

# Honeywell

**MORLEY IAS**  
FIRE SYSTEMS

## ADVANCED & RELIABLE MORLEY LITE FIRE ALARM CONTROL PANELS



# MORLEY LITE FIRE ALARM CONTROL PANEL



Honeywell Morley Lite is a Compact, High Performance, Feature enriched Fire Alarm Control Panel designed to meet the Fire Detection Addressability.

Honeywell Morley-Lite Fire Detection Control Panel series is ideally suited for Small to Medium Sized Buildings, Residential Complexes, Banks, Healthcare, Restaurants, Retail Stores etc. Morley Lite panels communicates via LiteSpeed™ protocol with Morley Lite detectors and devices.

Morley Lite Panel is built with Combination of quick installation, enhanced feature set and advanced programming which allows installer to meet demands of the end user with flexibility

in configuration. Equipped with configurable remote monitoring inputs, programmable relays, delay setting for alarm verification, software isolation of class B circuit and NAC outputs, mapping of NAC to specific class B circuits, password protections etc.

End users get clear visible indications, easy to operate functions to activate the control buttons, customizable class B circuit text via text inserts to meet building naming conventions. Reliable and trouble free system built as per latest safety standards of industry which ensures system is safe and protected. Internal memory lock feature to restrict changes to fire panel configuration by any intruder without key lock.

## FEATURES

### DISPLAY

16X4 Char LCD Screen

### CONTROL KEYS

Silence Buzzer, Silence/Resound Alarm, Reset, Evacuate, Accept delay

### INDICATORS

Fault, NAC Fault, Earth Fault, Fire, Power, System Fault.



