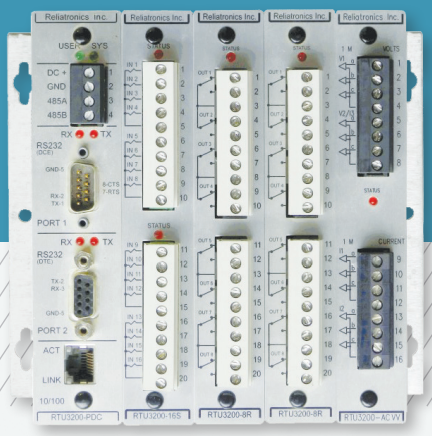
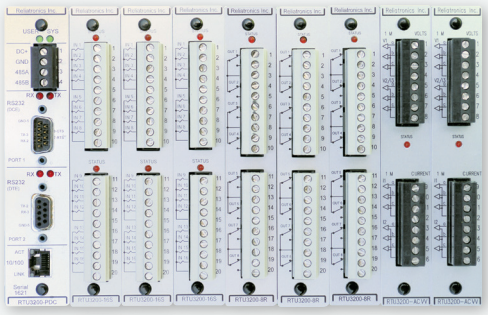


5-bay chassis RTU3200.

Reliatronics RTU3200

Product Data Sheet



9-bay chassis RTU3200.

The RTU3200 is a modular remote terminal unit that consists of a main processing module and various input/output (I/O) modules—all connected via a high-speed bus.

The RTU can be configured with a five-module chassis or a nine-module chassis, depending on the number of analog and digital inputs that are required for a customer's application. Its modularity allows the customer to specify I/O as needed for the application. The modular RTU can be expanded as an application grows.

RTU3200 modules employ a high-performance, 32-bit Advance RISC Machine (ARM) processor and an active-energy management function, resulting in a system that minimizes power consumption and heat generation. In addition to digital outputs and reporting statuses and analog values, the RTU will calculate RMS voltage, watts, VAR, phase angle, THD, and power factor. RTU3200s can be configured to poll other end devices via DNP, and these points will be reported alongside those of the RTU.

The RTU3200 features:

- Conformal-coated printed circuit boards for protection in harsh environments
- Powerful, yet low-power consumption processor
- 10-30VDC power supply
- DNP 3.0, Modbus, and PG&E protocol support
- 10/100 Base-T Ethernet port with RJ-45 connector
- Two RS-232 ports and an RS-485 connection
- Choice of high-impedance or low-impedance AC analog input modules and DC analog input module
- Programmable logic via a C-style interface

RTU3200 Standard Module Configuration

- Processor module
- 8 relay output module
- 16 status inputs module
- 12 AC analog inputs module—voltage and/or current
- Blank position for adding another module

The RTU3200 in a submersible enclosure monitoring current on all phases of 10 circuits (30 analog inputs).

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RTU3200 Technical Data

Physical

Dimensions	
5-bay configuration	6.25" x 6" x 3.75"
9-bay configuration	10.25" x 6" x 3.75"
Operating temp range	-40°C to 85°C
Operating humidity	100%

Processor Module (RTU3200-PDC)

Input voltage	10-30VDC
Power requirement	< 1W
Communication ports	1 x RS-232—Male DCE 1 x RS-232—Female DTE 1 x RS-485—screw terminals 1 x RJ-45 Ethernet 10/100 Base-T
Serial port BAUD rate	Configurable, 300-38,400 bps
Ethernet protocol support	TCP/IP, UDP
Visual Indicators	RX/TX and Ethernet active LEDs

Digital Output Module (RTU3200-8R)

Number of digital outputs	8/module
Relay type	SPDT Form C
Visual indicators	Flashing LED for all relay statuses
Power requirement	100mW + 200mW per latched relay
Contact ratings	10A continuous up to 250VAC
Operation type	Pulse on, latch on, latch off

Digital Input Module (RTU3200-16S)

Number of status inputs	16/module
Status input voltage	10-30VDC
Power requirement	10mW
Isolation	Optical isolation with surge protection
Visual indicators	One flashing LED/8 status points
Configurable parameters	
Debounce time	(0-255 millisecond)
Chatter filter	(default—10 state changes in 6 sec.)

Analog Input Module (RTU3200-ACVV or ACVI)*

Number of analog inputs	12/module
Input range	to 160VAC, 10A
Power requirement	25mW
Configuration	6 VI and 6 CI or 3 VI and 9 CI
Resolution	24 bits
Accuracy	1%
Voltage input impedance	1MΩ
Current input impedance	0.015Ω
Analog input scan rate	32 samples/cycle

*Four cards maximum

DC Analog Input Module (RTU3200-16DC)

Number of analog inputs	16/module
Input range	Consult the factory
Power requirement	Consult the factory
Resolution	24 bits
Accuracy	1%
Analog input scan rate	32 samples/cycle

RTU3200 output with analog input

- A/B/C voltage
- A/B/C current
- Watts
- VAR
- Phase angle
- THD to the 8th harmonic
- Power factor
- Current flow direction
- Fault detection

Ordering Information

Configure the RTU3200 to meet your needs

Select 5 or 9 for a five module or nine module RTU

__DC-___-___-___-___-___-___-___-___-___-___-___

Select the modules needed (8R, 16S, ACVV, ACVI, or 16DC)

Example: RTU3200 five module base configuration: 5DC-8R-16S-ACVV-B (blank)

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