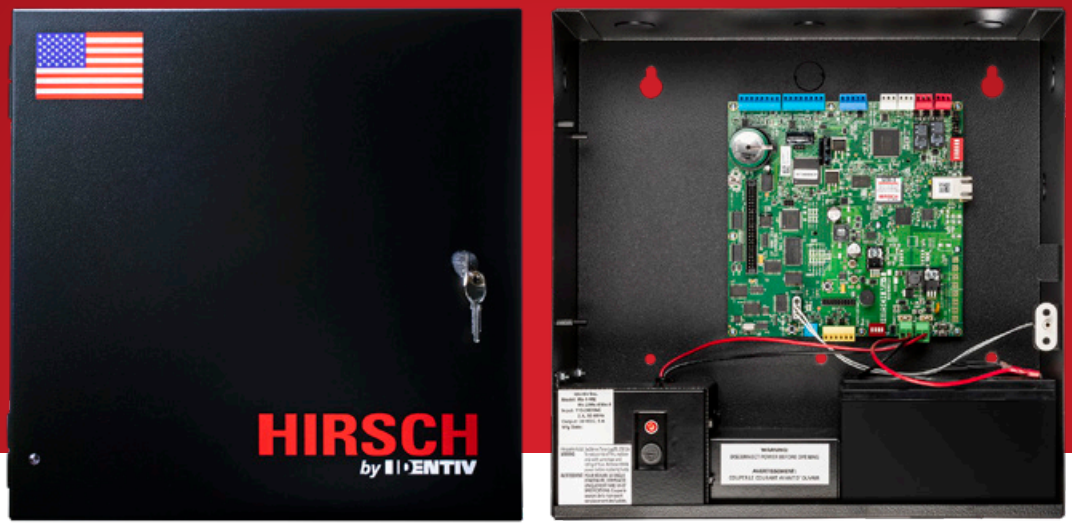
Hirsch Mx-1-ME Controller

High-Security Access Control



Manage a single fully supervised door at the edge with a protective metal enclosure, power supply with backup battery.

The Hirsch Mx-1-ME (Metal Enclosure) Controller features a modular design and scalable architecture, enabling an installation to start small and expand as needed, from a single controller system to a larger, multi-site enterprise environment.

With firmware, functionality, and communication protocols compatible to the Identiv DIGI*TRAC and Mx Controllers, the Mx-1-ME seamlessly integrates with existing systems, retaining credentials, readers, and user databases.

Designed for use with uTrust TS readers and secure keypads, Mx-1-ME adds network edge capability to the Identiv enterprise security management ecosystem.

Hirsch Mx-1-ME includes extensive onboard firmware for basic access control logic to sophisticated functions like the two-person rule, occupancy counting, individual user tagging, door interlocking, and anti-passback. Full functionality is maintained even when Velocity is not available, for example, during a network outage.

Hirsch Mx-1-ME supports a wide variety of readers and credentials, and expansion ports enable the option to add the REB8, AEB8, or up to 8 wireless locks.

Features and Benefits

- Fully supervised one-door model with integrated, secure network communication
- Scalable from a single controller to networked multi-site installations
- Connectivity to OSDP (RS-485) or Wiegand readers standard
- Auxiliary input and relay, high-security supervised alarm inputs, and configurable relay outputs (door or general purpose)
- Wet or dry relay hardware setting
- Multi-microprocessor architecture with dedicated crypto-processor
- Firmware upgrade via Velocity
- Integrated network communication with onboard 10/100/1000 Ethernet IP port
- Integrated hardware encryption with enabled devices
- Special circuitry to protect reader/relay terminals from excessive current draws
- Optional support for wireless lock integration with the MX-1-W license

Hirsch Mx-1-ME Controllers add the protection of a metal enclosure to control entry and exit.

Intelligent Distributed Architecture

Access may be restricted based on Time of Day, Day of Week, and Door. Access may be granted when the user presents the correct code, card, or both. The user may be granted temporary access based on Use Count Limits, Temporary Day Limits, and Absentee Rule Limits, with Auto-Disable or Auto-Delete on Expiration of Temporary Users. Additional functions include Unlock/Relock, Alarm Mask/Unmask, and Lock Down/Lock Down Release. The associated door may be monitored for Door Forced Open and Door Open Too Long, while providing Auto Relock Control.

High-Security Alarm Monitoring

Identiv uses very stable digitally processed analog inputs with line supervision for high-security alarm monitoring. A line supervision module is located at the door contact, alarm sensor, request to exit (RQE), or similar device to establish this supervision. Conditions reported include Alarm, Secure, RQE, Mask, Tamper Alarm, Tamper Secure, Short, Open, Noisy, and Input-Out-of-Spec.

