eMerge MicroNode Compact Expansion Node with Embedded ACM

Overview

The eMerge MicroNode brings new levels of convenience and capability to access control systems; two card readers, four inputs, four outputs, and one temperature point - all housed in a 7-inch square package. Beyond its convenient size is the fact that the MicroNode can be powered by a standard 12 VDC power supply or Power-over-Ethernet (PoE) which powers all components including electric locking devices.†

As a native IP-based network appliance, the eMerge communicates over familiar LANs or WANs after obtaining an IP address by DHCP or static configuration. Like all eMerge components, the MicroNode secures its own communications, making it safe for deployment over public networks, including the Internet. As with the larger eMerge Expansion Node (EXN), the MicroNode is automatically discovered and supports visual configuration in any Web browser through the eMerge Network Controller (NC).

Connection over an IP network using PoE is advantageous because it provides a single cable connection with a central point for battery backup. When using this method, all access control functions - including electric locks - continue to operate during power outages without the need for multiple independent battery backup units.

Because the MicroNode is remote from the card readers and other components, it can be placed safely on the secure side of a barrier (typically in a wall or drop-ceiling) so that compromising an externally mounted card reader does not expose the data network. In fact, the MicroNode is typically a direct replacement for legacy two-reader access control devices, making it the ideal retrofit device for older technology access control systems without replacement of readers, inputs, or lock outputs. MicroNode even provides a 12 VDC output for powering PIRs and similar REX devices.

The MicroNode is supplied in a 7-inch square mounting box with tamper switch, status indicator light, and keyed lock. The board set is mounted to a removable back plate to facilitate wiring in confined spaces.

† Supports two electric strikes or one magnetic lock when using PoE.

Feature Summary

- Full support for 2 access points
- Use anywhere in place of a standard eMerge Expansion Node (EXN)
- 4 Input points with programmable levels of supervision
- 4 Relay outputs for lock control or general use
- Wet/dry selection for direct strike/mag lock power
- Support for up to 20,000 access credentials
- Power over Ethernet (PoE) or 12v local power*
- Native TCP/IP network appliance
- Built-in authentication software secures data communication
- 7-inch square metal enclosure
- Automatically discoverable by eMerge Network Controllers
- Visual configuration using any standard Web browser
- 12v DC output for powering PIR and similar devices
- Tamper switch and status indicator included
- Auxiliary RS-485 port for legacy system integration
- 10-year onboard lithium memory and clock backup battery

* Not supplied by IEI, Altronix Model AL400UL recommended for UL installations, or equivalent.
Specifications

Card records per Network Node: 20,000

Offline history transactions: 27,000

Card readers: 2

Alarm points: 4

Relays: 4

Temperature points (analog): 1

IP address determination: DHCP or static

Board dimensions: 3.75" x 3.75" x 2.5"

Enclosure dimensions: 7.0" x 7.0" x 3.5"

Power supply voltage: 12 VDC (2 A min.) or PoE

Steady state max. power to readers, locks, and external devices: 1.1 A @ 12 VDC (Ext.)

500 mA @ 12 VDC (PoE)

Configuration of the eMerge MicroNode is fast and easy with the visual configuration and auto-discovery capabilities of eMerge system.