



Description

Mircom's FleX-Net™ FX-2003-12NDS Network Fire Alarm Control Panel offers modular components to meet a wide variety of applications. Designed for peer-to-peer network communications, the FX-2003-12NDS allows for a maximum of 63 nodes, while providing reliability, flexibility and expandability.

The FX-2003-12NDS is based on the proven and reliable FX-2000 Series platform. Each base panel consists of one intelligent signaling line circuit (SLC) capable of supporting 99 analog sensors and 99 addressable modules. In addition the base panel includes Four Style Z/Y (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each and a large 4 x 20 back-lit alphanumeric LCD display.

The network configuration allows the FX-2003-12NDS control panel to be connected to a Mircom network to provide additional input circuits, visual zones, programmable notification appliance circuits, and relays. Each panel can be configured using standard FX-2000 components. The network interface module allows the panels to communicate on a peer-to-peer network via a Proprietary Arcnet Network Communications protocol.

The network capabilities allow site specific customization and the ability to meet local and national requirements.

Features

Fire Alarm Control

- One expandable to nine Intelligent Signaling Line Circuits (SLC)
- Modular design
- Each SLC Loop is capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Style 6 or 7 (Class A) or Style 4 (Class B)
- Four Style Z/Y (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each
- Large 4 by 20 character Back-lit LCD Display with user friendly menu
- Supported languages: English, French, Arabic* and Hebrew* (*960 character back-lit LCD display only)
- Correlatable Switch Inputs which allow for multi-functional outputs
- Four Status Queues with selector switches and LEDs for Alarm, Supervisory, Trouble and Monitor
- Auxiliary relay contacts for Common Alarm, Common Supervisory and Common Trouble
- Group bypass with built-in false alarm prevention technology
- RS-232 output for remote system printer or CRT
- Two Event History Logs comprised of a 6000 event alarm history log for alarm related events and a 6000 event log for all events
- Supports three configuration files (current, previous and next configuration) with "hot swap" support
- Supports Conventional Hardwire Adder Modules
- Built-in One Man Walk Test operation
- Configurable for Canadian Two Stage operation
- Provision for two programmable modules
- Configurable for Coded Operation
- Capability to adjust Intelligent Smoke Detector sensitivity levels
- Real time 3D graphical monitoring and control using Mircom's Open Graphic Navigator™
- BACnet support
- Supports Boolean logic functions
- Built-in Ethernet port
- Remote diagnostics via a built-in web server
- UL listed for Smoke Control

Network Features

- Up to 63 nodes
- Peer-to-peer network communications
- Style 4 (Class B) or Style 6 or 7 (Class A) wiring configuration
- Proprietary Arcnet Network Communications protocol
- Supports copper and/or fiber optic network cable



S7010



S7010



7165-1477-111

NYC
Fire Dept.
COA# 6064



APPROVED

CATALOG NUMBER

5941

NOT TO BE USED FOR INSTALLATION PURPOSES.

Mircom reserves the right to make changes at any time without notice in prices, colours, materials, components, equipment, specifications and models and also to discontinue models.

FleX-Net™ FX-2003-12NDS Network Series Fire Alarm Control Panels



FX-2003-12NDS Compact Network Main Control Unit

The FX-2003-12NDS Compact Network Main Control Unit complete with one Intelligent Signaling Line Circuit (Style 4, 6 or 7), Four Style Z/Y (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each, a 4 line by 20 character back-lit LCD display and a 12 Amp Power Supply. The FX-2003-12NDS provides space for the FNC-2000 Network Controller Module, two internal adder modules and two programmable modules.

Adder Loop Controller Modules



ALCN-792M Quad Loop Controller Module

The ALCN-792M Quad Loop Controller Module provides two Signaling Line Circuits (SLC) to the FleX-Net™ system consisting of 99 Analog Sensors and 99 Addressable Modules per loop. The ALCN-792M can be expanded with the use of the ALCN-792D Daughter Board Module. The ALCN-792M occupies one module slot.

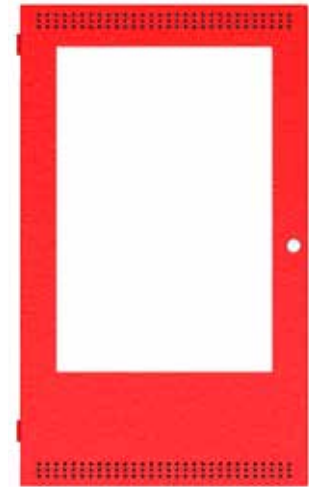


ALCN-792D Daughter board for Quad Loop Controller Module

The ALCN-792D Daughter Board provides an additional two SLC when connected to the ALCN-792M Quad Loop Controller Module. The daughter board mounts on top of the ALCN-792M.



