

AMM1A • ANALOG MASTER MEASUREMENT MODULE

PART NUMBER
SPEC-AMM1A

AMM1A SPECIFICATIONS:

INPUT CHANNELS

Local: 8 differential or 16 single-ended inputs.
Global: 9 inputs from slots 2-10.

LOCAL PROGRAMMABLE GAIN AMPLIFIER

Programmable Gains: x1, x10.
Gain Accuracy: $\pm 0.045\%$ @ x1 gain; $\pm 0.08\%$ @ x10 gain.
Nonlinearity: $\pm 0.05\%$
Temperature Coeff: $\pm 0.001\%/^{\circ}\text{C}$ @ x1 gain; $\pm 0.0017\%/^{\circ}\text{C}$ @ x10 gain.
Input Resistance: $> 100\text{M}\Omega$.
Input Bias Current: $< 1\text{nA}$.
Input Noise: $< 100\mu\text{V}$ p-p, 0.1Hz to 100kHz.
CMRR: $> 70\text{dB}$, DC to 60Hz.
Input Protection: $\pm 30\text{V}$ maximum (powered), $\pm 15\text{V}$ maximum (unpowered).

10.000 VOLT REFERENCE

Accuracy: $\pm 0.025\%$.
Temperature Coeff: $\pm 0.0017\%/^{\circ}\text{C}$.
Noise: $25\mu\text{V}$ p-p, 0.1Hz to 10Hz.

GLOBAL AMPLIFIER AND A-to-D CONVERTER

A-to-D Converter: Self-calibrating, successive approximation.
Resolution: 12-bits (1 part in 4,096).
A-to-D Range: Software selectable, 0 to +10V (unipolar) and -10V to +10V (bipolar).
Conversion Time: 20 μsec . (including acquisition time).
Software Trigger: Oneshot Mode: A single reading is available 20 μsec . after trigger location in memory is addressed. Continuous Mode: Conversions are continuously triggered every 20 μsec . by internal crystal controlled clock.
External Trigger: Continuous conversions begin with falling edge of EXT TRIG input and stop when input is high. TTL compatible.
Noise: $< 1/2$ LSB on all ranges and gains
Programmable Gains: x1, x2, x5, and x10.
Gain Accuracy*: $\pm(0.04\% + 1 \text{ LSB})$ @ x1 gain; $\pm(0.15\% + 1 \text{ LSB})$ @ x2, x5, and x10 gain.
Gain Nonlinearity*: $\pm 0.033\%$
Gain Temp. Coeff*: $\pm 0.003\%/^{\circ}\text{C}$.
Filter: Software selectable, 100kHz or 2kHz single pole.
Settling Time†: 12 μsec . with 100kHz filter, 600 μsec . with 2kHz filter.

*Includes input MUX, amplifiers, and A-to-D errors.
† (to 0.05% of final reading)

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| LTR | REVISIONS | APP. | DATE | DRN. D. H. | DATE |
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500-AMM1A
SPECIFICATIONS

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