

# FIRE DETECTION SYSTEM



# ABOUT

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Alco is one of the leading intelligent solution providers of Fire Detection System and Security System in the United States of America. Based in California since 1992, we have grown to deliver the most innovative building management solutions (BMS) for commercial and industrial establishments around the globe.

Alco is committed to deliver effective solutions that can help our customers. Our supplied products are designed to cater our customers in the most effective manner and we take that responsibility very seriously.

Our smart and effective Building Solutions has given us an opportunity to diversify and explore new business opportunity in the market and we are extremely delighted to penetrate successfully in various large and medium scale projects.

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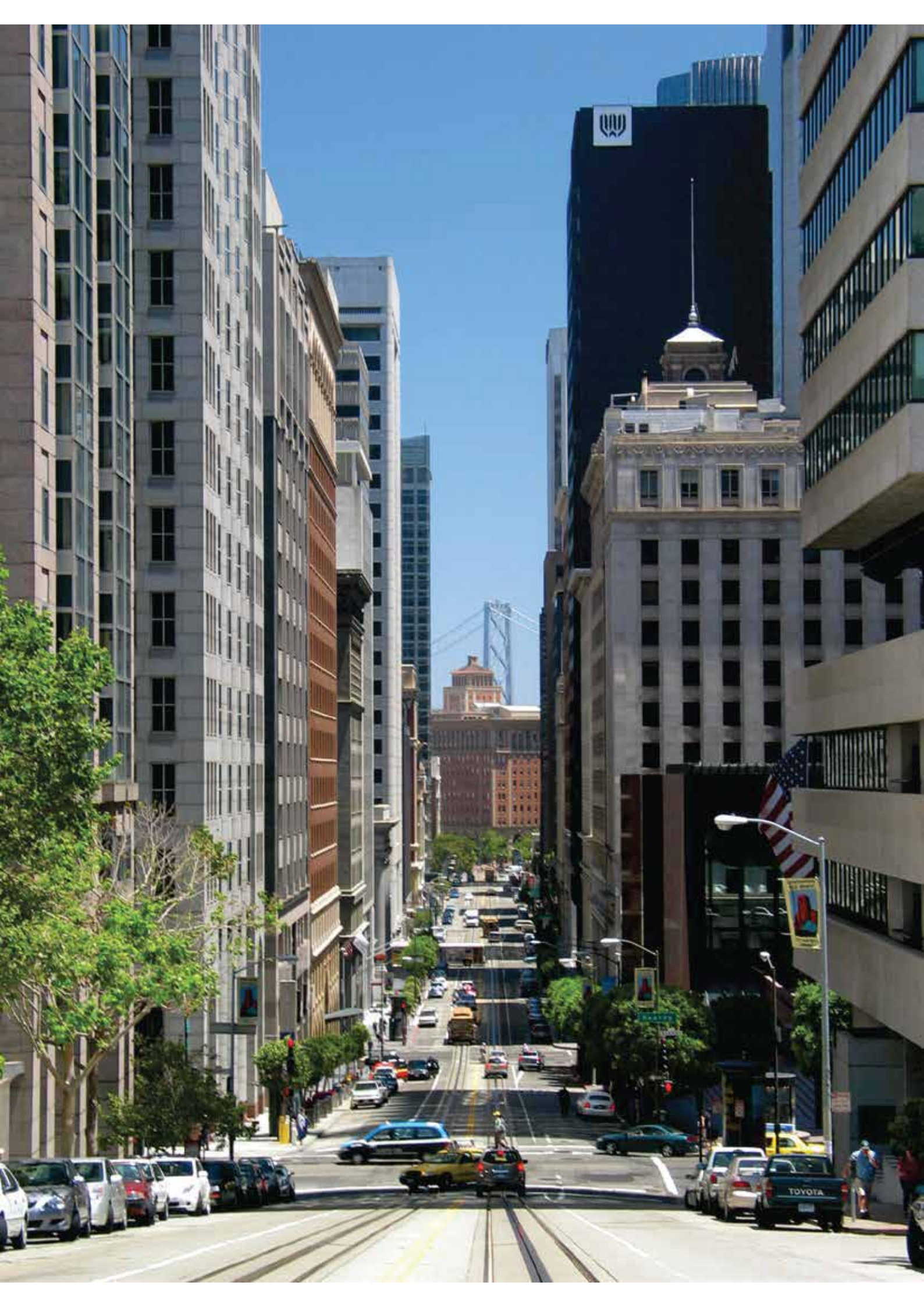
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**Alco** is a revolutionary and state of the art provider of **Fire Detection System**. It consists a fully approved product list of fire detection range and all our quality products are designed in the **USA**. All our products are designed to appeal the end user and installer and we are up to date with the changing fire detection technologies making our products *very easy to operate for all our clients*.