UB-1024DS



DOX-1024DSR

UB-1024DS Universal Backbox

The UB-1024DS Universal backbox houses the FX-2003-12NDS and provides space to mount up to 17 AH batteries. A DOX-1024DS(R) door is ordered separately.

Dimensions (minus built-in trim ring): 26"H x 14.5"W x 4.2"D

DOX-1024DS(R) Door

The DOX-1024DS mounts on the UB-1024DS backbox. The door features the universal CAT-30 lock and is available in a white (DOX-1024DS) or red exterior (DOX-1024DSR).

Fire Network Controller Modules



FNC-2000 Fire Network Controller Module

The FNC-2000 provides network capability to the FX-2003-12NDS panels. One Fire Network Controller Module is required per network node panel. In addition the FNC-2000 provides an interface for adding an optional FOM-2000-SP Fiber Optic Network Adder Module. The FNC-2000 mounts in the FX-2003-12NDS.



FOM-2000-SP Fiber Optic Network Adder Module

The FOM-2000-SP Fiber Optic Network Adder Module allows for the use of fiber optic cabling on the FX-2000N Series panels. It seamlessly connects to the interface on the FNC-2000 Fire Alarm Network Controller Module.

Electrical Specifications

Primary Input Power	120V 60Hz / 240V, 50Hz 4 Amps / 2 Amp (primary)
Power Supply Ratings	12 Amps. max. (secondary)
For NAC Circuits	24VDC unfiltered, 10 Amps. max.
Battery Type	24VDC, Gel-Cell/Sealed Lead-Acid
Battery Charging Capability	17-65 AH batteries

Adder Hardware Modules



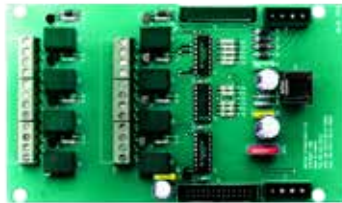
DM-1008A Eight Initiating Circuit Module

The DM-1008A provides 8 Style B (Class B) or 4 Style D (Class A) Initiating Circuits configurable for Alarm, Supervisory or Trouble zones. The DM-1008A occupies one module slot in the FX-2003-12NDS.



SGM-1004A Four Notification Appliance Circuit Module

The SGM-1004A provides 4 Style Z/Y(Class A/B) Notification Appliance Circuits configurable as Silenceable or Non-Silenceable. Each NAC circuit is rated at 1.7 Amps. The SGM-1004A occupies one module slot in the FX-2003-12NDS.



RM-1008A Eight Relay Circuit Module

The RM-1008A provides the FX-2003-12NDS with eight individual configurable relays per module. Each relay provides one Form C contact rated at 28 VDC @1 Amp (resistive load) as well as a Green LED to indicate that the relay is active. The RM-1008A occupies one module slot in the FX-2003-12NDS.

Graphics Software



Open Graphic Navigator (OpenGN)

Mircom's Open Graphic Navigator (OpenGN) software is an advanced fire alarm management and warning system that provides building ready monitoring, control and software management solutions that allows a user to monitor remote sites from multiple operator workstations located anywhere in the world. The OpenGN software is available in two versions: Network (OPENGN-ENT) and Non-Network (OPENGN-MINI).

Adder Auxiliary Modules



UDACT-300A Digital Alarm Communicator Module

The UDACT-300A Digital Alarm Communicator Module allows the FX-2003-12NDS to transmit addressable point information to a central station. The UDACT-300A occupies one module slot in the FX-2003-12NDS.



PR-300 Polarity Reversal/City Tie Module

The PR-300 Polarity Reversal/City Tie Module provides the system with a supervised City Tie (24 VDC/200 mA max.) and Polarity Reversal connection (24 VDC (open circuit), 8 mA max. (shorted)). The PR-300 occupies one module slot in the FX-2003-12NDS.

Programmable Modules



FDX-008 Fan Damper Control Module

The FDX-008 Fan Damper Control Module provides individually programmed circuits which can be used for fan or damper control. The FDX-008 connects to the main panel or the RAXN-LCD and occupies one display position in the FX-2003-12NDS, BB-1000 or BB-5000 Series enclosures.



