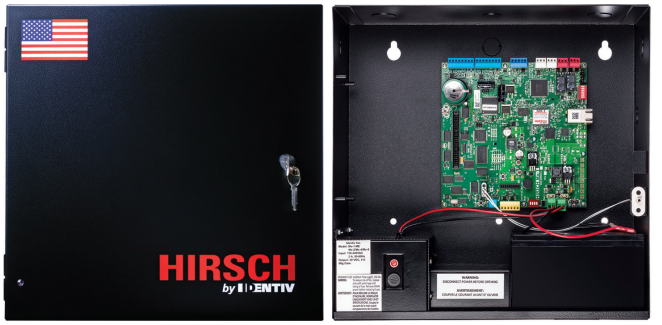
HIRSCH by IDENTIV

Hirsch Mx-1 Metal Enclosure (ME)

High Security Access Control



- Fully supervised one-door model with integrated, secure network communication
- Designed for use with Identiv Velocity Security Management System software
- Scalable from a single controller to networked multi-site installations
- Connectivity to OSDP (RS-485) or Wiegand readers standard
- Auxiliary input and relay
- Wet or dry relay hardware setting
- Multi-microprocessor architecture
- Firmware upgrade via Velocity

Identiv's Hirsch Mx-1-ME Controller manages a single fully supervised door for controlled entry and exit, and is protected by a Metal Enclosure with battery back-up and power supply. The modular design and the scalable architecture enables 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 secure keypads, Mx-1-ME adds network edge capability to the Identiv enterprise security management ecosystem.

Features and Benefits

- Controls one fully supervised door with entry and optional exit keypads/readers
- Scalable from a single controller to networked multi-site installations
- Multi-microprocessor architecture with dedicated crypto-processor
- Integrated network communication with onboard 10/100/1000 Ethernet IP port
- Auxiliary/alarm relay output
- Integrated hardware encryption with enabled devices
- High security supervised alarm inputs
- Configurable relay outputs (door or general purpose)
- Wiegand setup via Velocity
- Multi-drop global I/O using RS-485
- Firmware can be updated through Velocity
- Open Secure Device Protocol (OSDP)
  - TS ScramblePads, TS Readers, and third-party OSDP readers (i.e., Veridt Stealth Series)
  - Reader LED and buzzer control
  - Extended cable runs
  - Entry/exit reader setup
- Special circuitry to protect reader/relay terminals from excessive current draws
- Supports a wide variety of readers and credentials
- Built-in protection from door strikes and mag locks that generate large inrush current demand during power-up and large induced current demand during power-down
- The availability of expansion ports on Mx-1-ME, enables the option to add the legacy MEB/CB 128, REB8, AEB8

Intelligent Distributed Architecture

The Hirsch Mx-1-ME Controller includes extensive onboard firmware for control sequences as basic as "who goes where when" 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.

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 30VDC 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.

PARAMETER	HIRSCH MX-1-ME CONTROLLER
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 • RS-485 multi-drop protocol • MATCH technology • Up to 4,000 ft (1,200 m) with 22 gauge, 2 pair, stranded, twisted, and shielded
Wiegand Protocol	Onboard Wiegand MATCH: • Industry standard Wiegand • Keypad/reader ports: 2 for entry and exit • 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)
Public Private Key Processor and Secure Digital Key Vault	Global platform compatible and secure storage of key material
Memory	
Buffers	Standard: 1,500 events and 1,500 alarms

PARAMETER	HIRSCH MX-1-ME CONTROLLER
Users	Standard: 4,000
Memory Protection Battery	10 days for code, setups, clock, and buffers
Physical	
Security	• Enclosure door tamper switch • Key lock
Enclosure	NEMA type with conduit knockouts and removable door
Dimensions	5.6 x 14.3 x 14.3 in (14.22 x 36.32 x 36.32 cm)
Weight	24 lbs (11 kg) w/ battery
Expansion Boards (Max 5)	6 x 4.25 x 0.75 in (152 x 108 x 19 mm) and 1.0 lb (0.45 kg)
Operating Temperature Range	32° to 140°F (0° to 60°C)
Relative Humidity	0 to 90%, non-condensing
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, 7.2AH 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

PART NUMBER (PID)	PRODUCT	DESCRIPTION
MX-1-ME	Mx-1 Controller - 1 Door PoE+ Edge with Metal Enclosure	Controls 1 fully supervised door. 4000 users (Expandable to 132,000 with MEB/CB128), 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).

Ordering Information - Expansion Boards

MODEL	DESCRIPTION	COMMENTS
AEB8	Alarm Expansion Board - 8 Inputs	Adds 8 additional high security alarm inputs. Velocity supports up to 4 boards in M2, M8, Mx, MSP, M64 and up to 2 boards in M16. Each input requires appropriate Line Module. Features removable connectors. UL Listed.
REB8	Relay Expansion Board - 8 Relays	Expands CODE Memory by 128,000 (from 4000 to 132,000) with CCM 7.X on Velocity. A portion of the Code Memory may be allocated to alarm and event Buffers on Velocity only. Protected from data loss during power failures for up to 30 days by controller memory battery. UL Listed.
MEB/CB 128	Memory Expansion Board - CODE Expansion of 128,000 with Buffer Option	Expands CODE Memory by 128,000 (from 4000 to 132,000) with CCM 7.X on Velocity. A portion of the Code Memory may be allocated to alarm and event buffers on Velocity only. Protected from data loss during power failures for up to 30 days by controller memory battery. UL listed.

Note: The DIGI*TRAC M16 Controller can accommodate up to ve expansion boards. Only one MEB/CB is supported per controller. A maximum of two AEB8 expansion boards are supported in the M16 (only with CCM 7.x or later and Velocity).

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