LP Series - AC-MER-CONT-LP4502
High Performance Intelligent Controller

The Avigilon Access Control Manager (ACM) system supports open field hardware from Mercury Security allowing organizations to leverage investments in non-proprietary field hardware, with retrofit programs available for industry standard multi-device interface panels, power and communication controller boards, and intelligent controllers. The new Authentic Mercury LP Series Intelligent Controllers are Mercury Security’s enhanced platform that 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.

The AC-MER-CONT-LP4502 supports a variety of extended features including High Assurance Credential Authentication and complies with the BACnet IP communication protocol. A USB-to-Ethernet IP adapter provides a redundant host IP connection. It has direct hardware support for 2 openings and can scale to 64 access points. Built on proven Authentic Mercury hardware, this high-performance intelligent controller embeds elevator destination dispatch and provides integrated power management analytics to proactively detect failure before it occurs.

**KEY FEATURES**

- **Device Integration:** Supports a wide range of third party integrations and applications
- **Enhanced Security:** Embedded crypto memory chip and data at rest encryption provides secured layer of protection of sensitive data
- **OSDP Protocol:** Secure channel security for reader connectivity, and extended applications such as elevator integration, biometrics and US government (FICAM)
- **FICAM Strong Authentication** for FIPS-201 US Government
- **Elevator Destination Dispatch**
- **Power Supply Alerts and Events**
- **Building Control using BACnet IP**
- **Host communications protected by TLS 1.2/11 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**
- **Supports multiple card formats, paired and alternate readers, elevator, turnstile and biometric devices**
- **Anti-passback support (area, reader and time based)**
- **Threat level and operating modes**
Specifications

**Access Control**
- 2,000,000 cardholder capacity
- 50,000 transaction buffer
- Supports up to 2 RS-485 IO protocols
- 255 access levels per cardholder
- Cardholder - 19 Digit (64 Bit) User ID with 15 digit PIN MAX
- Activation/Deactivation

**Door Control**
- Natively supports for up to 4 readers and 2 openings
- Expands to support up to 64 readers and openings

**Primary Power**
- 12-24 Vdc +/- 10%, 550mA maximum (reader and USB current not included)

**Reader Ports**
- 600mA maximum (add 600 mA to primary power current)

**Micro USB Port**
- 5 Vdc; 500 mA maximum (add 270 mA to primary power current)

**Battery**
- Memory/ Clock Backup: 3 Volt Lithium, type BR2330 or CR2330

**Host Comm.**
- Ethernet: 10-BaseT/100Base-TX and Micro USB port (2.0) with optional adapter: pluggable model USB2-OTGE100

**Serial I/O Device**
- Two each: 2-wire RS-485, 2,400 to 115,200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit

**Battery Memory/ Clock Backup**
- 3 Volt Lithium, type BR2330 or CR2330

**Micro USB Port**
- 5 Vdc, 500 mA maximum (add 270 mA to primary power current)

**Primary Power**
- 12-24 Vdc +/- 10%, 550mA maximum (reader and USB current not included)

**Door Control**
- Natively supports for up to 4 readers and 2 openings
- Expands to support up to 64 readers and openings

**Weight**
- 10.65oz (302 g) nominal, board only

**Alarm Input**
- 1 twisted pair, 30 ohms maximum, typically 22 AWG @ 1000 ft. (304.8 m)

**RS-485 I/O Devices**
- 1 twisted pair, shield. 120 ohm impedance, 24 AWG, 4,000 ft. (1,219 m) maximum

**Reader RS-485**
- 1 twisted pair, shielded. 24 AWG, 120 ohm impedance, 2,000 feet (610 m) maximum

**Reader TTL**
- 6-conductor, 18 AWG, 500 feet (150 m) maximum

**Reader F/2F**
- 4-conductor, 18 AWG, 500 feet (150 m) maximum

**Reader RS-485**
- 1 twisted pair, shielded. 24 AWG, 120 ohm impedance, 2,000 feet (610 m) maximum

**Reader RS-485 I/O Devices**
- 1 twisted pair, shield. 120 ohm impedance, 24 AWG, 4,000 ft. (1,219 m) maximum

**Alarm Input**
- 1 twisted pair, 30 ohms maximum, typically 22 AWG @ 1000 ft. (304.8 m)

**Temperature**
- -55 to 85 °C storage, 0 to 70 °C, operating

**Humidity**
- 5 to 95% RH-NC

**Dimensions**
- 8.0 in. (203mm) W x 6.0 in. (152mm) L x 1.0 in. (25mm) H

**Weight**
- 10.65oz (302 g) nominal, board only

**Product Compliance**
- UL294 Recognized, FCC Part 15 Class A, CE Compliant, RoHS, NIST Certified Encryption

**Ordering Information**
- AC-MER-CONT-LP4502 - LP Series - AC-MER-CONT-LP4502 - High Performance Intelligent Controller

---

© 2019 Aviglion Corporation. All rights reserved. AVIGLON, the AVIGLON logo, ACCESS CONTROL MANAGER, and ACM are trademarks of Aviglion Corporation. The MERCURY AUTHENTIC logo and the MERCURY PLATINUM PARTNER logo are registered trademarks of HD Global. Other names or logos mentioned herein may be the trademarks of their respective owners. Aviglion Corporation protects its innovations with patents issued in the United States of America and other jurisdictions worldwide (see aviglion.com/ip). Unless stated explicitly and in writing, no license is granted with respect to any copyright, industrial design, trademark, patent or other intellectual property rights of Aviglion Corporation or its licensors.