IPS-2424DS Programmable Input Switches Module

The IPS-2424DS provides 24 programmable switches that can be configured for ancillary functions such as zone bypass or added common control functions. The IPS-2424DS connects to the main panel or the RAXN-LCD when mounted remotely. The IPS-2424DS occupies one display position in the FX-2003-12NDS, BB-1000 or BB-5000 Series enclosures.

Remote LCD Annunciators



RAXN-LCD Remote LCD Annunciator

The RAXN-LCD Remote LCD Annunciator is equipped with a 4 line x 20 character back-lit LCD display that provides the same functions as the main display on the fire alarm control panel. The RAXN-LCD occupies one display position in the BB-1000 or BB-5000 Series enclosures.



RAXN-LCDG Remote Graphic LCD Annunciator

The RAXN-LCDG Remote Graphic LCD Annunciator is equipped with a 24 line x 40 character back-lit graphical LCD display that is used to display 9 events per page. Each event is displayed over 2 lines with 40 characters per line allowing emergency information to be displayed in an easy to read format. The RAXN-LCDG occupies one display position in the BB-1000 or BB-5000 Series enclosures.

Remote LED Annunciators



RAM-1032TZDS Main Remote LED Annunciator

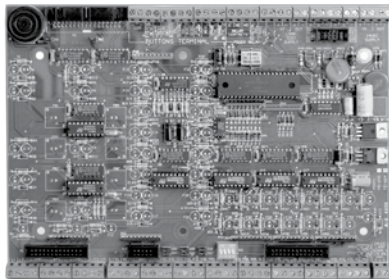
The RAM-1032TZDS Main Remote LED Annunciator provides common annunciator functions and 32 points of LED annunciation. The RAM-1032TZDS has indicators for A.C. On, Common Trouble and Signal Silence and controls for System Reset, Lamp Test, Fire Drill, Buzzer Silence and Signal Silence. The RAM-1032TZDS occupies one display position in the BB-1000 or BB-5000 enclosures.



RAX-1048TZDS Programmable LED Annunciator Module

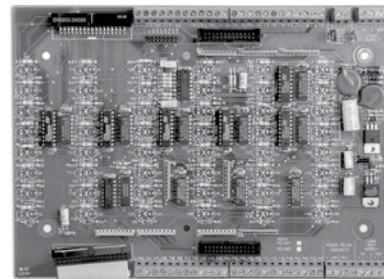
The RAX-1048TZDS Programmable LED Annunciator Module provides 48 programmable bi-colored LEDs. The RAX-1048TZDS connects to the main panel or either the RAXN-LCD or RAM-1032TZDS when mounted remotely. The RAX-1048TZDS occupies one display position in the FX-2003-12NDS, BB-1000 or BB-5000 Series enclosures.

Graphic Annunciator Driver Modules



MGD-32 Master Graphic Driver Module

The MGD-32 Master Graphic Driver Module provides common control inputs for the common control switches such as System Reset, Signal Silence, Auxiliary Disconnect, Fire Drill, Lamp Test, Acknowledge and General Alarm. The MGD-32 can also drive up to 32 supervised outputs. These output points are capable of driving LEDs or incandescent lamps. The MGD-32 mounts in a graphic annunciator wallbox or in the BB-5000 enclosures. An external power supply is required for incandescent lamps and lamp test.



