Mass Notification Communications

MN-NETSW1, MN-COM1S

Overview

MN-NETSW1
Four-port Mass Notification multimode fiber optic Ethernet switch

The MN-NETSW1 is an industrial grade, 10/100 Mbps auto-negotiating Ethernet switch used in life safety and mass notification applications to connect EST3's FireWorks workstation to the MN-FVPN VoIP module and/or the MN-COM1S RS-232 interface. The MN-NETSW1 provides four RJ-45 ports for local connections and two full-duplex multimode fiber ports for remote connections.

The MN-NETSW1 has three LED indicators

- **Power:** On indicates the MN-NETSW1 has power.
- **Link:** On indicates Ethernet link has been established. Flashing indicates link is active.
- **HS:** Indicates data transferring at 100 Mbps.

MN-COM1S
Mass Notification Serial Communications/LAN interface
The MN-COM1S is a TCP/IP to RS-232 interface with one RJ-45 port and one RS-232 port. It is used in mass notification settings to connect a FireWorks workstation to an EST3 control panel.

Both the MN-NETSW1 and the MN-COM1S mount on an MN-BRKT1 or an MN-BRKT3 bracket. These install inside the EST3 control panel or Auxiliary Power Supply for a neat and self-contained mass notification solution.

Standard Features

MN-NETSW1 Four-port Mass Notification Ethernet Switch

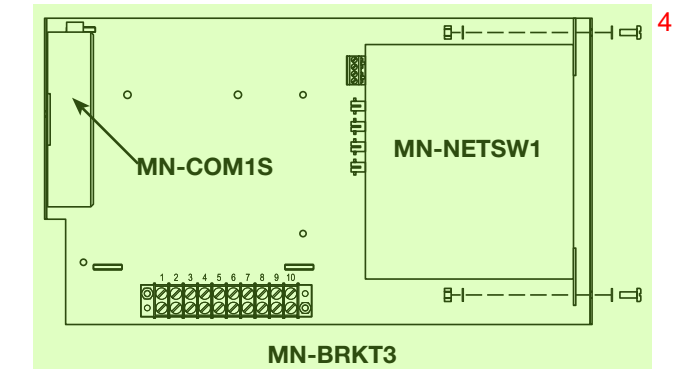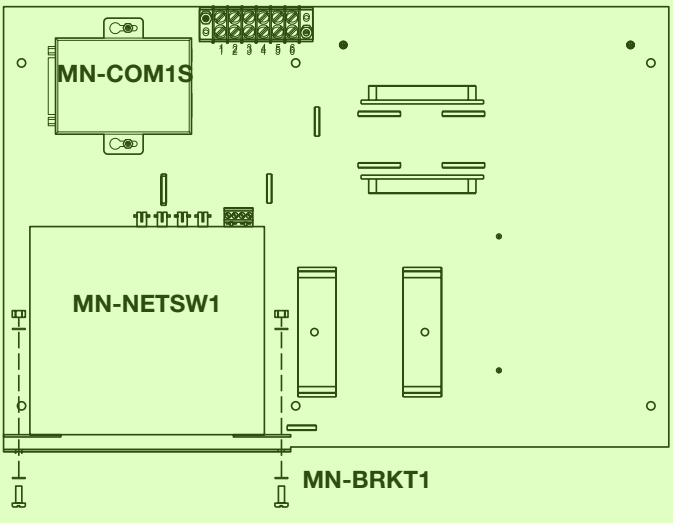- Connect alarm panels to a remote FireWorks workstation over TCP/IP, LAN/WANs
- Supports Mass Notification and Fire Alarm applications
- Implement VoIP communications between EST3 nodes
- 10/100BASE-T Ethernet interface (RJ45)
- Supports MN-COM1S for Serial connection to 3-CPU3
- Supports MN-FVPN for VoIP communication between FireWorks workstations
- Four RJ-45 ports for local connections
- Two full-duplex multimode fiber ports for remote connections.
- Configuration and port director software included
- Flash ROM for easy software upgrade

MN-COM1S Mass Notification Serial Communications/LAN interface

- Connect a FireWorks workstation to an EST3 control panel.
- RS-232 Serial port for connection to 3-CPU3
- One RJ-45 port
- One RS-232 port
- Browser-based setup and configuration

Mounting

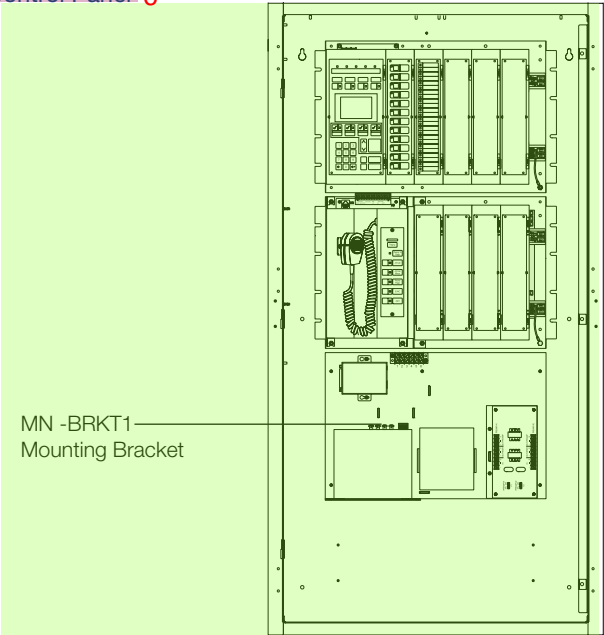The MN-NETSW1 and the MN-COM1S mount on an MN-BRKT1 or an MN-BRKT3 bracket. These install inside the EST3 control panel or Auxiliary Power Supply for a neat and self-contained mass notification solution.
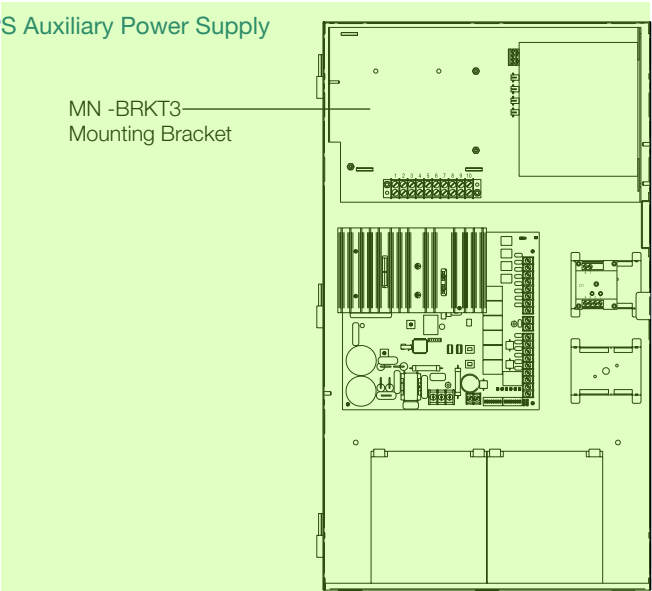

