or 10 channels with 4 MHz from Q.boost (USB)
- Web Frontend for data visualization and export
 - Export as csv, UDBF, MDF, FAMOS,
- Arithmetik stack of Gl.bench for evaluation of data sets
- All plugins e.g. OPC-UA available
- Configurable with Gl.bench
- 19" (1HU) Rack
- 10 - 30 VDC Power supply



Front



Rear



Web Frontend

Also Available:
- Without HDMI and USB ports on the front as Q.core 101

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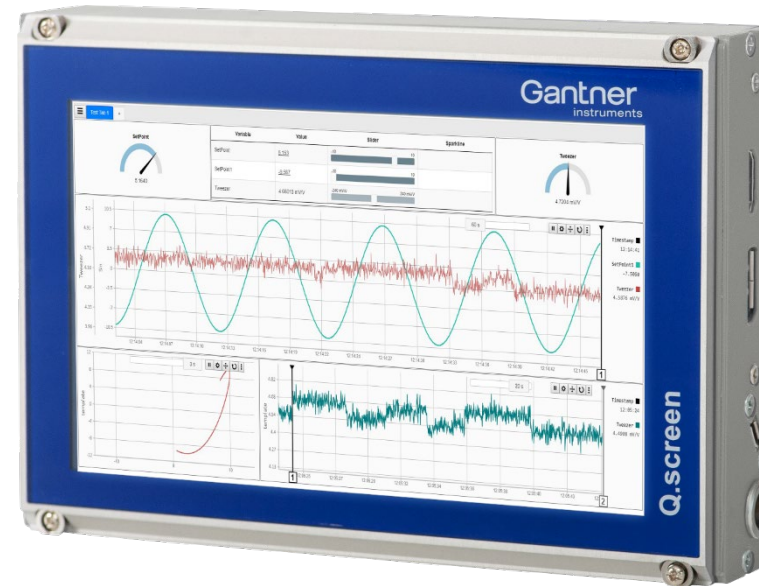
Product Codes

As raxx (slimline)
Q.Core 102 w/ USB &
HDMI

Q.Core 101 w/h USB &
HDMI

DAQ Controller Q.station X Touch Screen

- 7 inch industrial touch screen
- 800 x 480 pixel TFT LCD
- Connectable to Display Port of Q.station
- Design HMI screens with test.con
- Requires 6 slots in a 19" Q.raxx chassis



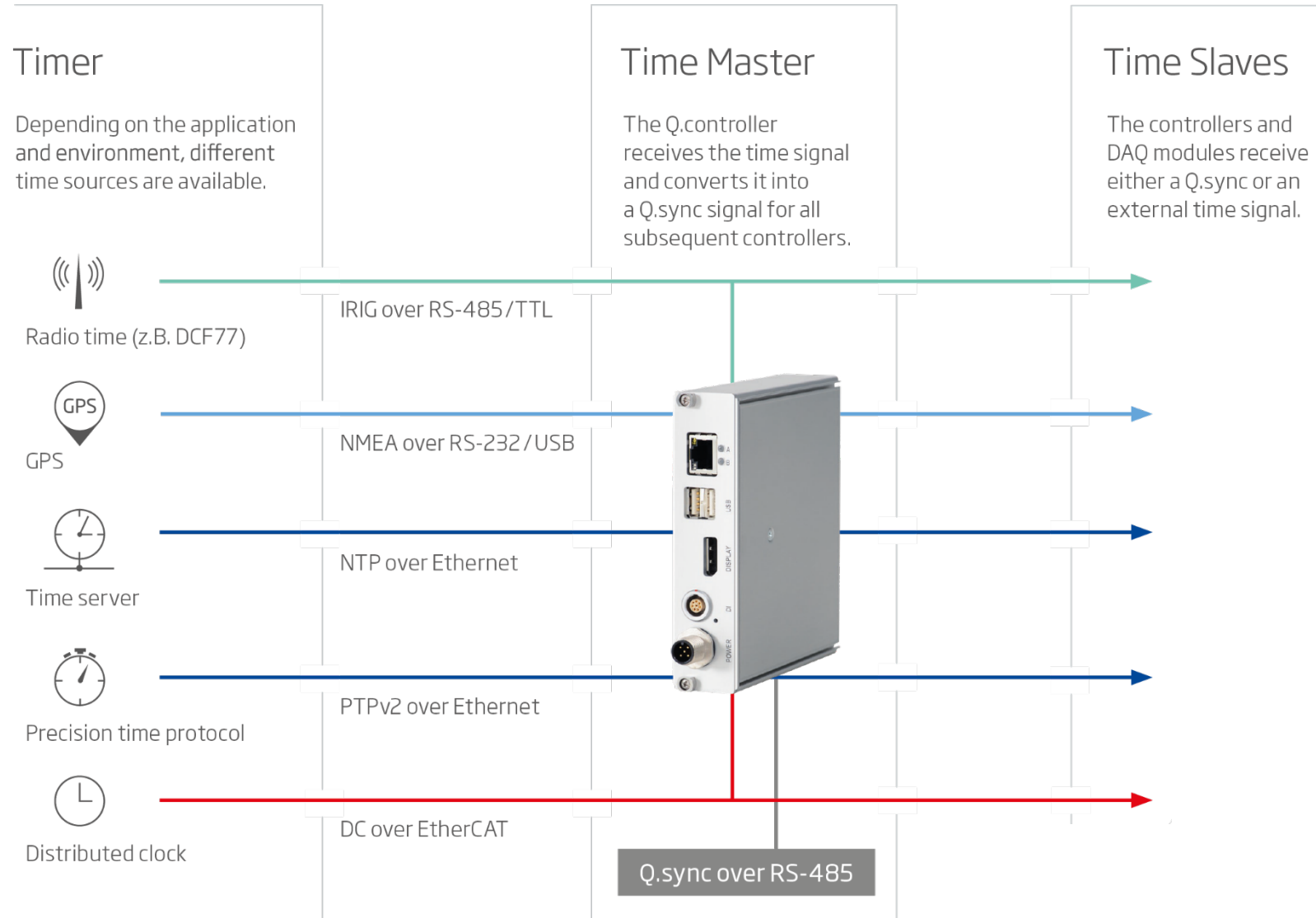
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Product Codes

For rack (19Inch 3HU)
or panel mount:
Q.screen

DAQ Controller

Q.station X Time Synchronization



Connectivity



Q.series X

Gl.bench Data Acquisition Software

- Quick and Easy Setup and Configuration of Multi-Channel DAQ Systems → Gl.bench license-free with unlimited configuration, but data acquisition function on the computer level and live data visualization on dashboards freeze after 30 minutes of operation
- Data logging on computer level independent in addition to Q.station, unlimited dashboard designs, sharing of dashboards on web browsers → Gl.bench license required (single license with computer hardware related license key)



Quick and Easy Setup of Multi-channel DAQ Systems

Reduce setup time and cost to a minimum with channel grouping, multi-channel editing, and robust configuration import and export.



Configure Multi-frequency Data Loggers

Create multiple data loggers, each with their own configurable channel set and sample rate to minimize data overhead.



Create Engaging Dashboards

Visualize live and historical data on engaging, personalized dashboards designed to help you make insightful observations quickly.



Share Dashboards

Allow teams to monitor dashboards on any computer or mobile device using a web browser without the need for additional client software.



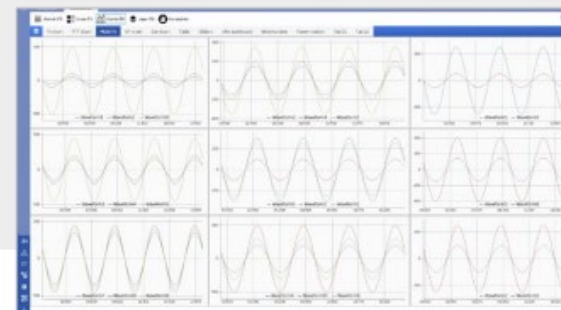
Modern API for Configuration and Data Access

Connect third party applications, promote interoperability, and expand data analysis capabilities using an advanced API.

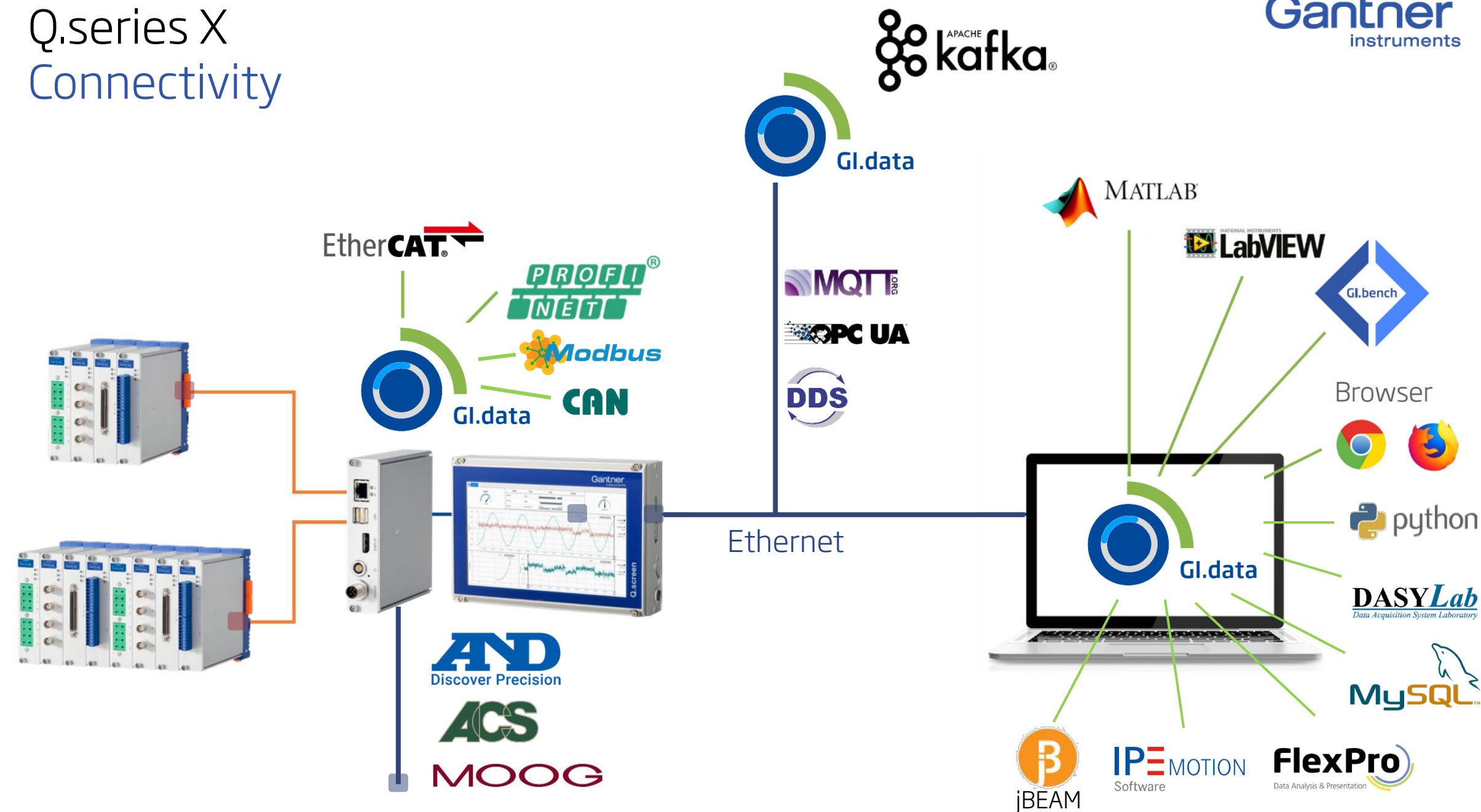


Processing of Large Volumes of Data

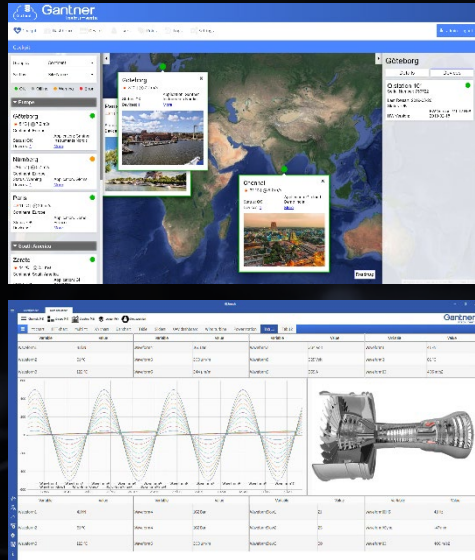
Add an adaptive and scalable data backend to efficiently process and rapidly analyze large volumes of data.



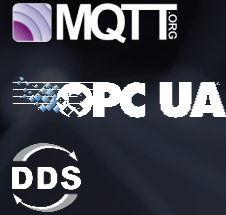
Q.series X Connectivity



From Edge to Cloud Connectivity



Configuration and Setup
Visualize - Operate - Analyze



DAQ Controller

Q.station X Connectivity

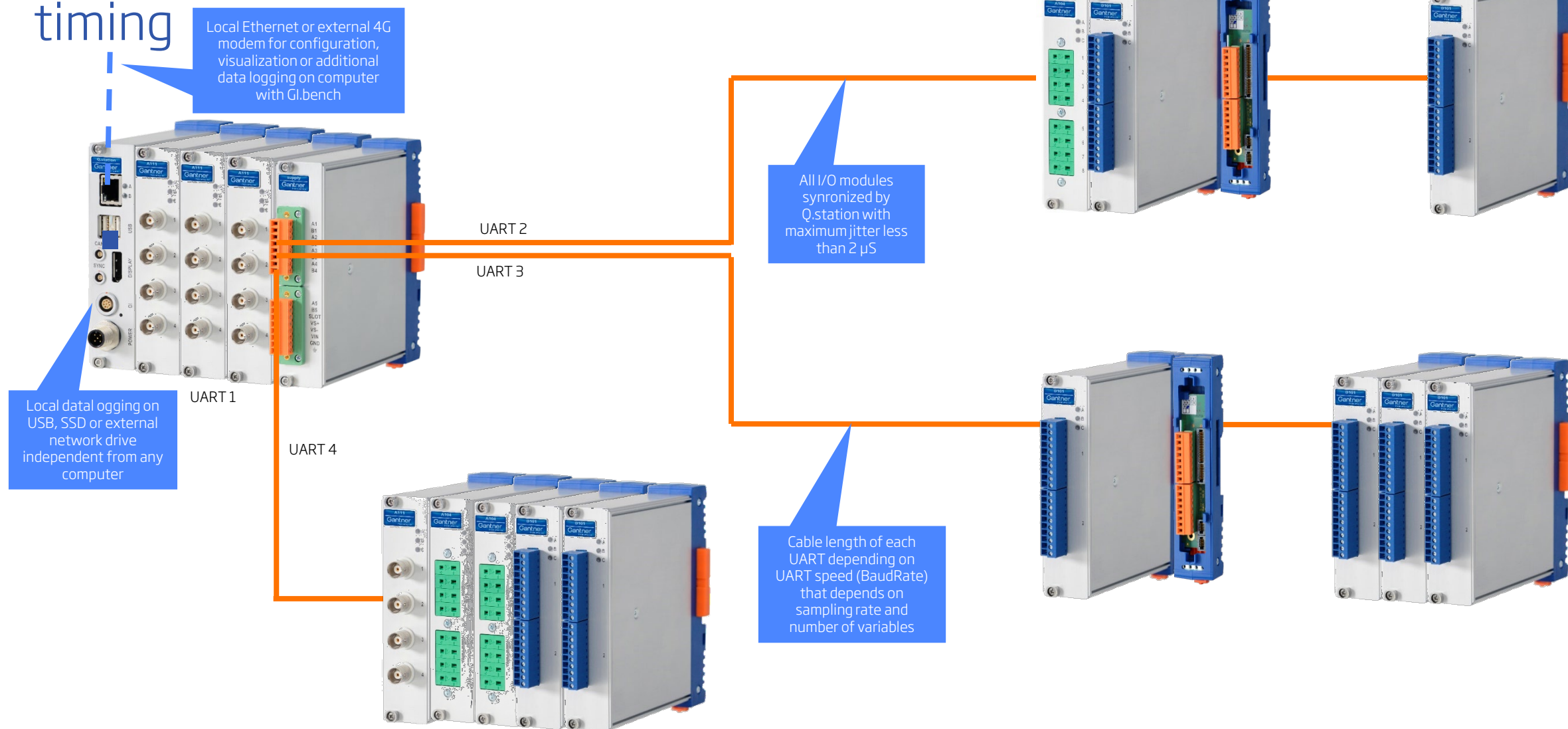
- Available Plugins:
 - EIS Engine Plugin (Electrochemical Impedance Spectroscopy)
 - OPC UA
 - Rainflow HCM
 - Moog Controller
 - ARINC
 - GOM 3D metrology cameras
 - Customized plugins on request
- Additional Interfaces
 - Modbus TCP
 - DDS
 - Modbus RTU with external USB to RS485 converter
 - CAN-FD with external USB converter
 - GPS Mouse on USB

I/O Modules



System Layout

Distributed and Daisy Chained with perfect timing



I/O Modules

Q.series X Overview



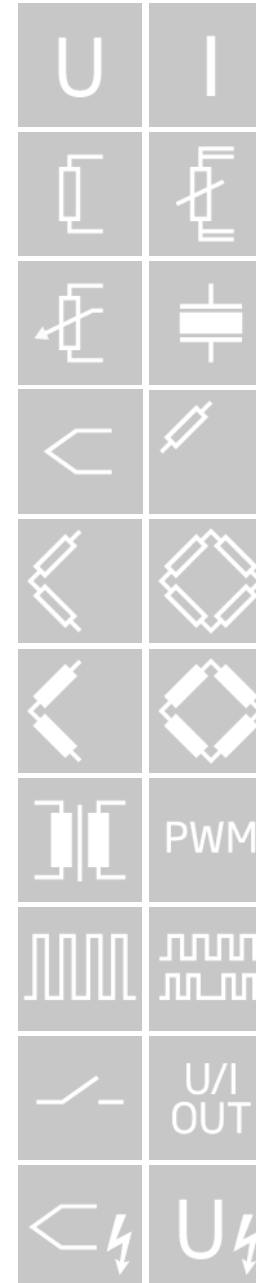
High Voltage I/O Modules

Signal Inputs		A101	A102	A103	A104	A105	A105CR	A106	A107	A108	A109	A111	A116	A121	A122	A123	A124	A127	A128	A141	A142	A146	A156	A192	C101	D101	D104	D105	D107	
U	Voltage	■	■	■	■				■	■		■		■	■	■		■	■		■			■	■					
U ₄	Voltage (1.2 kV isolation)														■	■		■	■											
I	Current	■	■	■					■	■				■	■	■		■						■	■					
	Resistance	■				■	■		■					■										■	■					
	Potentiometer	■							■					■											■					
	RTD	■				■	■		■															■	■					
	Cryogenic thermistor						■																							
<	Thermocouple	■			■				■															■						
<⚡	High voltage (1.2 kV isolation)																■													
	Full-bridge strain gage	■	■					■	■				■	■							■		■	■	■					
	Half-bridge strain gage	■	■					■	■				■	■							■		■	■	■					
	Quarter-bridge strain gage	■	■					■	■				■								■	■	■	■	■					
	Inductive full-bridge							■													■		■		■					
	Inductive half-bridge							■													■		■		■					
	LVDT							■													■		■		■					
	IEPE	■	■									■		■										■	■					
	Charge																			■										
	Frequency / Counter										■															■		■		
PWM	Pulse-width modulation										■															■		■		
	Analog out		■					■			■										■			■	■					
	Time										■													■	■			■		
	Status	■	■	■				■		■	■										■			■	■	■	■	■		
	Number of channels	2	1	8	8	4	4	2	4	8	4	4	8	2	4	2	4	4	4	4	4	3	16	4	1	4	8	16	16	2-6
	Data rate (Hz)	100k	100k	100	100	100	100	20k	20k	20k	100k	100k	20k	100k	100k	100k	20k	100k	100k	100k	20k	20k	20k	100k	20k	100k	20k	20k	0.1-1M	

I/O Modules

Q.series X General Features

- All I/O Modules with 24-bit ADC (A102, A122 with 19-bit SAR)
- Isolation voltage of 500 VDC
 - channel-to-channel
 - channel to power supply
 - channel to bus
- High Voltage I/O modules with 1200 VDC isolation voltage permanent 1500 VDC for A128+
- Software selectable:
 - Input type
 - Measurement range
 - Scaling and linearization with 300 points (1000+ for RTD)
 - Sensor excitation voltage
- Anti-aliasing filter and further digital filter selectable (High / Low pass, band-pass, Butterworth, Bessel up to 8th order)
- Additional virtual variables for signal condition (module dependend):
 - Linearization, filter, average, calcing, min/max storage, rms, arithmetic, alarm



I/O Modules

Q.series X Nomenclature

Examples for A101 multipurpose I/O module

Q.bloxx XL A101

Q.bloxx XE A101

Q.brixx XL A101

Q.brixx XE A111

Q.raxx XL A101

Q.raxx XE A101

All further I/O modules are shown in Q.bloxx version as XL and XE and are available in all three formfactors (bloxx, brixx, raxx) unless otherwise stated