## FEATURES



Earth Fault  
Monitoring



CE  
Certificate



Mechanical  
Keylock



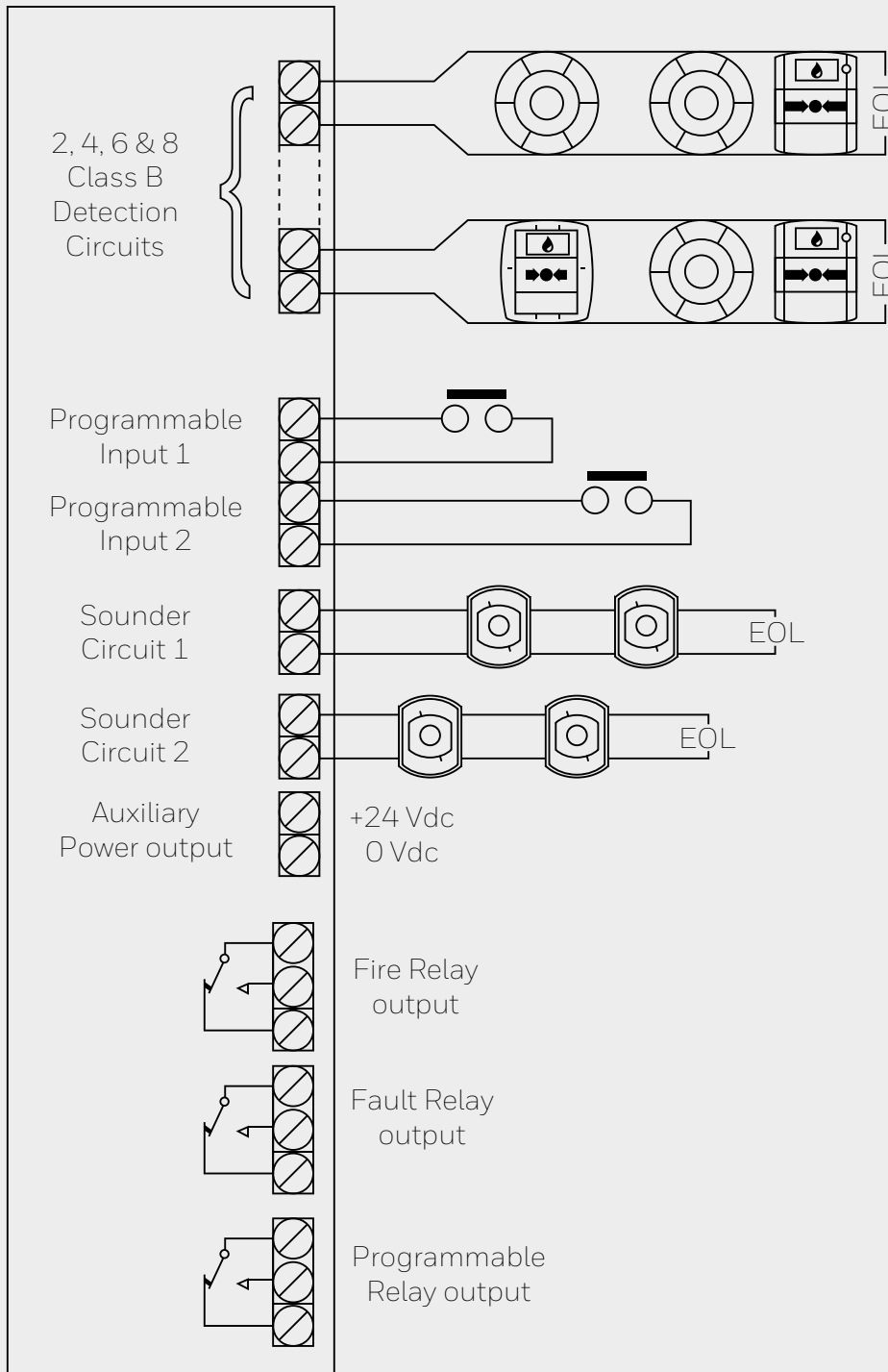
Event  
Logging



Aux Output  
Facility

- 16 X 4 LCD display, aesthetically designed front facia
- Up to 1,000 m. Typical 20 detector per Class B Circuit + 5 MCPs
- Individual Class B Circuit Isolation
- Pin point address location of sensors with customizable text inserts
- Programmable input for remote reset/evacuate/alert/fire
- Lamp Test Facility
- Detectors/MCPs in same circuit
- Date/Time/Password configuration
- Separate configuration/user memories/system fault, sound/ resound feature like EN 54-4 standard
- Fire, Fault, Configurable Relay
- Circuit wise NAC configuration
- NAC Enable/Disable facility
- Monitored NAC and Class B Circuit for Open/Short/Faults
- PC tool for advanced configuration needs/Event exploring
- One Man walk test facility
- Certified for Safety standard IEC 62368-1:2018
- Staged Delay configuration for alarm verification
- Engineering Mute Configuration
- Battery Charging/Battery Internal Resistance Monitoring
- On board memory lock switch to prevent unauthorized panel configuration changes.
- Configurable delays to output, with timer to fire indication
- Latching/Non-Latching configuration for fault for easy debugging

# WIRING DIAGRAM



Circuit diagram\*

\* Number of Programmable input might vary based on panel model, minimum 1 would be supported in all variants, check installation manual for all details.

# SPECIFICATIONS

Mechanical Specifications	
Dimensions (H X W X D)	360 X 422 X 122.8 mm (Front Facia), 360 X 380 X 92.3 mm (Back Box)
Weight	5.8 Kg Approx. (No Battery Fitted)
Construction	Powder coated Cold Rolled STEEL 1.2mm thick
Cable Entry	15 X 20mm Knockout
Operating Temperature	0 to 49°C
Relative Humidity	5% to 95% Non-Condensing
Electrical Specifications	
Operating Voltage	230V-AC +/- 20% Output current 2A maximum, Alarm Load 1A Maximum
Standby Batteries	Minimum capacity 2 x 12 V 2.8Ah, Maximum capacity 2 x 12 V 7 Ah
Detection Circuits	2, 4, 6, 8 Class B Circuit, Max 2mA per Detect or Circuit
Approved Detectors	Honeywell Morley Lite Series
Programmable Inputs	Configurable (Alarm, Reset, Evacuate)
Programmable Input	Extended closing contact
Trigger External Outputs	<p><b>Sounder Outputs:</b></p> <ul style="list-style-type: none"> <li>• 2 monitored outputs</li> <li>• 0.5 Amps per circuit</li> </ul> <p><b>Auxiliary Output:</b></p> <ul style="list-style-type: none"> <li>• 18.5 to +28.5 Vdc, 0.5 Amp. (max)</li> </ul>

# COMPATIBLE DEVICES

Order	Codes Description
HML/PSE	Morley Lite Photo-Electric Smoke Detector
HML/PTSE	Morley Lite Photo-Electric Smoke & Heat Detector
HML/RHSE	Morley Lite Heat Detector
B/401	Plug-in detector base

# ORDERING PART CODES

Order Codes	Manufacturer Part No.
HML/100/2A	Morley Lite 2 Circuit Class B Fire Alarm Control Panel
HML/100/4A	Morley Lite 4 Circuit Class B Fire Alarm Control Panel
HML/100/6A	Morley Lite 6 Circuit Class B Fire Alarm Control Panel
HML/100/8A	Morley Lite 8 Circuit Class B Fire Alarm Control Panel

# LDM

## Lamp Driver Modules



Annunciator Control Systems

### General

The **LDM Series** lamp driver modules, when combined with a custom graphic display, provide annunciation and control for Notifier's intelligent fire alarm control panels. These modules use a serial communications interface, and may be located up to 6,000 feet from the panel.

