Hirsch Mx-1 Controller

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 Power over Ethernet Plus (PoE+) Hirsch Mx-1 Controller manages a single fully supervised door for controlled entry and exit. 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 seamlessly integrates with existing systems, retaining credentials, readers, and user databases. Designed for use with Hirsch Velocity™ 3.6 Security Management System Software, TS ScramblePad®, TS ScrambleProx®, and TS ScrambleSmartProx® and secure keypads, Mx-1 adds network edge capability to the Identiv enterprise security management ecosystem.

Features

- Controls one fully supervised door with entry and optional exit keypads/readers
- Scalable from 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)
- Open Secure Device Protocol (OSDP)
    - 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
- Wiegand setup via Velocity
- Multi-drop global I/O using RS-485
- Firmware can be updated through Velocity
- Powered at the edge by PoE+
- 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

Intelligent Distributed Architecture

The Hirsch Mx-1 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.

Mx-1 supports TS ScramblePad, ScrambleProx, ScrambleSmartProx, and many other reader technologies, including Wiegand, magnetic stripe, smart card (such as DESFire, MIFARE, PIV, or PIV-I), proximity, bar code, RF, IR, and biometric. Technologies may be combined on the same controller or the same door.

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 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 ships ready to be connected to a PoE+ power source, and has support for optional 12/24VDC external power supplies. 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.

PARAMETER	HIRSCH MX-1 CONTROLLER
Communications	
Serial Interface Ports	Controller to controller: • RS-485 multi-drop protocol (X*NET2, X*NET3) • Optically isolated port • 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
Additional Reader Support	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

PARAMETER	HIRSCH MX-1 CONTROLLER
Firmware	
Command and Control Module (CCMx)	• Flash upgradeable • CCM updates all microprocessors (including onboard Wiegand MATCH) • 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)
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
Users	Standard: 4,000
Memory Protection Battery	10 days for code, setups, clock, and buffers
Physical	
Security	Cover opening tamper switch
Enclosure	Flame retardant plastic enclosure with exposed connectors and diagnostic LEDs
Dimensions	1.25 x 8.0 x 8.0 in (3.18 x 20.32 x 20.32 cm)
Weight	1.5 lbs (0.69 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)
Wiegand Keypad/Reader (2 Terminals)	750mA at 12V
Power Supply	PoE+ 802.3at Type 2
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

Ordering Information for Mx-1 Controllers

PART NUMBER (PID)	PRODUCT	DESCRIPTION
MX-1	Model Mx-1 controller, for 1 Door, PoE+	Controls 1 fully supervised door. 4000 users, 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 (1 port, 2 readers). 2 built-in software configurable Wiegand interfaces for direct reader connection. Provides 10/100/1000 encrypted Ethernet to Host PC and downstream controllers, SNIB2 or SNIB3 (Mx and DIGI*TRAC). Requires ICPAM 3.0.1 Velocity 3.6 SP2.1 or later for full functionality.

Identiv, Inc. (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 and a wide range of RFID-enabled applications. Customers in the government, enterprise, consumer, education, healthcare, and transportation sectors rely on Identiv's access and identification solutions. Identiv's mission is to secure the connected physical world: from perimeter to desktop access, and from the world of physical things to the Internet of Everything.

Identiv has offices worldwide. Addresses and phone numbers are listed at identiv.com/contact. For more information, visit identiv.com or email sales@identiv.com.

Technical data is subject to change without notice.

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