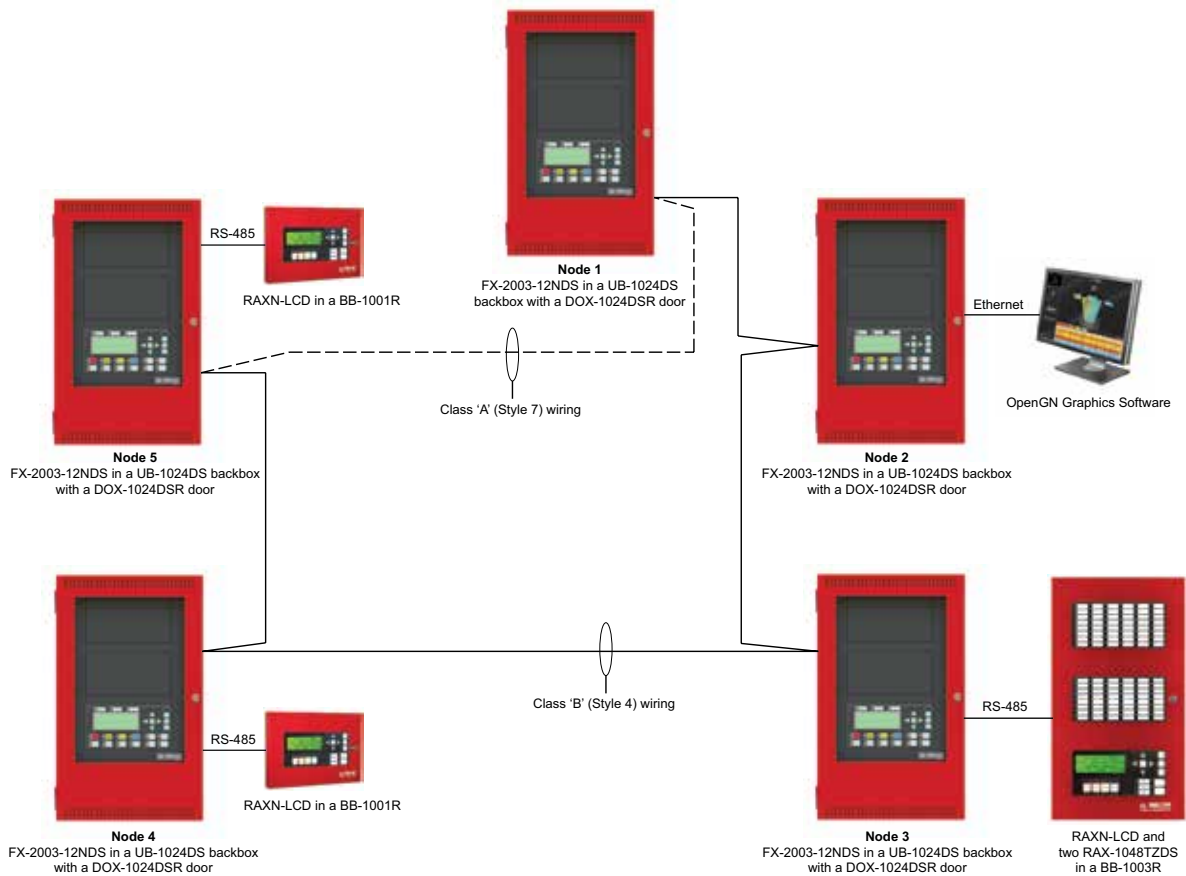
AGD-048 Adder Graphic Driver Module

The AGD-048 Adder Graphic Driver Module can be used with the MGD-32 to support an additional 48 supervised outputs. The AGD-048 mounts in a graphic annunciator wallbox or in the BB-5000 enclosures.

Dimensions for Annunciator Module Enclosures

Model	Dimensions
BB-1001	9"H x 12.75"W x 1.2"D
BB-1002	18"H x 12.75"W x 1.2"D
BB-1003	26.4"H x 12.75"W x 1.2"D
BB-1008	33"H x 22.5"W x 1.25"D
BB-1012	45"H x 22.5"W x 1.25"D

Typical FleX-Net™ FX-2003-12NDS Networked System Configuration



Current Consumption

Model Number	Description	Standby	Alarm
FX-2003-12NDS	Network Compact Main Control Unit (12 Amp)	0.310	0.733
ALCN-792M	Dual Analog Loops	0.130	0.145
ALCN-792M/D	Quad Analog Loops	0.130	0.145
FNC-2000	Fire Network Controller Module	0.190	0.0190
FOM-2000-SP	Fiber Optics Module	0.015	0.015
DM-1008A	8 Initiating Circuit Module	0.080	1 zone active: 0.125 2 zone active: 0.170 4 zone active: 0.275 6 zone active: 0.370 8 zone active: 0.465
SGM-1004A	4 Notification Appliance Circuit Module	0.060	0.258
RM-1008A	8 Relay Circuit Module	0.025	0.150
FDX-008	Fan Damper Control Module	0.015	0.035
UDACT-300A	Dialer Module	0.045	0.120
PR-300	City Tie Module	0.035	0.300
RAX-1048TZDS	Adder Annunciator Chassis	0.022	1 zone active: 0.026 2 zone active: 0.030 3 zone active: 0.035 4 zone active: 0.039 48 zone active: 0.262
RAM-1032TZDS	Adder Annunciator Chassis	0.050	32 zone active: 0.300
AGD-048	Adder Graphic Driver Board	0.035	# of LEDs x 4mA
IPS-2424DS	Programmable Input Switches Module	0.010	0.015