DIN Rail - **bloxx**



Portable System - **brixx**



19" Rack 3 HU - **raxx**



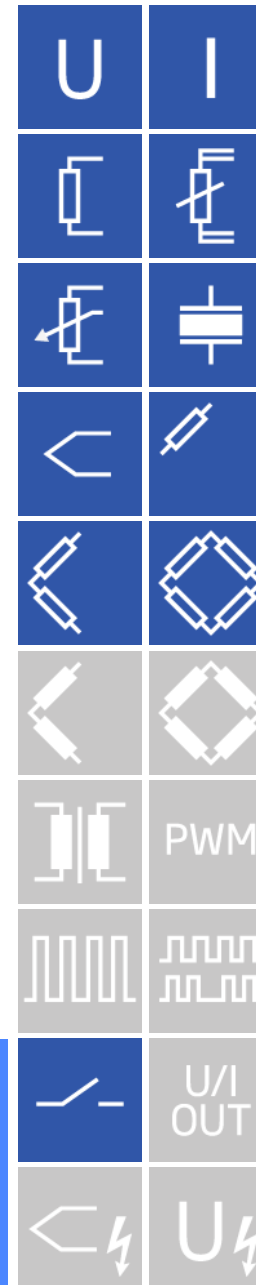
I/O Modules

Q.series X A101

- Multipurpose I/O module with 2 Ch at 100 kS/s each
 - 0-10V
 - 0-60V
 - 0/4-20mA
 - IEPE/ICP
 - Thermocouple
 - Pt100/Pt100
 - Resistance
 - Strain Gage (quarter, half, full)
- 2 Digital Inputs or Outputs
 - Status, trigger,
 - tare, alarm
- Standard 10-pole screw terminals
- Or LEMO connectors with inbuild sensor excitation (2x 15 VDC)

Accessoires:

- Cold Junction Compensation Terminal: Qterm-CJC-A101
- Bridge Completion Resistor 120 Ohm: Qterm-B4/120-A101
- Bridge Completion Resistor 350 Ohm: Qterm-B4/350-A101

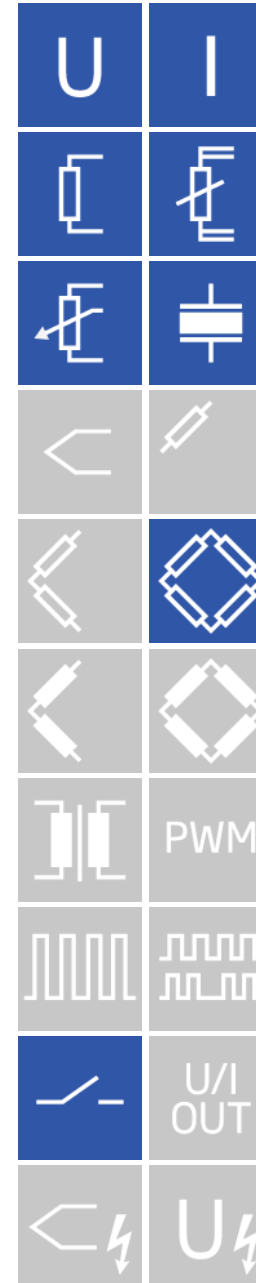


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I/O Modules

Q.series X A101 2xDB15HD SV

- Universal Measurement Module with 2 Ch at 100 kS/s each and programmable sensor supply
 - 0-10V
 - 0-60V
 - 0/4-20mA
 - IEPE/ICP
 - Pt100/Pt100
 - Resistance
 - Strain Gage (full)
- 2 Digital Inputs or Outputs
 - Status, trigger, tare, alarm
- 2x DB15-HD connectors
- Sensor supply voltage and current limit programmable per channel
 - Voltage: 3.3 V - 20 V (24 V if supply is > 27.3 V) in steps of 10 mV
 - Current limit: 50 mA - 100 mA in steps of 100 μ A
 - ATTENTION: requires an additional power supply for the SV bus-bar on the backplane. This power supply must be independent from module supply to keep the galvanic isolation! Maximum 4A on SV bus-bar!



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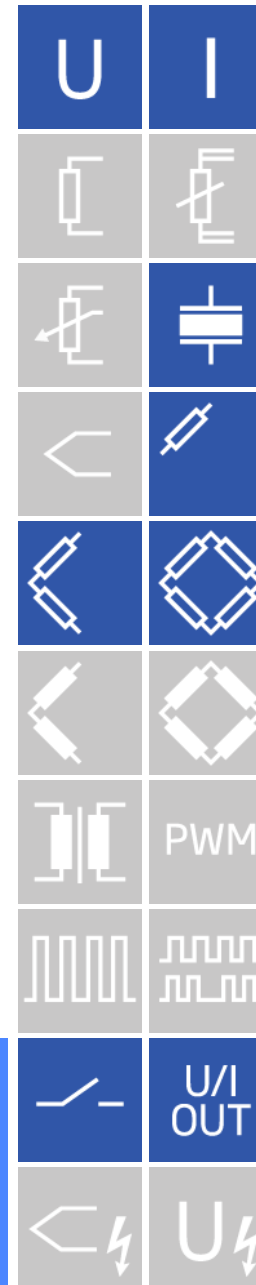
I/O Modules

Q.series X A102

- Multipurpose I/O module with 1 Ch at 100 kS/s
 - 1 Analog input channel (19-bit SAE ADC with zero latency):
 - Half-, Full-Bridge
 - Quarter-Bridge (With completion Terminal)
 - Bridge Excitation up to 10V DC
 - IEPE
 - Voltage
 - Current
 - 1 Analog output channel:
 - Voltage (± 10 V)
 - Current (0 to 20 mA)
 - 4 Digital Inputs and 2 Digital Outputs
 - status., trigger, tare, alarm, command
 - RS485 fieldbus interface
 - To control 8 / 16 / 24 channel multiplexer, 10 Hz per channel
- Standard 10-pole screw terminals

Accessoires:

- Bridge Completion Resistor 120 Ohm: Qterm-B4/120-A102
- Bridge Completion Resistor 350 Ohm: Qterm-B4/350-A102



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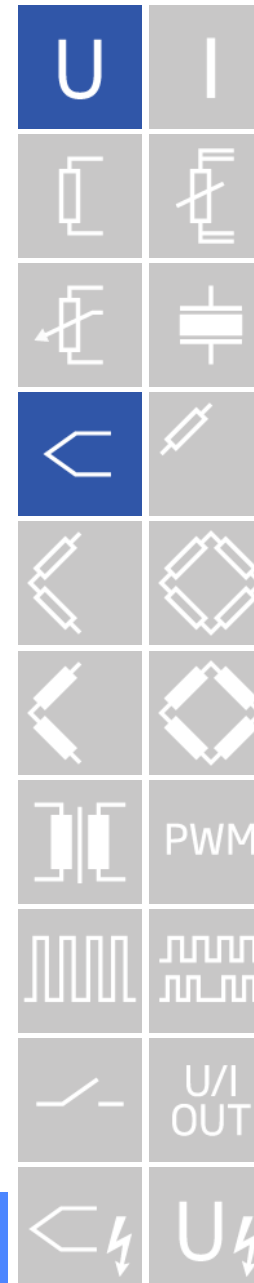
I/O Modules

Q.series X A104

- Thermocouple and Low Voltage Measurement Module with 8 Ch at 100 S/s each
 - 8 analog input channels:
 - Thermocouple
 - Type B / E / J / K / L / N / R / S / T / U
 - Margin of error e.g. for type K ± 0.5 to ± 1 K
 - Voltage
 - ± 80 mV
 - Margin of error ± 10 μ V
 - Resolution 10 nV
 - 60/50 Hz noise reduction filter (10/6 Hz sampling rate)
 - Open thermocouple detection
 - Detect broken wire, loose connection or thermocouple burnout (NOTE: use A104 plus or LBC, LBC Version for thin thermocouple wires)
 - Isolation voltage channel-to-channel 100 VDC
 - Standard 10-pole screw terminals

Accessoires:

- Cold Junction Compensation Terminal: Qterm-CJC-A104



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I/O Modules

Q.series X A104+

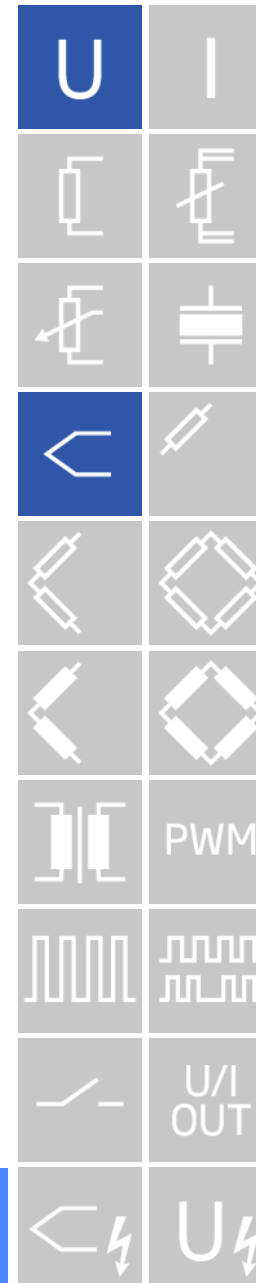
Ultra low noise Version of A104 with very high noise suppression and high CMRR caused by special separated and active input stages with anti-aliasing filter each channel. Works perfectly together with ultra thin and long thermocouple wires and in noisy environments (e.g. electric motor, inverters).

- Thermocouple and Low Voltage Measurement Module
 - 8 analog input channels:
 - Thermocouple
 - Type B / E / J / K / L / N / R / S / T / U
 - Voltage
 - ± 80 mV
 - Open thermocouple detection
(NOTE: bias current can be disabled for use with thin wires)
 - Standard 10-pole screw terminal / Junction Terminal available:

Also available as TCT and TCK Version

Accessoires:

- Cold Junction Compensation Terminal: Qterm-CJC-A104



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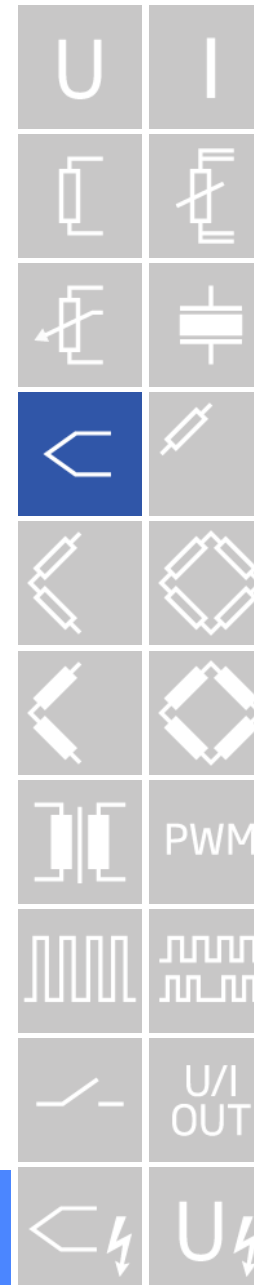
I/O Modules

Q.series X A104 TCK

- Thermocouple type input connector Version of A104
 - 8 analog input channels:
 - Thermocouple
 - Type K (others on request)
 - Margin of error e.g. for type K ± 0.5 K
 - Voltage
 - ± 80 mV
 - Margin of error ± 10 μ V
 - Resolution 10 nV
 - 60/50 Hz noise reduction filter (10/6 Hz sampling rate)
 - Open thermocouple detection
 - Detect broken wire, loose connection or thermocouple burnout
 - Isolation voltage channel-to-channel 100 VDC
- 8x TCK Miniature Connector with inbuild cold junction compensation by Pt100

Also Available:

- With Front Connectors in Yellow for TCK (ANSI)



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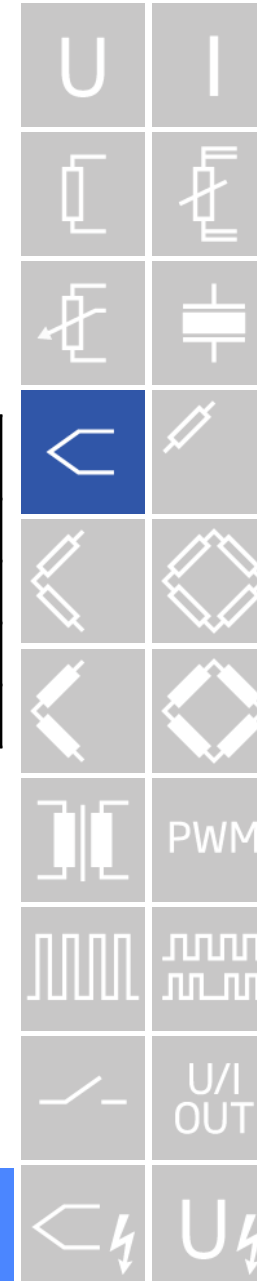
I/O Modules

Q.series X A104 TCT

- Thermocouple type input connector Version of A104
 - 8 analog input channels:
 - Thermocouple
 - Type T (others on request)
 - Voltage
 - ± 80 mV
 - Margin of error ± 10 μ V
 - Resolution 10 nV
 - 60/50 Hz noise reduction filter (10/6 Hz sampling rate)
 - Open thermocouple detection
 - Detect broken wire, loose connection or thermocouple burnout
 - Isolation voltage channel-to-channel 100 VDC
- 8x TCK Miniature Connector with inbuild cold junction compensation by Pt100

Measurement Range	Margin of error	
-270°C bis 400°C	-250°C bis -100°C	< $\pm 1,5^\circ\text{C}$
	-100°C bis 400°C	< $\pm 1,0^\circ\text{C}$
-200°C bis 400°C	-200°C bis -100°C	< $\pm 1,0^\circ\text{C}$
	-100°C bis 400°C	< $\pm 0,5^\circ\text{C}$

Also Available:
 - With Front Connectors in Blue (ANSI)



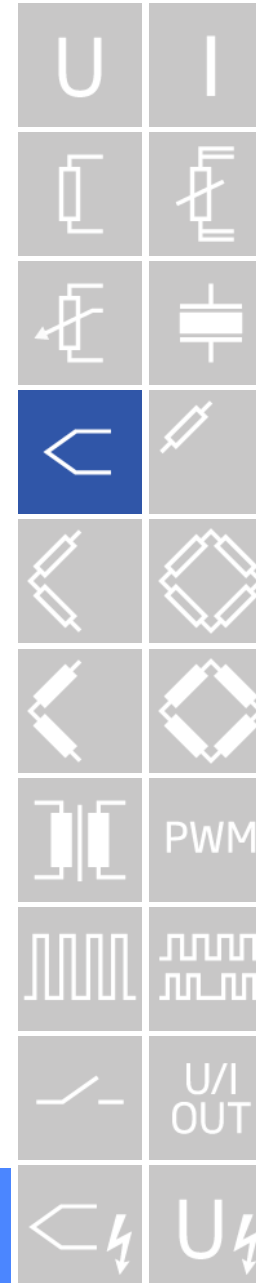
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I/O Modules

Q.series X A104 TCx

- Universal Thermocouple type input connector Version of A104
 - 8 analog input channels:
 - Thermocouple
 - Type x universal (copper contacts)
 - Margin of error e.g., for type K ± 0.8 K
 - Voltage
 - ± 80 mV
 - Margin of error $\pm 10 \mu\text{V}$
 - Resolution 10nV
 - 60/50Hz noise reduction filter (10/6 Hz sampling rate)
 - Open thermocouple detection
 - Detect broken wire, loose connection or thermocouple burnout
 - Isolation voltage channel-to-channel 100 VDC
- 8x TCx Miniature Connector with inbuild cold junction compensation by Pt100

Also Available:
- As plus version



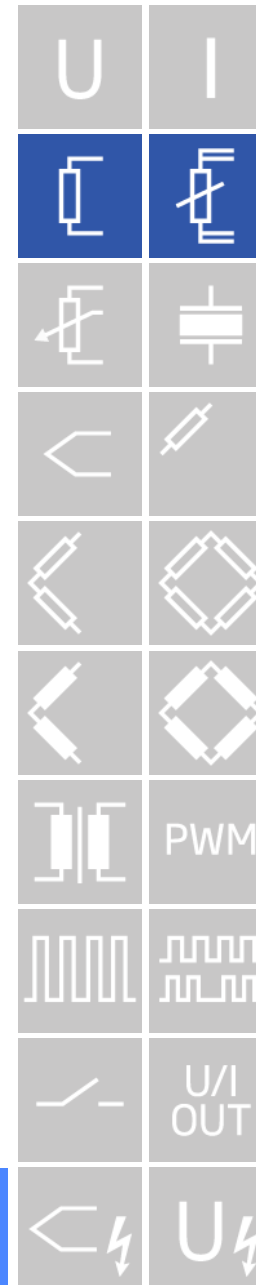
Datasheet coming soon

I/O Modules

Q.series X A105

- Measurement Module for Temperature (RTD) and Resistance with 4 Ch at 10 kS/s reduced by averaging to available 10 S/s each
- 4 analog input channels:
 - Pt100
 - Margin of error 0.05 °C
 - Resolution 0.0001 °C
 - Pt1000
 - Resistance 400 Ω / 4000 Ω
 - 3- or 4- wire connection
- Standard 10-pole screw terminals

Also Available:
- With Front Connectors 4x LEMO 4-Pole

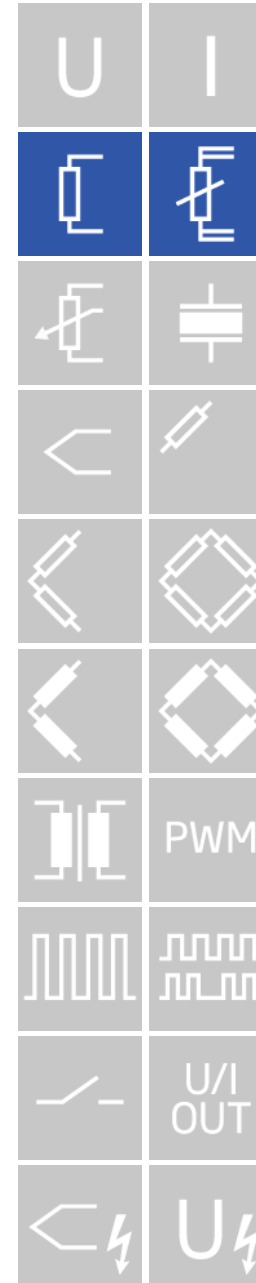


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I/O Modules

Q.series X A105 CR

- Measurement Module for Temperature (RTD) and Resistance
 - 4 analog input channels:
 - For cryogenic sensors with extremely low excitation current and short excitation periods to keep heat dissipation in low temperature applications as low as possible
 - E.g., Type Cernox / TVO
 - Input range selectable
 - 6500 Ω / 20000 Ω
 - Example with Cernox CX1050
 - Error at 2k 0.02 % or measurement value
 - Standard 10-pole screw terminals



[Click on image to download datasheet](#)

I/O Modules

Q.series X A106

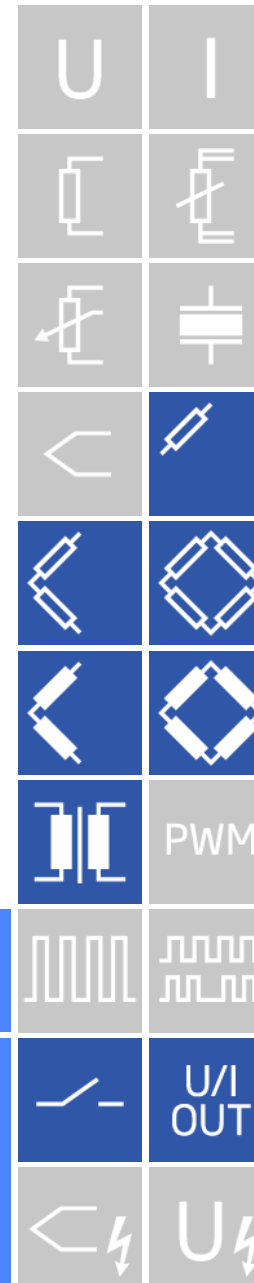
- Measurement Module for Strain Gage and LVDT/RVDT with 2 Ch at 20 kS/s each
 - 2 galvanic isolated Analog input channels:
 - Strain Gage
 - Half-Full Bridge
 - LVDT,RVDT
 - Inductive Half- Full bridge
 - Quarter-Bridge with completion Terminal
 - DC and carrier frequency (CF) principle
 - 2.5 and 5 VDC excitation
 - 600 Hz or 4.8 kHz CF configurable per channel
 - 2 Analog Outputs
 - ± 10 VDC
 - 4 Digital I/Os
 - State, Tare, Memory Reset, Alarm, Threshold
 - Standard 10-pole screw terminals

Also Available:

- With Front Connectors 2x DSub15 and 2x BNC
- With Front Connectors 2x DSub9 and 2x BNC

Accessoires:

- Bridge Completion Resistor 120 Ohm: Qterm-B4/120-A106
- Bridge Completion Resistor 350 Ohm: Qterm-B4/350-A106