MN-COM1S

MN-NETSW1

MN-BRKT1

MN-COM1S

MN-NETSW1

MN-BRKT3

Component Layout

EST3 Control Panel

MN -BRKT1
Mounting Bracket

APS Auxiliary Power Supply

MN -BRKT3
Mounting Bracket

Wiring

FireWorks Computer

FW-NIC
(See Data Sheet 85006-0048)

MN-FVPN (See Data Sheet 85010-0143)

LAN   PWR PWR

PWR
1 2
3 4
5 6
HS LINK HS

MN-COM1S

10/100   PWR

1   2
3   4

RX   RX
5   5
TX   TX

RX   RX   Next
6   6   MN-NETSW1

RX   RX
6   6
TX   TX

Previous
MN-NETSW1

MN-NETSW1

+   AUX+
        Control Panel
−   AUX−   Aux Power

WARNING: This is a Class A product. In a domestic environment, the product may cause radio interference in which case the user may be required to take adequate measures.

MN-NETSW1

MN-COM1S
(FRONT)

10/100   PWR

CONTROL PANEL
AUX POWER

AUX+   RED   P/N 7140220
AUX−   BLK

MN-COM1S
(REAR)

SERIAL

P/N 7140223

3-CPU3

TX   BLK
RX   RED
COM   GRN

Notes

- The FireWorks computer must be within 20 feet and in the same room as the MN-NETSW1. Run cable through conduit and attach the conduit to the FireWorks computer using the required conduit adapter.

- Use the control panel power supply or a compatible regulated 24 VDC power supply that is UL/ULC listed for fire protective signaling systems.

Specifications, MN-COM1S [1]

		[2]
Voltage	18 to 28 VDC	
Current	60 mA	
Dimensions	(W × H × D) 2.5 × 0.9 × 3.5 in. (6.4 × 2.3 × 9.0 cm)	
Serial interface	RS-232C	
Network Interface		
Connector	RJ-45	
Cable type	Category 5, min.	
Other	10/100 Mbps, TCP/IP, autonegotiating	
Operating environment		
Temperature	32 to 120°F (0 to 49°C)	
Humidity	0 to 93% RH, noncondensing at 90°F (32°C)	

Specifications, MN-NETSW1 [3]

		[4]
Voltage	18 to 28 VDC	
Current	350 mA, max.	
Dimensions (W × H × D)	1.75 × 7.54 × 5.54 in. (44 x 191 × 138.4 mm)	
Fiber optic ports		
Quantity	2	
Connector type	ST	
Signaling /Data Rate	100Base-FX / 100 Mbps	
Attenuation	13 db, max. at a 1310 wave length	
Operating environment		
Temperature	32 to 120°F (0 to 49°C)	
Humidity	0 to 93% RH, noncondensing at 90°F/32°C	
Segment Length		
Copper	3,28ft (100m)	
Fiber Optic	~6,562 ft (2km) multi mode fiber	
Fiber Optic Budget	10dB	
Segment Media		
Copper	Category 6 UTP	
Fiber Optic (1300 nm)	50/125 or 62/5/125 Multi Mode Fiber	
Agency Listings	CE; FCC Part 15, Class A; EN50081-2; EN50082-2; UL-864	
Power Requirements	24VDC at 21 mA, nominal10 –36VDC, 5 watts 8-24VAC, 47 – 63 Hz, 5 VA	

Ordering Information [5]

		[6]
MN-COM1S	UL 864 Listed FireWorks Communications Ethernet Port, Command & Control. Comes with power and RS232 data cables	
MN-NETSW1	Four-port multimode fiber optic Ethernet switch	
Related Equipment		
MN-BRKT1	MN-FVP mounting bracket for EST3 enclosures	
MN-BRKT3	MN-FVP mounting bracket for APS-(6)(10)A power supplies	
FW-NCCA4	Ethernet cable conduit connector assembly for UL4 computer	
MN-FVPB1	Polymer mounting bracket for MN-FVPN	
MN-FVPN	Fire VoIP encoder/decoder, includes power and audio cables	
MN-PASM2	MN-FVPN preamp signal supervisory booster module (1 required per MN-FVPN, along with SIGA-RM1 or SIGA-MRM1)	
SIGA -RM1/MRM1	Riser Supervision Module	
MN-ABPM	Audio Bridge (Panel mount 3-ATPINT)	