Ordering Information

Model	Description
Network Fire Alarm Control Panel	
FX-2003-12NDS	Network Compact Main Control Unit with 12 Amp power supply. Mounts in the UB-1024DS backbox.
UB-1024DS	Universal black backbox. Requires DOX-1024DS(R) door.
DOX-1024DS	White door for UB-1024DS backbox
DOX-1024DSR	Red door for UB-1024DS backbox
Network Controller Modules	
FNC-2000	Fire Network Controller Module
FOM-2000-SP	Fiber Optic Network Adder Module
Adder Loop Controller Modules	
ALCN-792M	Network Quad Loop Controller Module
ALCN-792D	Daughter board for ALC-792M Quad Loop Controller Module
Adder Hardwire Modules	
DM-1008A	Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module
SGM-1004A	Four Class A/B (Style Z/Y) Notification Appliance Circuit Module (Rated at 1.7 Amps per circuit)
RM-1008A	Eight Relay Circuit Module c/w eight form C relays (Rated for 28 VDC @ 1 Amp max. per relay)
Adder Auxiliary Modules	
UDACT-300A	Digital Alarm Communicator Transmitter/Dialer Module
PR-300	Polarity Reversal and City Tie Module
Remote Annunciators	
RAXN-LCD	Remote LCD Annunciator
RAXN-LCDG	Remote Graphic LCD Annunciator
RAM-1032TZDS	Main Remote LED Annunciator c/w 32 Bi-Colored LEDs
RAX-1048TZDS	Programmable LED Annunciator Module c/w 48 Bi-Coloured LEDs and 48 Trouble LEDs
Programmable Modules	
IPS-2424DS	Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs
FDX-008	Fan Damper Control Module
Enclosures for Remote Annunciators / Programmable Modules	
BB-1001	Remote Enclosure. Houses one module. Add suffix "R" for red door.
BB-1002	Remote Enclosure. Houses two modules. Add suffix "R" for red door.
BB-1003	Remote Enclosure. Houses three modules. Add suffix "R" for red door.
BB-1008	Remote Enclosure. Houses eight modules. Add suffix "R" for red door.
BB-1012	Remote Enclosure. Houses twelve modules. Add suffix "R" for red door.
Graphic Driver Modules	
MGD-32	Main Graphic Driver Module c/w 32 Supervised Outputs
AGD-048	Adder Graphic Driver Module c/w 48 Supervised Outputs
Graphics Software	
OPENGN-MINI	Open Graphic Navigator Software, Mini Edition for standalone FleX-Net Systems
OPENGN-ENT	Open Graphic Navigator Software, Enterprise Edition for FleX-Net Network Systems

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CAT. 5941
Rev. 4



The 72-2000 12B and 72-2000 24C Enclosure kits manufactured by Mammoth Fire Alarms allows the installer to replace an existing obsolete FC72 or 7200 Fire Alarm Control Panel with a new Mircom control without having to go through the time and expense of removing the backbox and relocating the myriad of wires associated with an installed fire alarm.

The 72-2000 12B is engineered to fit a generic red back box measuring 21"W x 28" H x 4"D and the 72-2000 24C for a generic red back box measuring 21"W x 38"H x 4"D.

Whether the original panel is a Conventional Fire Alarm Control Panel or a Conventional/Addressable Fire Alarm Control Panel, it can be directly replaced by the Mircom FX-2000 which has all of the optional modules necessary to duplicate the existing installation and may hold many of the same 2-wire smoke detector cross listings.

These kits are comprised of a universal mounting plate which will facilitate the mounting of an FX-2000, one of two size doors depending on the size cabinet you are replacing and all associated hardware including a lock assembly. Cabinet may be keyed to maintain compatibility with existing Manual Stations.

On systems where the wiring is not long enough to reach the connection points on the newly installed Mircom equipment, an optional Terminal Block Kit is available which supplies four 4 Circuit "Press to Terminate" Terminal Blocks. A Trim Ring is available for Semi-Flush applications.



