

Next-Generation Access Control Panel

ICM-MP2500



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 (MP2500), a powerful intelligent controller with native network support, which is scalable up to 64 doors/openings. It delivers access control, alarm management, and scheduled operations in a single package.

HIGHLIGHTS

Open Architecture: High-performance, reliable platform that integrates seamlessly with Mercury OEM partners' software solutions.

Enhanced Cybersecurity: Equipped with ARM TrustZone, secure boot CPU, crypto chip, and data-at-rest encryption for robust protection of sensitive data.

Edge Processing: Supports advanced processing, allowing custom applications to run directly on the controller, expanding intelligence at the edge.

Business Continuity: Built with a long-life processor, dual footprint circuit designs, and proven LP/EP compatibility for reliable operations.

Scalable Performance: A powerful controller with native network support, capable of managing up to 64 doors/openings with advanced access control, alarm management, and scheduled operations.

FEATURES

IPv4/IPv6 support

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

600,000 cardholder capacity, 500,000 transaction buffer

Controller/IO expansion connections protected by AES

Supports up to 255 access levels per cardholder

19-digit (64-bit) card numbers and 15-digit PIN codes supported

Port-based network access control using 802.1X

Encrypted database with configurable sizing

Anti-pass back support (Area, reader and time based); Programmable keypad user commands; threat level and operating modes

FIPS 140-3 user of OpenSSL

Compatible with wireless locks, power supply alerts, elevator/turnstile control, biometric devices, and intrusion/fire system integration

TECHNICAL SPECIFICATIONS

Intelligent Controller	
Card Holders Capacity	600,000 cardholder capacity 500,000 transaction buffer
Door Control	Does not natively support any readers or openings. Supports up to 32 RS-485 expansion modules for a maximum of 64 readers and openings

General	
Primary Power	12 to 24 VDC ± 10 %, 500 mA maximum (reader and USB ports not included)
Micro USB Port	5 VDC, 500 mA maximum (add 270 mA to primary power current)
Battery	Memory/Clock Backup: Super Capacitor (10 hours)
microSD Card	Format: microSD or microSDHC; 2GB to 8GB
Host Communication	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
Inputs	Two unsupervised dedicated for cabinet tamper and UPS fault monitoring

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

Mechanical	
Dimensions(Board)	5 in.(127 mm) W x 6 in.(152.4 mm) L x 1 in.(25 mm) H
Weight	4.1 oz. (115 gm) nominal, board only
Part Code	ICM-MP2500-EXXXXXX ¹ (Mercury Controller Part number: MP2500)

¹ 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	
Header	Alarm Input
Data	1 twisted pair, 30 ohms maximum
Power	1 twisted pair, 18 to 16 AWG
Ethernet	CAT-5, minimum
I/O Devices RS-485	1 twisted pair, shield, 120-ohm impedance, 24 AWG. 4,000 ft. (1,219 m) maximum cable length

Compliance and Warranty	
Product Compliance	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)
Warranty	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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