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I/O Modules

Q.series X A107

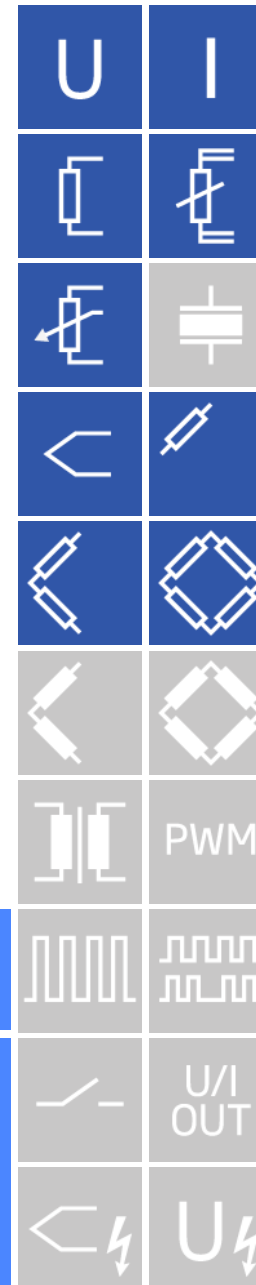
- Universal Measurement Module with 4 Ch at 20 kS/s each
 - 4 Universal analog input channels:
 - Voltage with input range $\pm 10\text{ V}$, $\pm 1\text{ V}$ and $\pm 100\text{ mV}$
 - Current with input range $\pm 25\text{ mA}$
 - Potentiometer with input range $1\text{ k}\Omega$ to $10\text{ k}\Omega$
 - Resistance with input range $400\text{ }\Omega$ and $4\text{ k}\Omega$
 - RDT (Pt100 / Pt1000)
 - Thermocouple
 - Strain Gage with input range $\pm 2.5\text{ mV/V}$, $\pm 50\text{ mV/V}$ and $\pm 500\text{ mV/V}$
- Standard 10-pole screw terminals
- Or LEMO connectors with inbuild sensor excitation (2x 15 VDC) 20 mA each)

Also Available:

- With Front Connectors 4x DSUB9
- With Front Connectors 4x Binder 8-Pole

Accessoires:

- Cold Junction Compensation Terminal: Qterm-CJC-A107
- Bridge Completion Resistor 120 Ω : Qterm-B4/120-A107
- Bridge Completion Resistor 350 Ω : Qterm-B4/350-A107



Q.bloxx XL/XE
A107-Lemo

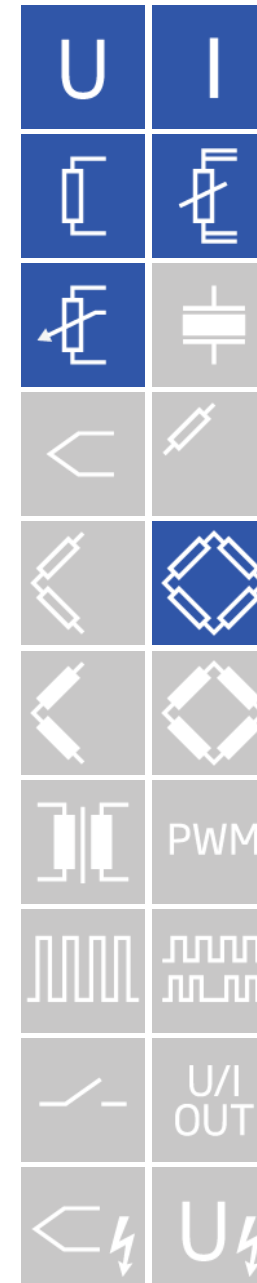
Q.bloxx XL/XE
A107

[Click on image to download datasheet](#)

I/O Modules

Q.series X A107 4xLemo2B SV

- Universal Measurement Module with 4 Ch at 20 kS/s each and programmable sensor supply
 - 4 Universal analog input channels:
 - Voltage with input range ± 10 V, ± 1 V and ± 100 mV
 - Current with input range ± 25 mA
 - Potentiometer with input range 1 k Ω to 10 k Ω
 - Resistance with input range 400 Ω and 4 k Ω
 - RDT (Pt100 / Pt1000)
 - Strain Gage with input range ± 2.5 mV/V, ± 50 mV/V and ± 500 mV/V
- 4x Lemo 2B, 8-pole connectors
- Sensor supply voltage and current limit programmable per channel
 - Voltage: 3.3 V - 20 V (24 V if supply is > 27.3 V) in steps of 10 mV
 - Current limit: 50 mA - 100 mA in steps of 100 μ A
 - ATTENTION: requires an additional power supply for the SV bus-bar on the backplane. This power supply must be independent from module supply to keep the galvanic isolation! Maximum 4A on SV bus-bar!

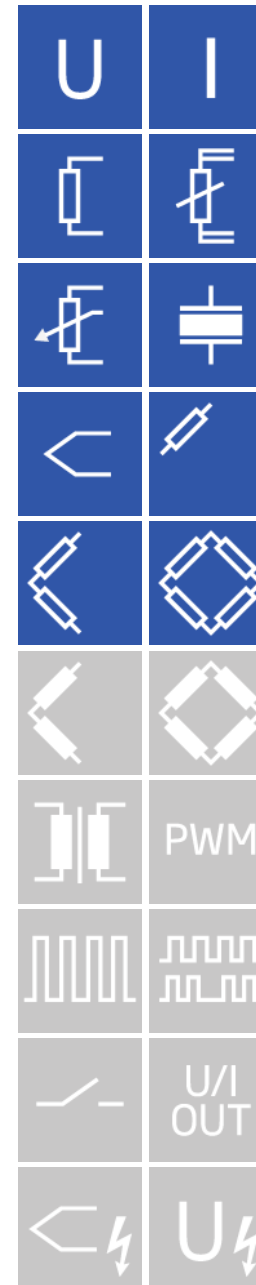


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I/O Modules

Q.series X A107-4M1

- Measurement Module for MEMS Sensors with inbuild excitation and 4 Ch at 20 kS/s each
- 4 Universal analog input channels:
 - Voltage with input range ± 10 V, ± 1 V and ± 100 mV
 - Current with input range ± 25 mA
 - Potentiometer with input range 1 kOhm to 10 kOhm
 - Resistance with input range 400 Ohm and 4 kOhm
 - RDT (Pt100 / Pt1000)
 - Thermocouple
 - Strain Gage with input range ± 2.5 mV/V, ± 50 mV/V and ± 500 mV/V
- 4x DB9 Standard sockets with inbuild sensor excitation (4x 15 VDC, 20 mA each)



Q.bloxx XL/XE
A107-4M1

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I/O Modules

Q.series X A108

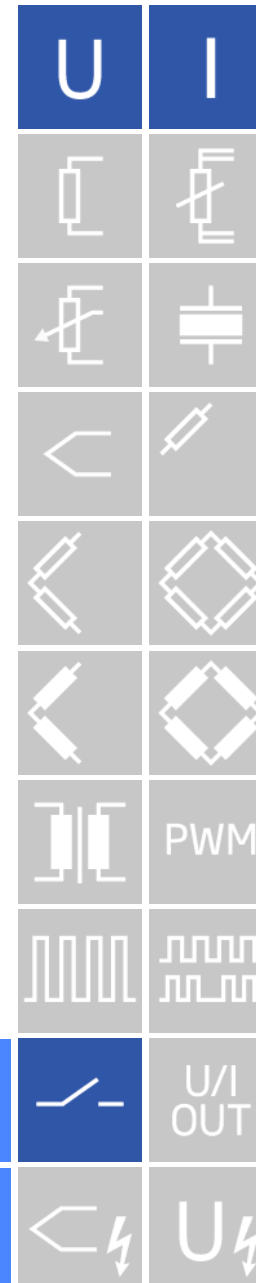
- Voltage and Current Measurement Module with 8 Ch at 20 kS/s each
- 8 analog input channels:
 - Voltage differential
 - Input range ± 10 VDC
 - Margin of error ± 2 mV
 - Resolution $1.5 \mu\text{V}$
 - Overvoltage protection ± 200 V
 - Current (with shunt resistor)
- 2 Digital inputs and outputs
 - Status, Trigger, Tare, Alarm
- Standard 10-pole screw terminals

Also Available:

- With Front Connectors 8x BNC as double slot module
- With Front Connectors 8x LEMO 3-Pin as single slot module

Accessoires:

- Shunt Terminal for Current Measurement (0/4-20 mA): Qterm-SR

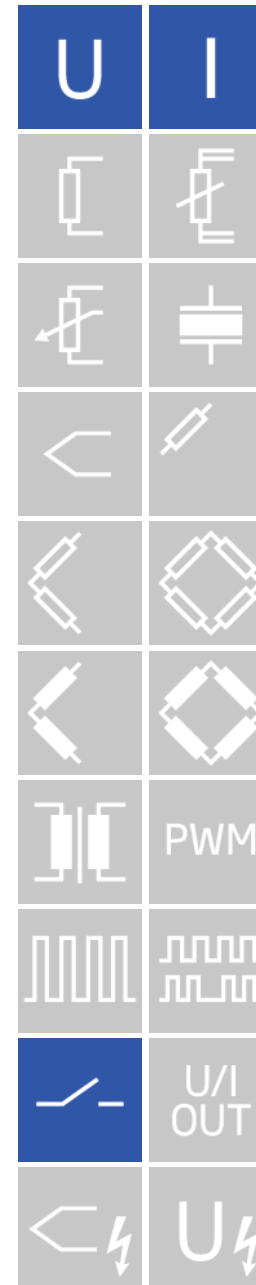


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I/O Modules

Q.series X A108-5V

- Voltage and Current Measurement Module with 8 Ch at 20 kS/s each
 - 8 analog input channels:
 - Voltage differential
 - Input range ± 5 VDC
 - Margin of error ± 1 mV
 - Resolution 1.5 μ V
 - Overvoltage protection ± 200 V
 - Current (with shunt resistor)
 - 2 Digital inputs and outputs
 - Status, Trigger, Tare, Alarm
- Standard 10-pole screw terminals



[Click on image to download datasheet](#)

I/O Modules

Q.series X A108 60V

- Voltage Module with 8 Ch at 20 kS/s each
- 8 analog input channels:
 - Voltage differential
 - Input range ± 100 VDC
 - Margin of error ± 25 mV
 - Resolution 50 μ V
- 2 Digital inputs and outputs
 - Status, Trigger, Tare, Alarm
- Push-In terminals

Also Available:

- With Front Connectors 8x BNC as double slot module

U	I
	PWM
	U/I OUT
	U

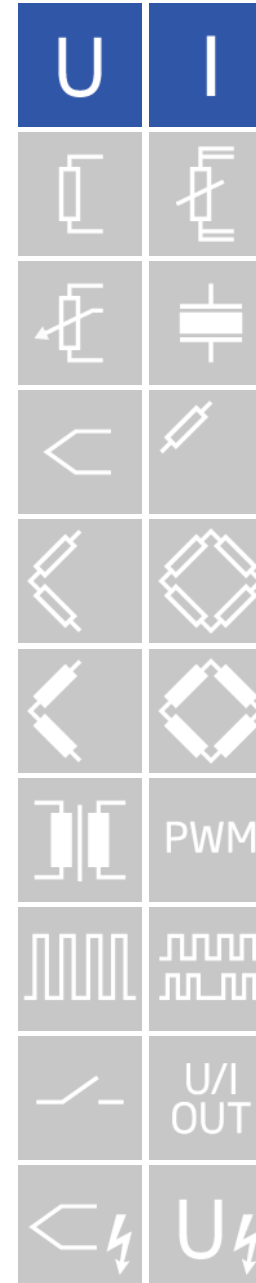


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Q.raxx-XL/XE slimline A108 2SC

Standby-Current Measurement System

- Measuring module for standby-current and operating current with dynamic switching and for recording the on-board power supply voltage with 20 kS/s sampling rate per channel
- 2 Ch for voltage
 - Measurement range ± 60 V
 - Accuracy ± 25 mV
 - Resolution 12 μ V
- 2 Ch for current
 - Standby current up to 80 mA
 - Accuracy ± 50 μ A
 - Dynamic switching to the operating current
 - 5 A Ch 1 and 50 A ch 2
 - Accuracy 0.2%
- Without power loss of test item (supply of amplifier > 10 VDC necessary)
- Self-resetting fuse, monitoring by separate measuring channels
- Forced ventilation with inlet and outlet air duct



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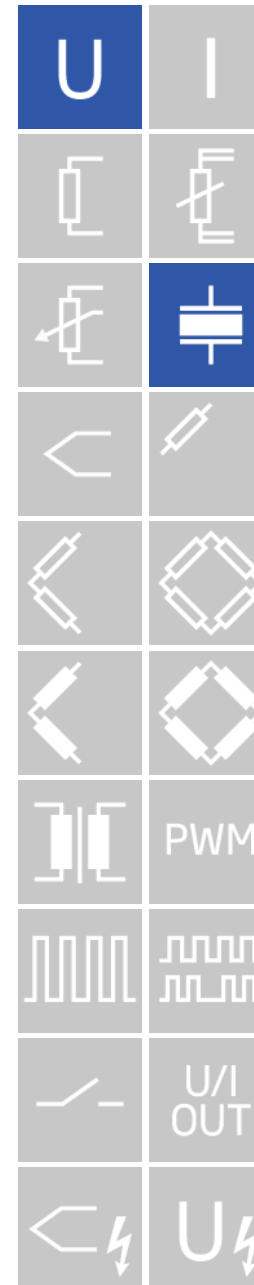
Also available with
built-in bus coupler as
EtherCAT slave (XE)
or with Q.station

[Click on image to download datasheet](#)

I/O Modules

Q.series X A108 4M1 / 2M3

- 2M3: I/O Module for 2 tri-axis MEMS sensors
 - 6+2 Analog Input channels with 20 kS/s each
 - AI1, AI2, AI3 differential/ single-ended switchable in groups
 - AI5, AI6, AI7 differential/ single-ended switchable in groups
 - AI4, AI8 single-ended (e.g. for temperature compensation)
- 4M1: I/O Module for 4 single-axis MEMS sensors
 - 4+4 Analog Input channels with 20 kS/s each
 - AI1, AI2, AI3, AI4 differential/ single-ended switchable in groups
 - AI5, AI6, AI7, AI8 single-ended (e.g. for temperature compensation)
- All analog inputs:
 - Input range ± 10 VDC
 - Margin of error ± 2 mV
 - Resolution 1.5 μ V
- Sensor excitation for each sensor
 - 15 V max. 40 mA (short circuit proof)
- Available in 2M3 (DB9) and 4M1 (MicroCom CMR)



Q.bloxx XL/XE
A108-2M3

Q.bloxx XL/XE
A108-4M1

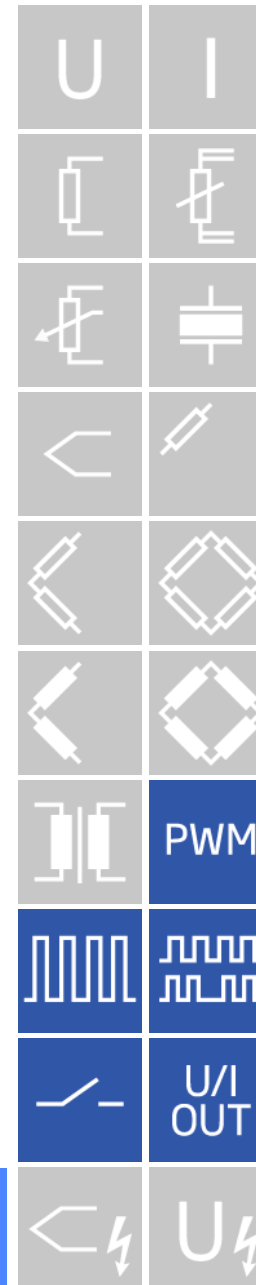
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I/O Modules

Q.series X A109

- Analog Output Module with Digital I/Os
 - 4 analog output channels:
 - Voltage ± 10 VDC
 - Current 0-20 mA
 - 4 Digital inputs and outputs
 - 2 counter / 2 frequency
 - 2 PWM Inputs / 4 frequency out
 - 4 PWM output
 - 4 state outputs
- Standard 10-pole screw terminals

Also Available:
- With Front Connectors 4x BNC (analog output only)

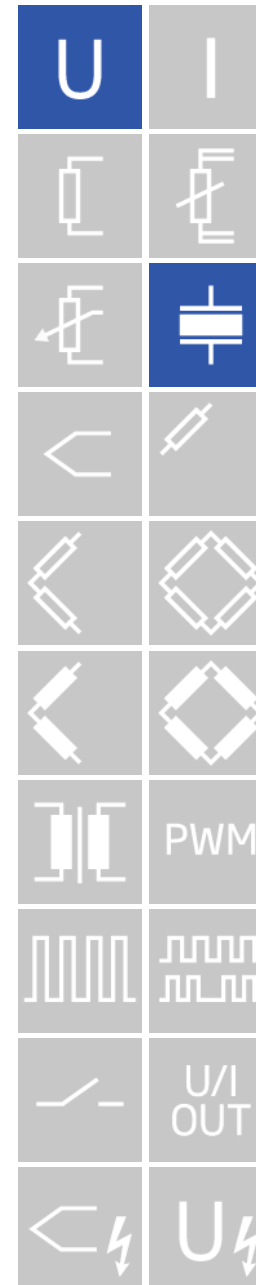


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I/O Modules

Q.series X A111 / A111 BNC

- Module for IEPE/ICP Sensors and Voltages with 4 Ch at 100 kS/s each
- 4 galvanic isolated analog input channels:
 - IEPE
 - Input range ± 1 V or ± 10 V
 - margin of error ± 1 mV / ± 10 mV
 - Sensor excitation with 4mA constant current
 - Compliance voltage 24 VDC ± 10 %
 - Input frequency range 0.5 Hz to 20 kHz
 - Voltage
 - Input range ± 100 mV, ± 1 V or ± 10 V
 - margin of error ± 20 μ V / ± 200 μ V / ± 2 mV
- Standard 10-pole screw terminals or BNC-Connectors



Q.bloxx XL/XE
A111-BNC

Q.bloxx
XL/XE A111

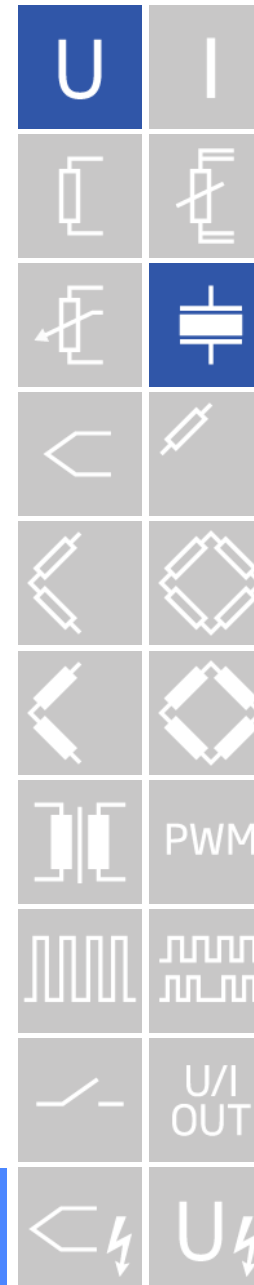
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I/O Modules

Q.series X A111 HB

- Module for IEPE/ICP Sensors and Voltages with higher bandwidth 4 Ch at 100 kS/s each
- 4 galvanic isolated analog input channels:
 - IEPE
 - Input range ± 1 V or ± 10 V
 - margin of error ± 1 mV / ± 10 mV
 - Sensor excitation with 4mA constant current
 - Compliance voltage 24 VDC ± 10 %
 - Input frequency range 0.5 Hz to 45 kHz 3 dB
 - Voltage
 - Input range ± 100 mV, ± 1 V or ± 10 V
 - margin of error ± 20 μ V / ± 200 μ V / ± 2 mV
- Standard 10-pole screw terminals or BNC-Connectors

Also Available:
- With Front Connectors 4x BNC



Q.bloxx
XL/XE A111
HB 30V

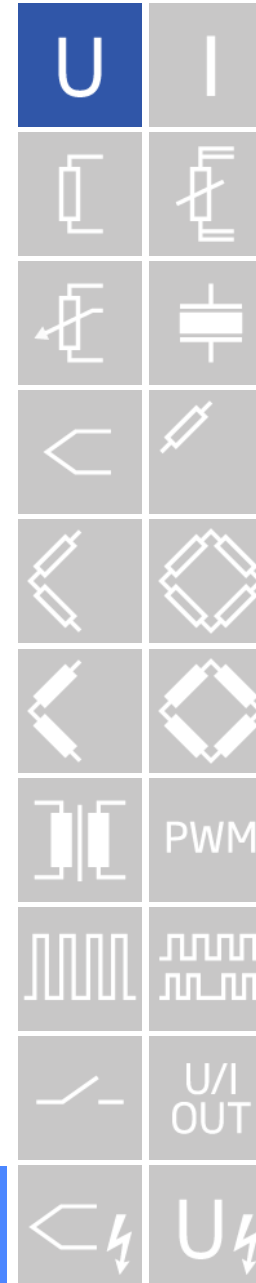
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I/O Modules

Q.series X A111 HB 30V

- Module with higher bandwidth for Voltages up to 30V with 4 Ch at 100 kS/s each
 - 4 galvanic isolated analog input channels:
 - High bandwidth 45 kHz 3dB
 - Input range ± 30 V
 - margin of error ± 6 mV
- Designed to read raw signals from the buffered output of machinery protection systems
- Standard 10-pole screw terminals or BNC-Connectors

