

GIMA Options Quad Analog Output

The Quad Analog Output Options Module adds four analog 4-20 DCmA outputs to any standard GIMA Series Power Meter. All outputs are isolated from the metering elements to provide safe connection to external systems. The device uses a high-speed microprocessor to extract information from the meter and a precision digital to analog converter to produce the output signals.

The Options Module provides four DC current sinks with a common signal return which allows connection to PLCs and other equipment fitted with a suitable interface. 4-20mA systems are commonly used where signals require transmission over long distances.

Ordering Information

Cat. Number 47130

Specifications

Auxiliary Supply Option Module	230V AC or 115V AC 50/60Hz±15% Automatic voltage selection when inserted into GIMA® Power Meter MUST be rated to match Option Module rating
Load Isolation	4 VA Maximum 2.5 kV continuous (supply internally wired to GIMA® main inputs)
Mechanical (Options Module) Enclosure Material Dimensions	Custom Options Enclosure Mablex, UL94-V-0 3.43" x 2.32" x 2.95" W=87mm x H=59mm x L=75mm 3.78" x 3.78" x 5.43" W=96mm x H=96mm x L=138mm
GIMA® Meter + Options	Approx. 200g Modular screwdown contacts, .2" centers Quad 4-20 DCmA Current Sink with common Nominal 24 DCV Max 28 DCV (at options module) Min 5 DCV (at options module) Unregulated 18 DCV
Weight Terminals 4-20mA Output Output Loop Supply	Max 30 DCV Min 10 DCV
Internal Supply	600V per channel (maximum 950V) 24V supply
Load Impedance/Ext. Supply	250Ω per channel (maximum 500Ω) at nominal V _{aux}
Internal (Unreg) Supply	Max output 21mA 10 Bit (830 levels from 4mA to 21mA) Outputs updated every second (as GIMA® meter)
Over Range Resolution Update Speed Output Accuracy	Test range 4mA to 20mA, load impedance = 250Ω I _{out} < 5.6mA ±0.5% reading + GIMA® meter errors <0.02% (0Ω to 250Ω)
Effect of Loop Impedance Effect of Supply Voltage	<0.05% for V _{aux} ±15% (internal supply, 250V load)

Accessories - Modbus Communications

The Modbus Communications Option Module for the GIMA Series adds multi-drop serial communications to any standard GIMA meter. The device uses a high speed microprocessor to extract information from the meter and interface to an industry standard Modbus system.

Use of a dedicated communications processor ensures optimum efficiency, allowing fast access to data on systems with multiple meters. At 19200 baud, it is possible to access and download the main instantaneous data tables (24 values) from 10 GIMA meters in one second.

The use of Modbus protocol ensures compatibility with existing systems and/or many readily available software packages. This Options Module may be configured as RS485 or RS422 providing 2 or 4-wire communications over distances up to 3,960 feet (3/4 mile). Data rates of 4800, 9600 or 19200 baud may be selected to suit system requirements.

The Communications Option Module is available in two formats:

Standard: Only parameters displayed on the GIMA meter can be accessed via Modbus (Cat. Number 46240)

All Value: The full set of GIMA G400 parameters can be accessed via Modbus from any GIMA (Cat. Number 46241)