Reliability by Design

Mx-1-ME Controllers are designed for high availability as a complete system for global markets. A standby battery for memory is standard, while a standby UPS or battery for operation is optional. The controller has a 30 VDC with a maximum of 5A external power supply. Power connectors are fused. Readers and relays are protected by built-in hardware circuits which will cut off power when they detect over-power consumption, protecting the board against unintended damage and this event will also be reported back to Velocity so that user can take corrective action.

Features and Benefits

- Supports a wide variety of readers and credentials
- The availability of expansion ports on Mx-1-ME, enables the option to add the REB8, AEB8

The Mx-1-ME has a built-in Secure Network Interface Board 3 (SNIB3) with enhanced memory storage at 500K credentials, security, TLS, 128-bit, or 256-bit encryption options, and network functionality and capabilities. The SNIB3 is a leading edge communication device that provides IPv6, Gigabit Ethernet, and FIPS 140-2 certified cryptography, including AES 256 bit encryption. These features are foundational for the critical U.S. federal government security standard known as FICAM and enabling OSDP readers and optional OSDP encrypted communications.

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 • FIPS AES 256 encrypted communication
OSDP Protocol	Controller to reader: • Buzzer, LED and security assurance control • Single port for entry and exit OSDP 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 • CCM updates all microprocessors • Time zones: 150 • Door groups: 128 • Control zones: 256 • Daylight savings time adjustment
SNIB3	• Flash upgradeable with signed and encrypted firmware • FIPS 140-2 AES 256 encryption • 10/100/1000 Ethernet (TCP/IPv4 or v6)
Memory	
Buffers	Standard: 1,500 events and 1,500 alarms
Users	Up to 500,000 credentials
Memory Protection Battery	10 days for code, setups, clock,and buffers
Physical	
Security	• Enclosure door tamper switch • Key lock
Enclosure	NEMA 1 Rated type with conduit knockouts and removable door
Dimensions	4.3 H x 14.3 W x 5.6 D in (36.32 H x 36.32 W x 14.22 D cm)
Weight	24 lbs (11 kg) w/ battery
Expansion Boards (Max 5)	6 H x 4.25 W x .75 D in (15.2 H x 10.8 W x 1.9 D cm)
Operating Temperature Range	32° to 140°F (0° to 60°C)
Relative Humidity	0 to 90%, non-condensing

Specifications

Electrical

OSDP Keypad/Reader Power (1 Terminal)	750mA at 12V (up to 2 readers), fused and resettable
Wiegand Keypad/Reader (2 Terminals)	500mA per port @12V, fused and resetable. Note: When the door and AUX relays are configured at 12V/500mA, the max current draw for the Wiegand reader ports combined is limited to 750mA
Power Supply	AC INPUT 110 -240V, 50-60 Hz, fused. Built-in PSU module generates 5A @ 30V DC for the controller and connected devices
Standby Batteries	2 X 12V, 1.3 AH VRLA connected in series included as standard for 24V back up.
Door Relay	• Dry 2A at 30V, Form C • Wet 250mA @ 24V / 500mA @ 12V
Auxiliary Relay	• Dry 2A at 30V, Form C • Wet 250mA @ 24V / 500mA @ 12V
Listings and Approvals	• UL 294: Access Control Systems Units • UL 1076: Proprietary Burglar Alarm Systems

Ordering Information for Mx-1-ME Controllers

MX-1-ME Mx-1 Controller - 1 Door Edge with Metal Enclosure	Controls 1 fully supervised door. up to 500,000 credentials, 1 door relay, 1 auxiliary relay (both relays support optional wet power setting), 2 Alarm Inputs (requires Line Modules), metal enclosure, switching power supply (110/230), batt (1.3Ah), tamper switch, integrated SNIB3 and RREB (one port, 2 readers). 2 built-in software configurable Wiegand interfaces for direct reader connection. Supports Expansion Boards. Provides 10/100/1000 encrypted Ethernet to Host PC and downstream controllers, SNIB2 or SNIB3 (Mx and DIGI*TRAC).
MX-1-W	Velocity Software License to enable wireless locks. Add up to 8 compatible wireless locks per Mx-1-W license. Wireless locks must use Mx-1 or Mx-1-ME controller.

Ordering Information for Expansion Boards

AEB8 Alarm Expansion Board with 8 Inputs	Adds eight (8) additional high-security alarm inputs. Velocity supports up to four (4) AEB8's. Each input requires an appropriate Line Module. Features removable connectors.
REB8 Relay Expansion Board with 8 Relays	Adds additional eight (8) Amp Form C relays. Up to five (5) REB8's per controller. Status LEDs and removable connectors

Identiv (NASDAQ: INVE) is a global provider of physical security and secure identification. Identiv's products, software, systems, and services address the markets for physical and logical access control, video analytics and a wide range of RFID-enabled applications.
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