Also Available:
- With Front Connectors 4x BNC



Q.bloxx
XL/XE A111
HB 30V

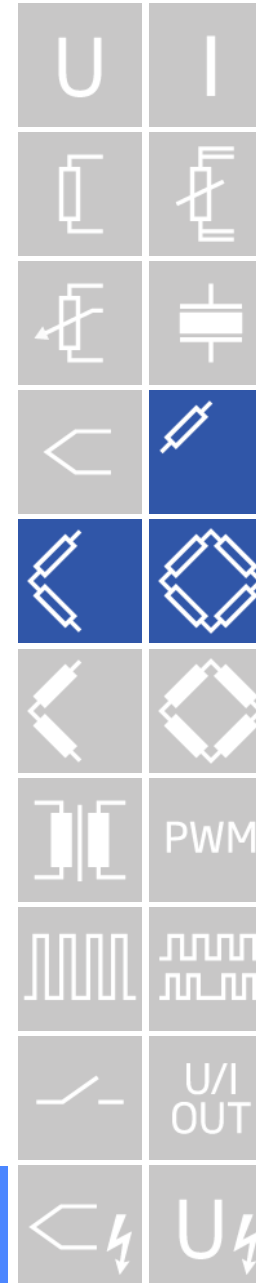
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I/O Modules

Q.series X A116

- Strain Gage Measurement Module with 8 Ch at 20 kS/s each
 - 8 analog input channels:
 - Full-Bridge (4/6 wire)
 - Half-Bridge (3/5 wire)
 - Quarter-Bridge (3 wire with lead wire resistance compensation)
 - Input range 2.5 or 10 mV/V for half- and full-bridge
 - Input range 1 or 10 mV/V for quarter-bridge
 - Active lead wire resistance compensation
 - Inbuild shunt resistor for verification of complete measurement chain
 - → With its high accuracy and long term stable inputs, no shunt calibration is needed prior measurements
 - Bridge completion resistor (software selectable)
 - 120 Ohm or 350 Ohm (others on request)
 - Bridge excitation (software selectable)
 - 2 VDC or 4 VDC per channel
- 64 pole Harting Connector

Accessoires:
- Connection Terminal for DIN Rail: CT A116



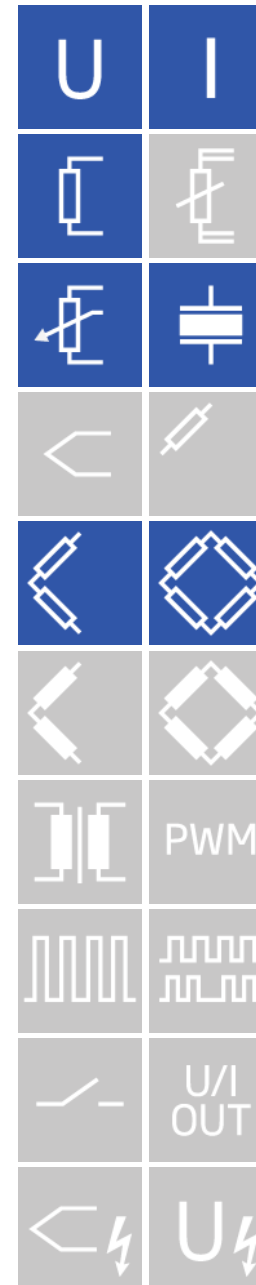
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High Voltage I/O Modules

Q.series X A121 LEMO



- Multipurpose I/O module with software configurable 2 Ch at 100 kS/s each
 - 0-10V
 - 0/4-20 mA
 - IEPE/ICP
 - Thermocouples
 - Pt100/Pt100
 - Resistance for NTC up to 100 kOhm
 - Strain Gage (half, full)
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- 2x Lemo 2P high voltage connectors



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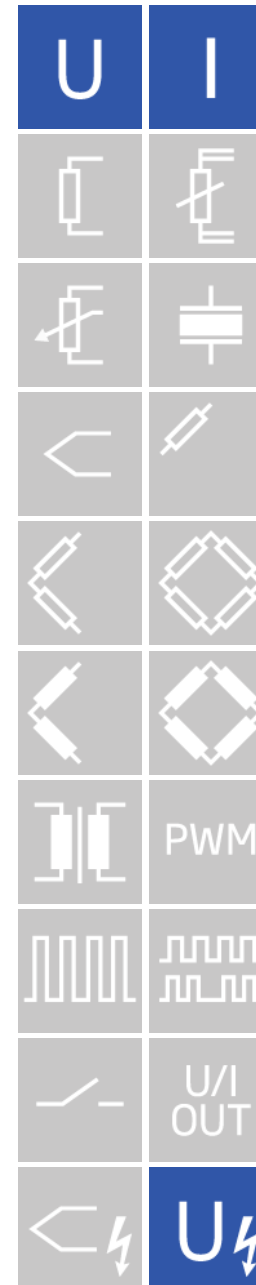
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High Voltage I/O Modules

Q.series X A123 SEB



- High Isolation Module for Voltages with 4 Ch at 100 kS/s each
 - Input range ± 100 mV, ± 1 V, ± 10 V
 - Ideal for current measurements with shunts or transducers
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs

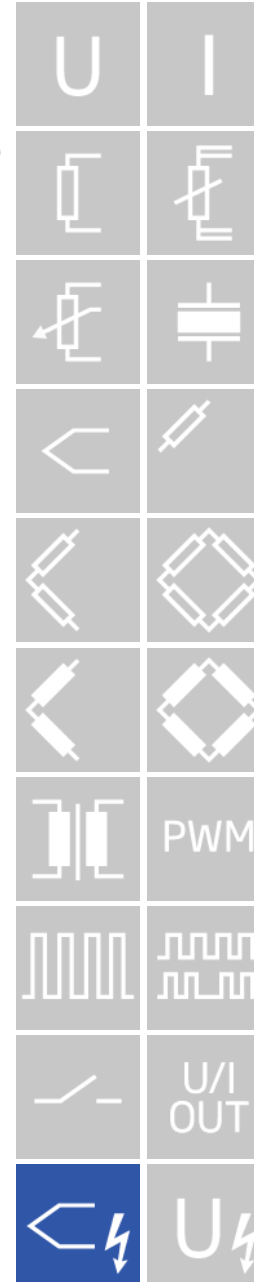


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High Voltage I/O Modules

Q.series X A124

- High Isolation Module for Thermocouples with 4 CH at 20 kS/s each
 - Thermocouple Inputs
 - Type B / E / J / K / N / R / S / T / U
 - Inbuild cold junction compensation
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- Spring terminal inputs



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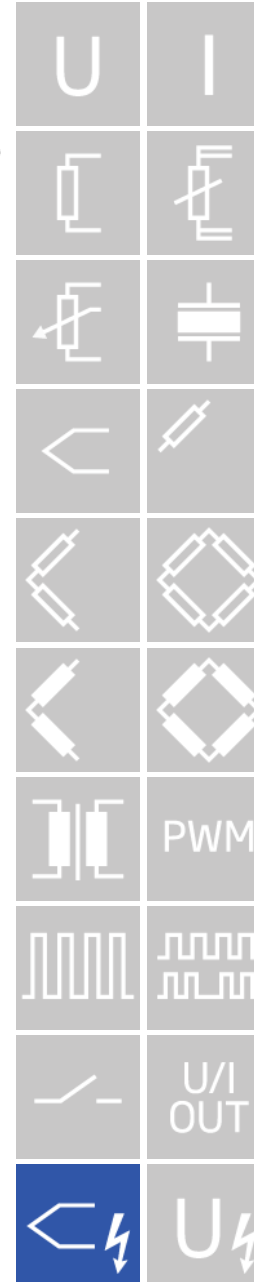
Q.bloxx XL/XE
A124

[Click on image to download datasheet](#)

High Voltage I/O Modules

A124 TCK REDEL

- High Isolation Module for Thermocouples with 4 CH at 20 kS/s each
 - Thermocouple Inputs
 - Type K
 - Inbuild cold junction compensation
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- Lemo Redel HV Connector



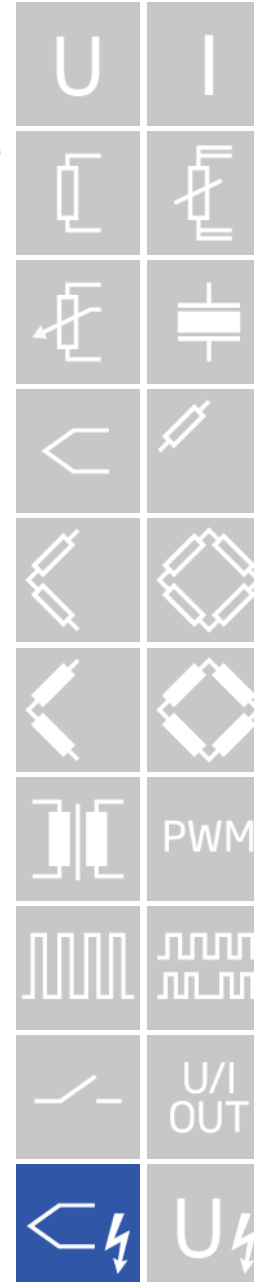
Q.bloxx XL/XE
A124 TCK
REDEL

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High Voltage I/O Modules

A124 TCK (4xTS)

- High Isolation Module for Thermocouples with 4 CH at 20 kS/s each
 - Thermocouple Inputs
 - Type K
 - Inbuild cold junction compensation
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- ThermoSensor Connector



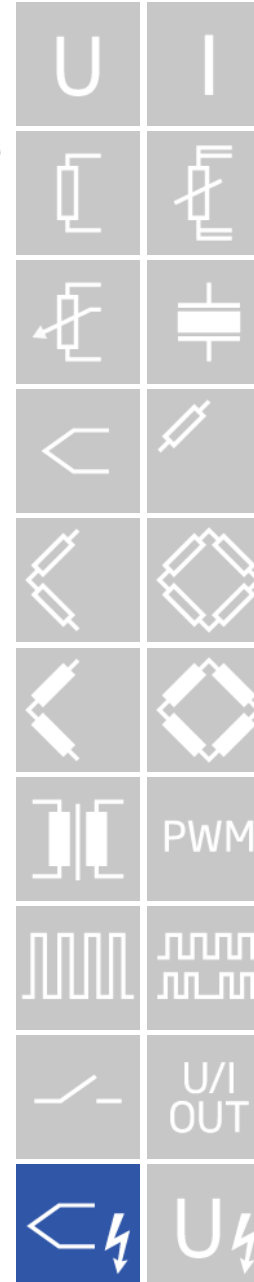
Q.bloxx XL/XE
A124 TCK
(4xTS)

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High Voltage I/O Modules

A124 PLUS TCK

- High Isolation Module for Thermocouples with 4 Ch at 20 kS/s each
 - Thermocouple Inputs
 - Type K
 - Accuracy ± 0.8 K
 - Inbuild cold junction compensation
- Galvanic isolation of 1500 VDC permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- Lemo Redel HV Connector



Q.bloxx XL/XE
A124 PLUS
TCK REDEL

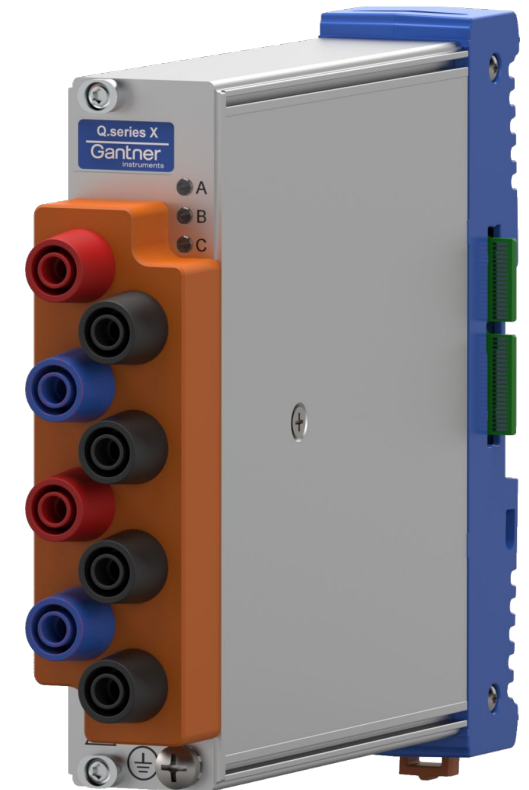
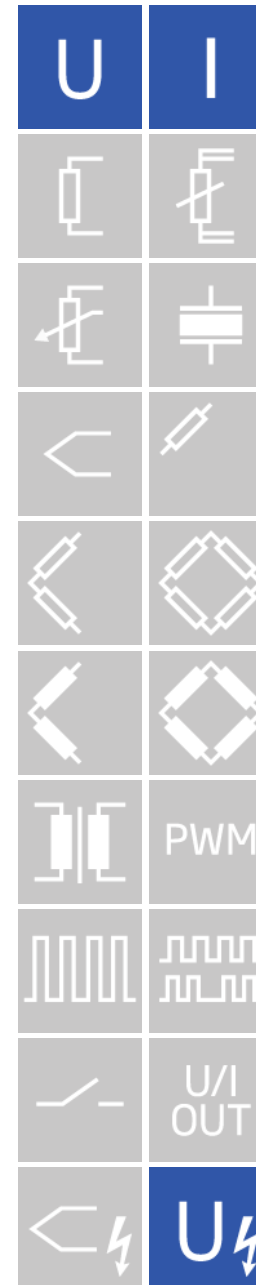
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High Voltage I/O Modules

Q.series X A127 SEB



- High Isolation Module for Measuring Electrical Power with 4 Ch at 100 kS/ each
 - 2 CH for voltage
 - Input range $\pm 40\text{ V}$, $\pm 120\text{ V}$, $\pm 400\text{ V}$, $\pm 1200\text{ V}$
 - 2 Ch for current (via Shunt Resistor)
 - Input range $\pm 80\text{ mV}$, $\pm 240\text{ mV}$, $\pm 800\text{ mV}$, $\pm 2400\text{ mV}$
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs



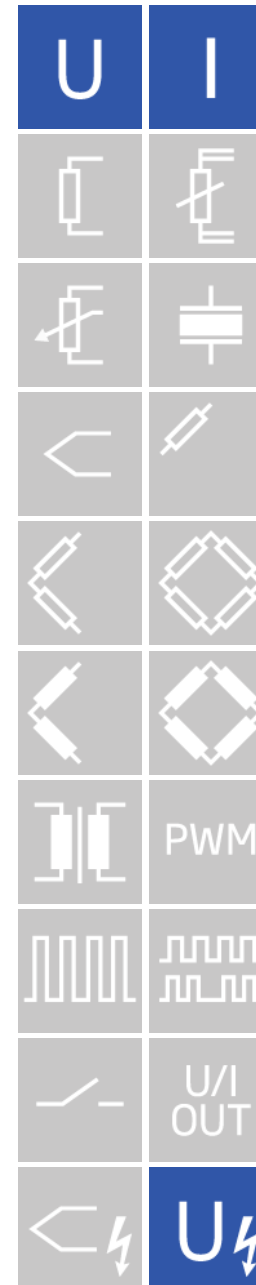
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High Voltage I/O Modules

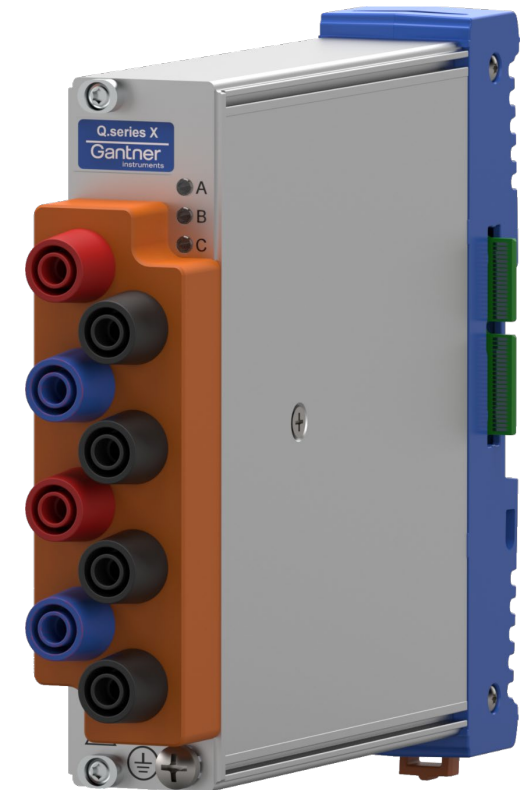
Q.series X A127 plus SEB



- High Isolation Module for Measuring Electrical Power with 4 Ch at 100 kS/ each
 - 2 CH for voltage
 - Input range $\pm 100\text{ V}$, $\pm 300\text{ V}$, $\pm 600\text{ V}$, $\pm 1500\text{ V}$
 - 2 Ch for current (via Shunt Resistor)
 - Input range $\pm 200\text{ mV}$, $\pm 400\text{ mV}$, $\pm 800\text{ mV}$, $\pm 2000\text{ mV}$
- Galvanic isolation of 1500 VDC permanent channel-to-channel to power supply and to interface,
- Categories 1500 V without CAT, 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs



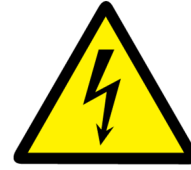
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High Voltage I/O Modules

Q.series X A127-2CV



U	I
	PWM
	U/I OUT
	U

- High Isolation Module for Current Transducers (CT) with 4 Ch at 100 kS/ each
 - 2 Ch for voltage
 - Input range ± 40 V, ± 120 V, ± 400 V, ± 1200 V
 - 2 Ch for current transducer
 - Input range for secondary current ± 200 mA, ± 400 mA, ± 800 mA,
 - For CTs from LEM (e.g., IT, IN, LF series) or Danisense (e.g., DS, DQ series)
 - Built-in bi-polar power supply for current transducers
 - ± 15 V, 40 W for each transducer
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel-to-power supply and -to-interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs for HV and DB9 Connectors for CT



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High Voltage I/O Modules

Q.series X A127+2CV



U	I
	PWM
	U/I OUT
	U

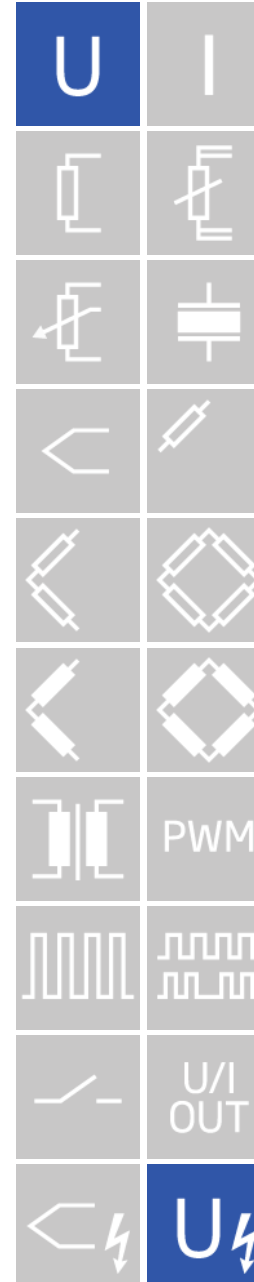
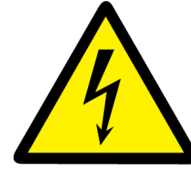
- High Isolation Module for Current Transducers (CT) with 4 Ch at 100 kS/ each
 - 2 Ch for voltage
 - Input range $\pm 100\text{ V}$, $\pm 300\text{ V}$, $\pm 600\text{ V}$, $\pm 1500\text{ V}$
 - 2 Ch for current transducer
 - Input range for secondary current $\pm 200\text{ mA}$, $\pm 400\text{ mA}$, $\pm 800\text{ mA}$,
 - For CTs from LEM (e.g., IT, IN, LF series) or Danisense (e.g., DS, DQ series)
 - Built-in bi-polar power supply for current transducers
 - $\pm 15\text{ V}$, 40 W for each transducer
- Galvanic isolation of 1500 VDC permanent channel-to-channel-to-power supply and -to-interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs for HV and DB9 Connectors for CT



[Click on image to download datasheet](#)

Q.raxx XL/XE slimline A127 4CV

System for High Voltage and Current Measurement



- High Isolation Module for voltage and current measurements with 8 Ch at 100 kS/ each
 - 4 Ch for voltage
 - Input range ± 40 V, ± 120 V, ± 400 V, ± 1200 V
 - 4 Ch for current via Current Transducer
 - Input range for secondary current ± 200 mA, ± 400 mA, ± 800 mA ± 2000 mA
 - Accuracy: 0.01% typical
 - For CTs from LEM (e.g., IT, IN, LF series) or Danisense (e.g., DS, DQ series)
- Built-in ultra-stable and precise bipolar Power Supply for Current Transducers
 - ± 15 V, 40 W for each transducer
 - Guarantees the highest precision, even by unsymmetrical loads
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel-to-power supply and -to-interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs and D-SUB 9 (female) for current transducers



