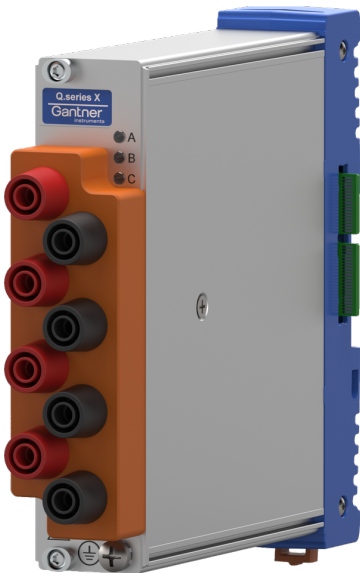


# Q.bloxx XL A128 plus SEB

High Isolation Module for Dynamic High Voltages

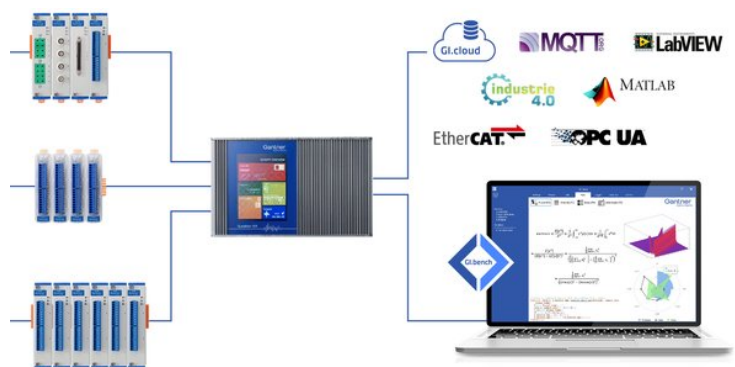
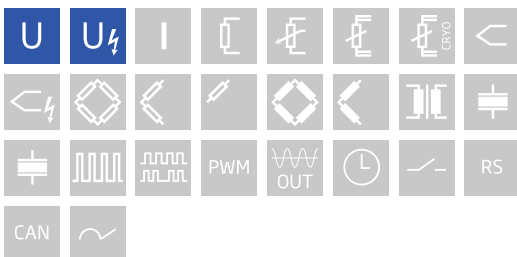
Q.bloxx XL is a new addition to the Q.series product family - the ideal DAQ solution for widely distributed installations that require higher performance and custom sensor terminations. Q.bloxx XL products are packaged in modular, DIN Rail mountable enclosures that easily snap together for system expansion. Flexibility in distribution allows for highly synchronized data that is less prone to noise due to shorter sensor cable runs to the subject.

- RS485 fieldbus interface up to 48 Mbps: LocalBus, up to 115.2 kbps: Modbus-RTU, ASCII
- Connectable to Controller Q.station X
- Electromagnetic Compatibility according to EN61000-4 and EN55011
- Power supply 10 ... 30 VDC
- DIN rail mounting (EN60715)



## Key Features

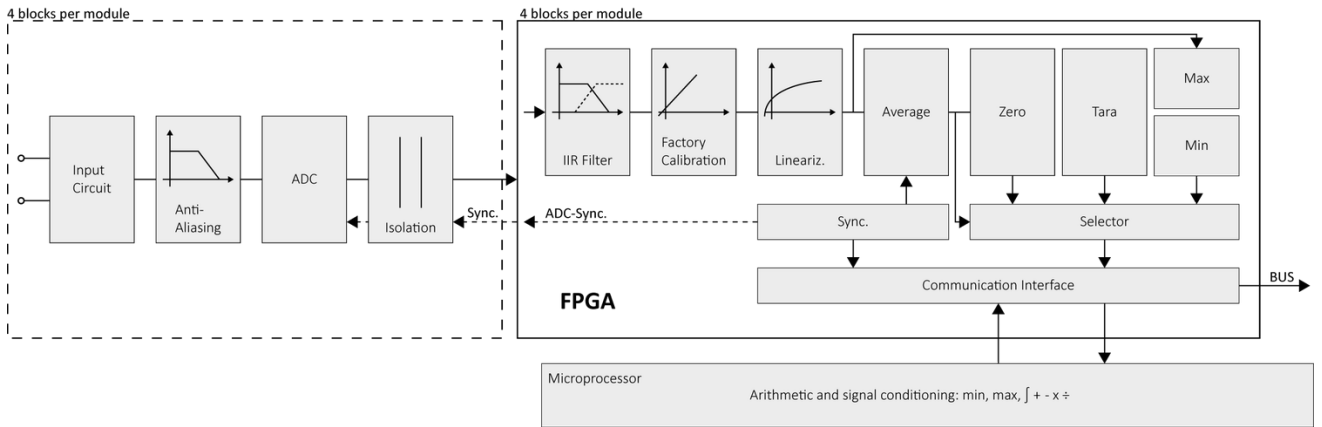
- 4 galvanically isolated input channels  
Voltages, ranges  $\pm 100\text{ V}$ ,  $\pm 300\text{ V}$ ,  $\pm 600\text{ V}$ ,  $\pm 1500\text{ V}$
- Signal conditioning  
16 virtual channels, linearization, digital filter, average, scaling, min/max storage, RMS, arithmetic, alarm
- Fast high accuracy digitalization  
24 bit ADC, 100 kHz sample rate per channel
- Galvanic isolation  
channel to channel to power supply and to interface
- Categories  
600 V CATIII / 1000 V CATII / 1500 V without CAT



