

The PoE One-Door Reader Controller is a Power-over-Ethernet intelligent controller designed for use with the IDenticard® PremiSys™ access control system. With an onboard Ethernet port and two reader ports designed for use as alternate or paired readers, the PoE One-Door Reader Controller is a cost-effective access control solution for a standalone controller monitoring a single door.

However, it also functions as a fully featured controller, allowing the connection of up to 16 PoE One-Door Reader Boards via the Ethernet or a maximum of eight downstream I/O boards via RS-485 combined with up to eight PoE One-Door Reader Boards. These capabilities, combined with the I/O on board the controller, enable access control of up to 17 doors.

This controller supports ABA- and Wiegand-format readers in a wide variety of reader types, including smart-card and biometric readers, as well as keypads. The controller also incorporates two input points and two output relays that can be used for door functions such as door-position monitoring, request-to-exit, door lock or an alarm output. Once the system databases are loaded into the controller memory, the PoE One-Door Reader Controller can perform interface and management functions independently of a host computer and without use of external I/O boards.



Features

- **Communications with the host PC** are via Category 5 Ethernet cable, through a network.
- Up to 16 PoE One-Door Reader Boards can be connected.
- The controller can communicate via RS-485 to up to 8 downstream I/O boards; up to 8 PoE One-Door Reader Boards can then also be connected to the controller.
- The controller offers single-unit standalone capability; it accommodates a two-reader door and does not connect to external I/O boards.
- **Reader ports** provide the following connections: input power, card data (Clock & Data or Data 1 & Data 0), LED, buzzer and ground.
- The PoE One-Door Reader Controller can be mounted in a triple-gang junction box with an optional magnetic tamper switch.

The PoE One-Door Reader Controller includes the following components:

- An embedded Ethernet port for communication and power to the board, readers and door (depending on power needs)
- Jumper for setting either Power-over-Ethernet or a separate12-V power supply to the board
- Two relays configurable for normally open or normally closed operation
- Two general-purpose input points that can be supervised or not to serve as a door-input point, request-to-exit point, etc.
- LEDs to indicate controller, input and reader status

Firmware for the PoE One-Door Reader Controller is FLASH upgradeable.

PremiSys™ PoE One-Door Reader Controller

PREM-CTLR1POE

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Specifications

CONTROLLER CERTIFICATIONS

UL: UL 294 recognized: Access Control System Units – component CE Compliant, FCC Part 15 Class A, NIST Certified Encryption Note: For UL installations, power for PoE devices must be provided by a UL 294 listed source (12 VDC), not via PoE.

DIMENSIONS AND WEIGHT		
	Without Bracket	With Bracket
Controller Width	5.5 inches (140 mm)	5.5 inches (140 mm)
Controller Height	2.75 inches (70 mm)	3.63 inches (92 mm)
Controller Depth	.96 inch (24 mm)	1.33 inch (34 mm)
Controller Weight	3.75 ounces (106.35 g) (nominal)	4.7 ounces (133.28 g) (nominal)

ENVIRONMENTAL SPECIFICATIONS	
Temperature	$32^{\circ}F$ to $158^{\circ}F$ ($0^{\circ}C$ to $70^{\circ}C$) operating -67°F to $185^{\circ}F$ (-55°C to $85^{\circ}C$) storage
Relative Humidity	10 to 95% RH noncondensing

POWER SPECIFICATIONS CAUTION! The processor in this component is intended for use only in a Class 2, low-voltage circuit!

PoE One-Door Reader Controller Input Voltage	PoE Power Input 12.95W, compliant to IEEE 802.3af or 12 VDC ± 10%, 900 mA maximum Note: For UL installations, power for PoE devices must be provided by a UL 294 listed source (12 VDC), not via PoE.
Relay Rating	2 A at 30 VDC
Reader Power	12 VDC ± 10%, from PoE, regulated 150 mA maximum each reader or 12 VDC ± 10%, from 12 V power to board (input voltage passed through), 150 mA maximum each reader
Reader LED Output	TTL-compatible; high >3 V, low < 0.5 V; 5 mA source/sink maximum
RAM and Clock Backup	Rechargeable backup battery for 1MB SDRAM

INDICATORS	
Visible	7 red, single-color LEDs, 1 green LED and 1 yellow LED for Ethernet port

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WIRING REQUIREMENTS	
Power to PoE One-Door Reader Controller	Category 5 cable to Ethernet port or Twisted pair, 18 AWG (0.823 mm ²)
Host Communication	Category 5 cable
Reader Communication	Refer to the reader manufacturer's specifications for cabling requirements. Maximum cable length: 500 feet (150 m), total copper, including drops.
Inputs - Assignable	One twisted pair per input, 30 ohms maximum
Input – Dedicated	Pigtail with jumper terminal is included for connection to optional magnetic tamper switch lead
Relays	Use wire and gauge as required by load

INPUT/OUTPUT BOARD CONNECTIONS	
PoE One-Door Reader Boards	Maximum 16 boards connectable – 16-door limit (actual total can be reduced by other boards connected)
One-and Two-Reader Boards Input and Output Boards	Maximum 8 boards connectable in any combination – 16-door limit (actual total can be reduced by other boards connected)
9000 Four-Reader Boards 9000 Two-Reader Boards	Number of boards connectable dependent on 16-door limit and number of other boards connected (maximum 8 boards connectable in any combination)
9000 Remote Input/Output Boards	Maximum 8 boards connectable (actual total reduced by other boards connected)

COMMUNICATIONS SPECIFICATIONS	
Host Communication	10/100Base-T interface up to 115,200 bps
Reader Communication	Two TTL reader ports

ACCESS-CONTROL SPECIFICATIONS	
Inputs - Assignable	Two supervised, end-of-line (EOL) resistors, 1K/2K ohm 1% ¼ watt standard
Input - Dedicated	One unsupervised dedicated input jumper for enclosure tamper
Relays	Two relays configurable for normally open or normally closed operation
Relay Contact Type	Form C
Relay Configuration	Single-pole double-throw (SPDT)
SRAM Capacity	1 MB backed-up by a rechargeable battery
SDRAM Capacity	16 MB
Flash Memory Capacity	16 MB