Features

- **Matches existing red color back boxes**
- **Custom fit to existing back boxes**
- **Universal mounting plate holds panel and add-on modules**
- **Large Plexiglas® window to view all systems' indicators and displays**
- **Electrostatic powder coated paint**
- **Can be keyed to existing manual pull stations**
- **Time saver on semi-flush application**

"Servicing the installer before and after the installation."

www.mammothfire.com

SALES (978) 934-9130 • 1-800-995-9808 • FAX (978) 934-9131

Ordering Information:

Model No.	Description	Back Box Size
72-2000 12B	Door Assembly with Mounting Plate and Hardware	21"W x 28"H x 4"D
72-2000 24C	Door Assembly with Mounting Plate and Hardware	21"W x 38"H x 4"D
RFK-TB4	4-piece Screwless Terminal Block Kit to extend existing wiring	All
TRB/72	Trim Ring for Semi-flush Applications	21"W x 28"H x 4"D
TRC/72	Trim Ring for Semi-flush Applications	21"W x 38"H x 4"D

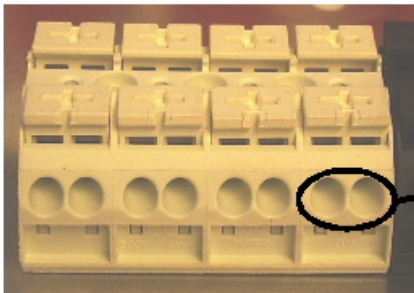
Note:

The Screwless Terminal Strips are unique in this application, see notes below:

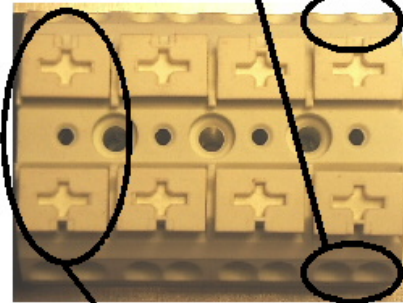
That is correct, screwless terminal blocks. These new "High Tech" connectors utilize the old style spring clip terminations using firmer plastics and stronger springs to hold the wire better and withstand the rigors and punishment in those "real world" applications.

These rugged blocks can hold # 12 AWG sized solid wire and are built to the highest standards that U.L. can test for.

Each Terminal block has 4 circuits and each circuit holds up to eight (8) wires each (2 on the top and 2 on the bottom).



1 number 12 AWG per hole and 2 holes per pushbutton equalling one circuit.



These 2 push buttons will terminate up to 2 wires each and all 4 conductors (2 top and 2 bottom) are connected together.



BATTERIES

The rechargeable batteries are of sealed lead calcium maintenance-free construction with a fully gelled electrolyte in a polypropylene case. These batteries will not leak or spill even if left upside down for extended periods of time.

ELECTRICAL SPECIFICATIONS

Nominal voltage	12 volts
Charging voltage	
Float	13.5 - 13.8 VDC
Cycle	14.4 - 14.8 VDC
Operating Temp. Range	
Discharge	-76° F to +122° F (-60° C to +50° C)
Charge	-4° F to +122° F (-20° C to +50° C)



PS12120



PS1270



PS12180



PS12350, PS12550

BATTERY FEATURES

- Long Life
- Completely Sealed
- Charge and Discharge in any Position
- Low Self Discharge
- Maintenance Free

