

Q.brixx A108-60V

Multichannel Module for Voltages

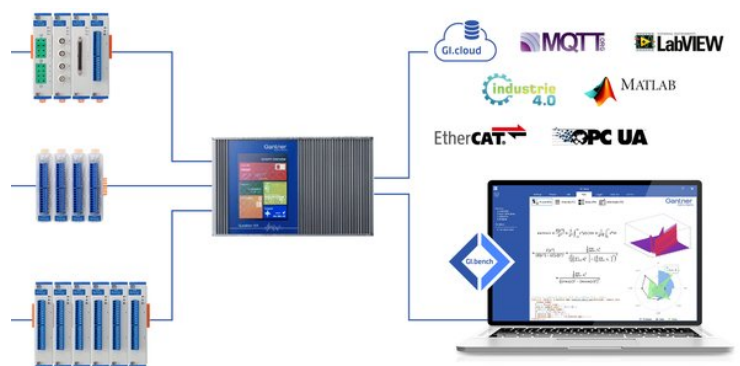
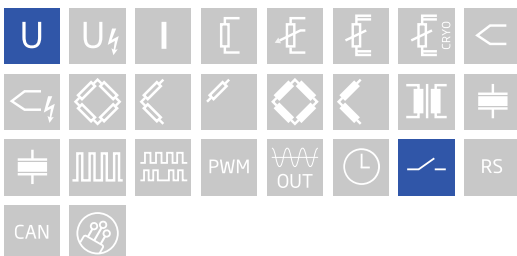
Q.brixx brings the performance and functionality of Q.bloxx into a scalable, portable, and rugged form factor. Q.brixx DAQ systems can consist of up to 16 measurement modules and an integrated, high-performance controller for communication, control, and data logging purposes. With a robust aluminum housing capable of withstanding severe shock and vibration, Q.brixx is ideal for on-the-go applications in potentially harsh environments.

- Electromagnetic compatibility according EN 61000-4 and EN 55011
- Robust and reliable stable and compact aluminum housing, easy to carry
- Power supply 10 ... 30 VDC
- Temperature range -20 up to +60°C
- High density and flexibility up to 16 modules in one system in any constellation

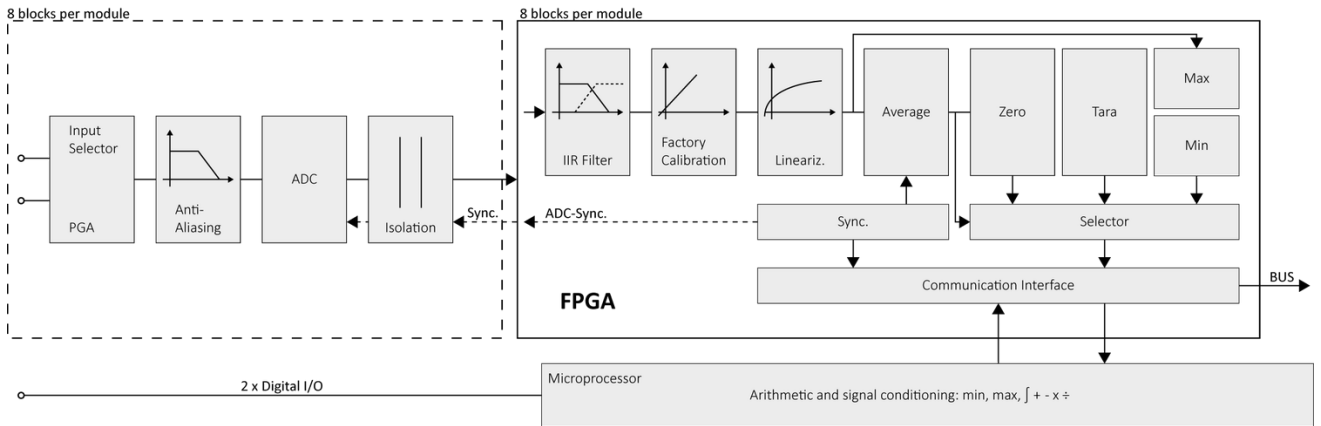


Key Features

- 8 galvanic isolated input channels
differential voltage ± 60 V, isolation voltage 500 VDC
- High accuracy digitalization
24 bit ADC, 10 kHz sample rate per channel
- 2 digital in and 2 digital outputs
input: state, tare, memory reset, output: state, Alarm, threshold
- Signal conditioning
linearization, digital filter, average, scaling, min/max storage, RMS, arithmetic, alarm
- Galvanic isolation
channel to channel, power supply and interface, isolation voltage 500 VDC



Block diagram



Technical Data

Analog Inputs

Channels	8
Accuracy	0.01 % typical 0.025 % in controlled environment ¹ 0.05 % in industrial area ²
Input range	±60 V
Max. error	±25 mV
Resolution	12 µV
Linearity error	0.01 % typical of final value
Repeatability	0.003 % typical (within 24 h)
Isolation voltage	500 VDC channel to channel to input voltage to interface ³

¹ according to EN 61326 2006: appendix B

² according to EN 61326 2006: appendix A

³ noise pulses up to 1000 VDC, continuous up to 250 VDC

Measurement Mode Voltage

Error	range	max. error	resolution
	±60 V	±25 mV	12 µV
Input impedance	>1 MΩ		
Long-term drift	<500 µV / 24 h	<2000 µV / 8000 h	
Temperature influence	Offset drift	Gain drift	
	<500 µV / 10 K	<0.02 % / 10 K	
Signal-to-noise ratio	>100 dB at 100 Hz	>120 dB at 1 Hz	
Overvoltage protection	± 200 V		

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Digital In/Outputs

Channels	4, 2 digital inputs, 2 digital outputs
Input	status, tare, reset
Input voltage / input current	max. 30 VDC / max. 0.5 mA
Lower / Upper threshold	< 2.0 V (low) / > 10 V (high)
Output	status, alarm
Contact	open drain p-channel MOSFET
Load capacity	30 VDC/100 mA (ohmic load)

Analog/Digital-Conversion

Resolution	24-bit
Update rate	10 kHz per channel
Modulation method	Sigma-Delta
Anti-aliasing filter	2 kHz, 3rd order
Digital filters	IIR, low-pass, high-pass, band-pass, 4th order, 1 Hz up to 1 kHz in steps 1, 2, 5
Averaging	configurable or automated according the selected data rate

Communication Interface

Protocols	proprietary Localbus (115200 bps to 24 Mbps, latency < 100 ns) ASCII (19200 bps to 115200 bps) Modbus RTU Profibus-DP (19200 bps to 12 Mbps) (special Firmware required)
Data format	BE1
Electrical standard	ANSI/TIA/EIA-485-A, 2-wire

Power Supply

Input voltage	10 to 30 VDC, overvoltage and overload protection
Power consumption	approx. 2 W
Input voltage influence	< 0.001 %/V

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

Remarks

Warm-up time	Validity of all listed specifications are subject to a warm-up period of at least 45 minutes
	Specifications subject to change without notice

Mechanical information

Material	Aluminum
Measurements (W x H x D)	30 x 125 x 155 mm
Weight	approx. 200 g

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Ordering Information

Article number	432017
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