

# Next-Generation Access Control Panel

## ICM-MP1502



Reference image only\*

IDCUBE's ICM-MP Series Access Control Panel is a future-ready, open-architecture platform built on embedded Linux and natively integrated with IDCUBE's Access360 software suite. At its core, the platform leverages the Authentic Mercury MP Series Intelligent Controller (MP1502), offering robust performance, scalable architecture, and enhanced security.

The MP1502 supports 2-4 card readers for controlling two connected doors, which can expand to up to 64 doors/openings. It also supports keypads, biometric readers, OSDP, Wiegand, clock and data, magnetic stripe, F/2F and supervised F/2F reader technologies.

### HIGHLIGHTS

**Open Architecture:** High performance, reliable platform enables use of hardware with Mercury OEM partners' software solutions.

**Enhanced Cybersecurity:** ARM TrustZone, secure boot CPU, crypto chip and data at rest encryption provide a layered security approach to protect sensitive data.

**Edge Processing:** Advanced processing capabilities enable custom applications to run on the controller, significantly expanding the platform's processing capabilities at the edge.

**Business Continuity:** New processor part of multi-year longevity program, dual footprint circuit designs and the same reliable LP/EP interface and footprint.

### FEATURES

IPv4/v6

Host communications protected by TLS 1.2/1.3 or AES-256/128

240,000 cardholder capacity, 500,000 transaction buffer Controller/IO Expansion connection protected by AES

Generate and load custom device and peer certificates in support of mTLS

Port based network access control using 802.1X

FIPS 140-3 user of OpenSSL (in process)

#### Local Access Control Processing

- 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 mode
- Ability to power cycle each reader port individually

#### Third Party Integration Supported

- Wireless locks
- Power supply alerts and events

# TECHNICAL SPECIFICATIONS

## Intelligent Controller

<b>Access Control</b>	240,000 cardholder capacity 500,000 transaction buffer Supports total of 1 RS-485 IO protocols 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 520 inputs or 516 outputs
<b>Door Control</b>	Natively supports up to 4 readers and 2 openings and can support up to 32 additional RS-485 expansion modules for a maximum of 64 readers and openings.

## General

<b>Primary Power</b>	12 to 24 VDC $\pm$ 10 %, 500 mA maximum (reader and USB ports not included)
<b>Reader Port</b>	600 mA maximum (add 600 mA to primary power current)
<b>Power and Relays</b>	5 VDC, 500 mA maximum (add 270 mA to primary power current)
<b>Battery</b>	Memory/Clock Backup: Super Capacitor (10 hours). 3 Volt Lithium, type BR/CR2032, slot available for additional capacity. Battery not included.
<b>microSD Card</b>	microSD or microSDHC; 2GB to 8GB
<b>Host Communication</b>	Ethernet: 10-BaseT/100Base-TX and USB port (2.0) with optional adapter: pluggable model USB2- OTGE100
<b>Serial I/O Device</b>	2-wire RS-485, 2,400 to 115,200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit
<b>Inputs</b>	Eight unsupervised/supervised, standard EOL: 1k/1k ohm, 1%, ¼ watt. Two unsupervised dedicated for cabinet tamper and UPS fault monitoring.
<b>Output Relays</b>	Four relays, Form C, NO 5 A @ 30 VDC resistive, NC 3 A @ 30 VDC resistive

## Mechanical

<b>Dimensions(Board)</b>	8 in. (203.2 mm) W x 6 in. (152.4 mm) L x 1 in. (25 mm) H
<b>Weight</b>	9 oz. (255 g) nominal, board only
<b>Part Code</b>	ICM-MP1502-EXXXXXX <sup>1</sup> (Mercury Controller Part number: MP1502)

<sup>1</sup> EXXXXXX refers to enclosure type along with accessories such as power supply, charging circuit, battery, and tamper switch; Please refer to the enclosure datasheet for details.

## Cable Requirements

<b>Power and Relays</b>	1 twisted pair, 18 to 16 AWG
<b>Ethernet</b>	CAT-5, minimum
<b>Reader TTL</b>	6-conductor, 18 AWG, 500 feet (150 m) max.
<b>Reader F/2F</b>	4-conductor, 18 AWG, 500 feet (150 m) max.
<b>Reader RS-485</b>	1 twisted pair, shielded, 120-ohm impedance, 24 AWG, 2,000 ft. (610 m) max.
<b>I/O Devices RS-485</b>	1 twisted pair with drain wire and shield, 120 ohm impedance, 24 AWG, 4,000 ft. (1,219 m) max.
<b>Alarm Input</b>	1 twisted pair, 30 ohms maximum typically 22 AWG @ 1000 ft. (304.8 m) maximum

## Environmental

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

## Reader Interface

<b>Reader Power</b>	12-24 VDC +/- 10% regulated, 600 mA maximum.
<b>Data Inputs</b>	TTL compatible, F/2F or 2-wire RS-485
<b>RS-485 Mode</b>	9,600 to 115,200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit. Maximum cable length: 2000 ft. (609.6 m)
<b>LED Output</b>	TTL levels, 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

## Compliance and Warranty

<b>Product Compliance</b>	UL 294 Recognized, FCC Part 15 Class A, CE Compliant, RoHS (2011/65/EU & 2015/863), EU REACH (1907/2006), California Proposition 65, NIST Certified Encryption (in process)
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<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.
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