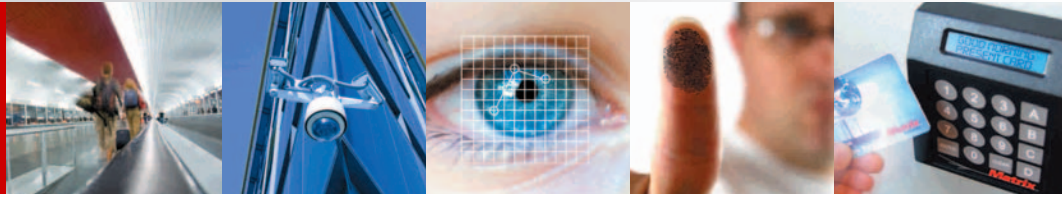




Matrix Systems



Matrix Reader Control Modules

Highlights

- Provides extra reliability in Matrix access control systems by supplying third layer of database redundancy
- Uploads transactions continuously using a real-time clock/calendar, assuring quick, accurate response
- Can be used with both Matrix card readers and other vendors' equipment
- Affords critical security assurance through support for industry access control standards
- Easy to install and use, saving on setup and maintenance time
- RCM III™ provides cost savings by offering a direct network connection



The Matrix Systems Reader Control Module (RCM II) — now available with Power Over Ethernet (PoE) capability in the RCM III — is part of the total Matrix access control system. Both RCMs provide intelligent control of doors with high-speed, online communications with the Matrix Building Controller, as well as full offline capability, as needed during a power outage or communication loss.

The RCM II provides connection and addressing for up to two doors, with two readers per door (ingress and egress), eight inputs, and six outputs for door control or auxiliary devices. The RCM III option provides intelligent control for one-door applications via its cutting-edge PoE capability.

The local database capacity for both the RCM II and RCM III is configured for up to 20,000 badges (expandable to 32,000), with storage capacity for up to 8,000 transactions.

Reliability and durability

The RCM II and RCM III provide the third layer of database redundancy in the Matrix Frontier™ architecture, with the Matrix Building Controller and the Matrix Frontier server providing the other two layers. Matrix is the only security provider to offer three-tiered database redundancy, thereby eliminating the risk inherent in systems that depend solely on network communication.

Both Reader Control Modules also offer all the built-in safety and durability features associated with the Matrix family of products. These include positive temperature coefficient (PTC) resistors, short-circuit and over-current protection for inputs and outputs (eliminating the need to replace fuses), tamper alarm, high-impact ABS plastic construction, and battery backup for both memory and the module's real-time clock/calendar. The RCM II and RCM III use a rechargeable Ni-MH battery, allowing for long and stable data memory retention in a powered-down state.

Accurate, rapid response

Both Reader Control Modules automatically and continuously upload transactions to the Matrix Building Controller and Frontier server for control, event handling, and reporting. Both RCMs use a battery-backed, real-time clock and calendar, which has an estimated battery life of six-years and which is accurate to +/- .86 seconds per day. The clock/calendar is automatically reset by the Building Controller or Matrix host during polling.

Versatility and assurance

The RCM II and RCM III are designed for use with the family of Matrix card readers, but can also accept data from other readers, such as HID and the latest biometric devices. The RCM III is compatible with any Weigand device.

The RCM II and RCM III comply with industry standards for connectivity and permit easy connection to off-the-shelf commercial communication equipment, since they are designed for RS-485, RS-422, or RS-232 connections with modem control communication to the host computer.

Data encryption communication between the Reader Control Module, the Building Controller, and other Matrix devices (such as the MS-125 intelligent alarm card) is available as an option, eliminating the need for external data encryption devices.

Ease of use

Both the RCM II and RCM III are simple to install and use, with outputs conveniently located for ease of installation and maintenance. The communications and wiring status of all devices connected to the Reader Control Module are displayed using light-emitting diodes (LEDs) and dual in-line package (DIP) switches to aid in installation and diagnostics. In addition, pluggable terminal connections simplify connection, installation, and service, while three rotary switches make addressing the RCM easy to do.

Cost savings

The RCM III with PoE enables new and retrofit sites the cost-cutting alternative of supplying power to new door readers, door controllers, and door strikes via the building's Ethernet. Power over Ethernet is an emerging security system technology that transmits electrical power and data to remote devices over an existing standard Ethernet network's twisted-pair CAT5 cables. This eliminates up to 33% of the installation and labor costs associated with running individual AC power supplies to new entryway access control hardware.

In fully wired Ethernet buildings, the RCM III is also a cost-cutting alternative to wireless hardware solutions, saving up to 25% in equipment costs.

Specifications

The RCM III includes all RCM II specifications below plus built-in network capability, PoE option, and interfaces for four standard Weigand devices.

Physical	Dimensions: 11.3" (287 mm) width x 7.28" (185 mm) height x 2.75" (69.9 mm) depth Weight: 35.2 oz (998 grams) High-impact ABS plastic construction Tamper-proof screws for attaching lid Eight knockouts for .75" or 1" conduit
Environmental	Temperature: -31° F (-35° C) to +150.8° F (66° C); UL 294 Humidity: 0% to 100% (non-condensing)
Input voltage	12 VDC nominal at 200 mA (unloaded) Input and output sources protected by PTC resistors
Communications	Automatic baud rate and parity selection RS-485 to Matrix readers User selectable RS-422 or RS-232 to host computer (with DCD, RTS, and CTS modem control)
Electronics	Main electronic circuit board contains a single CMOS microprocessor
Inputs	Eight supervised inputs provided; each input has an on-board DIP switch for selecting normally open or normally closed contacts
Input configuration	Default: #1 - Door status #2 - Strike feedback (Aux 1) #3 - Egress (Aux 2) #4 - Aux 3/Internal or external tamper select Optional: #5 - Aux 4/Door 2 status #6 - Aux 5/Mag bond /strike feedback #7 - Aux 6/Egress 2 #8 - Tamper (Aux 7)
Memory	128K x 8 FLASH – Jumper selectable socket for FLASH or standard EPROM One 512K battery-backed static RAM, expandable to 975K
Outputs per door	Two general-purpose +12 VDC outputs, rated 100 mA ea; over-current protected One form C relay output, dry contacts, rated 1 Amp @ 24 VDC or 24 VAC; over-current protected Three protected, open collector outputs withstanding 24 volts in the "off" state and sinking 400 mA @ 25°C or 200 mA @ 70°C in the "on" state; provides thermal shutdown and over-current shutdown
Warranty	One year from date of installation Return-to-factory standard Other levels of warranty available as options
Assurance	European Compliance, or CE UL 294 Access Control UL 1076 Proprietary Burglar Alarm IEEE 802.3af (RCM III)