### Features

- ALARM/CIRCUIT ON and TROUBLE lamp/LED per-point option, or more dense alarm-only option (field selectable).
- Control switch option for remote control per point.
- Lamps/LEDs may be programmed to display status of indicating circuits or control relays as well as system status conditions.
- System trouble lamp/LED signal.
- On-line/power LED indicator.
- Alarm and trouble resound with flash of new conditions.
- Local sounder for both alarm/circuit-on and trouble conditions with silence/acknowledge switch connection.
- Serial EIA-485 interface for reduced installation costs.
- May be powered by 24 VDC from the panel or by remote power supplies.
- Efficient switch-power converter reduces power consumption.
- Microprocessor-controlled electronics, fully supervised.
- Plug-in terminal blocks for ease of installation and service.
- Trouble monitor option for remote power supplies.

### Construction

Two basic models are available; the LDM-32 control module and the LDM-E32 expander module. Each may be selected to provide 32 alarm indications; or 16 alarm, 16 trouble, and 16 control points.

### Applications

The LDM-32/LDM-E32 with a custom graphic array may be used to indicate point status and, in some versions, to control the state of output points.

In addition, the LDM-R32 module may be used to provide 32 dry-contact relays for electrical isolation when connecting the system to other equipment.



**LDM-32**

0551LDM-Rev01

### Installation

The LDM-32 and LDM-E32 modules mount on four standoffs inside the custom annunciator graphic box. Alternately, the modules may be installed in a CHS-4L chassis. The module size is approximately 4.4" (11.2cm) x 7.1" (18cm).

Communications between the LDM Series annunciators and the host Fire Alarm Control Panel are made through a two-wire EIA-485 multi-drop loop, and a two-wire regulated 24 VDC power loop. Up to 32 LDM systems may be connected to a single control panel.

All field-wiring terminations use removable, compression-type terminal blocks for ease of installation, wiring, and circuit testing.

### Operation

LDM Series modules, when used with a custom graphic annunciator, provide the Notifier's intelligent fire alarm control panels with up to 32 unique or redundant annunciators, each with a capacity of 64 points for a total capacity of **2048 points**.

Local or remote power supplies and serial communications allow the custom annunciators to be located anywhere on the protected premises.

AM2020/AFP1010 system alarm and/or trouble conditions may be annunciated on a per-point basis, or in a grouped-zone configuration.

AFP300/400 system panel points, intelligent addressable devices and software zones can be annunciated/controlled in a grouped fashion (see programming manual for details).

Control of system operational controls, such as Signal Silence, System Reset, and local annunciation controls (such as Local

Acknowledge), and Lamp Test may be accomplished through special key- or push-switches.

## Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S635
- **ULC Listed:** S635
- **MEA Listed:** 291-61-E Vol. 4 (System 500, LDM-R32); 289-91-E Vol. V (AM2020/AFP1010); 104-93-E (AFP-200); 17-96-E (AFP-300/400); 447-99-E (AFC-600)
- **CSFM:** 7120-0028:0156, 7165-0028:0224 (NFS-3030, NFS2-3030); 7170-0028:0223 (NFS-3030, NFS2-3030)
- **BSA:** 578-81-SA (System 5000, System 500 except LDM-R32)
- **FM Approved**
- **City of Chicago** approved: Class 1, Class 2
- **City of Denver** approved
- **FDNY COA #6085** (NFS2-640); 6065 (NFS2-3030)

## Product Line Information

**LDM-32:** Lamp Driver Module with 32 alarm lamp-driver transistors (sink to power common on alarm). May be selected (dip switch) for 16 alarm/circuit on, 16 trouble, and 16 switch inputs if desired. Also includes system-trouble lamp driver and lamp-test/local-acknowledge switch input. Integral piezo

sounder sounds for each new alarm or trouble and is silenced with the Local Acknowledge switch, or permanently disabled with a dip switch selection. Flash of new alarms or troubles is selectable through dip switches. 16 switch inputs may be used for panel SILENCE, RESET, or remote relay control. Instructions are included.

