The new PremiSys LP Series intelligent controllers are Mercury Security's next generation advanced access control platform that runs on embedded Linux. The enhanced platform offers an improved processor and increased memory, plus feature an embedded crypto memory chip that provides a secured layer of encryption to onboard sensitive data. Built on the Authentic Mercury open platform, PremiSys LP Series controllers provide the necessary flexibility for channel partners and end customers to choose the controller configuration that best fits their needs.

The PREM-CTLR1POE-LP is an edge-capable intelligent controller that is expandable up to 8 downstream serial input/output modules and up to 16 PREM-BRD1POE-S3 network ready door controllers (for a total of 17 doors/openings). The feature-rich PREM-CTLR1POE-LP provides a small footprint, cost-effective dual card reader panel for controlling a single opening. Easy installation with Power-over-Ethernet Plus (PoE+) makes the high performance, Ethernet ready PREM-CTLR1POE-LP a top choice for a single-door controller.

Once configured, the intelligent controller functions independently of the host and can control access and manage sophisticated device processes (such as anti-passback and point linking) both onboard and downstream of the PREM-CTLR1POE-LP without host intervention. It also supports OSDP Secure Channel, keypads, biometric readers, Wiegand, clock and data, and magnetic stripe.
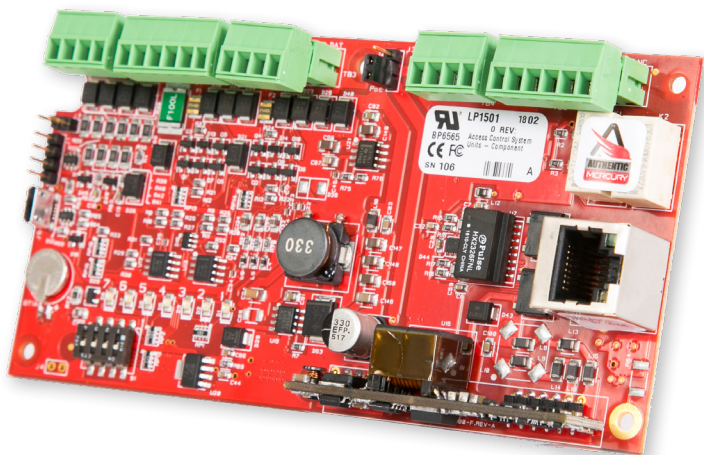
- **Open Architecture:** High performance, reliable platform enables use of hardware with the PremiSys access control solution
- **IP-to-the-Door:** Supports PoE+ power, removing the cost of traditional power supplies and home-run wiring
- **Enhanced Security:** Embedded crypto memory chip and data at rest encryption provides secured layer of protection of sensitive data
- **OSDP Protocol:** Secure channel communications for reader connectivity
- **Versatile Interoperability:** Same reliable interface and identical footprint as the EP controllers, enabling seamless upgrades for existing deployments

Features

IP-to-the-Door

- Install at door in 3-gang box
- Provides up to 1.25 A of power at door for reader, lock and more

Security and Network

- IPv4
- Host communications protected by TLS 1.2/1.1 or AES-256/128
- Controller/IO Expansion connection protected by AES
- Generate and load custom peer certificates for TLS
- Port based network access control using 802.1X
- FIPS 140-2 user of OpenSSL

Card Reader Functions

- Supports multiple card formats, paired and alternate readers, elevator, turnstile and biometric devices
- Anti-passback support (area, reader and time based)

Mercury Part #LP1501

PremiSys® PoE One-Door Reader Controller

(2 Readers, 2 Inputs, 2 Outputs)

PREM-CTLR1POE-LP

PremiSys® PoE One-Door Reader Controller

Specifications

Access Control	240,000 cardholder capacity 50,000 transaction buffer Supports total of 1 RS-485 IO protocol 32 access levels per cardholder Cardholder - 19 Digit (64 Bit) User ID with 15 digit PIN MAX Activation/Deactivation If/Then macro capabilities Anti-passback support Nested, area, hard, soft and timed forgiveness Adjustable cardholder capacity Supports up to 130 inputs and 130 outputs
Power Input	PoE (12.95 W), compliant to IEEE 802.3af or PoE+ (25 W), compliant to IEEE 802.3at or 12 Vdc +/- 10 %, 1.8 A maximum
Power Output	PoE: 12 Vdc @ 625 mA including reader and AUX output* PoE+ or external 12 Vdc: 12 Vdc @ 1.25 A including reader and AUX output* *Excluding micro USB port
Micro USB Port	5 Vdc maximum (deduct 270 mA from reader and Auxiliary Power output)
Battery	SRAM Backup Battery, rechargeable
Host Comm.	Ethernet: 10-BaseT/100Base-TX
Inputs	Two unsupervised/supervised, Programmable End-of-Line resistors, 1k/1k ohm, 1 %, ¼ watt standard One unsupervised input dedicated for cabinet tamper
Output Relays	Two relays: Form-C contacts: 2 A @ 30 Vdc, resistive

