

# HID® Mercury™ LP1501 Intelligent Controller

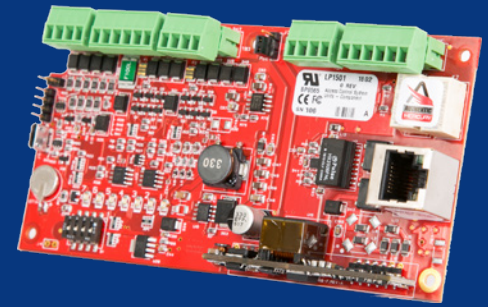
POE+EDGE-capable (2 readers, 2  
inputs, 2 outputs)

The new HID Mercury LP Series Intelligent Controllers are HID'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 HID Mercury open platform, LP Series controllers provide the necessary flexibility for OEMs, channel partners and end customers to choose the controller configuration that best fits their needs.

The LP1501 is an edge-capable intelligent controller that is expandable up to 8 downstream serial input/output modules and up to 16 MR62e network ready door controllers (for a total of 17 doors/openings). The feature-rich LP1501 provides OEMs with 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 LP1501 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 LP1501 without host intervention. It also supports OSDP Secure Channel, keypads, biometric readers, Wiegand, clock and data, magnetic stripe, F/2F and supervised F/2F reader technologies.

For partners seeking a comprehensive and open access control platform, increased user capacity, and a reliable hardware platform running an expanded set of applications, the LP1501 is the clear solution. It delivers a complete security and access control solution as well as innovative application extensions, interoperability and data security.



## KEY BENEFITS:

- Open Architecture – High performance, reliable platform enables use of hardware with HID Mercury OEM partners' software solutions.
- 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.

## HIGHLIGHTS

### 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

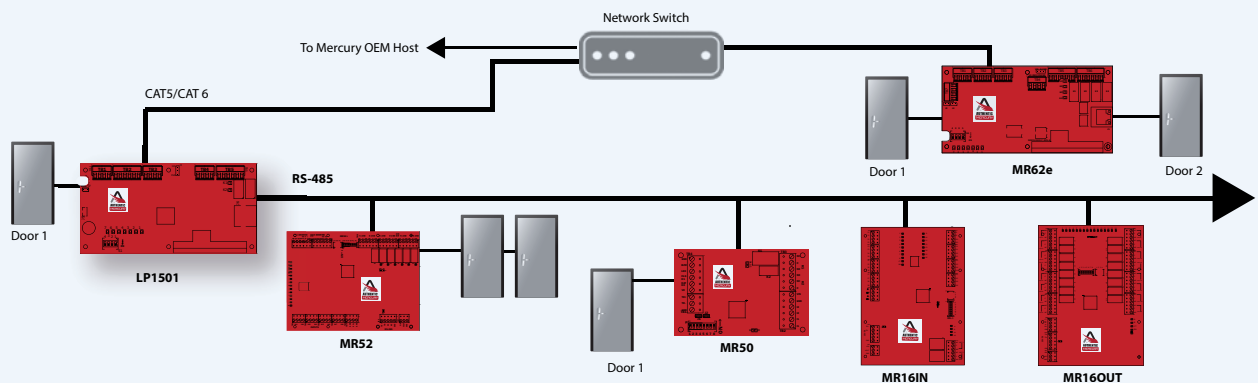
- IPv4/v6
- Host communications protected by TLS 1.2/1.1 or AES-256/128
- Controller/IO Expansion connection protected by AES
- Generate and load custom peer certificates for TLS
- Port based network access control using 802.1X
- FIPS 140-2 user of OpenSSL

### Card Reader Functions

- Supports multiple card formats, paired and alternate readers, elevator, turnstile and biometric devices
- Anti-passback support (area, reader and time based)
- Programmable keypad user commands
- Threat level and operating modes

HID Mercury LP1501 Intelligent Controller	
<b>Access Control</b>	240,000 cardholder capacity 50,000 transaction buffer Supports total of 1 RS-485 IO protocol 255 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 or 130 outputs
<b>Door Control</b>	Natively supports for up to 2 readers and 1 opening. Using on-board OSDP, device controls 1 door and up to 2 OSDP multi-dropped readers. When not using on-board OSDP reader, device can expand to support up to 17 readers and openings in total
<b>Power Input</b>	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
<b>Power Output</b>	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
<b>Micro USB Port</b>	5 VDC maximum (deduct 270 mA from reader and Auxiliary Power output)
<b>Battery</b>	SRAM Backup Battery, rechargeable
<b>Host Communication</b>	Ethernet: 10-BaseT/100Base-TX
<b>Inputs</b>	Two unsupervised/supervised, Programmable End-of-Line resistors, 1k/1k ohm, 1 %, ¼ watt standard. One unsupervised input dedicated for cabinet tamper
<b>Output Relays</b>	Two relays: Form-C contacts: 2 A @ 30 VDC, resistive
<b>READER INTERFACE</b>	
<b>Reader Power</b>	12 VDC ± 10 %: PoE, PoE+ or local power supply, 300 mA maximum
<b>Data Inputs</b>	Reader port 1: TTL compatible, F/2F or 2-wire RS-485 Reader port 2: TTL compatible or F/2F
<b>LED Output</b>	TTL compatible, high > 3 V, low < 0.5 V, 5 mA source/sink maximum
<b>Buzzer Output</b>	Open collector, 12 VDC open circuit maximum, 40 mA sink maximum
<b>CABLE REQUIREMENTS</b>	
<b>Power and Relays</b>	1 twisted pair, 18 AWG (when using local 12 VDC power supply)
<b>Ethernet</b>	CAT-5, minimum
<b>Reader TTL</b>	6-conductor, 18 AWG, 500 ft. (152 m) maximum
<b>Reader F/2F</b>	4-conductor, 18 AWG, 500 ft. (152 m) maximum
<b>Reader RS-485</b>	1 twisted pair, shielded. 24 AWG, 120 ohm impedance, 2000 ft. (610 m) maximum
<b>Alarm Input</b>	1 twisted pair per input, 30 ohms maximum
<b>Alarm Output</b>	As required for the load
<b>ENVIRONMENTAL</b>	
<b>Temperature</b>	Storage: -55° to 85° C Operating: 0° to 70° C
<b>Humidity</b>	5 to 95% RHNC
<b>MECHANICAL</b>	
<b>Dimensions</b>	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
<b>Weight</b>	3.6 oz. (103 g) without bracket; 4.43 oz. (125.5 g) with bracket
<b>Product Compliance</b>	UL 294 Recognized <sup>1</sup> , FCC Part 15 Class A, CE Compliant, RoHS (2011/65/EU & 2015/863), EU REACH (1907/2006), California Proposition 65, NIST Certified Encryption
<b>Warranty</b>	The product is warranted free from defects in material and workmanship under normal use and service with proper maintenance for one year from the date of factory shipment.

<sup>1</sup> 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 UL 294B



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