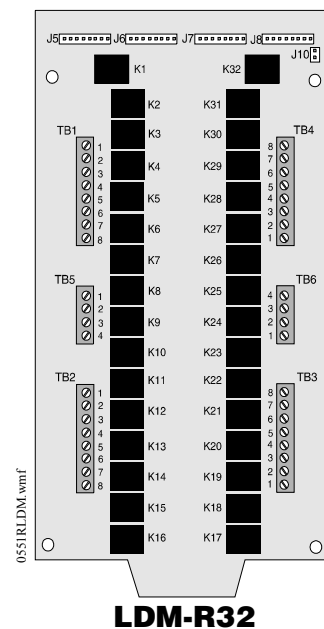
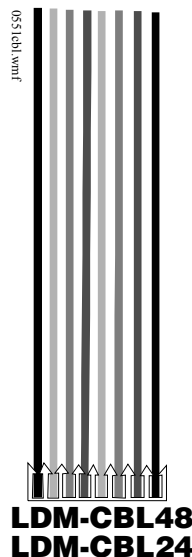
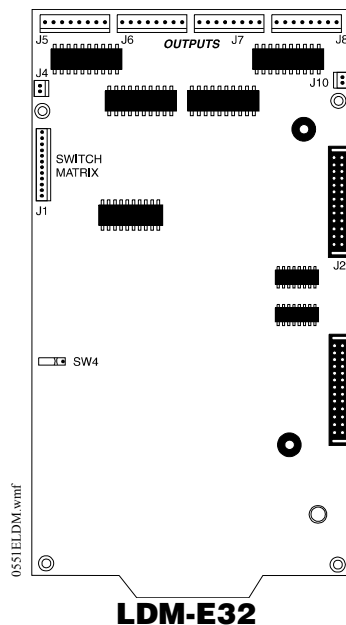
**LDM-E32:** Lamp Driver Module with 32 alarm drivers; or 16 alarm, 16 trouble, and 16 switch inputs. One LDM-E32 is allowed per LDM-32 in alarm-only mode. Three LDM-E32 modules are allowed per LDM-32 in alarm/trouble. Includes ribbon cable to connect to LDM-32/LDM-E32.

**LDM-R32:** Lamp Driver Module which connects to any LDM-32 or LDM-E32 to convert transistor outputs to 32 Form-A dry contacts (1.0 A @ 30 VDC). Provides 32 output terminal screw connections and a single common terminal screw. Includes ribbon cables to connect to the LDM-32/LDM-E32. Use for electrical isolation when interfacing the system to other equipment.

**LDM-CBL24, LDM-CBL48:** Ribbon cable sets to provide either a 24" (60.96cm) or 48" (121.96cm) connection between LDM-32/LDM-E32 and LEDs or lamps on a custom graphic panel. Includes all cables necessary for one LDM-32 or LDM-E32. Cables have connector on one end only (split, strip, and connect other end to graphic annunciator).

## Architectural/Engineering Specifications

For specifications on LDM Graphic Annunciator Lamp Driver Modules, contact NOTIFIER.



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This document is not intended to be used for installation purposes.  
We try to keep our product information up-to-date and accurate.  
We cannot cover all specific applications or anticipate all requirements.  
All specifications are subject to change without notice.



For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.  
www.notifier.com



# HML/PSE PHOTOELECTRIC SMOKE DETECTOR



The HML/PSE photoelectric smoke detector forms part of the Honeywell Morley Lite range of addressable detectors. This range of detectors has been produced using the latest in manufacturing and design techniques, pushing out the boundaries of existing detector technology.

The HML/PSE photoelectric detector incorporates an Application Specific Integrated Circuit (ASIC). Combined with the latest state of the art optical chamber the detector provides efficient and accurate detection of fires with a high level of resilience to non-fire environmental influences.

The HML/PSE detector is backward compatible with the Series 100 detector bases, thus providing the capability to upgrade, extend and maintain existing Series 100 installations.

The HML/PSE detector incorporates a bi-colour LED indicator. The integral LED changes colour according to the detector's status - Green = Normal, Red = Alarm. This benefits the user by providing clear, instant visual indication of the detector's condition. The Green LED can be programmed for blink/no blink operation.

'Drift compensation' algorithms are one of the key features of the HML/PSE detector. These algorithms ensure a consistent alarm sensitivity threshold for periods between service intervals. This provides the user with both a reduction in the frequency of nuisance alarms and maintenance savings by extending the period before cleaning of the detector chamber is required.

The sensitivity of a smoke detector is critical to its overall performance, this is reflected in both its ability to detect real fire conditions and its resilience to non-fire stimuli. The HML/PSE's performance can be optimised for its application by selecting from one of three preset alarm thresholds - Low, Medium and High, offering greater stability and optimum performance within the environment in which it has been installed. The selection is easily achieved through the use of a remote hand-held tool.

The remote hand-held programming unit can also be used to gain access to other advanced features. The features available include: read/write last maintenance date, read chamber contamination level, read value of thermal element and perform an alarm test.

## FEATURES

- Low profile design
- Low current draw
- Backward compatible with Series 100 detector range of bases
- Wide operating voltage 8 to 30VDC
- Bi-colour LED detector status indicator
- Automatic drift compensation
- Programmable sensitivity
- Addressable feature
- Advanced maintenance features via remote hand-held test unit
- Range of detector bases available

# HML/PSE ARCHITECT/ENGINEER SPECIFICATIONS

## HML/PSE PHOTOELECTRIC SMOKE DETECTOR

Each unit can be given a unique address that will be displayed on the Morley Lite fire alarm control panel whenever the detector is in alarm. All the features via the hand-held programming unit are achieved effectively and effortlessly without the need to remove the detector or having to gain direct physical access (other than by the use of 'No Climb Products' or similar servicing tool), saving valuable commissioning/maintenance time.

