

ENVIRONMENTAL MONITORING & SECURITY SYSTEMS



Remote Infrastructure Management
(RIM) Sensors

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ENVIRONMENTAL MONITORING & SECURITY SYSTEMS

With all the attention given to virtual security threats like hacking and viruses, you don't want to be concerned about a security breach at the cabinet level as well. CPI's Environmental Monitoring & Security Systems offer an array of products that keep an eye on everything from temperature and moisture to physical movement in the equipment room and unauthorized access to the cabinet door. Many of these products can also be directed into CPI's Remote Infrastructure Management System, allowing much of your data center's security, safety and functionality to be monitored remotely at any time of day.

Remote Infrastructure Management (RIM-600)

- Remotely monitor, record and analyze environmental conditions in data centers and equipment rooms
- Support up to eight external sensors per Host or Node Module
- Monitor all sensors from one user interface using included software
- Automatically poll up to 64 IP address from each module

An IP addressable, multi-cabinet Electronic Locking System is also available for the F-Series TeraFrame Cabinet System. Contact CPI Technical Support for system configuration assistance.

Patented



RIM-600 Host Module



RIM-600 Node Module

The RIM-600 has three internal sensors (Power, Sound, Battery) and supports up to eight external sensors that monitor:

- Room temperature (F° or C°)
- Cabinet temperature (F° or C°)
- Presence of water
- Humidity
- Smoke
- Power
- Motion
- Door open or closed
- Normally Open/Normally Closed Dry Contact Bridge
- 4-20 mA Bridge
- Dual door sensor for cabinets

Remote Infrastructure Management (RIM-600)

The Remote Infrastructure Management (RIM-600) System gives you the ability to remotely monitor, record and analyze environmental security and safety conditions in your data center and equipment rooms. Each RIM-600 Host or Node supports up to eight external sensors and will automatically poll up to 64 IP addresses per module using a scheduled network ping and port service tests (HTTP, FTP, email, etc.). No special wiring is required.

Connect up to 31 Nodes to each Host through your network and monitor up to 256 environmental sensors and 2,048 IP addresses and ports anywhere in your network. Additionally, one PowerGate Module can be connected to each Host or Node Module to provide remote reboot capability for up to 256 outlets.

- Includes Ethernet and phone connection
- Includes battery backup and non-volatile data storage so you do not lose monitoring capability if the power goes out
- Sensors are attached using standard Cat5 cable with RJ-45 connectors; sensors are automatically recognized and configured when connected
- Set limits and be notified by voice call (with custom messages), pager, email, fax or SNMP trap
- Supports 64 users with eight contact points each; schedule the method of contact for each user by time of day
- Check status by voice dial-in, Website, network log-in, SNMP get/set and two-way email
- Host is shipped complete with User Manual, ConsoleView Software and null modem serial cable
- UL Listed and CE Approved

Part Number	Description	Shipping Weight lb (kg)
60000-001	Host, 100-250 VAC, 50-60 Hz	14 (6.4g)
60000-102	International Host, 100-250 VAC, 50-60 Hz, shipped without Power Cord	14 (6.4)
60001-001	Node, 120 VAC, 60 Hz	7 (3.2)
60001-002	Node, 100-240 VAC, 50-60 Hz	7 (3.2)
60001-102	International Node, 100-240 VAC, 50-60 Hz, shipped without Power Cord	7 (3.2)
60075-001	Wall-Mount Kit	2 (0.9)

Note: Host Module includes users manual and configuration software CD. Host Module 60000-001 has IEC-60320, C-14 power inlet and includes a detachable power cord with a NEMA 5-15P plug. Node Module 60001-002 includes an auto sensing power transformer with an IEC-60320, C-14 power inlet and includes a detachable power cord with NEMA 5-15P plug.

See following pages for sensor information.



60045-001



60046-001



RIM-600 Host Module shown

PowerGate Modules

PowerGate Modules allow you to remotely control/reset/recycle individual power outlets. Input power is rated at 120 VAC, 15A, outputs vary as listed below.

- Each PowerGate is UL Listed and includes a null modem cable for connection to a Host/Node Module
- Program with RIM-600 to trigger on/off with alarms

Part Number	Description Length ft (m)	Shipping Weight lb (kg)
60045-001	PowerGate, (1) Power Input Connection, (8) Outlets, max 12A	14 (6.4)
60046-001	PowerGate 2, (9) IEC C-14 Power Input Connections, (8) Outlets (channel 1 & 5 rated at 10A max, all other channels rated at 4A max)	14 (6.4)
60078-010	PowerGate2 Power Cord, IEC to NEMA 5-15P, 10 (3)	1 (0.5)

RIM-600 Remote Environmental Monitoring Bundle

Remotely monitor, record and analyze environmental conditions in your data center and equipment rooms by using this starter bundle kit.