FRONT



REAR as XL



REAR as XE



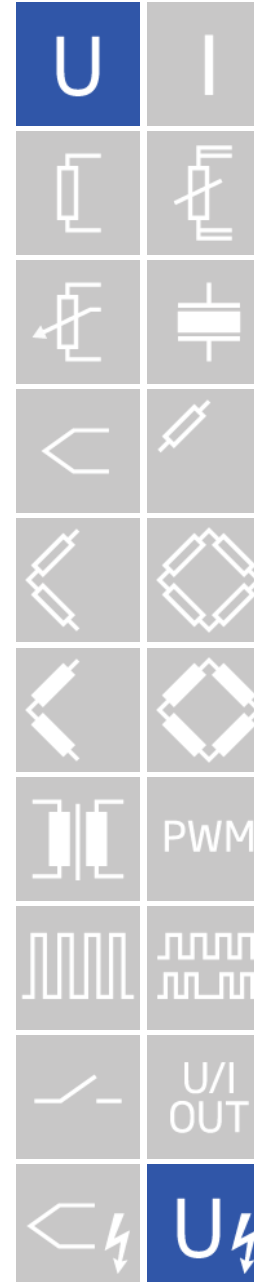
REAR with Q.station

Also available with
built-in bus coupler as
EtherCAT slave (XE)
or with Q.station

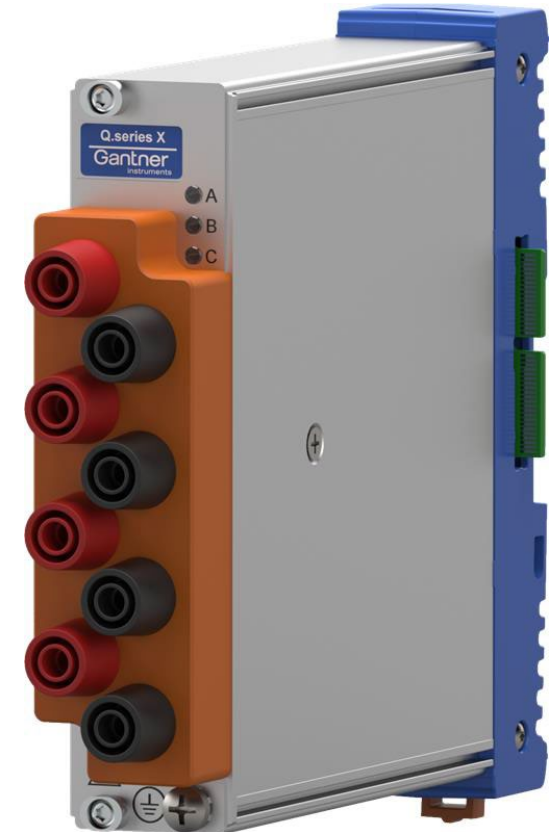
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High Voltage I/O Modules

Q.series X A128 SEB



- High Isolation Module for Dynamic High Voltages with 4 Ch 100 kS/s each
 - Input Channels for voltage
 - Input range ± 40 V, ± 120 V, ± 400 V, ± 1200 V
- Galvanic isolation of 1200 VDC / 848 VACrms permanent channel-to-channel to power supply and to interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs

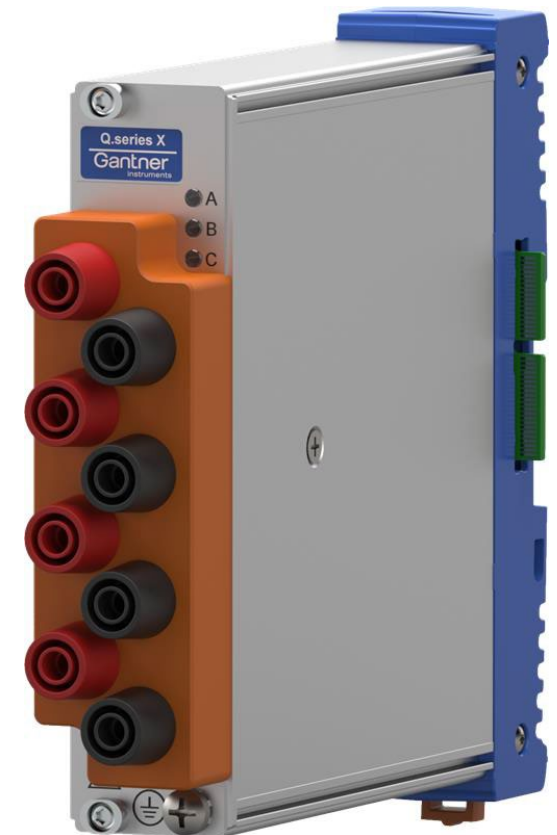
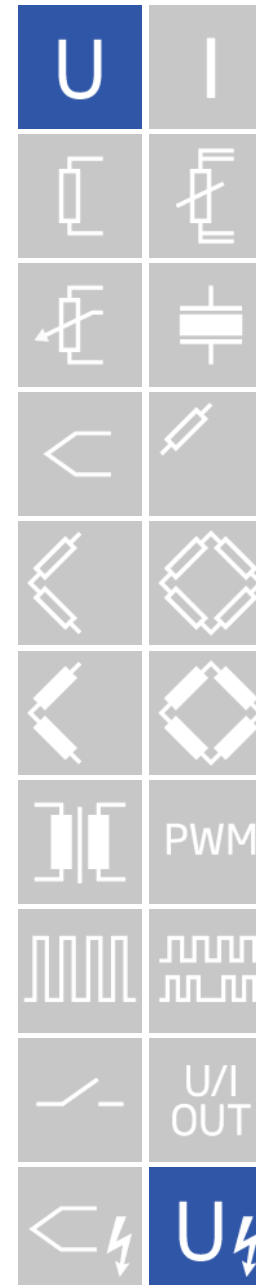


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High Voltage I/O Modules

Q.series X A128 plus

- High Isolation Module for Dynamic High Voltages up to 1500 VDC with 4 Ch 100 kS/s each
 - Input Channels for voltage
 - Input range ± 100 V, ± 300 V, ± 600 V, ± 1500 V
- Galvanic isolation of 1500 VDC permanent channel-to-channel-to-power supply and -to-interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- High Voltage Banana inputs



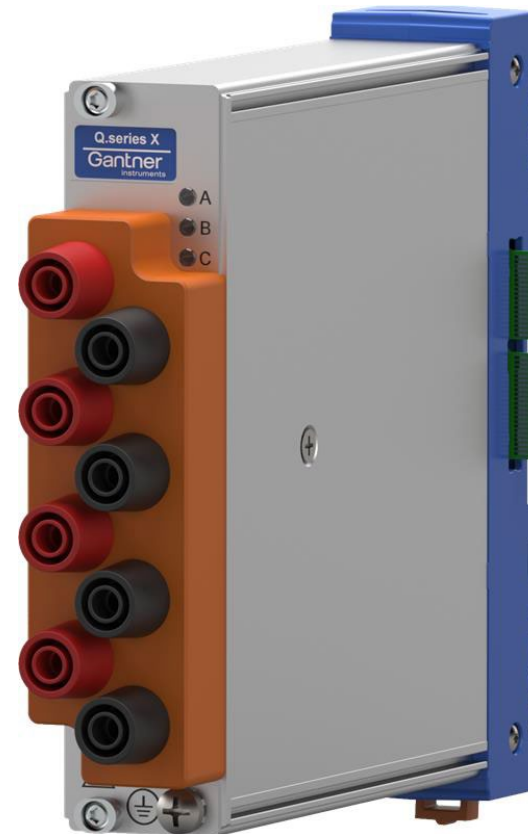
[Click on image to download datasheet](#)

Q.series X High Voltage Modules

- When using High Voltage Modules A12x, always connect metal housing parts safely and continuously to protected earth (PE)
- Use the PE screw on the front of the module to connect to central PE by Yellow/Green isolated lead without any interruptions and on the shortest possible cable route
- All parts must be approved for voltages up to 1200 VDC



PE Screw on Q.series X
module front

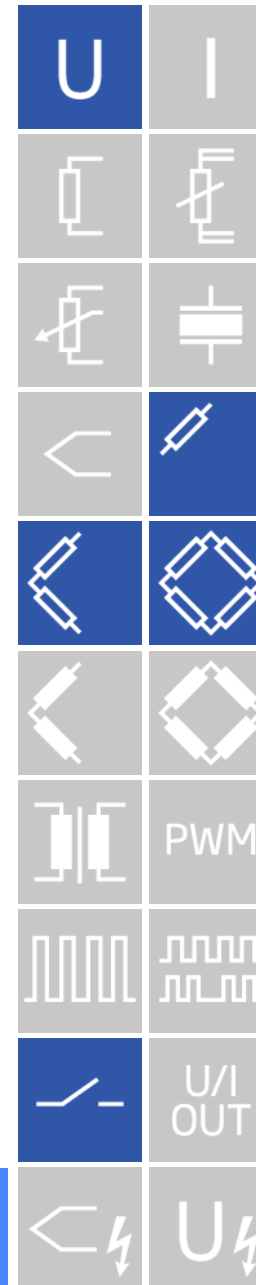


I/O Modules

Q.series X A136

- Strain Gage Measurement Module with 4 Ch at 20 kS/s each and 10V Excitation für 1k Ohm strain gages
 - 4 analog input channels:
 - Full-Bridge (4/6 wire)
 - Half-Bridge (3/5 wire)
 - Quarter-Bridge 1kOhm (120 Ohm and 350 Ohm optional)
 - Voltage with input range $\pm 10\text{ V}$, $\pm 5\text{ V}$ and $\pm 1\text{ V}$
 - Input range $\pm 1\text{mV/V}$, $\pm 2.5\text{mV/V}$, $\pm 10\text{mV/V}$, $\pm 100\text{mV/V}$
 - Bridge Excitation (software selectable) 10 V, 5 V, 2.5 V, 1 V
 - Active lead wire resistance compensation
 - Inbuild shunt resistor for verification of complete measurement chain
 - → With its high accuracy and long term stable inputs, no shunt calibration is needed prior measurements
 - 4 Digital Inputs
 - 4x DB15HD

Also available with inbuild bridge completion resistors for 120 Ohm and 350 Ohm quarter bridges

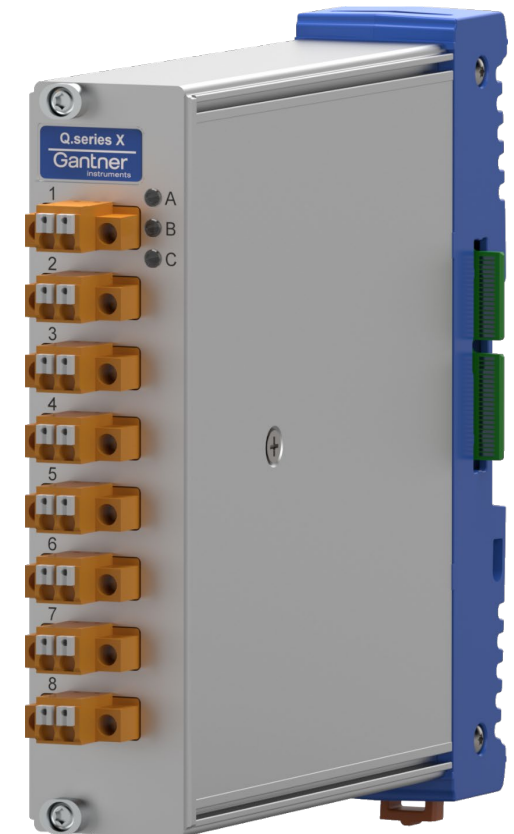
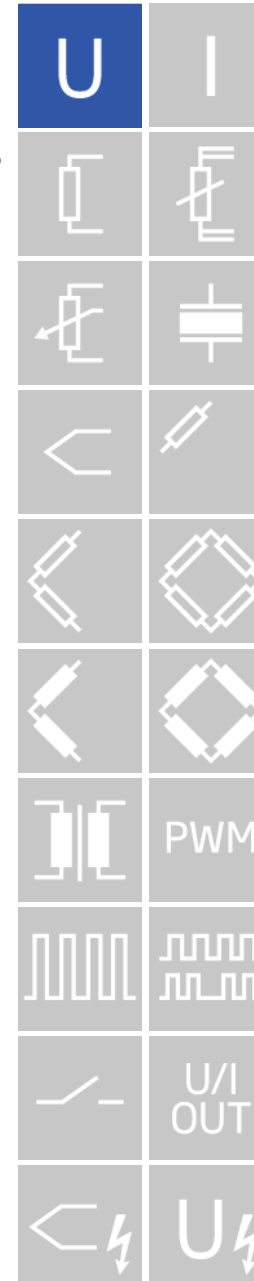


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I/O Modules

Q.series X A138

- High Isolation Module for Dynamic High Cell Voltage Measurement with 8 Ch 20 kS/s each
 - Input Channels for voltage
 - Input range ± 5 V
 - Accuracy ± 1 mV
- Galvanic isolation of 800 VDC permanent channel-to-channel-to-power supply and -to-interface, test voltage 5 kVDC over 1 minute
- Categories 1000 V CAT II and 600 V CAT III
- 2-pole Push-In terminals per channel

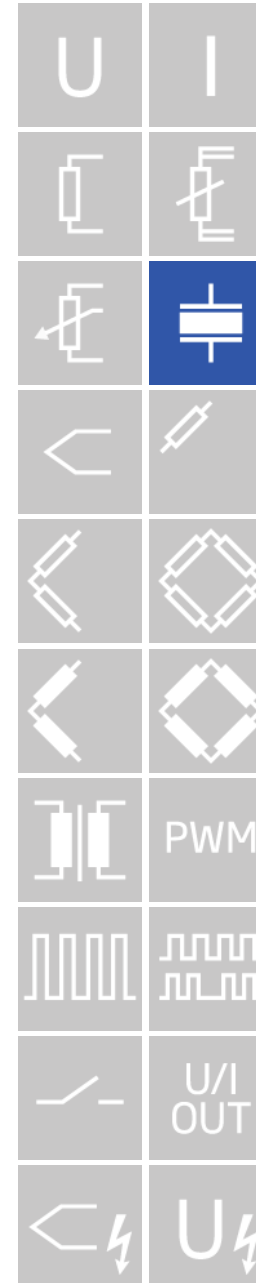


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I/O Modules

Q.series X A141

- Charge Amplifier Module for Piezoelectrical Sensors
- Engineered with Kistler
- 4 channels Charge Amplifier:
 - For Piezoelectric Sensor
 - Input Range: 1000 to 1000000 pC
 - Margin of error $< \pm 1\%$ FSO
 - Drift 0.5 pC/pp
 - Frequency range 0 Hz to 20 kHz
- 4x BCN Connector



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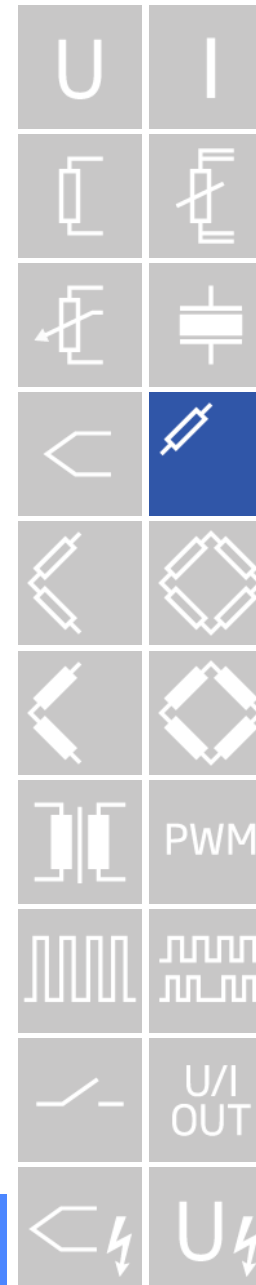
I/O Modules

Q.series X A146

- High Density Strain Gage Measurement Module with 16 Ch at 10 kS/s each
- 16 analog high accuracy input channels:
 - Quarter-Bridge
 - Input range 2 mV/V or 20 mV/V ($\pm 4000 \mu\text{m/m}$ or $\pm 40000 \mu\text{m/m}$)
 - Active lead wire resistance compensation
 - Inbuild shunt resistor for verification of complete measurement chain
 - With its high accuracy and long term stable inputs, no shunt calibration is needed prior measurements
 - Inbuild bridge completion resistor 350 Ohm or 120 Ohm (others on request) with lowest possible temperature drift
 - Bridge excitation 2 VDC per channel
- 2x DB26HD Connectors

Accessoires:

- Connection Terminal for DIN Rail: CT A146 Terminal incl Cable



Gantner
instruments



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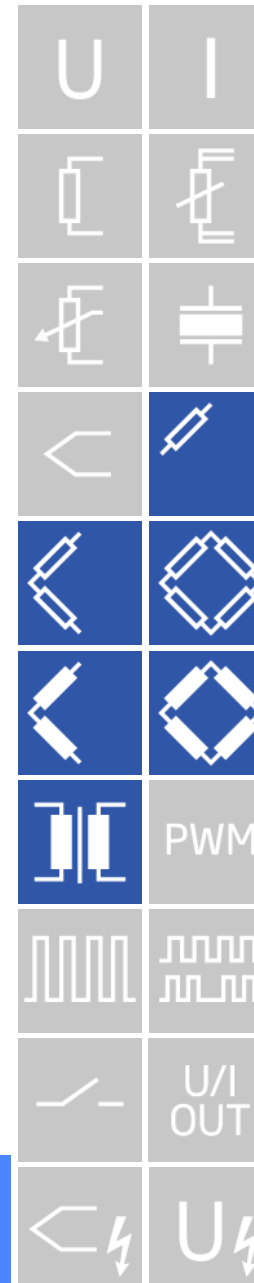
I/O Modules

Q.series X A156

- Measurement Module for LVDT/RVDT with 4 Ch at 20 kS/s each
 - 4 galvanic isolated Analog input channels:
 - Strain Gage
 - Half-Full Bridge
 - LVDT,RVDT
 - Inductive Half- Full bridge
 - Quarter-Bridge with completion Terminal
 - frequency (CF) principle
 - 2.5 and 5 VDC excitation
 - 4.8 kHz CF
- Standard 10-pole screw terminals
- With DSUB9 Connectors for Legacy Peekel
- With DSUB15-HD Connectors for replacing of Quantum X form HBM

Also Available:

- With Front Connectors 4x DSUB 9
- With Front Connectors 4x DB15-HD



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Q.bloxx
XL/XE
A156

Q.bloxx
XL/XE
A156
DB9

Q.bloxx
XL/XE
A156
DB15-HD

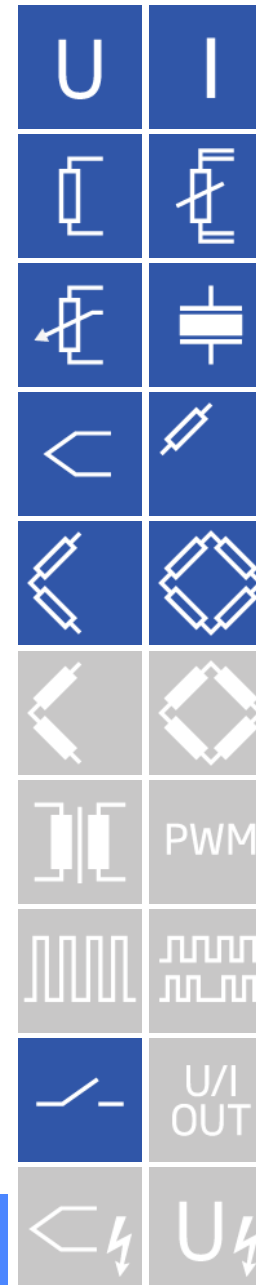
I/O Modules

Q.series X A192

- Multipurpose I/O module with 1 Ch at 100 kS/s programmable Sensor Excitation and analog output
 - Voltage ranges $\pm 10\text{ V}$, $\pm 5\text{ V}$, $\pm 1\text{ V}$, $\pm 100\text{ mV}$, $\pm 10\text{ mV}$
 - Current range $\pm 25\text{ mA}$
 - IEPE/ICP with programmable sensor excitation (1 mA to 12 mA in steps of 10 μA)
 - Thermocouple
 - Pt100/Pt100
 - Resistance
 - Strain Gage (quarter, half, full) with programmable sensor excitation (1 V to 12 V in steps of 1 mV, continuous short circuit proof)
- 1 Analog output channel
 - $\pm 10\text{ VDC}$ or $\pm 22\text{ mA}$
- 2 Digital Inputs or Outputs
 - Status, trigger,
 - Tare, alarm
- Standard 10-pole

Accessoires:

- Cold Junction Compensation Terminal: Qterm-CJC-A192



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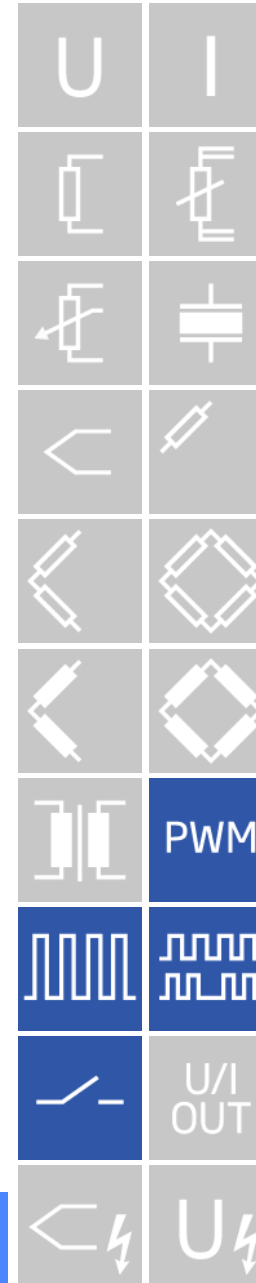
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I/O Modules

Q.series X D101

- Digital Measurement Module with 8 Digital inputs and 8 Digital Outputs
 - State in and output process- and host controlled
 - Frequency in and output up to 1 MHz (Chronos), output up to 10 kHz
 - Counter for / backward, quadrature with ref. Zero recognition and missing teeth detection up to 1 MHz
 - PWM in and output
- Standard 10-pole screw terminals

Also Available:
- With Front Connectors 4x BNC

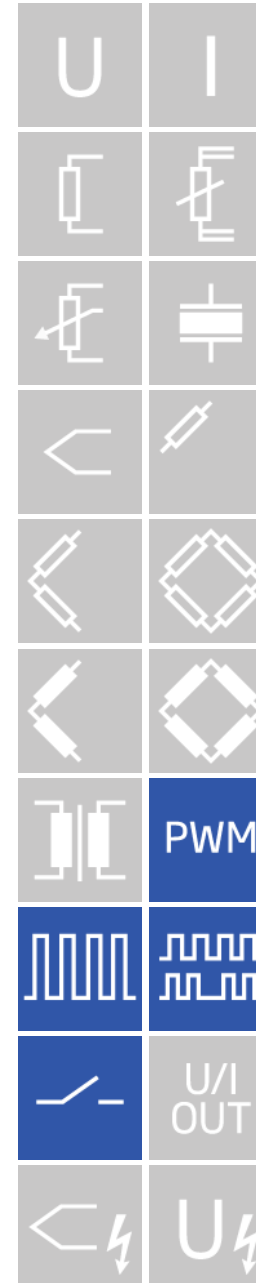


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I/O Modules

Q.series X D101 4xLemo2B SV

- Digital Measurement Module with 8 Digital inputs and 8 Digital Outputs and programmable sensor supply
 - State in and output process- and host controlled
 - Frequency in and output up to 1 MHz (Chronos), output up to 10 kHz
 - Counter for / backward, quadrature with ref. Zero recognition and missing teeth detection up to 1 MHz
 - PWM in and output
- 4x Lemo 2B, 8-pole connectors
- Sensor supply voltage and current limit programmable per channel
 - Voltage: 3.3 V – 20 V (24 V if supply is >27.3 V) in steps of 10 mV
 - Current limit: 50 mA – 250 mA in steps of 100 μ A
 - ATTENTION: requires an additional power supply for the SV bus-bar on the backplane. This power supply must be independent from module supply to keep the galvanic isolation! Maximum 4A on SV bus-bar!