They provide the end user with the confidence to know that his system is being regularly serviced and that it is operating at its optimum level, with minimum disruption to his own business activities.

ELECTRICAL SPECIFICATIONS	
Operating Voltage Range	8 to 30VDC (Nominal 12/24VDC)
Typical Standby Current @ 25°C	50µA @ 24VDC (LED no blink)
Maximum Alarm Current (LED On)	80mA @ 24VDC (Limited by panel)

ENVIRONMENTAL SPECIFICATIONS	
Application Temperature Range	-30°C to +70°C
Humidity	5 to 95% Relative Humidity (non condensing)

MECHANICAL INFORMATION	
Height	38mm (plus 9mm for B401 base)
Diameter	102mm
Weight	105g (plus 60g for B401 base)
Max Wire Gauge for Terminals	0.75mm <sup>2</sup> to 2.5mm <sup>2</sup>
Colour	Pantone Warm Grey 1C
Material	Bayblend FR110

Notes: Bases with other resistor values are available to suit the requirements of most Fire Alarm Control Panels.

### For more information,

<https://honeywellbuildings.in>

Call: 1-800-103-0339

Email: HBT-Indiabuildings@honeywell.com

### Honeywell HBT India Buildings

Unitech Trade Center, 5th Floor, Sector-43,  
Block C, Sushant Lok Phase - I,  
Gurgaon - 122 002

In addition to the comprehensive programming tool, a simple laser based alarm test unit is also available. The coded signal transmitted by this device can instruct the detector to generate a full alarm condition at a range of up to 5 metres from the detector, and is an ideal tool for initial commissioning and routine system testing.

A variety of detector bases can be used with the HML/PSE detector, providing application flexibility and compatibility with a wide range of Fire Alarm Control Panels. All bases are fitted with a shorting spring to permit circuit testing prior to fitting the detector and have a tamper resistant feature, which when activated prevents removal of the detector without the use of a tool.

All Morley Lite products are covered by standard 1 year warranty.

## PRODUCT RANGE

COMPATIBLE BASES (see notes)	
B401 Standard Base	
B401R Resistor base with 470 ohm resistor	
B401RSD Standard base with 470 ohm resistor and Shottky diode	
B401RM Standard recess base with 470 ohm resistor	
B401DGR Deep base with 470 ohm resistor	
B312NL 12V non-latching relay base	
B324RL 24V latching relay base	
B312RL 12V latching relay base	
B401DGSD Deep base with Shottky diode	
B401SD Standard base with schottky diode	
B401DG Deep base	

ACCESSORIES	
S300RPTU Remote Programming and Test Unit	S300RTU Remote Test Unit
S300SAT Remote Programming Interface Unit	S300ZDU Zonal Display Unit
Other HML Detectors	HML/PTSE, HML/RHSE

# Heat Detector

## HD912 Series



### Conventional Heat Detector

All of the Sentek's HD912 series detectors meet the requirements of UL521 and EN 54-5 for use in fire alarm signaling systems, which provide fast and reliable response for heat 57°C (135°F) or Rate-of-Rise detection, They are intended for use in 2-wire/4-wire Class A2 supervised zone circuits. The HD912 series detectors are subject to panel compatibility limits and compliance with corresponding NFPA 72E standards, local codes, and ordinances.

### Product Features:

- 2 or 4 wire models
- Advanced detection and discrimination algorithms
- Easy installation and maintenance
- Sleek low-profile housing design
- Durable sensor head, no need for replacement
- SMD circuit board design-satisfactory quality and reliability guaranteed
- N/C (normal/close)-N/O (normal/open)selectable relay output
- AR (Auto Reset) function for security systems (optional for 4 wire models) Sensor base option: standard and Shottky Diode
- Five-year limited warranty

### The range includes:

HD912-2	2 wire heat alarm
HD912-2L	2 wire heat alarm with remote LED output
HD912-4	4 wire heat alarm (12/24VDC)
HD912-4B	4 wire heat alarm with buzzer (12/24VDC)
HD912-4AR	4 wire heat alarm with auto-reset function (12/24VDC)
HD912-4ARB	4 wire heat alarm with auto-reset function and buzzer (12/24VDC)