- Monitor room and cabinet conditions for up to four cabinets
- Includes a RIM-600 Host Module, Temperature and Humidity Sensors, Patch Cords and Installation Hardware
- Supports up to 8 external sensors
- Automatically poll up to 64 IP addresses using a scheduled networking ping and port service tests
- Expandable up to 256 external sensors with the addition of RIM-600 Nodes
- Add on with optional sensors; Motion Detector, Smoke Detector, Water Detector, Door Open/Close and PowerGate Modules.

Part Number	Description Length - ft (m)	Shipping Weight lb (kg)
F600-0*	Each F600-0 Bundle consists of: (1) 60000-001, RIM-600 Host Module (3) 60012-007, Mini-Temperature Sensors with attached 7 (2.1) cable (1) 60030-001, Humidity Sensor (1) 60011-001, Temperature Sensor with Display (°F) (1) 60075-710, Rack-Mount Bracket (4) 60070-007, Network Patch Cord, RJ-45, 7 (2.1) (1) 60074-001, Coupler Kit, RJ-45 (1) User Manual, ConsoleView Software and null modem cable	25 (11.3)

*Order F600-1 for International configurations with °C temperature sensors and shipped without power cord.



60011-001 shown

Room Temperature Sensors

- Humidity: 5% to 90% RH
- Sensor type: solid state IC
- Accuracy: $\pm 3^\circ$
- Connection: RJ-45
- Housing: white plastic
- Mounting: wall, flat surface or single-gang box
- Indoor use only
- Display: digital, two-digit (select models)

Part Number	Description	Shipping Weight lb (kg)
60010-001	Range 5°F to 122°F, No Display	1 (0.5)
60010-002	Range -15°C to 50°C, No Display	1 (0.5)
60011-001	Range 32°F to 95°F, With Display	1 (0.5)
60013-001	Range 0°C to 50°C, With Display	1 (0.5)

Note: Use bracket 60075-710 for rack-mounting.



Miniature Temperature Sensor

- Humidity: 5% to 90% RH
- Sensor type: solid state IC
- Available preset to °F or °C
- Accuracy: $\pm 3^\circ$
- Connection: RJ-45, includes attached 7'L (2.1 m) cable
- Housing: black plastic
- Mounting: flat surface
- Size: 1.4"H x 2.2"W x .6"D (36 mm x 56 mm x 15 mm)
- Indoor use only, no display

Part Number	Description	Shipping Weight lb (kg)
60012-007	Range 5°F to 140°F	1 (0.5)
60012-057	Range -15°C to 60°C	1 (0.5)



60031-001 shown

Humidity Sensor

- Range of measurement: 0-100% RH
- Temperature: 32°F to 122°F (0°C to 50°C)
- Accuracy: $\pm 5\%$
- Connector: RJ-45
- Housing: white plastic
- Mounting: wall, flat surface
- Indoor use only, no display

Part Number	Description	Shipping Weight lb (kg)
60030-001	Humidity Sensor, No Display	1 (0.5)
60031-001	Humidity Sensor with Display	1 (0.5)

Note: Use bracket 60075-710 for rack-mounting.

Humidity Sensor, With Display

- Range of measurement: 5-95% RH
- Temperature: 32°F to 158°F (0°C to 70°C)
- Accuracy: $\pm 3\%$
- Connector: RJ-45
- Housing: white plastic
- Mounting: wall, flat surface or single-gang box
- Indoor use only
- Display: digital, two-digit

Water Detection Sensor

- Sensing method: conductivity
- Sensor: polymer core cable with sensing wire, 10'L (3 m)
- Connector: RJ-45 (daisy chain up to three sensors running off of (1) RIM-600 port)
- Housing: black plastic with mounting ears

Water Detection Rope, 10'L (3 m)

- Extend the reach of the water detection sensor
- Add up to 10 ropes, 100' (30.5 m) in-line with each Water Detection Sensor

Part Number	Description Length ft (m)	Shipping Weight lb (kg)
60032-010	Water Detection Sensor with 10 (3) Water Detection Rope	1 (0.5)
60072-001	Additional 10 (3) Water Detection Rope	1 (0.5)

Note: Use panel 60075-720 for rack-mounting.





