# QXEP-MP2500 Intelligent Controller
## Powered by Mercury™

## HIGHLIGHTS

### Local Access Control Processing

- Encrypted database
- Supports up to 19 digital card numbers
- Supports PIN codes up to 15 digits
- Up to 255 access levels per cardholders

### Security and Network

- Pv4/v6
- Host communications protected by
- TLS 1.2/1.3 or AES-256/128
- Controller/IO Expansion connection protected by AES
- Port based network access control using 802.1X

### Third Party Integration Supported

- Wireless locks

## INTELLIGENT CONTROLLER

- **Open Architecture** – High performance, reliable platform enables use of hardware with both QXEP & Mercury OE 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.
- **Business Continuity** – New processor part of multi-year longevity program, dual footprint circuit designs and the same reliable LP/EP interface and footprint.



The new QXEP-MP Intelligent Controllers provide a bridge between today's urgent security needs and tomorrow's emerging realities. Featuring secure world processing within a trusted execution environment and a future-ready, on-device application environment to drive advanced enterprise strategies with sophisticated programs and analytics adjacent to the door. With unmatched cyber security, robust reliability, and an open architecture, the QXEP-MP controller infrastructure is ready for the challenges of today and well into the future.

The QXEP-MP2500 is a powerful intelligent controller with native network support and is scalable to 64 doors/openings. Built on the Mercury platform, the intelligent controller can operate independently to perform access control functions.

For customers seeking an empowering, comprehensive and open access control platform that is also reliable and cybersecure, the QXEP-MP2500 is the clear solution. It delivers a complete security and access control solution, an innovative edge processing and development environment, interoperability and data security.

| 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 days).  3 Volt Lithium, type BR2330 or  CR2330 slot available for additional capacity. |
| 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 |
| READER INTERFACE | |
| Reader Power | 12 VDC ± 10 %: PoE, PoE+ or local power supply, 600 mA maximum |
| Data Inputs | TTL compatible, F/2F or 2-wire RS-485 |
| RS-485 Mode | 9,600 to 115,200 bps, asynchronous, half-duplex,  1 start bit, 8 data bits, and 1 stop bit.<br>Maximum cable length: 2000 ft. (609.6 m) |
| LED Output | TTL levels, high>3 V, low<0.5 V, 5 mA  source/sink maximum |
| Buzzer Output | Open collector, 12 VDC open circuit maximum,  40 mA sink maximum |
| 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 |
| ENVIRONMENTAL | |
| Temperature | -55 to +85 °C, storage, 0 to +70 °C, operating |
| Humidity | 5 to 95% RHNC |
| MECHANICAL | |
| Dimensions | 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 |
| Product Compliance | UL 294 Recognized, FCC Part 15 Class A,<br>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. |



QXEP-MP2500

RS485

QXEP-MR52  Door 1  Door 2        Door 1  QXEP-MR50    QXEP-MR16IN    QXEP-MR16OUT