# QXEP-MP1502 Intelligent Controller
Powered by Mercury™

## HIGHLIGHTS

### Local Access Control Processing

- Supports multiple card formats
- Anti-passback support (area, reader and time based)
- Programmable keypad user commands

### Security and Network

- IPv4/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 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.
- **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 cybersecurity, robust reliability, and an open architecture, the MP controller infrastructure is ready for the challenges of today and well into the future.

The QXEP-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. With enhanced processing, memory and component continuity, the QXEP-MP1502 includes improved cybersecurity measures like secure boot, TLS 1.3, and FIPS 140-3 use of OpenSSL.

For customers seeking an empowering, comprehensive and open access control platform that is also reliable and cyber secure, the QXEP-MP1502 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) |
| Reader Power | 600 mA maximum<br>(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: Super Capacitor (10 days). 3 Volt Lithium, type BR2330 or CR2330 slot available for additional capacity. (CR2330 battery not included) |
| microSD Card | microSD or microSDHC; 2GB to 8GB |
| Host Communication | Ethernet: 10-BaseT/100Base-TX and USB port (2.0) with optional adapter: pluggable model USB2-OTGE100 |
| Serial I/O Device | 2-wire RS-485, 2,400 to 115,200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit |
| Inputs | Eight unsupervised/supervised, standard EOL: 1k/1k ohm, 1%, ¼ watt. Two unsupervised dedicated for cabinet tamper and UPS fault monitoring. |
| Output Relays | Four relays, Form C, NO 5 A @ 30 VDC resistive, NC 3 A @ 30 VDC resistive |
| **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** | |
| Power and Relays | 1 twisted pair, 18 to 16 AWG |
| Ethernet | CAT-5, minimum |
| 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, 120 ohm impedance, 24 AWG, 2,000 ft. (610 m) max. |
| I/O Devices RS-485 | 1 twisted pair with drain wire and 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) maximum |
| **ENVIRONMENTAL** | |
| Temperature | -55 to +85 °C, storage, 0 to +70 °C, operating |
| Humidity | 5 to 95% RHNC |

| MECHANICAL | |
|---|---|
| Dimensions | 8 in. (203.2 mm) W x 6 in. (152.4 mm) L x 1 in. (25 mm) H |
| Weight | 9 oz. (255 g) nominal, board only |
| 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. |