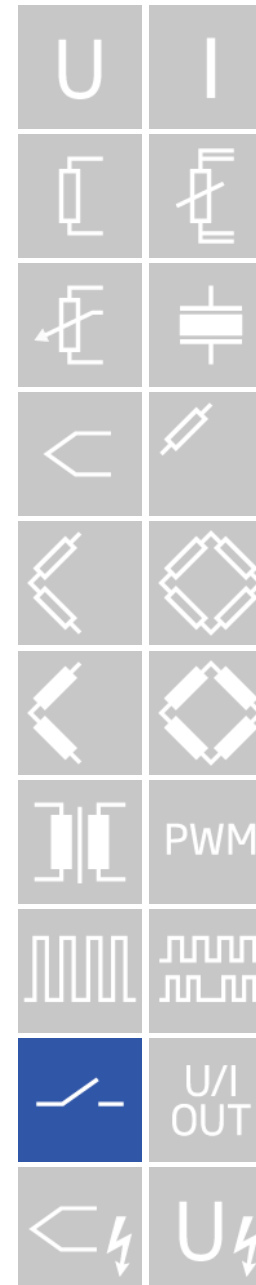


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I/O Modules

Q.series X D104

- Digital Input Module with 16 Ch
 - Status, Single bit or bitset
 - Configurable logic TTL or 24 VDC
 - Response time 10 μ S per channel
- Standard 10-pole screw terminals

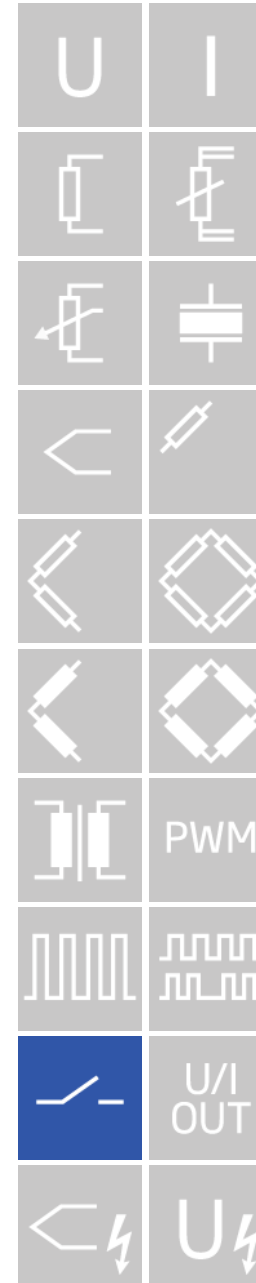


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I/O Modules

Q.series X D105

- Digital Output Module with 16 Ch
 - Status, Single bit or bitset
 - High load capacity 30 VDC / 500 mA, short circuit proof
 - Response time 10 μ S per channel
- Standard 10-pole screw terminals

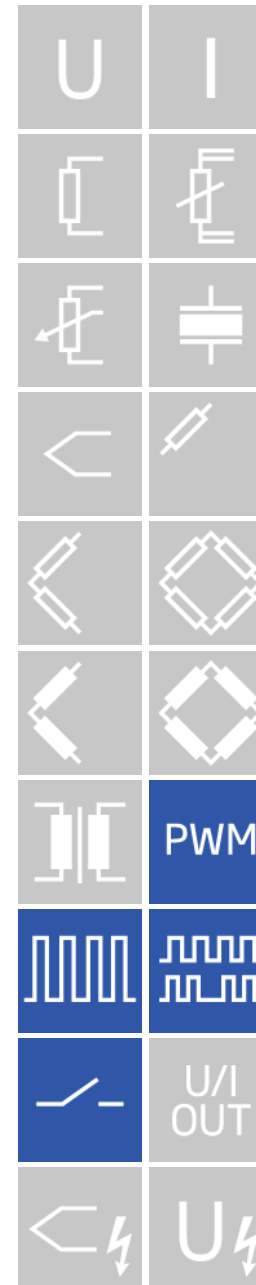


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I/O Modules

Q.series X D107

- Digital Measurement Module 2 to 6 configurable Input Ch
 - Number of Channels depend on configuration
 - Counter, Frequency, PWM, Differential or single-ended
 - Adjustable thresholds in 256 steps
 - Frequency inputs up to 1 MHz (Chronos) with direction detection
 - Counter for / backward, quadrature with ref. Zero recognition and missing teeth detection up to 1 MHz
 - PWM in and output
- Standard 10-pole screw terminals

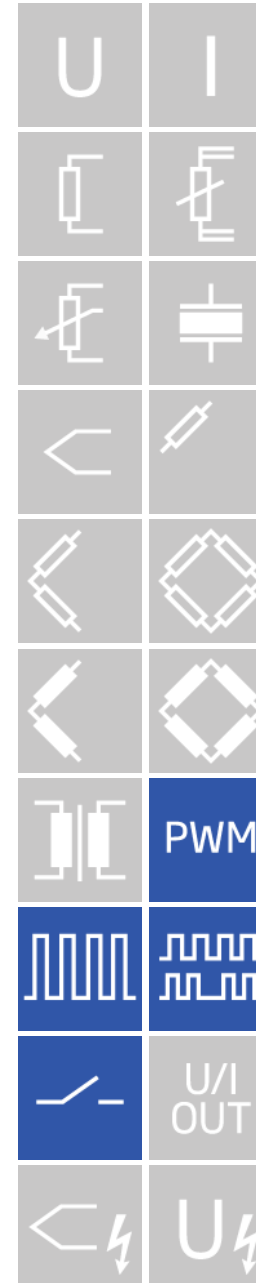


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I/O Modules

Q.series X D107 2xLemo2B SV

- Digital Measurement Module 2 to 6 configurable Input Ch and programmable sensor supply
 - Number of Channels depend on configuration
 - Counter, Frequency, PWM, Differential or single-ended
 - Adjustable thresholds in 256 steps
 - Frequency inputs up to 1 MHz (Chronos) with direction detection
 - Counter for / backward, quadrature with ref. Zero recognition and missing teeth detection up to 1 MHz
 - PWM in and output
- 2x Lemo 2B, 8-pole connectors
- Sensor supply voltage and current limit programmable per channel
 - Voltage: 3.3 V – 20 V (24 V if supply is > 27.3 V) in steps of 10 mV
 - Current limit: 50 mA – 250 mA in steps of 100 μ A
 - ATTENTION: requires an additional power supply for the SV bus-bar on the backplane. This power supply must be independent from module supply to keep the galvanic isolation! Maximum 4A on SV bus-bar!



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High Voltage I/O Modules

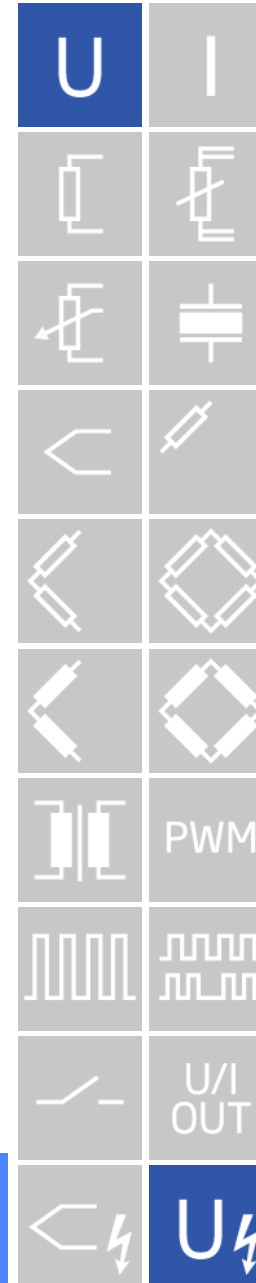
Q.series X boost A101



- Multipurpose I/O module with software configurable 2 Ch at 4 MHz each
 - Input range ± 500 mV, ± 10 V (AC and DC) and ± 1000 VDC
 - 24 Bit 4 MS/s each channel
 - Bandwidth DC up to 1.7 MHz
- Input protection ± 2000 V at input range ± 1000 V
- Input Connectors BNC and High Voltage Banana
- Needs Coupling Module Q.bloxx/brixx/raxx XL BC-S for power supply and communication and data logging on Computer or Q.core

Also Available:

- With two low voltage inputs
- With IEPE and strain gage inputs



Gantner
instruments



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High Voltage I/O Modules

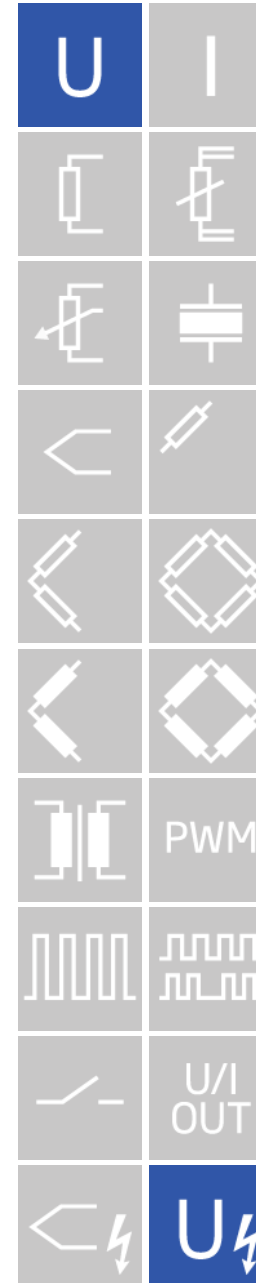
Q.series X boost BC-S



- Coupling Module for boost modules
 - Power supply for boost modules
 - Time synchronization of all connected boost modules and to further coupling modules and Q.station
 - USB 3.0 interface for data transfer and communication with computer or Q.core
- Up to 8 boost modules on one coupling module (5 Modules with 4 MHz sampling rate each channel)



Coupling Module BC-S (left) with 3 boost modules as example



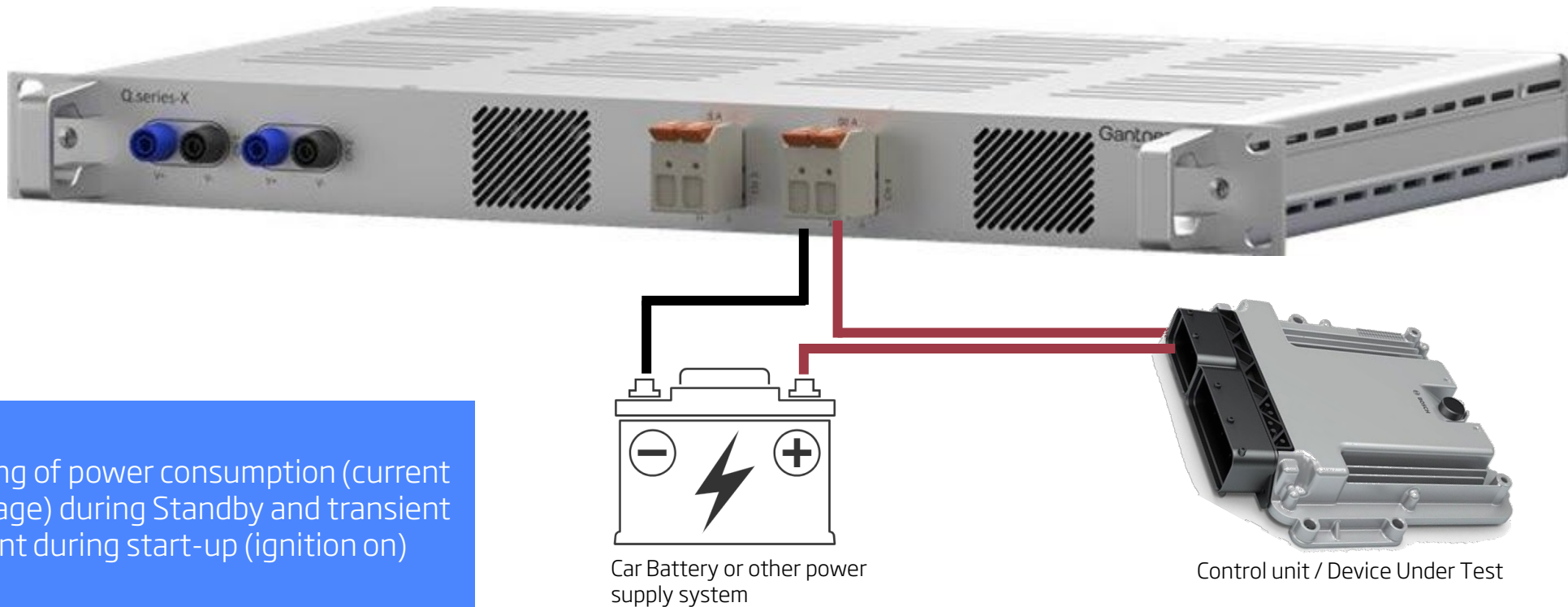
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Special Products



Quiescent Current Measurement System

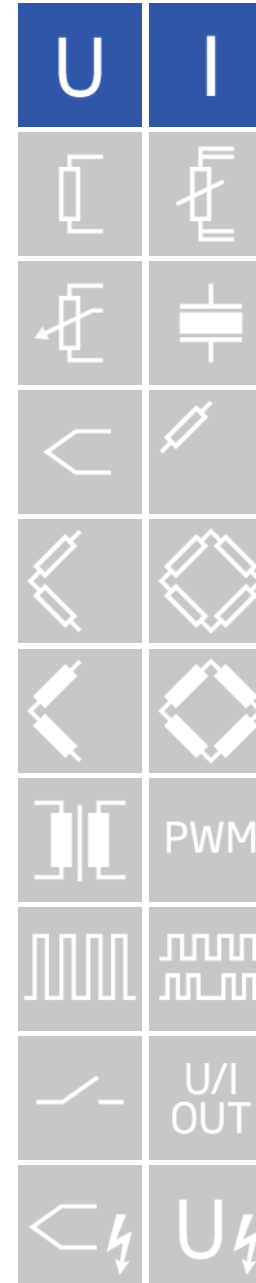
- Dynamic switching between quiescent (standby) current and operating current without interrupting the supply to the Device under Test
- High accuracy automotive control unit testing



Q.raxx-XL/XE slimline A108 2SC

Quiescent-Current Measurement System

- Measuring module for quiescent (standby) current and operating current with dynamic switching and for recording the on-board power supply voltage with 20 kS/s sampling rate per channel
- 2 Ch for voltage
 - Measurement range ± 60 V
 - Accuracy ± 25 mV Resolution 12 μ V
- 2 Ch for current
 - Quiescent current up to 80 mA
 - Accuracy ± 50 μ A (0,06%)
 - Dynamic switching to the operating current
 - 5 A Ch 1 and 50 A ch 2
 - Accuracy 0,2%
- Without power loss of test item (supply of amplifier > 10 VDC necessary)
- Self-resetting fuse, monitored by separate measuring channels



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Also available with
built-in bus coupler as
EtherCAT slave (XE)
or with Q.station

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Gantner Power Analyzer GPA series



Q.boost Power Analyzer

GPA100 / GPA 101 (Resolver)

- Up to 4 MHz sampling rate per channel (1.7 MHz bandwidth)
- 4 Ch HV ± 1500 VDC
- 4 Ch for current transducers (LEM IT, IN, LF series, Danisense) with secondary current up to 800 mA
 - Built-in bipolar power supply system for current transducers (no further power supply system and wiring needed)
- Less than 3 ppm Distortion
- Less than -140 dB Noise-Floor
- Highly synchronous Sampling
- Galvanic isolation of all Channels
- Frequency & Counter Inputs for torque/speed meter
 - Inputs for resolver quality check as an option (GPA 101 only)
- Data logging on internal SSD
- Access to raw data via our open API
- **Results and raw data per EtherCAT**



[Click on image to download datasheet](#)

Power Analyzer

GPA111 / 110 SL

- Up to 100 kHz sampling rate per channel (20 kHz bandwidth)
- 4 Ch HV ± 1500 VDC
- 4 Ch for current transducers (LEM IT, IN, LF series, Danisense) with secondary current up to 800 mA
 - Built-in bipolar power supply system for current transducers (no further power supply system and wiring needed)
- Frequency & Counter Inputs for torque/speed meter (GPA 111 only)
- Galvanic isolation of all Channels
- EtherCAT, CAN and CAN-FD interfaces (GPA 111 only)
- Data logging on internal 4TB SSD
- Q.station Quad-Core for power quality analysis
- Access to raw data via our open API
- **Results and raw data per EtherCAT**



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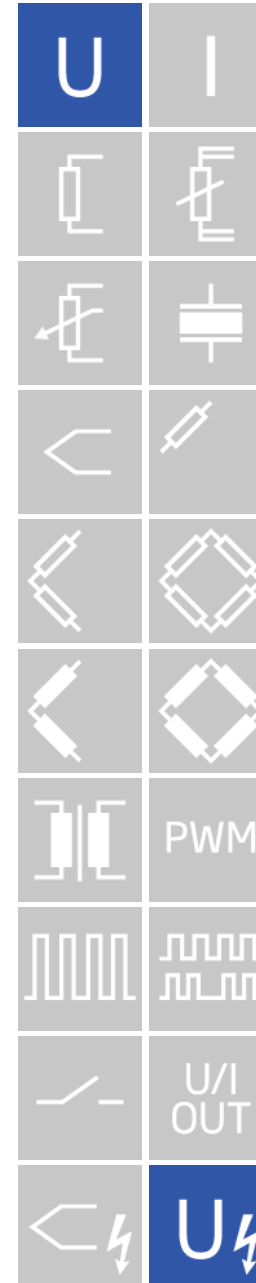
Stack Monitoring Unit SMU 100

High Channel Count Voltage &
Temperature on 1500VDC



High Voltage I/O Modules

SMU 100-32U



- High Isolation Module for Dynamic Cell Voltage Measurement with 32ch at 1kS/s each
- For cell voltage measurement on battery packs, fuel cells, Electrolyzer
 - Measurement Range 0-5V
 - Accuracy ± 1 mV
- Each channel with own ADC - no multiplexing
 - 8 Channel per group
- Galvanic isolation of 1500 VDC permanent for channels to power supply and to interface and between channel groups
 - Max 60 V difference between channels in a group of 8 channels
 - 600V CAT III, 1000 V CAT II, 1500 V without CAT, Transient Voltage max 6kV
- High Voltage 4 mm Banana inputs
- Available as XL and XE with inbuild EtherCAT Buscoupler



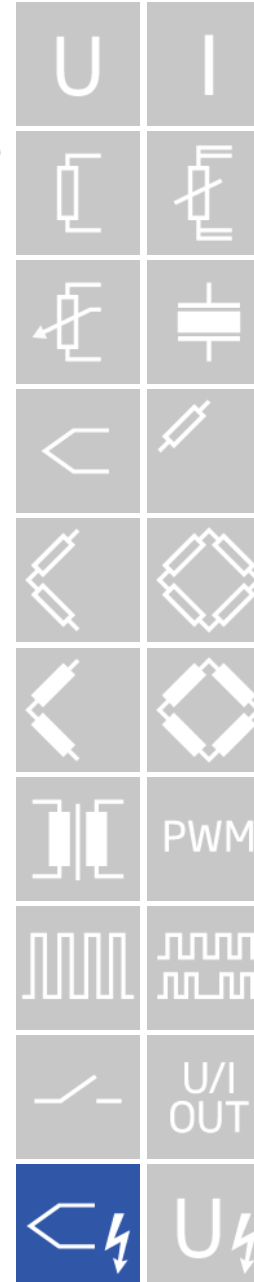
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High Voltage I/O Modules