# Q.bloxx XL A128 plus SEB

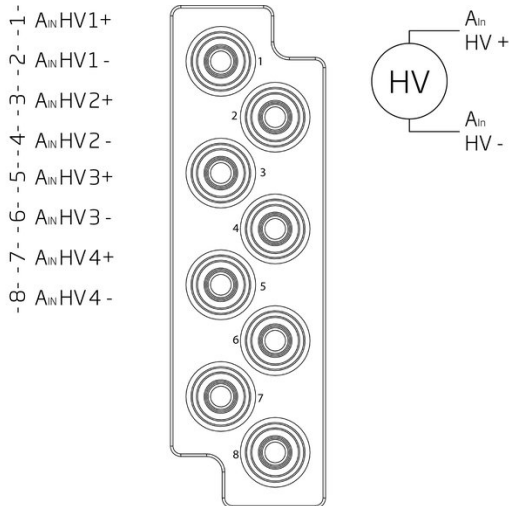
High Isolation Module for Dynamic High Voltages

## Block diagram



## Technical Data

### Terminal assignment High Voltage Banana



## Power Supply

Input voltage	10 to 30 VDC, overvoltage and overcurrent protection
Power consumption	typ. 4 W <sup>1</sup>
Input voltage influence	< 0.001 % / V

<sup>1</sup> For the exact power consumption values, refer to the calibration report of the respective module

## Analog Inputs

Channels	4
Isolation voltage	1500 VDC continuous, channel to channel to power supply channel to bus

# Q.bloxx XL A128 plus SEB

High Isolation Module for Dynamic High Voltages

## Measurement Mode Voltage

Range	±1500 V	±600 V	±300 V	±100 V
max. Error	±300 mV	±120 mV	±60 mV	±20 mV
Resolution	360 µV	150 µV	75 µV	25 µV
Input impedance	> 10 MΩ			
Temperature influence offset drift	100 mV / 10 K	40 mV / 10 K	20 mV / 10 K	7 mV / 10 K
Temperature influence gain drift	0.025 % / 10 K			
Long-term stability	30 mV / 24 h	12 mV / 24 h	6 mV / 24 h	2 mV / 24 h
	300 mV / 8000 h	120 mV / 8000 h	60 mV / 8000 h	20 mV / 8000 h

## Analog/Digital-Conversion

Resolution	24-bit
Update rate	100 kHz
Modulation method	Sigma-Delta
Anti-aliasing filter	20 kHz, 3rd order
Digital filters	Infinite impulse response (IIR), low-pass, high-pass, band-pass, Butterworth or Bessel (2nd, 4th, 6th or 8th order), frequency range 1 Hz to 10 kHz (adjustable via software)
Averaging	Configurable or automatic according to the selected data rate

## Communication Interface Localbus

Protocols	proprietary LocalBus (115200 bps to 48 Mbps, latency <100 ns) ASCII (19200 bps to 115200 bps) Modbus RTU
Data format	8E1
Electrical standard	ANSI/TIA/EIA-485-A, 2-wire

## Environmental

Operating temperature	-20 °C to +60 °C
Storage temperature	-40 °C to +85 °C
Relative humidity	5 % to 95 % at 50 °C, non-condensing
Pollution degree	2

## Remarks

Are subject to a warm-up period of at least 45 minutes

In a controlled electromagnetic environment<sup>1</sup>

With configuration: Low-pass 10Hz<sup>2</sup>

Specifications subject to change without notice

<sup>1</sup> according to IEC 61326-1:2020

<sup>2</sup> unless otherwise stated

# Q.bloxx XL A128 plus SEB

High Isolation Module for Dynamic High Voltages

## High Voltage Warnings



- Attention! High voltage device! - Danger to life and health in case of non regular use.
- Only special and sufficient educated persons are permitted to handle this device only.
- All metal housing parts must be safe and permanently connected to protected earth PE.
- Only contact protection plugs and cables may be used. All parts must be approved for voltages up to
- During installation, the whole system must be without voltage and safely be disconnected from the mains.
- All relevant safety regulations must be considered.
- Do not operate with damaged casing.
- Permitted measuring systems: DC voltage up to 1500 V, sinusoidal AC voltage (< 30 kHz) up to 1000 V.
- The measuring signal must be limited to a maximum transient overvoltage of 6 kV to earth.
- Base are the european standards EN61010-1:2020-03 and EN61010-2-030:2022-11

## Mechanical Information

Material	Aluminium and ABS
Measurements (W x H x D)	30 x 145 x 160mm
Weight	approx. 500 g
Protection class	IP20

## Ordering Information

Article number	724829
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## Gantner Instruments

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