### Product Specification:

Model	2/4 wire	Voltage DC (Min./Max.)	Standby Current (Max.)	Alarm Current (12/24V)	Surge Current (Max.)	Start-Up Time (Max.)	Permissible Current (Max.)	Cycle Time	Alarm contact	Certified	Base Model No.
HD912-2	2	10~33V	45µA	50mA	100µA	30 Seconds	80mA	1-3 Seconds	—	UL/EN	P/N852001
HD912-2L	2	10~33V	45µA	50mA	100µA	30 Seconds	80mA	1-3 Seconds	—	UL/EN	P/N854001
HD912-4-12/24	4	12/24V	45µA	30mA	100µA	30 Seconds	—	1- 3Seconds	Form A	UL/EN	P/N854001
HD912-4AR-12/24	4	12/24V	45µA	30mA	100µA	30 Seconds	—	1-3 Seconds	Form A Auto Reset	CE	P/N854001
HD912-4ARB-12/24	4	12/24V	45µA	30mA	100µA	30 Seconds	—	1-3 Seconds	Form A Auto Reset	CE	P/N854001
HD912-4B-12/24	4	12/24V	45µA	30mA	100µA	30 Seconds	—	1- 3Seconds	Form A	CE	P/N854001

### Product Data:

Response Temperature:	Fixed temperature: 57°C (135°F) or Rate-of-Rise
Ceiling Spacing:	40-50 foot rating for heat sensor
Reset Voltage:	less than 1 volt
Alarm Indicator:	LED continuously emitting red light
Remote Output:	25 mA max., diode gate
Temperature Range:	-10°C to 50°C
Permissible Current:	80mA maximum
Humidity:	0 to 95% RH, no condensation or icing
Alarm Contact:	(for 4-wire) NO or NC Operation, Form A: 1.0A@30VDC/0.5A@125VAC
Dimensions:	100mm (dia) x 46mm (ht) with base
Weight:	120g/set with base

# NBG-12 Series

## Non-Coded Conventional Manual Fire Alarm Pull Stations



Conventional Initiating Devices

### General

The NOTIFIER **NBG-12 Series** is a cost-effective, feature-packed series of non-coded manual fire alarm pull stations. It was designed to meet multiple applications with the installer and end-user in mind. The NBG-12 Series features a variety of models including single- and dual-action versions.

The NBG-12 Series provides an alarm initiating input signal to conventional fire alarm control panels (FACPs) such as the SFP Series, and to XP Transponders. Its innovative design, durable construction, and multiple mounting options make the NBG-12 Series simple to install, maintain, and operate.

### Features

- Aesthetically pleasing, highly visible design and color.
- Attractive contoured shape and light textured finish.
- Meets ADA 5 lb. maximum pull-force.
- Meets UL 38, Standard for Manually Actuated Signaling Boxes.
- Easily operated (single- or dual-action, model dependent), yet designed to prevent false alarms when bumped, shaken, or jarred.
- PUSH IN/PULL DOWN handle latches in the down position to clearly indicate the station has been operated.
- The word "ACTIVATED" appears on top of the handle in bright yellow, further indicating operation of the station.
- Operation handle features white arrows showing basic operation direction for non-English-speaking persons.
- Braille text included on finger-hold area of operation handle and across top of handle.
- Multiple hex- and key-lock models available.
- U.S. patented hex-lock needs only a quarter-turn to lock/unlock.
- Station can be opened for inspection and maintenance without initiating an alarm.
- Product ID label viewable by simply opening the cover; label is made of a durable long-life material.
- The words "NORMAL" and "ACTIVATED" are molded into the plastic adjacent to the alarm switch (located inside).
- Four-position terminal strip molded into backplate.
- Terminal strip includes Phillips combination-head captive 8/32 screws for easy connection to Initiating Device Circuit (IDC).
- Terminal screws backed-out at factory and shipped ready to accept field wiring (up to 12 AWG/3.1 mm<sup>2</sup>).
- Terminal numbers are molded into the backplate, eliminating the need for labels.
- Switch contacts are normally open.
- Can be surface-mounted (with **SB-10** or **SB-I/O**) or semi-flush mounted. Semi-flush mount to a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box.
- Backplate is large enough to overlap a single-gang backbox cutout by 1/2" (1.27 cm).
- Optional trim ring (**BG12TR**).
- Spanish versions (*FUEGO*) available (**NBG-12LSP**, **NBG-12LPSP**).
- Designed to replace the legacy **NBG-10** Series.
- Models packaged in attractive, clear plastic (PVC), clam-shell-style, Point-of-Purchase packages. Packaging includes a cutaway dust/paint cover in shape of pull station.



6643cov.jpg

### Construction

- Cover, backplate and operation handle are all molded of durable polycarbonate material.
- Cover features white lettering and trim.
- Red color matches System Sensor's popular SpectrAlert® Advance horn/strobe series.

### Operation

The NBG-12 manual pull stations provide a textured finger-hold area that includes Braille text. In addition to PUSH IN and PULL DOWN text, there are arrows indicating how to operate the station, provided for non-English-speaking people.

Pushing in and then pulling down on the handle activates the normally-open alarm switch. Once latched in the down position, the word "ACTIVATED" appears at the top in bright yellow, with a portion of the handle protruding at the bottom as a visible flag. Resetting the station is simple: insert the key or hex (model dependent), twist one quarter-turn, then open the station's front cover, causing the spring-loaded operation handle to return to its original position. The alarm switch can then be reset to its normal (non-alarm) position manually (by hand) or by closing the station's front cover, which automatically resets the switch.

