

Contact Module—CM500

Module Overview

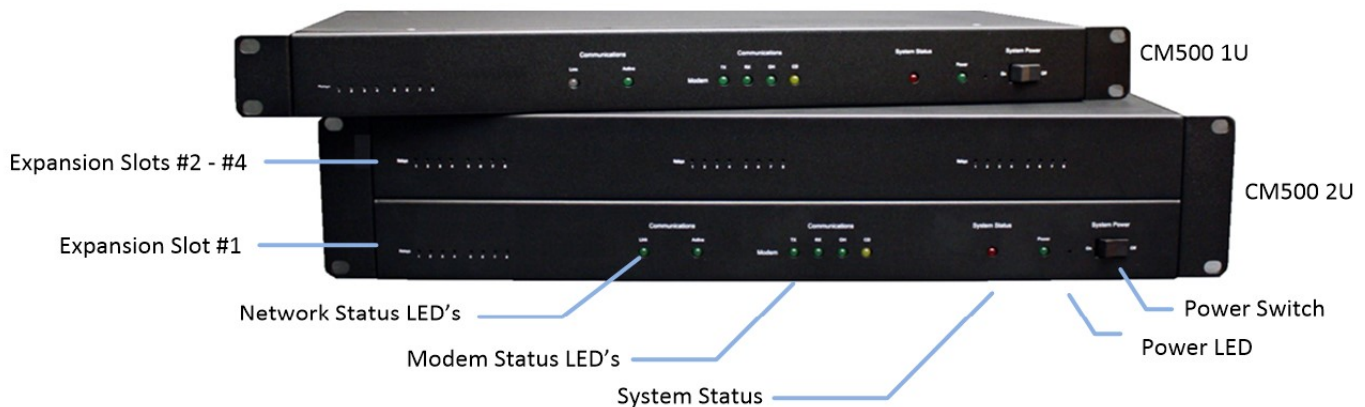
The CM500 is a self-contained solution, providing a single integrated view of all connected equipment. It stores and displays all its own data and hosts its own web pages. Full configuration and event automations are also defined through the web interface.

Onboard features include data trending and extended logging, interactive graphical facility mapping, PUE/ DCiE monitoring and IP device (URL links) to other devices.

The CM500 consists of the base unit and optional expansion cards. The CM500 monitors analog and dry contact data from devices such as temperature sensors, humidity sensors, relays, smoke detectors, fire suppression systems, surveillance products (IP cameras), leak detection systems, power monitoring systems, uninterruptible power supplies (UPSs), power distribution units (PDUs), generators, DC power plants, commercial power, HVAC units, ATS, TVSSs and other associated equipment.

The CM500 analyzes the data from these devices; and according to user defined automations, takes action. Actions include: digital relay outputs; SNMP traps; email, pager or cell phone notification via SMTP/ SMS; pager or cell phone notification via TAP; webpages; and front panel LED notification.

The CM500 supports Modbus, BACnet and SNMP protocols and is capable of simultaneously integrating into an existing network management system (NMS) or building management system (BMS).



CM500 Model	Inputs	Relay Outputs	Modem	Expansion Card Slots	Input Protocol	Output Protocol
CM500-1U	(8) Configurable as analog or digital NO/NC	2	optional	1	Modbus RTU / TCP BACnet IP SNMP	Modbus RTU / TCP BACnet IP SNMP
CM500-2U	(8) Configurable as analog or digital NO/NC	2	optional	4	Modbus RTU / TCP BACnet IP SNMP	Modbus RTU / TCP BACnet IP SNMP
Expansion Card A	(12) Unniversal analog or digital NO Only	8				
Expansion Card C	(24) digital NO/NC	0				

Specification:

Power	1U CM500: 24VDC Model: 24VDC ($\pm 10\%$), 1A max., power supply included; 48VDC Model: 36-72VDC, 0.5A max. 2U CM500: 24VDC Model: 24VDC ($\pm 10\%$), 2.5A max., power supply included; 48VDC Model: 36-72VDC, 1.25A max. <i>24V CM500 requires EXP-x-24 option cards; 48V CM500 requires EXP-x-48 option cards</i>
Inputs	Analog/Digital: 8 Configurable as 4-20mA (12-bit A/D conversion) or Dry Contact NO/NC (<25mA) Internal Temperature/Humidity: $\pm 0.5^\circ\text{F}$ (@ 25°C), $\pm 4^\circ\text{F}$ (@ -40° to 185°F); $\pm 3\% \text{RH}$ (@ 20% to 80%RH); (Internal Temperature/Humidity optional)
Outputs	Relay: 2 Dry Contact, Form C, 1A @ 24VDC, 0.5A resistive @ 120VAC (controllable via user programmable logic) Sensor/Accessory Power: 24VDC ($\pm 10\%$) @ 300mA max. (power for external sensors and/or devices)
Expansion Cards	1U CM500 accommodates 1 expansion card 2U CM500 accommodates up to 4 expansion cards EXP-A-24 or EXP-A-48: 12 analog (jumper selectable for 4-20mA, 0-5VDC or 0-10VDC) or digital normally open dry contact inputs (non-isolated, individual ground only); 8 Form C Relay Outputs, 1A @ 24VDC, 0.5A resistive @ 120VAC. 48V FMS accepts only 1 EXP-A card. EXP-C-24 or EXP-C-48: 24 digital normally open or normally closed dry contact inputs, 3000VAC RMS optically isolated (common or individual ground)
Communication Ports	Ethernet: 10/100BaseT, RJ45 connector; 500VAC RMS isolation RS-232: DB9 female connector; 9600 baud; 3000VAC RMS optically isolated; 15kV ESD protection EIA-485 (selectable as RS-232): Two-wire half duplex; terminal block (selecting RS-232 switches to DB9 male connector); 1200, 2400, or 9600 baud configurable; 3000VAC RMS optically isolated Modem (RJ11 Telco; optional): V.34bis/33.6 kbps; DTMF capable; PPP-enabled; FCC Part 68 approved; 1500VAC RMS isolation barrier; 2100V peak surge protection
Protocols	TCP/IP; UDP/IP; ICMP/IP; FTP; NTP; IPv4, HTTP/HTML; SNMP; Telnet SNMP: V1: MIB-2 compliant; NMS Manageable with Get, Set, and Traps; V2c: Traps or Informs SMTP (email): Supports Client Authentication (plain and login); compatible with ESMTS Servers Modbus RTU / Modbus TCP: RTU transmission protocol; function codes: slave - 03; master - 01,02,03,04. Modbus Slave; TCP/IP transmission protocol; Reads up to 628 registers and converts to SNMP and BACnet BACnet/IP: Reads up to 106 instances and converts to SNMP and Modbus Terminal Emulation: VT100 compatible TAP (Pager): Telocator Alphanumeric Protocol v1.8
Alarm Notification	Pager (Modem) – Optional: 15 text, numeric, or alphanumeric pager numbers; each digital and analog alarm (HighLimit and LowLimit) can notify any 5 of the 15 pagers Email (Ethernet, Modem PPP): 8 email recipients; email sent on Alarm and Return To Normal; each alarm can notify any or all of the 8 email recipients SNMP Traps (Ethernet): V1 and V2c: 8 Community Strings; V3 (optional): 4 users, 4 Trap Destinations Escalation: Additional notification to 1 of the 15 pager numbers when the initial page results in a Failure To Acknowledge status Health Check/Self-Monitoring Self resetting; captured in Event Log

Ordering



PYTHIA TECHNOLOGIES
data transformation solutions

175 S. Sandusky Street, Suite 321 Delaware OH 43015 Tel. 740-936-5362 Fax 740.693.8409

Sales@pythiatech.com

www.pythiatech.com

© 2014 Pythia Technologies, Inc.

All rights reserved throughout the world.

Specification may change at anytime without notice.

Document #: SPEC_CM500_001_1114