SMU 100-32T



- High Isolation Module for Thermocouples with 32 Ch at 1kS/s each on 1500 VDC Potential
 - For Thermocouple Type K (NiCr/Ni)
 - Accuracy ± 0.8 K
 - Inbuild cold junction compensation
- Each channel with own ADC – no multiplexing
 - 8 Channel per group
- Galvanic isolation of 1500 VDC permanent for channels to power supply and to interface and between channel groups
 - Max 60 V difference between channels in a group of 8 channels
 - 600V CAT III, 1000 V CAT II, 1500 V without CAT, Transient Voltage max 6kV
- Lemo/Redel 8-pole connector
- Available as XL and XE with inbuild EtherCAT Buscoupler

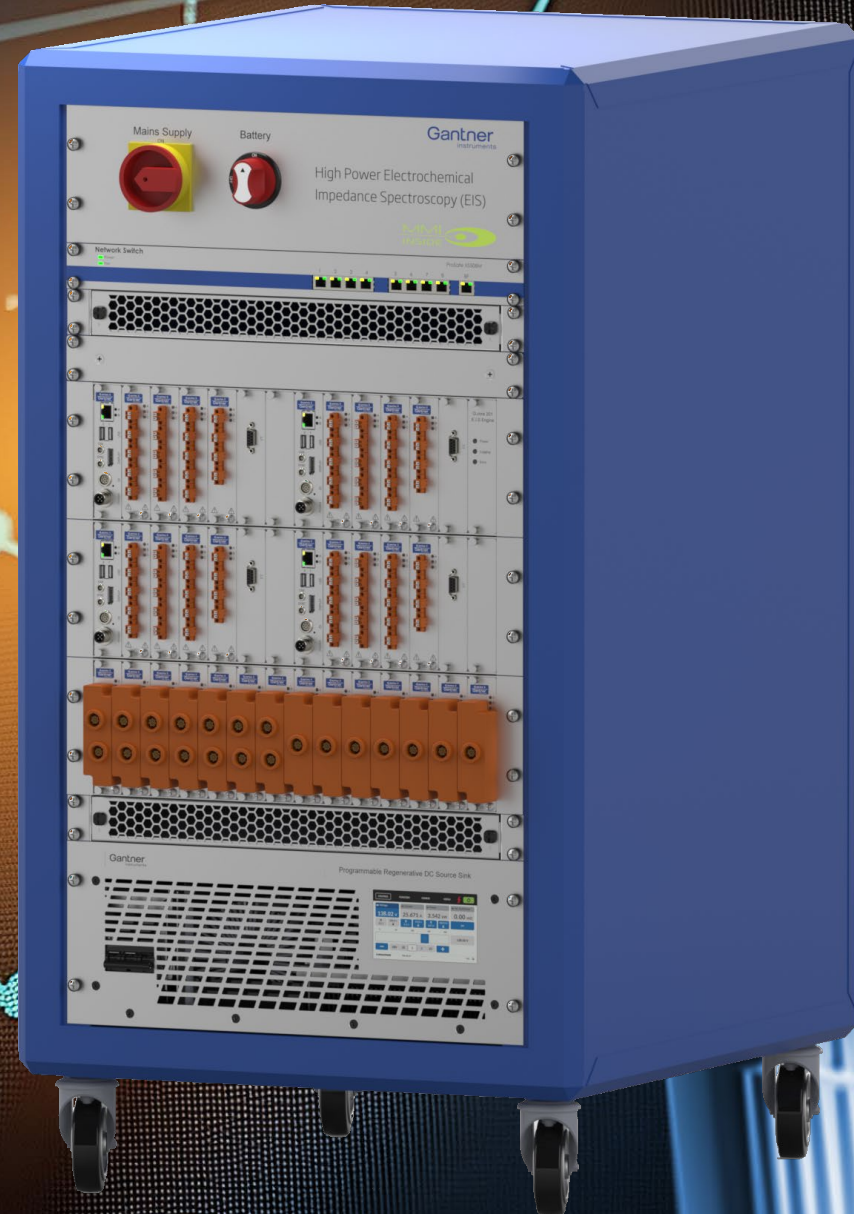


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Industrial Electrochemical Impedance Spectroscopy (EIS)

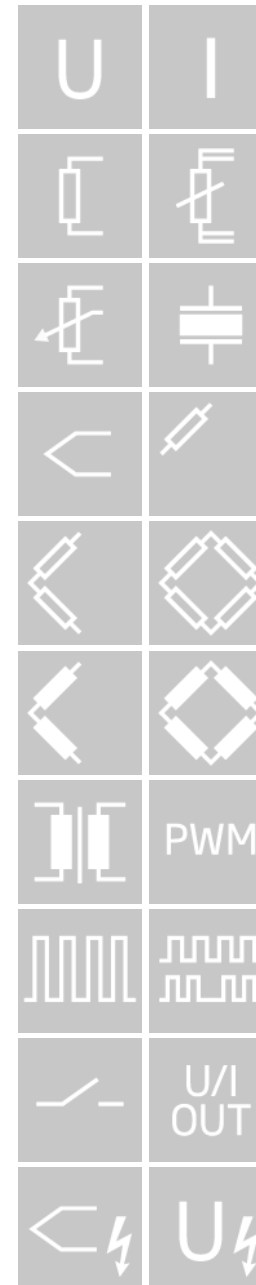
Gantner Instruments
Austria | Germany | France | Sweden
India | USA | China | Singapore



Q.series X A193

Electrochemical Impedance Spectroscopy - EIS

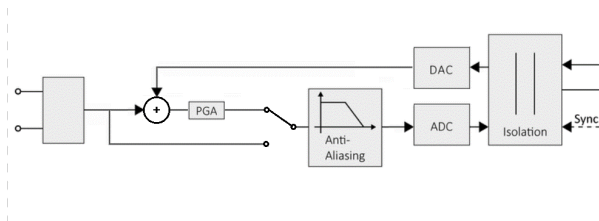
- High Power EIS System for battery, Electrolyzer and fuel cell characterisation and testing
- Contact us for detailed system information



Q.series X A193 – Q.raxx only

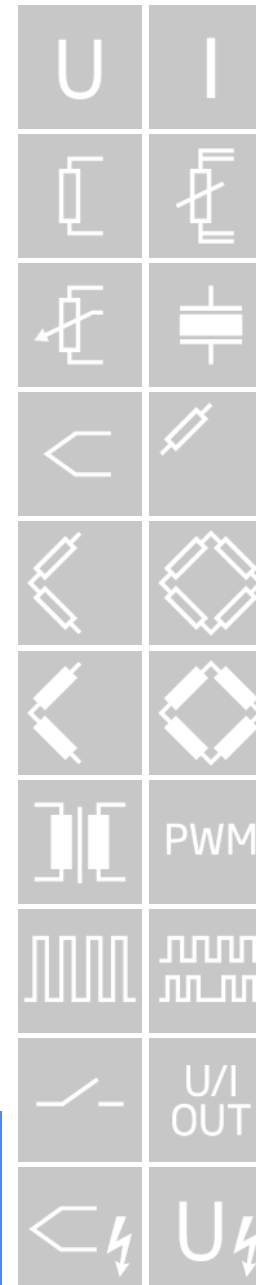
Electrochemical Impedance Spectroscopy - EIS

- High Power EIS System for battery, fuel cell and electrolyzer characterisation and testing
 - 4 Voltage Inputs ± 5 V (Cell), and ± 150 mV (EIS)
 - 1 Input for Current measurements (± 5 V or ± 150 mV for shunts)
 - 800 VDC channel to channel, channel to power supply, and channel to bus
- Analog/Digital Conversion
 - Resolution: 24-bit
 - Sample rate: 100 kHz per channel
 - Bias-nulling technique allows higher AC signal resolution



Requires always:

- Q.core 201 with EIS Engine, Mounting Kit, Q.station per 4 Modules, Frequency Generator, Power Supply, Load or Potentiostat depending on application

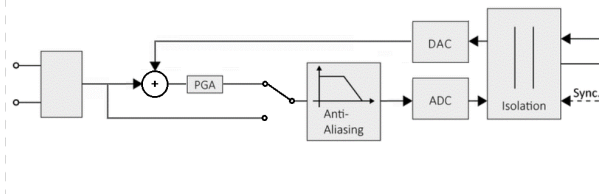


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Q.series X A193CV – Q.raxx only

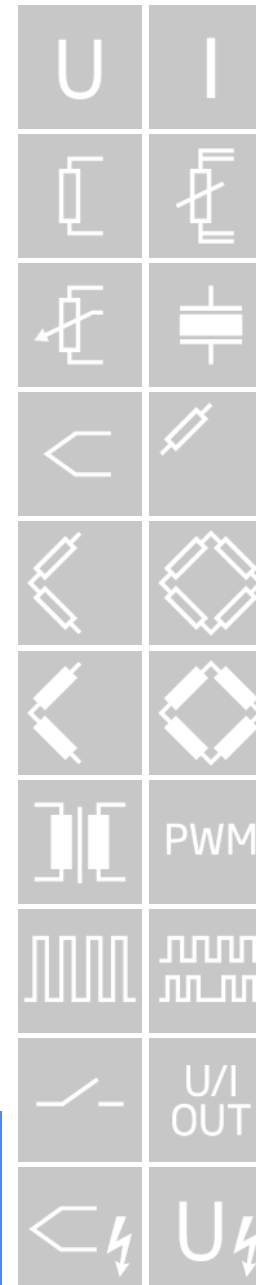
Electrochemical Impedance Spectroscopy - EIS

- High Power EIS System for battery, fuel cell and electrolyzer characterisation and testing
 - 4 Voltage Inputs ± 5 V (Cell), and ± 150 mV (EIS)
 - 1 Input for Current measurements with CT e.g. LEM (with internal bi-polar power supply)
 - 800 VDC channel to channel, channel to power supply, and channel to bus
- Analog/Digital Conversion
 - Resolution: 24-bit
 - Sample rate: 100 kHz per channel
 - Bias-nulling technique allows higher AC signal resolution



Requires always:

- Q.core 201 with EIS Engine, Mounting Kit, Q.station per 4 Modules, Frequency Generator, Power Supply, Load or Potentiostat depending on application



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Solutions for Structural Health Monitoring - SHM

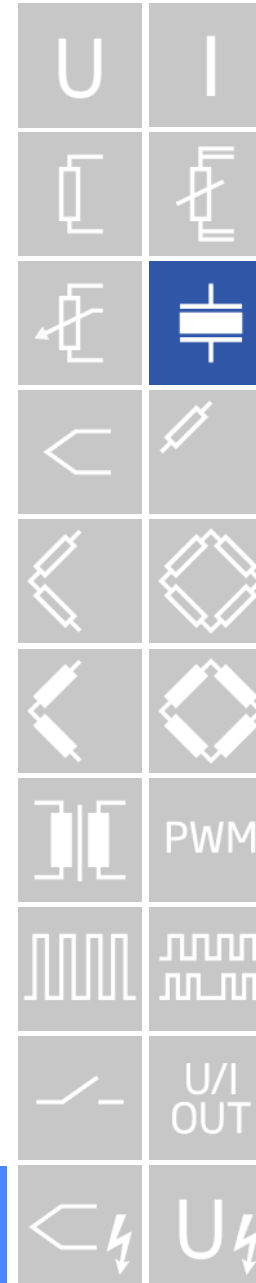
Wireless Sensors
Q.Solid rugged housing



Wireless Acceleration Sensor nemi G+

- High-resolution, low-noise, triaxial capacitive MEMS acceleration / vibration sensor
 - Sampling rate up to 4 kHz per axis
 - Measuring Range up to 40 g
- Integrated accelerometer, gyroscope and magnetometer (3 axes each) and temperature sensor
- Completely wireless with maximized battery life due to radio technology nemi Link 2400
- Radio range of up to 140 m indoors and 350 m in urban areas
- Small and lightweight design: (32 x 32 x 23) mm, 30 grams

Available:
- With 40g and 8g Version

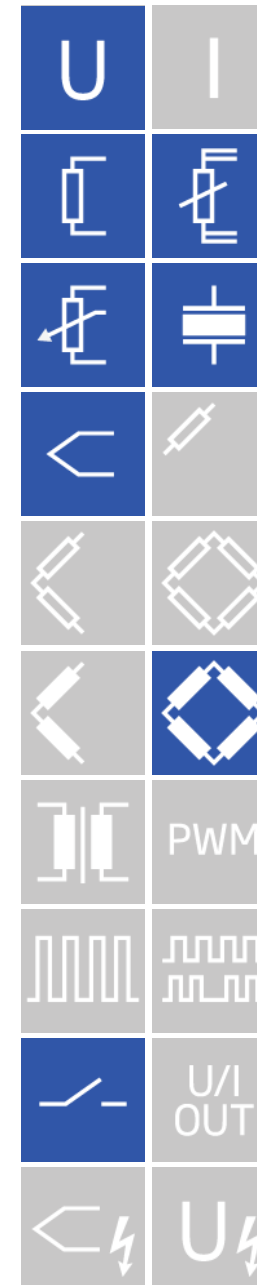


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Wireless Multi Sensor for Connection of external Sensors

nemi DAQ

- Connection of up to 3 external sensors with analog output
 - reference voltage sensors (e.g. wheatstone / strain gauge full bridges, potentiometer sensors, thermocouple (e. g. Type K) and thermistors) for measuring strains, loads, forces, displacements, cracks and temperatures
 - reference current sensors (e.g. Pt100 / Pt1000 resistance thermometers) for monitoring temperatures
 - sensors with analog output 0 - 10 V
- Connection of up to 6 sensors with digital output 5 - 24 V
- High resolution 24 bit analog-digital converter (ADC) with integrated signal amplifier, low measurement noise and up to 6.4kS/s
- Integrated accelerometer, gyroscope and magnetometer (3 axes each) and temperature sensor
- Completely wireless with maximized battery life due to our radio technology nemi Link 2400
- Radio range of up to 140 m indoors and 350 m in urban areas
- Small and lightweight design: (86 x 72 x 19) mm, 150 grams

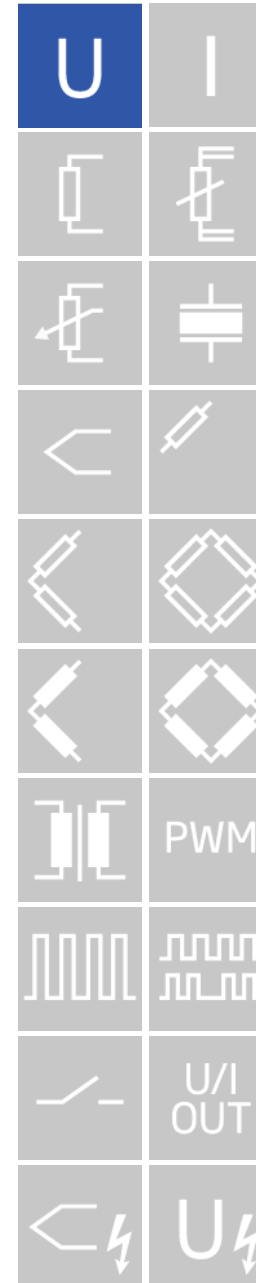


[Click on image to download datasheet](#)

Receiver for Wireless Sensor Nodes

nemi Connect

- Data receiver for up to 8 wireless sensor nodes in the radio network nemi Link 2400
- Cabled data transmission via USB interface to a Gantner Controller
- Data feed directly into Q.station
- Direct time synchronization via Q.station
- Small design: (56 x 46 x 27) mm

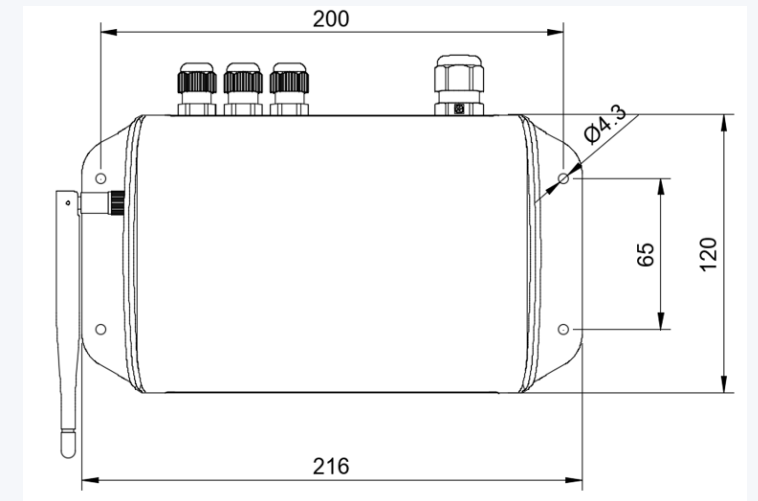


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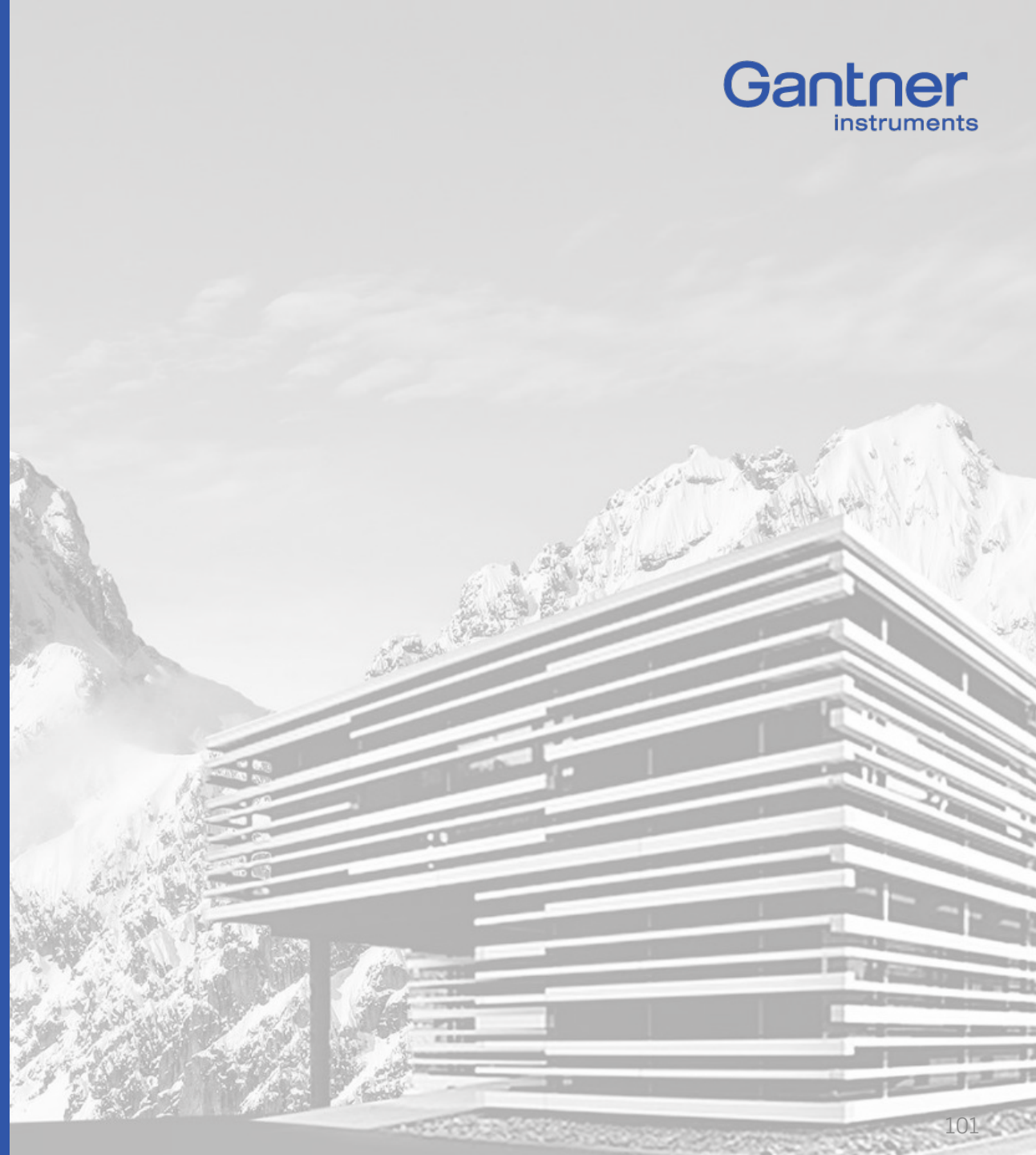
Wireless Sensor in Outdoor enclosure

nemiStruct G+ and DAQ

- Powered by battery and PV panel
- nemiStruct G+
- nemiStruct DAQ (with 2 ch analog input)



Distributed I/O Q.solid



Distributed I/O

Q.Solid 4xM12 – rugged DAQ

- Rugged housing for outdoor use
 - IP66 protection
 - Dimension LxWxH 120x77x140mm, weight app. 1Kg
 - Screw mount
- Distributed system with UART cable over long distance
 - UART/Power IN and Out with M12 connectors on top
 - UART Termination on last module by M12 Plug with termination resistor
- Any Q.series classic I/O module inside
- Standard with M12 connectors underside for 4 channel I/O modules, others on request

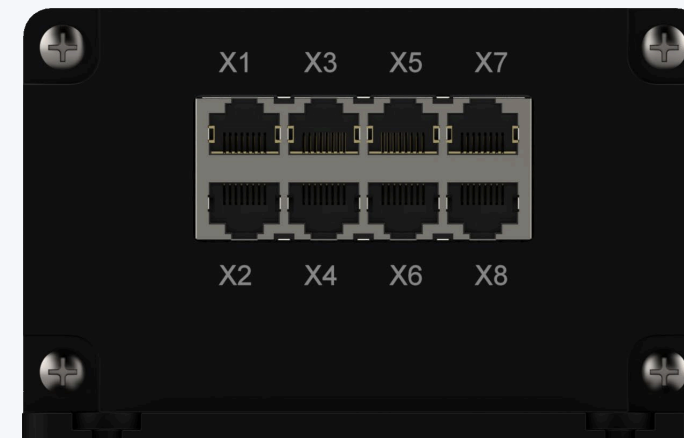


Underside

Distributed I/O

Q.Solid 8xRJ45 – rugged DAQ

- Version with A116 inside
- 8x RJ45 connectors for strain gages
- IP4x
- For indoor use on large area application e.g. Aerospace Iron Bird Testing



Underside

Accessories



Q.series X

Additional Items for Q.station

Time synchronization and positioning for Q.station

- USB 2.0 Multi GNSS Receiver supports GPS, GLONASS, BEIDOU, GALLILEO, QZSS
- Update Rate 10 Hz
- Positioning accuracy: 2.5 m
- Hot Start in ca. 1 s
- Cold Start in ca. 16 s

Two versions available:

- GPS USB Mouse
 - Magnetic mount
 - Cable length 1.5 m
- GPS USB Antenna
 - Screw mount on roof
 - Cable length 4.5 m



GPS USB Mouse



GPS USB Antenna

Product Codes
GPS USB Mouse

GPS USB Antenna

Q.series X

Additional Items for Q.station

CAN to USB adapter

- Peak System
 - PCAN-USB FD with one CAN-FD port
 - PCAN-USB Pro FD with two CAN-FD ports
 - PCAN-USB X6 with six CAN-FD ports



PCAN-USB FD



PCAN-USB Pro FD



PCAN-USB X6

- HMS Ixxat
 - USB-to-CAN FD Compact with one CAN-FD port
 - DB9 CAN Terminator
 - USB-to-CAN FD Automotive with two CAN-FD ports



USB-to-CAN FD Compact



DB9 CAN Terminator



USB-to-CAN FD Automotive

Product Codes
On request

Q.series X

Additional Items for Q.station

USB Stick / Pen Drive for Data Storage

- 128 GB
- USB 3.0
- Operating Temperature 0°C – 60°C
- Dimension (L x W x H) 45 x 12.2 x 4.6 mm

We recommend to format the drive in ext3 for reliable operation with the Q.station data logger.



