

# Q.brixx XL A111 HB 30V

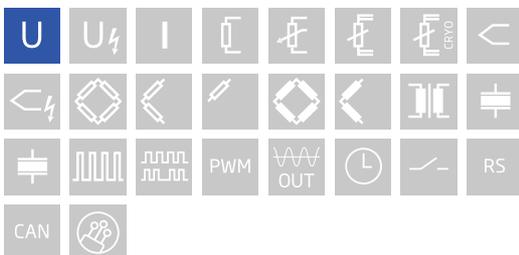
Measurement Module for Voltages

Q.brixx XL is a new addition to the Q.series product family - the ideal DAQ solution for on-the-go applications requiring higher performance in potentially harsh environments. Q.brixx XL DAQ systems consist of up to 16 measurement modules and an integrated, high-performance controller for communication, control, and data logging purposes, all within a robust aluminum housing capable of withstanding severe shock and vibration without sacrificing performance.

- High density and flexibility with 16 modules in one system in any constellation
- Electromagnetic Compatibility according to EN61000-4 and EN55011
- Connectable to Controller Q.station
- Power supply 10 ... 30 VDC

## Key Features

- 4 galvanic isolated analog input channels  
With 45 kHz bandwidth
- High input range  
 $\pm 30\text{ V}$  to read raw values from machinery protection systems
- High-accuracy digitization  
24-bit ADC, 100 kHz sample rate per channel
- Signal conditioning  
16 virtual channels, linearization, digital filter, average, scaling, min/max storage, RMS, arithmetic, alarm
- Galvanic isolation  
500 VDC channel to channel, channel to power supply, and bank



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### Technical Data

#### Analog Input

Channels	4
Accuracy	0.01 % typical 0.025 % in controlled environment <sup>1</sup> 0.05 % in industrial area <sup>2</sup>
Linearity error	0.01 % typical full-scale
Repeatability	0.003 % typical (within 24 hrs)
Input impedance	>10 MΩ (unless otherwise stated)
Isolation voltage	500 VDC channels, to power supply, channel to bus <sup>3</sup>
Overvoltage protection	±33 V
Max. Common-mode voltage (CMV)	250 VDC

<sup>1</sup> according to EN 61326 2006: appendix B

<sup>2</sup> according to EN 61326 2006: appendix A

<sup>3</sup> noise pulses up to 1000 VDC, continuous up to 250 VDC

#### Measurement Mode Voltage

Input range	Margin of error	Resolution	Input impedance
±30 V	±6 mV	3.6 μV	> 2 MΩ
Long-term stability (range ±1 V)	<60 μV / 24 hrs	<600 μV / 8000 hrs	
Temperature drift (range ±1 V)	<150 μV / 10 K Offset drift	<0.01 % / 10 K Gain drift	
Signal-to-noise ratio	>90 dB at 1 kHz	>120 dB at 1 Hz	
Dynamic range	109 dB @ ±10 V		
Input impedance	2.1 MΩ    50 pF		

#### Analog/Digital Conversion

Resolution	24-bit
Sample rate	100 kHz per channel
Modulation method	sigma-delta
Bandwidth	45 kHz, ±3 db
Digital filters	Infinite impulse response (IIR), low-pass, high-pass, Butterworth or Bessel (2nd, 4th, 6th or 8th order), frequency range 0.1 Hz to 20 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

#### Power Supply

Input voltage	10 to 30 VDC, overvoltage and overcurrent protection
Power consumption	2.5 W (approx.)
Input voltage influence	<0.001 % / V

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## 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

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)	30x 137 x 135mm
Weight	approx. 500 g

## Ordering Information

Article number	695432
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## Gantner Instruments

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