HIRSCH

Mx Controller
High-Security Access Control

Award-winning controllers provide scalable, networked communication.

With the Mx Controller at its core, Hirsch's PACS provides a high integrity, enterprise-class access control and security management solution.

Mx Controllers are designed for use with Hirsch's Velocity Software security management system, uTrust TS Readers, ScramblePad, and ScrambleFactor. A range of models and expansion options in the Mx product line provides a variety of access control, high-security alarm monitoring, relay control outputs, and custom logic configurations to fit most applications.

Mx Controllers are high-availability systems designed for global markets, featuring standby batteries,

internal power supply, fused/resettable circuits, and socketed relays in a secure, tamper-protected enclosure. Relays control doors, alarms, HVAC, lighting, and more, triggered by codes, cards, schedules, or logic.

Mx uses supervised analog inputs for secure monitoring. Access is controlled by time, PIN, card, or both, with temporary user rules. Additional features include lockdown, alarm masking, and door status monitoring with auto-relock.

The modular design and scalable architecture of the Mx Controller enables an installation to start small and expand as needed, from a single controller, to a large, multi-site enterprise.

High-Security Features

- Fully supervised 2, 4, and 8 door panels
- Integrated network communication
- Designed for use with Velocity Software
- Scalable from a single controller to a networked multi-site/multi-campus installation
- Firmware upgrade via Velocity
- Support for uTrust TS Readers, ScramblePad, and MATCH2 reader interfaces
- Multi-microprocessor architecture
- OSDP, Wiegand and MATCH2

Specifications

Parameter	Details	
Communications		
Serial Interface Ports	Controller to controller: • RS-485 multi-drop protocol X*NET2 • Optically isolated port	Controller to server: • 10/100 Ethernet (TCP/IP) • Encrypted communication • X*NET2 or X*NET3
MATCH Protocol	24V DC nominal	
Onboard Reader Support	ScramblePad/MATCH2: • Proprietary MATCH protocol • Reader ports: 8 with 16 addresses (8 entry & 8 exit) • Wiring: 18 AWB, 2 pair, stranded, twisted, overall shield	Onboard Wiegand: • Industry standard Wiegand • Up to 8 doors • Maximum wiring run: 500 ft (150 m) with 18 AWG shielded cable
Command and Control Module (CCMx)	• Removable and upgradeable • CCM updates all microprocessors (including onboard MATCH) • Time zones: 150	• Door groups: 128 • Control zones: 256 • Holiday groups • Daylight savings time adjustment
Memory		
Buffers	• Standard: 1,500 events and 1,500 alarms	
Credentials	• CCMx database up to 4,000 or SNIB3 database up to 500,000	
Memory Protection Battery	• 30 days for code, setups, clock, and buffers	
Physical		
Enclosure	NEMA type with conduit knockouts and removable door	
Security	Enclosure door tamper switch and key lock	
Dimensions	18 x 15.25 x 5.5 in (457 x 387 x 140 mm)	
Weight	30 lbs.	
Operating Temperature Range	32° to 140°F (0° to 60°C)	
Relative Humidity	0 to 90%, non-condensing	
Electrical		
Power Supply	• Switching • 110 – 240 VAC, 50/60, fused	
Standby Batteries	• Battery Backup of 7.2, 8 or 9 Ah	
OSDP Reader	• 500 mA at 12VDC each, fused limited • 2.2 Amp max draw per RREB port	
MATCH Power (2 Terminals)	• 1.0 Amp at 24VDC each, fused and resettable • 2.9 Amp at 24VDC each	
Wiegand (2 Terminals)	• 500 mA at 12VDC each, fused and resettable • 2.0 Amp at 12VDc total	
Door Relays	• 5 Amp, form C	
Alarm Relays	• 2 Amp, form C	
Listings and Approvals	• UL 294: Access Control Systems Units; UL 1076: Proprietary Burglar Alarm Systems	
Warranty	• Two Year Limited	

Ordering Information for Mx Controllers

Part Number	Description
Mx-2	• Controls 2 Supervised Doors • 4,000 Users • Includes 2 door relays, 2 Alarm Inputs (requires Line Modules), enclosure, power supply, battery, tamper switch, key lock, and integrated SNIB2. • Supports Expansion Boards. 110-240 VAC.
Mx-4	• Controls 4 Supervised Doors • 4,000 Users • Includes 4 door relays, 4 Alarm Inputs (requires Line Modules), enclosure, power supply, battery, tamper switch, key lock, and integrated SNIB2. • Supports Expansion Boards. 110-240 VAC.
Mx-8	• Controls 8 Supervised Doors • 4,000 Users • Includes 8 door relays, 8 Alarm Inputs (requires Line Modules), enclosure, power supply, battery, tamper switch, key lock, and integrated SNIB2. • Supports Expansion Boards. 110-240 VAC.

*Mx Controllers also available in configurations with SNIB3 Onboard, RREB
*Mx Controllers also available in Trove and Wallmount Containers

Ordering Information for Communication and Expansion Boards

Part Number	Description
SNIB3	Provides IPv4 or IPv6, Gigabit Ethernet, and FIPS 140-2 certified cryptography, including AES 256 bit encryption.
RREB	Provides Two-Way OSDP Communication and Processing for PIV Certificates in Compliance with FICAM requirements.
AEB8	Adds eight (8) additional high security alarm inputs.
REB8	Adds eight (8) additional two (2) Amp Form C relays.
MEB/BE	Expands standard buffer from 1,500 events and 1,500 alarms to 20,000 events and 2,000 alarms. (Limited Availability. Use MEB/CB64 or MEB/CB128.)
MEB/C64	Expands CODE Memory by 64,000 (from 4,000 to 68,000) with CCM 7.X on Velocity.
MEB/CB128	Expands CODE Memory by 128,000 (from 4,000 to 132,000) credentials.