Cable Requirements

Power and Relays	1 twisted pair, 18 AWG (when using local 12 Vdc power supply)
Ethernet	CAT-5, minimum
Reader RS-485	1 twisted pair, shielded. 24 AWG, 120 ohm impedance, 2000 ft. (610 m) maximum
Alarm Input	1 twisted pair per input, 30 ohms maximum
Alarm Output	As required for the load

Environmental

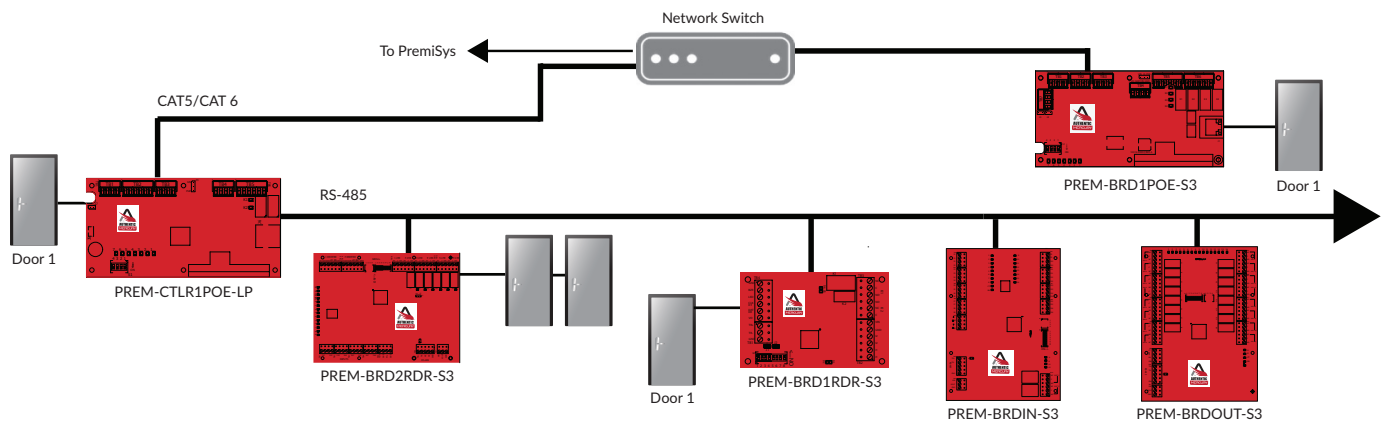|	
Temperature	-55 to 85 °C storage, 0 to 70 °C operating
Humidity	5 to 95% RHNC

Mechanical

Dimensions	5.5 in. (140 mm) W x 2.75 in. (70 mm) L x 0.96 in. (24 mm) H without bracket 5.5 in. (140 mm) W x 3.63 in. (92 mm) L x 1.33 in. (34 mm) H with bracket
Weight	3.6 oz. (103 g) without bracket 4.43 oz. (125.5 g) with bracket
Product Compliance	UL294 Recognized[1], FCC Part 15 Class A, CE Compliant, RoHS, NIST Certified Encryption

Reader Interface

Reader Power	12 Vdc ± 10 %: PoE, PoE+ or local power supply, 300 mA maximum
Data Inputs	Reader port 1: TTL compatible or 2-wire RS-485 Reader port 2: TTL compatible
LED Output	TTL compatible, high > 3 V, low < 0.5 V, 5 mA source/sink maximum

[1] For UL, the Power Sourcing Equipment (PSE) such as a PoE or PoE+ enabled network switch and/or PoE or PoE+ power injectors must be UL Listed under UL294B.

Network Switch

To PremiSys

CAT5/CAT 6

RS-485

Door 1

PREM-CTLR1POE-LP

PREM-BRD2RDR-S3

Door 1

PREM-BRD1RDR-S3

PREM-BRDIN-S3

PREM-BRDOUT-S3

PREM-BRD1POE-S3

Door 1