Product Codes
USB Stick 128GB

Q.series X

Additional Items for Q.station

4G / LTE Modem

- 2x Sim Ports
- 2x SMA LTE Antenna Connector (Main & Div for best network coverage)
- With two ethernet ports
- 1x FME for GPS/GNSS for positioning and time synchronization
- Operating Temperature -20°C to +60°C
- Dimension (L x W x H) 150 x 100 x 55 mm
- Din Rail or wall mount
- Antenna sold separately

Two Versions available:

For Europe, Middle East and Asia - EMEA

For North America - NAM



Product Codes

4G Router EMEA

4G Router NAM

Q.series X

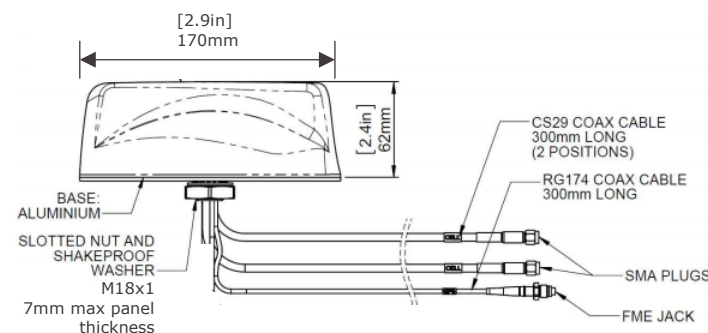
Additional Items for Q.station

4G / LTE & GNSS Antenna for 4G Router

- 2x SMA/M 4G / LTE MiMo Antenna
- 1x FME GPS/GNSS
- Cable length 0.3 m
- For roof top mounting on Enclosures



Cable Extension set 3 m for 2x 4 G / LTE and 1x GPS/GNSS - 4 G GNSS Cable Ext.



Product Codes

4G GNSS Antenna

4G GNSS Cable Ext.

Q.series X

Additional Items for I/O Modules

- Cold Junction Compensation Terminal für thermocouple measurements with A101, A104 and A107
- 8 pole screw terminals for 4 thermocouples no matter what type it is (K, L, N, T, ...)
- Inbuild Pt1000 for cold junction compensation
- Order 2 pieces for thermocouple measurement at all channels



Product Codes

For A101:

Qterm-CJC-A101

For A104

Qterm-CJC-A104

For A107

Qterm-CJC-A107

Q.series X

Additional Items for I/O Modules

- Bridge Completion Terminal for strain gage measurements with A101, A102, A106 and A107
- Available with completion resistors with 120 Ohm and 350 Ohm depending the resistance of used strain gages
- Order 2 pieces for measurement at all channels



Product Codes

For A101 and 120 Ohm:

Qterm-B4/120-A101

For A101 and 350 Ohm:

Qterm-B4/350-A101

For A102 and 120 Ohm:

Qterm-B4/120-A102

For A102 and 350 Ohm:

Qterm-B4/350-A102

For A106 and 120 Ohm:

Qterm-B4/120-A106

For A106 and 350 Ohm:

Qterm-B4/350-A106

For A107 and 120 Ohm:

Qterm-B4/120-A107

For A107 and 350 Ohm:

Qterm-B4/350-A107

Q.series X

Additional Items for I/O Modules

- Shunt terminals for current measurements (0/4-20 mA) with A103 and A108
- Inbuild 4 high precision 100 Ohm resistors in each terminal
- Order 2 pieces for current measurements at all channels



**Product Codes
For A103 and A108:**
Qterm-SR

Q.series X

Additional Items for I/O Modules

- Connection Terminal and cable for A116 and A146
- Din Rail Terminal with screw terminals for sensor connection and 64 pole Harting connector for I/O Module
- Including 1m cable with 64 pole Harting connector on both sides
- Special connection terminals with RJ45 port available on request



Product Codes
For A116:
CT A116

Q.series X

Additional Items for I/O Modules

- Connection Terminal and cable for A146
- Din Rail Terminal with screw terminals for sensor connection and two DB26HD connectors for I/O Module
- Including 2m cable with two DB26HD connectors on both sides
- Special connection terminals with RJ45 port available on request



[Click on image to download datasheet](#)



Product Codes
For A146:
CT A146 Terminal incl
Cable

Q.series X

Additional Items for I/O Modules

- Cable for A116 and A146 with flying leads
- 1 m cable with 64 pole Harting connector on module side
- 2m cable with two DB26HD connector on module side



Cable A146 DB26HD-open



Cable A116-open

Product Codes

For A116:

Cable A116-open

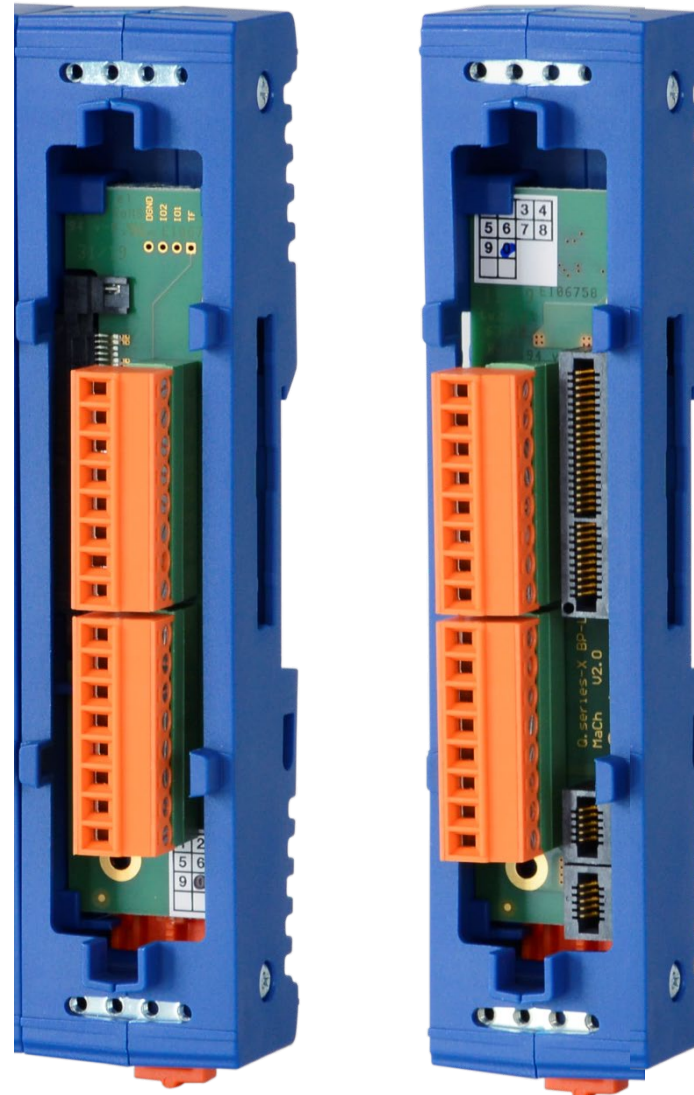
For A146:

Cable A146 DB26HD-open

Q.series X

Additional Items for Q.bloxx

- Extension socket left/right for UART extension
- For decentralized and daisy chained I/O modules the extension socket left can be used to connect UART and power supply to one or more I/O module.
- For connections to further I/O modules the extension socket right can be used to extend UART and power supply to another socket.



Product Codes

Q.bloxx-X base left
for UART and Supply

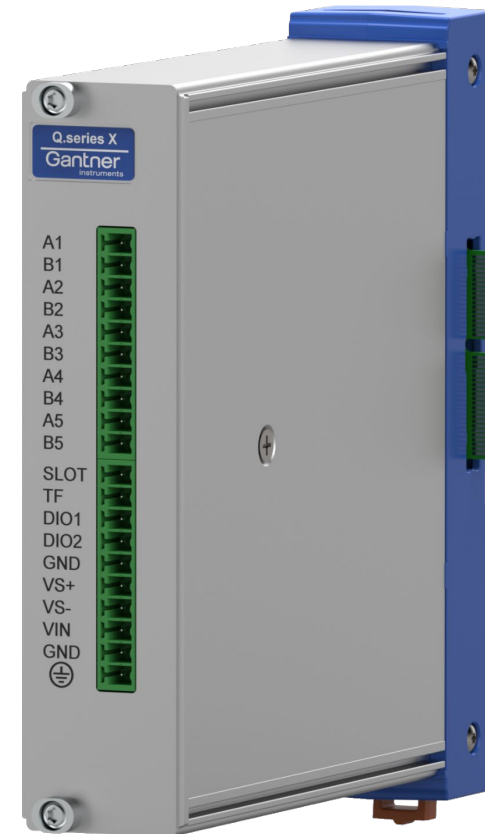
Q.bloxx-X base right
for UART and Supply

[Click on image to download datasheet](#)

Q.series X

Additional Items for Q.bloxx, Q.brixx

- Extension socket for UART extension of Q.series X Controllers
- NOTE:
- For decentralized and daisy chained I/O modules the extension socket left can be used to connect UART and power supply to one or more I/O module.
- For connections to further I/O modules the extension socket right can be used to extend UART and power supply to another socket.



[Click on image to download datasheet](#)

Product Codes

Q.bloxx-X
UART/Power

Q.brixx-X
UART/Power

Q.series X

Additional Items

- UART extension with Fiber optic F100
 - Up to 1.5 Mbaud per second
 - Transmission distance up to 3.800 m
 - Fiber type: Multimode-Duplex-Glassfiber with 50 or 62.5/125 μm
- ST connector for TX and RX
- Two devices necessary for Fiber optic UART extension



[Click on image to download datasheet](#)

Product Codes
Q.bloxx-X F100

Q.series X

Additional Items for Q.brixx

- Base system (left and right handels) with desktop power supply unit



Desktop Power Supply

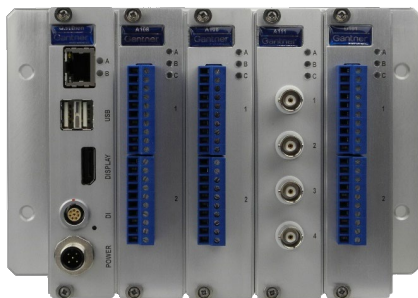


Product Codes
Q.brixx-X Base

Q.series X

Additional Items for Q.brixx

- Base system with Mounting Flanges (left and right) without power supply unit



Mounting Flange Front View



Mounting Flange Rear View



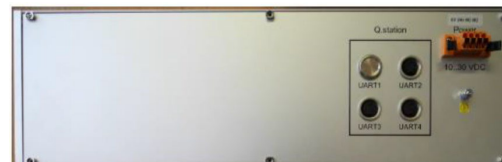
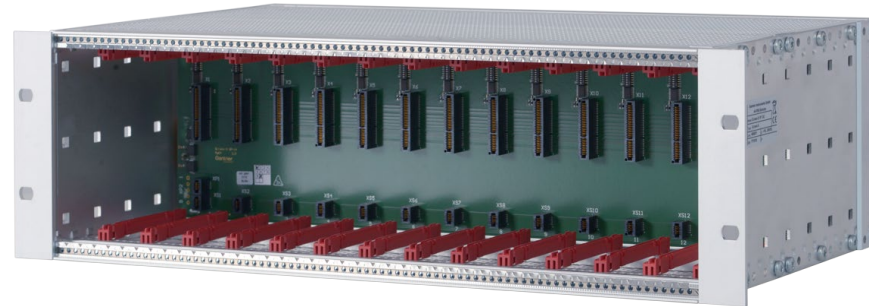
[Click on image to download datasheet](#)

Product Codes
Q.brixx-X Flange

Q.series X

Additional Items for Q.raxx

- 19 inch rack 3U including backplane with 14 slots (one controller and 13 I/O modules or 14 I/O modules)
- For all Q.raxx Stations and Bus Coupler BC (only one of these devices on the very left port allowed)
- UART interface (Binder) on rear to connect controller to further racks equipped with I/O modules only
- Rack DC
 - External 24 VDC power supply necessary to be connected to Q.raxx station or BC
- Rack AC
 - Internal 110-240 VAC to 24 VDC switching power supply with 10A output included
 - AC Input on rear with standard ICE socket (Type C14)



Rear: Example of UART Connections, at least one UART is used internal

Product Codes

Q.raxx-X
Base Rack DC

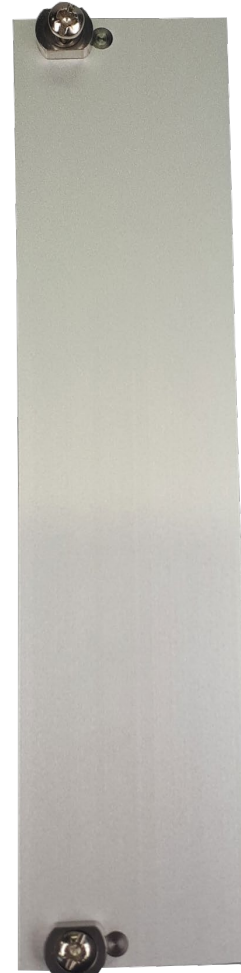
Q.raxx-X
Base Rack AC

[Click on image to download datasheet](#)

Q.series X

Additional Items for Q.raxx

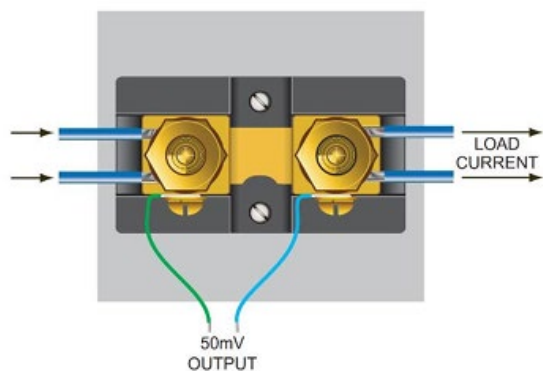
- Blind front plate incl. screws
- Please order for all unused slots in a Q.raxx System one blind front plate



Product Codes
Q.raxx cover plate

Q.series X Shunts

- High Accuracy DC-current measurement
 - $\pm 0,25$ % accuracy
 - Isolation voltage 750 V
 - 50mV Output



[Click on image to download datasheet](#)

Product Codes

Q.Shunt 20A/50mV

Q.Shunt 50A/50mV

Q.Shunt 100A/50mV

Q.series X

Current Transducer

- Closed loop (compensated) hall effect sensor
- Measurement range $\pm 200\text{A}$ (others on request)
 - Secondary current $\pm 100\text{ mA}$ (FS)
 - Total error $\pm 0.5\%$
 - Bandwidth (-3 db) DC - 100 kHz
- Use with A127-2CV / A127-4CV



[Click on image to download datasheet](#)

Accessoires:

- Cable LEM LF 205-X for connection to A127-2CV/4CV

Product Codes
LF 205-S

Q.series X

Current Transducer

- Closed loop (compensated) zero flux detector
- Measurement range $\pm 200\text{A}$ (others on request)
 - Secondary current $\pm 200\text{ mA (FS)}$
 - Total error 0.6 ppm
 - Bandwidth (-3 db) DC - 1100 kHz
- Use with A127-2CV / A127-4CV



[Click on image to download datasheet](#)

Product Codes
IN 200-S

Accessoires:

- Cable LEM IN for connection to A127-2CV/4CV

Q.series X

Additional Items for Q.raxx

- For all Q.raxx (AC and DC) with Binder sockets on rear
- UART Connection Cable between Q.raxx
- Length 0.3 m



Product Codes
Cable Q.raxx UART

Q.series X

Additional Items for Q.raxx

- For all Q.raxx (AC and DC) with Binder sockets on rear
- UART Connection Cable between Q.raxx and Q.station mounted separately
- Length 3 m



Product Codes
Cable Q.raxx UART
Station

Q.series X

Additional Items for Q.raxx

- For all Q.raxx (AC and DC) with Binder sockets on rear
- UART Connection Cable between Q.raxx and Q.raxx-X slimline
- Length 0.4 m



Product Codes

Cable Q.series-X
UART DB-Binder

Q.series X

Additional Items for Q.raxx

- For all Q.raxx-X slimline with DB9 sockets on rear
- UART Connection Cable between Q.raxx-X slimlines
- Length 0.3 m



Product Codes

Cable Q.series-X
Slimline UART CON

Q.series X

Additional Items for Q.raxx

- For all Q.raxx-X slimline with DB9 sockets on rear
- UART Bus Termination with 50 Ohm resistor in DB9 connector



Product Codes

Q.term-XL SL BA 50
Ohm

Q.series X

Additional Items for Q.station

- Cable for time synchronization between Q.stations
- 2-pole Lemo connector to 2-pole Lemo connector
- Cable length standard: 1m
- For synchronization for more than 2 Q.stations please contact our technical support team



Product Codes
Cable Q.sync

Q.series X

Additional Items for Q.station

- Cable for time synchronization between Q.stations
- 2-pole Lemo connector to two 2-pole Lemo connectors Y-piece
- For synchronization for more than 2 Q.stations
- Long enough for Q.stations in a 19" Rack mounted on top of each other
- Extendable with Cable Q.sync



Product Codes
Cable Q.sync Y-Piece

Q.series X

Additional Items for Q.station

- Cable with Lemo Connector for Digital I/O port in Q.station
- 8-pole Lemo connector to flying leads
- Cable length: 1.5 m



Product Codes
Cable Q.station DIO-
Plug

[Click on image to download datasheet](#)

Q.series X

Additional Items for Q.station

- Cable with Lemo Connector and termination resistor for CAN port in Q.station
- 2-pole Lemo connector to flying leads
- Inbuild Termination resistor
- Cable length: 3 m



Product Codes
Cable CAN incl.
Termination Resistor

Q.series X

Additional Items for Q.station

- Cable with Lemo Connector for CAN port in Q.station
- 2-pole Lemo connector to flying leads
- Cable length: 3 m



Product Codes
Cable CAN

Good To Know

- Download and Support Tools:

<https://www.gantner-instruments.com/resources/downloads-and-support-tools/>

- Product datasheets:

<https://www.gantner-instruments.com/resources/downloads-and-support-tools/product-datasheets/>

- How-To Videos:

<https://www.youtube.com/user/GantnerInstruments/videos>

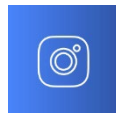
- Support Contact:

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Thank You!

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