### Specifications

#### PHYSICAL SPECIFICATIONS:

	pull station	SB-10	SB-I/O	WBB	WP-10
H	5.500 in. (13.97 cm)	5.500 in. (13.97 cm)	5.601 in. (14.23 cm)	4.25 in. (10.79 cm)	6.000 in. (15.24 cm)
W	4.121 in. (10.467 cm)	4.125 in. (10.478 cm)	4.222 in. (10.72 cm)	4.25 in. (10.79 cm)	4.690 in. (11.913 cm)
D	1.390 in. (3.531 cm)	1.375 in. (3.493 cm)	1.439 in. (3.66 cm)	1.75 in. (4.445 cm)	2.000 in. (5.08 cm)

6643dim2.tbl

#### ELECTRICAL SPECIFICATIONS:

**Switch contact ratings:** gold-plated; rating 0.25 A @ 30 VAC or VDC. **Auxiliary contact circuit** (Terminals 3 & 4, NBG-12LA): rated to 3.0 A @ 30 VAC or VDC.

## ENGINEERING/ARCHITECTURAL SPECIFICATIONS

Manual Fire Alarm Stations shall be non-code, with a key- or hex-operated reset lock in order that they may be tested, and so designed that after actual Emergency Operation, they cannot be restored to normal except by use of a key or hex. An operated station shall automatically condition itself so as to be visually detected as activated. Manual stations shall be constructed of red colored LEXAN (or polycarbonate equivalent) with clearly visible operating instructions provided on the cover. The word **FIRE** shall appear on the front of the stations in white letters, 1.00 inches (2.54 cm) or larger.\* Stations shall be suitable for surface mounting on matching backbox SB-10 or SB-I/O; or semi-flush mounting on a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box, and shall be installed within the limits defined by the Americans with Disabilities Act (ADA) or per national/local requirements. Manual Stations shall be Underwriters Laboratories listed.

**NOTE:** \*The words "FIRE/FUEGO" on the NBG-12LSP and NBG-12LPSP shall appear on the front of the station in white letters, approximately 3/4" (1.905 cm) high.

## Pre-Signal Models

The NBG-12LPS and NBG-12LPSP pull stations are non-coded manual pull stations which provide a FACP with two normally open alarm initiating input signals. "Pre-signal" input is activated by pushing in, then pulling down, the dual-action handle. A "general" alarm input signal can be manually activated via a momentary rocker switch mounted inside the unit. This general alarm switch can only be accessed by opening the cover with the supplied key/lock. See diagram at right.

## Agency Listings and Approvals

The listings and approvals below apply to the NBG-12 Series pull stations. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **C(UL)US** Listed: file S692.
- **CSFM** approved: file 7150-0028:199.
- **FM** approved (except NBG-12LPS, NBG-12LPSP).
- **MEA** approved: file 67-02-E (NBG-12, NBG-12L, NBG-12LOB, NBG-12LA).
- **Lloyd's Register** type approved: file 93/60141 (E3) (NBG-12, NBG-12L, NBG-12LA, NBG-12LOB, NBG-12S).
- **U.S. Coast Guard** approved: files 161.002/23/3 (AFP-200 with NBG-12, NBG-12L, NBG-12S); 161.002/42/1 (NFS-640 with NBG-12, NBG-12L, NBG-12S); 161.002/27/3 (AFP1010/AM2020 with NBG-12, NBG-12L, NBG-12S).
- **Patented:** U.S. Patent No. D428,351; 6,380,846; 6,314,772; 6,632,108.

## Product Line Information

**NBG-12S:** Single-action pull station with pigtail connections, hex lock.

**NBG-12:** Dual-action pull station with SPST N/O switch, screw terminal connections, **hex lock**.

**NBG-12L:** Dual-action pull station with SPST N/O switch, screw terminal connections, **key lock**.

**NBG-12LSP:** Same as NBG-12L with English/Spanish (FIRE/FUEGO) labeling.

**NBG-12LPS:** Dual-action pull station with pre-signal option.

**NBG-12LPSP:** Same as NBG-12LPS with English/Spanish (FIRE/FUEGO) labeling.

**NBG-12LOB:** Dual-action pull station with key lock, outdoor applications listings (NBG-12LO), and backbox. Includes SB-I/O indoor/outdoor backbox, and sealing gasket. Model will also mount to WP-10 weatherproof backbox in retrofit applications.

**NOTE:** NBG-12LO not available separately; NBG-12LO + approved backbox = NBG-12LOB.

Outdoor applications listings apply to NBG-12LOB combination.