Smoke Detector

- Sensitivity: 2.0 ± .37% to .39% /ft
- Contact Rating: 2 Amp, 28 VDC or 120 VAC resistive
- Heat Sensor rating: Fixed 135°F (57°C) rate of rise >15°F/min. (8.3°C/min)
- Operating voltage: 8.5 VDC to 33 VDC, 10% maximum ripple
- Maximum ambient temperature: 100°F (37.8°C)
- Power-up time: 15 seconds
- Housing: white plastic, 6.1" (155 mm) diameter x 1.9"H (48 mm)
- Mounting: wall, flat surface or single-gang box

Part Number	Description Length ft (m)	Shipping Weight lb (kg)
60062-007	Smoke Detector with 7 (2.1) Cable	3 (1.4)



Motion Sensor

- Sensing method: infrared
- Sensor: passive, dual-element
- Connector: RJ-45; includes 7'L (2.1 m) cord
- Housing: white plastic
- Adjustments for sensitivity, LED display and Pulse count
- Indoor use only
- Mounting: flat surface

Part Number	Description Length ft (m)	Shipping Weight lb (kg)
60061-007	Passive Infrared, with 7 (2.1) Cord	1 (0.5)



Normally Open/Normally Closed Dry Contact Bridge

Monitor a device equipped with a relay output that functions as an alarm. Senses a definite yes/no input from a normally open or normally closed output, and sends an alarm when the yes or no condition is sensed.

- Input: normally open or normally closed (switchable)
- Source/sense voltage: 14 VDC
- Source/sense current: 10 mA
- Connector: RJ-45
- Temperature: 32°F to 122°F (0°C to 50°C)
- Housing: black plastic with mounting ears
- Indoor use only, no display

Part Number	Description	Shipping Weight lb (kg)
60050-001	Dry Contact Bridge (N/O,N/C)	1 (0.5)

Note: Use panel 60075-720 for rack-mounting.



Door Open/Closed Sensor

- Single and dual door version
- Use dual door sensor for equipment cabinets
- Magnetic reed switch
- Connects to a Host or Node Module
- Single door sensor includes one door sensor, a 7'L (2.1 m) RJ-45 cable and a 25'L (7.6 m) sensor cable
- Dual door sensor includes two door sensors, a 7'L (2.1 m) RJ-45 cable and (2) 10'L (3 m) sensor cables (for cabinets)

Part Number	Description	Shipping Weight lb (kg)
60052-001	Door Sensor, Magnetic Reed	1 (0.5)
60052-002	Dual-Door Sensor, Magnetic Reed	1 (0.5)



4-20 mA Dry Contact Bridge

Monitor a maximum or minimum threshold; for example, the amount of fuel or water in a tank. Senses a range of inputs from a corresponding 4-20 mA Transducer, and sends an alarm when a specific threshold is reached between 0% (4 mA) and 100% (20 mA).

Part Number	Description	Shipping Weight lb (kg)
60051-001	Dry Contact Bridge (4-20mA)	1 (0.5)

Note: Use panel 60075-720 for rack-mounting.



Power Monitoring Sensor

- Range: 0 VAC to 250 VAC, 50/60 Hz
- Accuracy: ± 2%
- Power connector: IEC-60320, C-14, power inlet
- Includes a 6'L (1.8 m) C-13 to NEMA 5-15P or C-13 to C-14 power cord
- Connector: RJ-45
- Housing: black plastic with mounting ears

Part Number	Description	Shipping Weight lb (kg)
60040-001	Power Monitoring Sensor with C-13 to NEMA 5-15P Power Cord	1 (0.5)
60040-002	Power Monitoring Sensor with C-13 to C-14 Power Cord	1 (0.5)

Note: Use panel 60075-720 for rack-mounting.



60070-025



60074-001



60071-006



60075-001



60075-720

Cables And Accessories

Use patch cables to attach sensors to the RIM-600 Host and Node Module. Use null modem cables to attach PowerGate Modules to the RIM-600 Host and Node Modules. Optional mounting brackets let you attach sensors to 19" racks or cabinets.

Part Number	Description Length ft (m)	Shipping Weight lb (kg)
60070-007	Patch Cable, RJ-45, 7 (2.1)	1 (0.5)
60070-014	Patch Cable, RJ-45, 14 (4.3)	1 (0.5)
60070-025	Patch Cable, RJ-45, 25 (7.6)	1 (0.5)
60074-001	RJ-45 F/F Coupler Kit (4)	1 (0.5)
60071-006	Null Modem Cable, 6 (1.8)	1 (0.5)
60075-001	Host/Node Wall-Mount Kit	2 (0.9)
60075-710	Temp/Humidity Sensor Rack-Mount Bracket	1 (0.5)
60075-720	Sensor Mounting Panel, 1U x 19"W	2 (0.9)
60087-001	User Manual	1 (0.5)
60088-002	ConsoleView Software CD	1 (0.5)