e.bloxx A1

Universal Analog Measurement Module

1, 4, or 8 universal analog input channels

Voltage, current, resistance, Pt100, Pt1000, thermocouples, bridges

Gantner Instruments Test & Measurement GmbH ■ www.gantner-instruments.com ■ office@gantner-instruments.com
Montafonerstraße 8 ■ A-6780 Schruns / Austria ■ T +43 (0) 5556 73784-410 ■ F +43 (0) 5556 73784-419
Industriestraße 12 ■ D-64297 Darmstadt / Germany ■ T +49 (0) 6151 95136-0 ■ F +49 (0) 6151 95136-26

e.bloxx A1 Technical Data

Analog Input

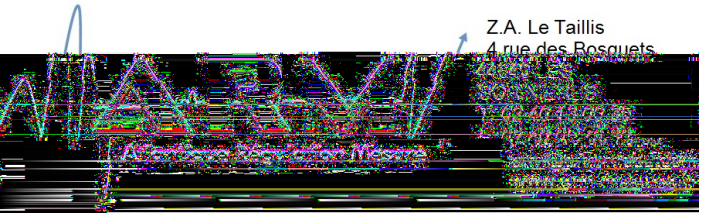
Accuracy	0.01 % typical
	0.02 % in controlled environment[1]
	0.05 % in industrial area[2]
Repeatability	0.003 % typical (within 24 h)

Measurement	Range	Accuracy	Resolution
Voltage	±10 V	±2 mV	40 µV
	±1 V	±0.2 mV	4 µV
	±100 mV	±20 µV	0.4 µV
	±10 mV	±10 µV	0.04 µV
Current	4-20 mA	±4 µA	80 nA
(internal shunt 100 Ω)	±20 mA	±4 µA	80 nA
Resistance	4 kΩ	±1 Ω	0.05 Ω
(2, 3 and 4 wire)	2 kΩ	±0.6 Ω	0.03 Ω
Bridge	±1000 mV/V	±1 mV/V	50 µV/V
(Supply 5 VDC/120 Ω)	±200 mV/V	±200 µV/V	10 µV/V
	±20 mV/V	±20 µV/V	1 µV/V
	±8 mV/V	±8 µV/V	0.4 µV/V
	±2 mV/V	±2 µV/V	0.1 µV/V
RTD (2, 3 and 4 wire)			
Pt100 (-200 to +850 °C)		±0.5 °C	0.1 °C
Pt100 (-200 to +250 °C)		±0.2 °C	0.01 °C
Pt1000 (-200 to +850 °C)		±1 °C	0.1 °C
Pt1000 (-200 to +140 °C)		±0.3 °C	0.01 °C
Thermocouples			
Type B:		better than ±5 °C	
Type E, J, K, L, T, U		better than ±1 °C	
Type N		better than ±2 °C	
Type R, S		better than ±3 °C	

Input resistance	> 10 MΩ
Common mode voltage	500 V permanent
Linearity deviation	0.01 % of the final value
Signal to noise ratio	voltage measurement
1 kHz	90 dB
1 Hz	120 dB
Temperature influence	
on zero	1µV / 10 K
on sensitivity	0.02 % / 10 K
Long-time drift	1 µV / 24 h; 0.1 µA / 24 h

Analog/Digital Conversion

Resolution	19 bit
Sample rate	1000 samples/sec for voltage, current potentiometer, bridge
	10 samples/sec for resistance, RTD



Valid from January 2008. Specification subject to change without notice.

Gantner Instruments Test & Measurement GmbH ■ www.gantner-instruments.com ■ office@gantner-instruments.com
Montafonerstraße 8 ■ A-6780 Schruns / Austria ■ T +43 (0) 5556 73784-410 ■ F +43 (0) 5556 73784-419
Industriestraße 12 ■ D-64297 Darmstadt / Germany ■ T +49 (0) 6151 95136-0 ■ F +49 (0) 6151 95136-26