**NBG-12LA:** Dual-action pull station with key lock and annunciator contacts.

**SB-10:** Surface-mount backbox, metal.

**SB-I/O:** Surface-mount backbox, plastic. (Included with NBG-12LOB.)

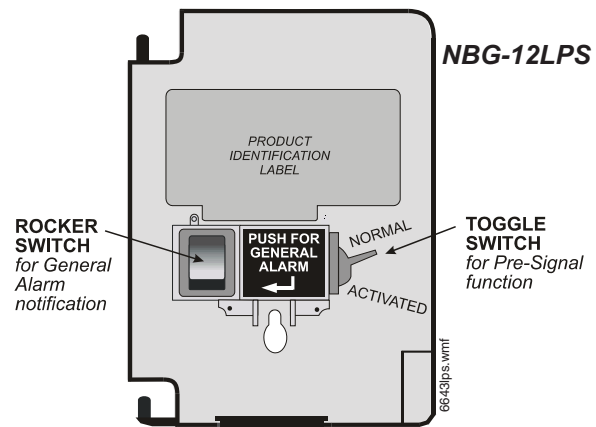
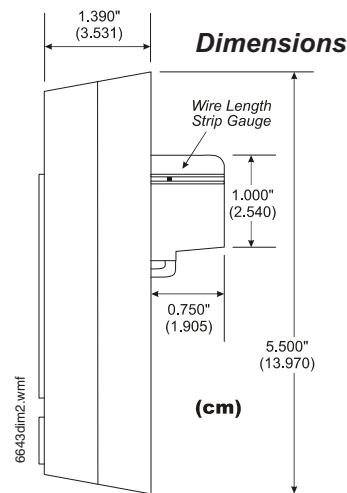
**BG12TR:** Optional trim ring for semi-flush mounting.

**WP-10:** Outdoor use backbox.

**17021:** Keys, set of two. (Included with key-lock pull stations.)

**17007:** Hex key, 9/64". (Included with hex-lock pull stations.)

**NOTE:** For addressable NBG-12LX models, see data sheet DN-6726.



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For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118. www.notifier.com

# SSM Series

## Alarm Bells



Audio/Visual Appliances

### General

System Sensor's SSM Series alarm bells are low-current, high-decibel notification appliances for use in fire and burglary systems or other signaling applications. They come pre-wired to reduce installation time, and also incorporate a polarized electrical design for use with supervision circuitry.

With reliable performance, SSM Series alarm bells provide loud, resonant tones. They operate on 24 VDC and are motor-driven.

SSM Series alarm bells offer simplified installation. For indoor use, SSM Series alarm bells mount to a standard 4" (10.16 cm) square electrical box. For outdoor applications, a WBB weatherproof backbox is used.

### Features

- Approved for indoor or outdoor (with WBB backbox) use.
- Low current draw.
- High dB output.
- Three sizes available: 6" (15.24 cm), 8" (20.32 cm), and 10" (25.40 cm) diameter.
- 24 VDC models; polarized for use with supervision circuitry.
- Bells mount directly to standard 4" (10.16 cm) square electrical box.

### Specifications

**Regulated voltage:** 24 VDC.

**Operating voltage range:** 116 to 33 VDC.

**Maximum Current:** DC 31.1 mA/FWR - 53.5 mA.

**Operating temperature range:** -31°F (-35°C) to +150°F (+66°C).

**Termination:** provided with two sets of leads for in/out wiring.

**Service use:** Fire Alarm, General Signaling, Burglar Alarm.

### Engineering and Architectural Specifications

Model shall be a SSM Series alarm bell. Bells shall have underdome strikers and operating mechanisms. Gongs on said bell shall be no smaller than nominal 6" (15.24 cm), 8" (20.32 cm), or 10" (25.40 cm) (specify size) with an operating voltage of 24 VDC. Bells shall be suitable for surface or semi-flush mounting. Outdoor surface-mounted installations shall be weatherproof (using optional WBB weatherproof backbox); otherwise, bells shall mount to a standard 4" (10.16 cm) square electrical box having a minimum projection of 2.5" (6.35 cm). Bells shall be located as shown on the installation drawings or as determined by the Authority Having Jurisdiction. Bells shall be Listed for indoor/outdoor use by Underwriters Laboratories, ULC (Canada), and the California State Fire Marshal, and approved by Factory Mutual and MEA.



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### Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S4011
- **ULC Listed:** CS549
- **MEA Listed:** 331-01-E
- **FM Approved**
- **CSFM:** 7135-1653:125

### Ordering Information

**SSM24-6:** 6" (15.24 cm) bell, 24 VDC, polarized, 82 dBA.

**SSM24-8:** 8" (20.32 cm) bell, 24 VDC, polarized, 80 dBA.

**SSM24-8A:** Canadian model of 8" bell above.

**SSM24-10:** 10" (25.40 cm) bell, 24 VDC, polarized, 81 dBA.

**WBB:** Weatherproof backbox.

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