



Mx Controller

with SNIB3 Onboard and RREB

Mx-2-S3OB, Mx-4-S3OB, Mx-8-S3OB



The -S3OB configuration includes a SNIB3 Onboard and RREB

Mx Controllers are designed for use with 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.

The SNIB3 is a leading edge communication device that provides IPv6, Gigabit Ethernet, and FIPS 140-3 certified cryptography, including TLS v1.3.

These FICAM ready panels ship with the SNIB3 module built onto the main board, and includes the RS-485 Reader Expansion Board (RREB), which supports 8 ports (16 doors) of FICAM PACS PIV while using OSDP, and four additional expansion slots for Alarm Inputs (AEB8) and Relays Outputs (REB8).

The Hirsch Mx Controller with SNIB3 Onboard and RREB is foundational for the critical U.S. federal government security FICAM standard. (Federal Identity, Credential, and Access Management).

OSDP Reader Ready

- Encrypted secure channel communication to perform authentication
- Bi-directional connectivity enables remote updates and reader status

FICAM Foundational

- SNIB3 built onboard the main controller board
- Mx Controller series is on the GSA APL (13.02 and 13.01)

Store More Credentials per Controller

- SNIB3 module securely stores up to 500,000 PIV credentials
- Requires Hirsch Velocity Software version 3.8.1 or higher

Upgrade from M Series

- MX-M8-RK-MX8S3OB
- MX-M2-RK-MX2S3OB
- MX-M2-RK-MX4S3OB
- MX-M2-RK-MX8S3OB

Specifications

Parameter	Details	
Communications		
Serial Interface Ports	Controller to controller: <ul style="list-style-type: none">RS-485 multi-drop protocolX*NET2Optically isolated port	Controller to server: <ul style="list-style-type: none">10/100 Ethernet (TCP/IP)Encrypted communicationX*NET2 or X*NET3
MATCH Protocol	24V DC nominal	
Onboard Reader Support	ScramblePad/MATCH2: <ul style="list-style-type: none">Proprietary MATCH protocolReader ports: 8 with 16 addresses (8 entry & 8 exit)Wiring: 18 AWB, 2 pair, stranded, twisted, overall shield	Onboard Wiegand: <ul style="list-style-type: none">Industry standard WiegandUp to 8 doorsMaximum wiring run: 500 ft (150 m) with 18 AWG shielded cable
Command and Control Module (CCMx)	<ul style="list-style-type: none">Removable and upgradeableCCM updates all microprocessors (including onboard MATCH)Time zones: 150	<ul style="list-style-type: none">Door groups: 128Control zones: 256Holiday groupsDaylight savings time adjustment
Memory		
Buffers	<ul style="list-style-type: none">Standard: 1,500 events and 1,500 alarmsSupports up to 10,000 with SNIB 4.4 and later	
Credentials	<ul style="list-style-type: none">CCMx database up to 4,000 or SNIB3 database up to 500,000	
Memory Protection Battery	<ul style="list-style-type: none">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	<ul style="list-style-type: none">Switching110 – 240 VAC, 50/60, fused	
Standby Batteries	<ul style="list-style-type: none">Battery Backup of 7.2, 8 or 9 Ah	
OSDP Reader	<ul style="list-style-type: none">500 mA at 12VDC each, fused limited2.2 Amp max draw per RREB port	
MATCH Power (2 Terminals)	<ul style="list-style-type: none">1.0 Amp at 24VDC each, fused and resettable2.9 Amp at 24VDC each	
Wiegand (2 Terminals)	<ul style="list-style-type: none">500 mA at 12VDC each, fused and resettable2.0 Amp at 12VDC total	
Door Relays	<ul style="list-style-type: none">5 Amp, form C	
Alarm Relays	<ul style="list-style-type: none">2 Amp, form C	
Listings and Approvals	<ul style="list-style-type: none">UL 294: Access Control Systems Units; UL 1076: Proprietary Burglar Alarm Systems	
Warranty	<ul style="list-style-type: none">Two Year Limited	



RS-485 Reader Expansion Board (RREB)

Hirsch's RS-485 Reader Expansion Board (RREB) is a unique reader communication device that installs onto the expansion cable of Hirsch Mx and DIGI*TRAC Controllers. The RREB features eight RS-485 communication ports, capable of supporting 16 readers on eight doors (one entry and one exit per door). The RREB makes it possible to have extremely high data rates with up to 16 FICAM PACS PIV smart card readers while using Open Supervised Device Protocol (OSDP).

Some of the design elements include:

- Multiple reader technologies that support diverse card bases and transitions to common smart cards
- Reader communication lines that are isolated from each other and the rest of the controllers
- Optimized ground loop for all reader power configurations
- Eight independent channels for simultaneous communications
- Supports OSDP

Ordering Information

Part Number	Description
Mx-2-S3OB	Mx-2 Controller with SNIB3 on board & RREB.
Mx-4-S3OB	Mx-4 Controller with SNIB3 on board & RREB.
Mx-8-S3OB	Mx-8 Controller with SNIB3 on board & RREB.
Mx-M8-RK-MX8S3OB	Retrofit Kit - M8 to Mx-8 with SNIB3 on Board and RREB
Mx-M2-RK-MX8S3OB	Retrofit Kit - M2 to Mx-8 with SNIB3 on Board and RREB
Mx-M2-RK-MX4S3OB	Retrofit Kit - M2 to Mx-4 with SNIB3 on Board and RREB
Mx-M2-RK-MX2S3OB	Retrofit Kit - M2 to Mx-4 with SNIB3 on Board and RREB

Also available in Mx IDS Kits