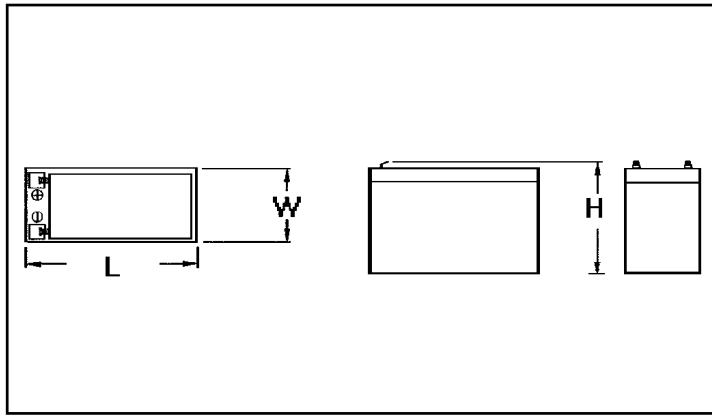
SPECIFICATIONS

Model	Capacity (20 hr. rate)	Terminal Type	Dimensions	Weight
PS1270	7 AH	Faston tab “.187” series	5.11 cm L x 10.03 cm H x 6.6 cm W 5.95" L x 3.95" H x 2.6" W	5.75 lbs. (2.61 kg)
PS12120	12 AH	Faston tab “.250” series	12.48 mm L x 5.97 mm H x 4.72 mm W 5.94" L x 3.70" H x 3.98" W	9.33 lbs. (4.24 kg)
PS12180	18 AH	Terminal posts w/5 mm nut & bolt connectors	18.11 cm L x 16.69 cm H x 7.59 cm W 7.13" L x 6.57" H x 2.99" W	13.2 lbs. (5.99 kg)
PS12350	35 AH	"L" blade w/.64 mm hole	19.69 cm L x 18.54 cm H x 12.95 cm W 7.75" L x 7.3" H x 5.1" W	24 lbs. (10.89 kg)
PS12550	55 AH	"L" blade w/6.4 mm hole at negative, 8.9 mm sq. cutout at positive	26.04 cm L x 22.23 cm H x 17.27 cm W 10.25" L x 8.75" H x 6.8" W	39 lbs. (17.69 kg)

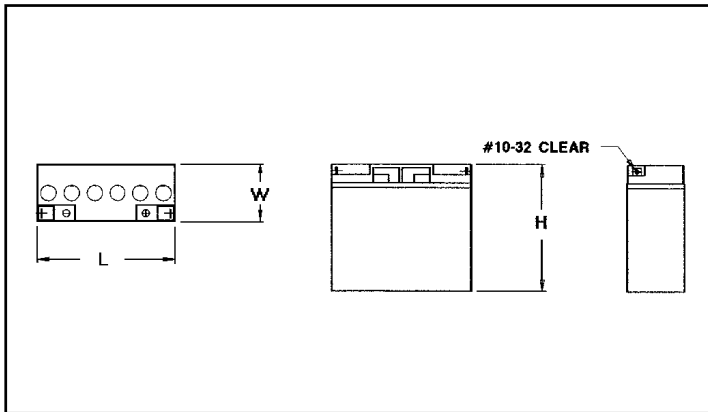
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Specifications subject to change without notice.

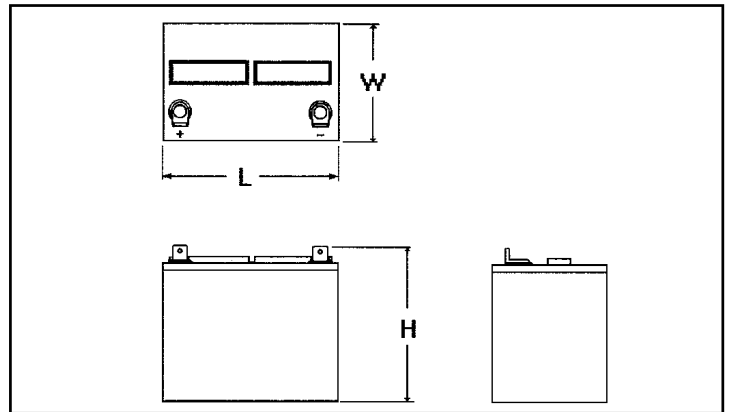
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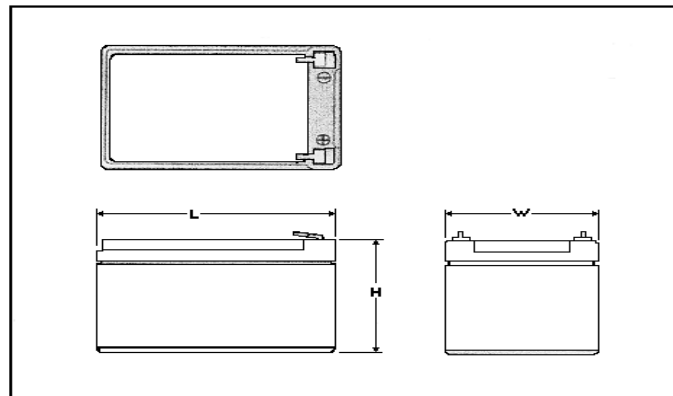
PS1270



PS12180



PS12350, PS12550



PS12120

ORDERING INFORMATION

Model	Description
PS1270	Sealed lead calcium battery, 7 AH
PS12120	Sealed lead calcium battery, 12 AH
PS12180	Sealed lead calcium battery, 18 AH
PS12350	Sealed lead calcium battery, 35 AH
PS12550	Sealed lead calcium battery, 55 AH

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