

A2000 Multifunction Power Meter

Measurement of current, voltage, active, reactive and apparent power, power factor, line frequency and energy.

Simultaneous display of up to 4 measurement values on nine digit red LED display.

Capable of communications via Profibus-DP, Lonworks interface or RS 485 interface (depending upon model).

Minimal installation depth, only 59.1 mm.

Load profile for storage of selected measurement values (continuous or event triggered recording).

Two threshold limit value contacts (can be assigned as desired to measurement values).

Software for read-out and processing of measured values as they occur, or previously stored values.



The A2000 Multifunction Power Meter is powerful, four-quadrant programmable energy meter that features a bright LED display, two freely configurable analog outputs and serial communication ports (RS-232 and RS-485). The A2000 can be programmed either through software or the push buttons on the front panel. The A2000 can be configured as a 1, 2 or 3 element device with transformer rated inputs of 5A and up to 550V. Programmable transformer ratios allow the A2000 to show primary values on the display and read through the serial ports. The analog outputs can be assigned to any instantaneous quantity. Standard analog output is 20mA but this can be changed to 10Vdc with the flip of a dip-switch

Quantities measured by the A2000 include current, voltage, active, reactive and apparent power, power factor, line frequency and energy. THD indication is also available for voltage and current with individual harmonic measurements available for the 3rd through the 15th harmonics.

Other available options include two additional analog outputs (total of four), two pulse outputs with one sync input, data logger for load profile or event recording and LON and Profibus protocol ports. Pulse outputs can be used either for consumption quantities such as watthours and varhours or can be used as threshold alarms. Configure the pulse rate either through the front panel or the software. Threshold alarms can be either high going or low going. Adjustable hysteresis value prevents faulty indication and chattering contacts.

Up to 12 measurement values can be selected for storage to memory. Recording can be triggered by pre-selected limit values. The duration of an event recording can be set within a range of 1 minute to 4 days. Several events can thus be stored to memory, one after the other. The trigger level which starts the recording can be set to anticipate the event. This provides the user with data on the system prior to the event which triggered recording, including time and date. Continuous recording is also possible. The memory has a capacity for up to 63,000 values. The maximum possible duration of a recording depends upon the number of recorded measurement values (1 to 12), and the storage interval at which they are to be recorded (0.3 s to 30 min).

Available configurations:

	Available configurations:	Price
A2000-001	2 analog outputs, no pulse outputs, no data logger, RS- 232 & RS-485	\$675.00
A2000-002	2 analog outputs, 2 pulse outputs, no data logger, LON & RS-232	\$885.00
A2000-003	2 analog outputs, 2 pulse outputs, data logger, LON & RS-232	\$1,145.00
A2000-004	4 analog outputs, 2 pulse outputs, no data logger, RS-232 & RS-485	\$850.00
A2000-005	4 analog outputs, 2 pulse outputs, data logger, RS-232 & RS-485	\$1,145.00
A2000-006	No analog or pulse outputs, no data logger, Profibus-DP & RS-232	\$1,020.00
A2000-007	No analog outputs, 2 pulse outputs, no data logger, Profibus-DP & RS-232	\$1,055.00
A2000-008	No analog outputs, 2 pulse outputs, data logger, Profibus-DP & RS-232	\$1,350.00

Instrument power options available.

OHIO SEMITRONICS, INC.



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Specifications:

Display:

7 segment red LED
 Character Height: 13.2 mm
 Display Range: max. 9999
 Energy: max. 999999999

Input

Voltage: 550V phase-phase; 320V phase-line
 Overload: 1.2 times continuous
 Current: 0 - 6A
 Overload: 1.4 times continuous
 30A for 10 seconds
 100A for 3 seconds
 Frequency: 40 - 70Hz

Accuracy:

Current: 0.25% F.S.
 Voltage: 0.25% F.S.
 Power: 0.5% F.S.
 Power Factor: 0.02 P.F.
 Frequency: 0.02 Hz
 Energy: 0.5% F.S.
 Response time: less than 400mS

Synchronization Pulse

The synchronizing input recognizes floating contact.
 ON: < 10 ohms; OFF: > 10 M ohms

Relay Outputs

One relay changeover contact per limit value
 Switching Capacity: ac/dc, 250V, 2A, 500VA/50W
 Service Life: > 500000 switching cycles
 Hysteresis adjustable for each relay \pm 100 digits

Analog Outputs:

Standard: 0/4 - 20mA or \pm 20mA
 Selectable: \pm 10Vdc
 Output Load, Current (max): 500 ohms
 Output Load, Voltage: < 20 mA
 Load Impedance Effect
 Current output: < 0.8 microA / ohm (0 - 500 ohms)
 Voltage output: no effect to > 10 K ohms

Pulse outputs:

Open emitter:
 On: 10mA - 27mA; Off: less than 2mA
 External voltage: 8 - 30V
 Pulse Duration: 100mS
 Interpulse period: 10mS

Protocols for RS 232 and RS 485: selectable
 GMC device bus (DIN Draft19244), EN 60870 or
 Modbus (RTU)

Power Supply

230V/115Vac \pm 10%, 45 - 65Hz

Optional:

20V - 69Vac, 45 - 450Hz, 20V - 72Vdc or
 73V - 264Vac, 45 - 450Hz, 73V - 276Vdc

Power Consumption: max. 15VA

Mechanical Dimensions: 144 x 144 x 67.1 mm

Panel Cutout: 138 x 138 mm

Installation Depth max: 59.5 mm

Weight: 2.2 lb

Protection:

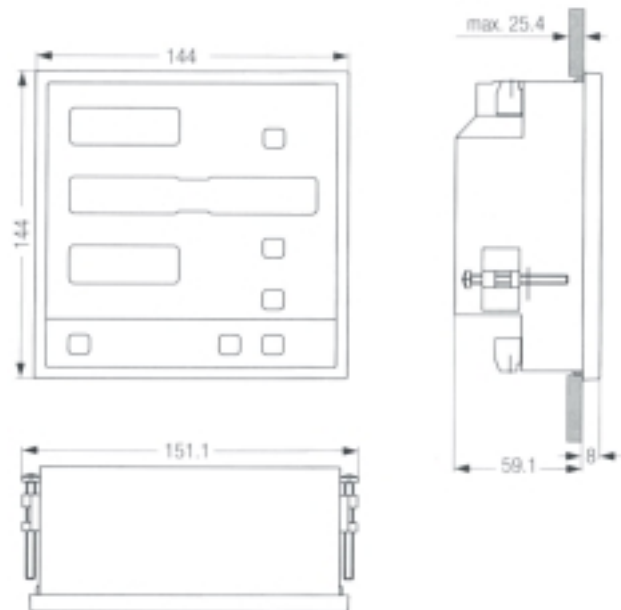
Front panel: IP 52

Housing: IP 30

Terminals: IP 20

Protection Class II

Dimension diagram:



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