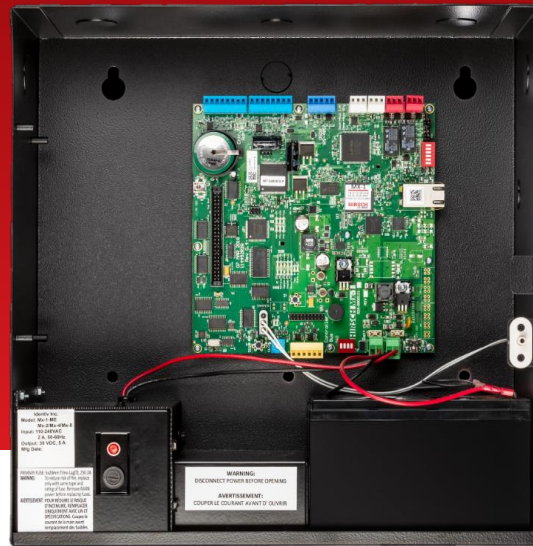# HIRSCH

Mx-1 Controller
High-Security Access Control

The Mx-1 Controller is available in a plastic or metal enclosure, and manages one fully supervised door for controlled entry and exit or up to 8 wireless locks.

The Mx-1's modular design and scalable architecture enables an installation to start small and expand as needed, from a single controller system to a larger, multi-site enterprise environment.

Designed for use with the Velocity security management system, uTrust TS Readers and secure keypads, or wireless door locks.

With firmware, functionality, and communication protocols compatible with the Hirsch DIGI*TRAC and Mx Controllers, the Mx-1 seamlessly integrates with existing systems, retaining credentials, readers, and user databases, and adds edge capability to a system.

Flexible Configuration

- Available in a plastic or metal enclosure
- Supports one (1) door
- Supports OSDP and Wiegand readers
- Built in SNIB3
- Supports AEB8, REB8, RREB connections
- Multiple power configurations

Intelligent Architecture

- Easy to configure access restrictions
- Simple door control and monitoring

Wireless Locks

- Multiple vendors
- Supports up to eight (8) per Mx-1-W

Outputs

- Wet or dry relays
- Tamper detection

Specifications

Communications

Serial Interface Ports	Controller to controller: · RS-485 multi-drop protocol (X*NET2, X*NET3) · Up to 4,000 ft (1,200 m) with 22 gauge, 2 pair, stranded, twisted, and shielded
OSDP Protocol	Controller to reader: · Buzzer, LED, and optional secure OSDP · Single port for entry and exit readers · Up to 4,000 ft (1,200 m) with 18 gauge, 2 pair, stranded, twisted, and shielded
Wiegand Protocol	Onboard Wiegand: · Industry standard Wiegand · Reader ports: 2 (1 entry port and 1 exit port) · Maximum wiring run: 500 ft (150 m) with 18 gauge, 2 pair, stranded, twisted, overall shield

Firmware

Command and Control Module (CCMx)	· Flash upgradeable · Time zones: 150 · Door groups: 128	· Control zones: 256 · Holiday schedules: 4 (366 days x 2 years) · Daylight savings time adjustment
SNIB3	· Flash upgradeable with signed and encrypted firmware · FIPS AES 256 encryption	· TLS 1.2 Encryption (Requires Velocity 3.7 SP2 or later) · 10/100/1000 Ethernet (TCP/IPv4 or v6)

Memory

Buffers	Standard: 1,500 events and 1,500 alarms
Credentials	Up to 500,000
Memory Protection Battery	10 days for code, setups, clock, and buffers

Electrical

OSDP Keypad/Reader Power (1 Terminal)	750mA at 12V (up to 2 readers)
Wiegand Keypad/Reader (2 Terminals)	750mA at 12V
Door Relay	• Dry 2A at 30V • Wet 750mA at 24V
Auxiliary Relay	• Dry 1A at 30V • Wet 750mA at 24V
Listings and Approvals	• UL 294: Access Control Systems Units • UL 1076: Proprietary Burglar Alarm Systems • CE and UKCA

Specifications (continued)

Physical		
	Mx-1	**Mx-1-ME**
Security	Cover opening tamper switch	Cover opening tamper switch
Enclosure	Flame retardant plastic enclosure with exposed connectors and diagnostic LEDs	NEMA type with conduit knockouts and removable door
Dimensions	8.0 x 8.0 x 1.25 in (3.18 20.32 x 20.32 x 3.18 cm)	14 x 14 x 5.5 in
Weight	1.5 lbs (0.69 kg)	24 lbs (11 kg) w/ battery
Power Supply	PoE+ 802.3at Type 2 or UL-listed 2.0 A switching power supply at 110 - 240VAC and 50/60 Hz providing 24V - 28VDC power	AC INPUT 110 -240V, 50-60 Hz, fused. Built-in PSU module generates 5A @ 30V DC for the controller and connected devices
Operating Temperature Range	32° to 140°F (0° to 60°C)	
Relative Humidity	0 to 90%, non-condensing	

Controller Part Numbers

Part Number	Description
MX-1	Mx-1 Controller, 1 door relay, 1 auxiliary relay (both relays support optional wet power setting), 2 Alarm Inputs (requires Line Modules), plastic enclosure, requires PoE+ power supply, tamper switch, integrated SNIB3 and RREB
Mx-1-ME	Mx-1 Controller, 1 door, metal enclosure, 1 auxiliary relay, 2 Alarm Inputs (requires Line Modules), switching power supply (110/230), batt (1.3Ah), tamper switch, integrated SNIB3 and RREB (one port, 2 readers).
MX-1-W	Velocity security management application software license. For Mx-1 only, adds 8 wireless locks, counts against module license. First year SSA (Software Support Agreement) required, not included.
SSA-MX-1-W	Velocity Mx-1, 8 wireless locks Software Support Agreement - 1 Year.*

*One Month, 3 Year and 5 Year options available.

H HIRSCH

TECHNICAL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE. REVISION DATE: 2025-6-6

Hirsch is a global technology leader, revolutionizing physical security solutions, video intelligence, and digital identification systems. Hirsch is part of the Vitaprotech Group. For more information, visit hirschsecure.com or email sales@hirschsecure.com.

© Hirsch, Inc. | All rights reserved. This document is Hirsch public information.