-  Conventional Fire Alarm System
-  Addressable Fire Alarm System
-  Residential Fire Alarm System
-  Exit and Emergency Lighting





## Alco For Commercial Sector

The ALCO Fire Detection range comprises a solution for all commercial environments. Bringing intelligent fire detection technology into these public spaces, used by millions each day, will ensure a safe and secure environment and our detection range is already successfully installed in many offices, shopping centers, hospitals, schools and other commercial sectors around the globe.



### Alco For Residential Sector

ALCO understands the importance of safety and keeping your property, home and businesses safe is our prime focus. All of our products are very easy to understand and install and with a little help and training any one can use our specialized products. We have carefully understood the term "Easy to Use, Out of the Box" for all our clients.



## Alco For Corporate and Retail Environment

We understand the fact that fire alarm system can be tricky in an office or corporate environment. False Alarming is a major issue when fire system is installed within such working premises and this can result in being an expensive drill as well as time consuming. Our intelligent fire detection system consist of Detectors which are able to sense and understand the level of intensities before triggering the alarms and our Manual Call Points are not just resettable type but also comes with a protective cover to avoid false alarm situation.





## Alco For Industrial And Warehouse

We understand that industries and warehouses are large spaces to handle and in such sectors there are many occupancies through out the day, working multiple shifts. ALCO has a variety of detectors, which can help manage the fire system with different levels of sensing features, which can be adjusted according to the working environment. In addition to the fire detection range we also offer state of the art Exit and Emergency signage with long backup features providing maximum assistance to the work force in case of any emergencies.

# CONVENTIONAL FIRE ALARM SYSTEM

## INTRODUCTION

**Alco Fire detection** and alarm system are state-of-the-art products. The range includes control and indicating equipment, detectors, and **manual call point**. Our range of products provides **fire detection** and alarm system designers with economical and functional products for safety and *property protection applications*.

## CONTROL AND INDICATING EQUIPMENT

Control and indicating equipment forms the contract hub of the fire detection and alarm system. Products are available as **2-zone** and up to **16-zone** configuration. Networkable models provide a flexible and powerful solution for small and medium sized applications. Easy to configure and commission, *Alco control and indicating equipment helps installers complete the installation with a minimum of time and effort. Designer housing in a small foot-print adds attractiveness to architects and building owners.*

## SMOKE DETECTORS

**Conventional photoelectric detectors** use a photoelectric smoke sensing chamber to provide early detection of smoke and high immunity against unwanted alarm.

## GAS DETECTORS

Advanced electronics in conjunction with a semiconductor gas sensor provide early detection of **carbon monoxide**, **natural gas** or propane gases and high immunity *against unwanted alarms*.

## FLAME DETECTORS

**Flame detection** is often required for fast-flaming and transparent fires. *The Alco flame detector is ideal for such risks.*

## HEAT DETECTORS

**Conventional heat detectors** use an electronic thermistor sensor to provide sensitive rate-of-alarm operation, or fixed temperature operation when the response threshold value is exceeded.

**Note:** Hazardous levels of smoke and toxic gas can build up before a heat detector might operate. When life safety and building evacuation is necessary in the event of a **fire, smoke, gas** or **combination detectors** usually provide earlier warning than *heat detectors alone*.

## DETECTOR BASES AND ACCESSORIES

The range of bases is suitable for **4-wire** and **4-wire fire detection** and **alarm systems**. Both functional and passive bases provides fire detection and alarm system designers with **Standards-compliant, flexible solutions**. Remote indicators provide visual alarm indication when the connected detector enters the alarm condition. *The indicator is useful where the detector cannot be easily seen when installed in the building.*

## MANUAL CALL POINTS

Operation of **manual call points** is achieved the use of a pressure-activated displacement element, which provides a safe and convenient way for **building occupants** to manually initiate a **fire alarm condition**.

**Resetting** the manual call point is achieved by inserting a key to return the operating face to the quiescent position, or replacing the frangible element *(depending on the model)*.

## ALARM SOUNDER

**Alerting building occupants** to an unsafe condition is essential to assist with safe evacuation. A robust and effective **Alarm Sounder** provides the *evacuation signal*.

## ALARM SOUNDER

MODEL NO: CFS-AB300, CFS-AB301

### DESCRIPTION:

**Alco Alarm Sounder** has a conventional physical designed and an advance design with an in built LED Light. It provides high volume indication bell in case of emergency.

The Alarm Sounder is integrated with the Alco fire alarm control Panel, which can be further referred in order to locate the effected zone(s).The **AB300** is suitable for connection with 2 wire and 4 wire Fire Detection and Alarm Systems. AB300 will operate with both addressable and *Conventional Fire detection Control* and indicating equipment.



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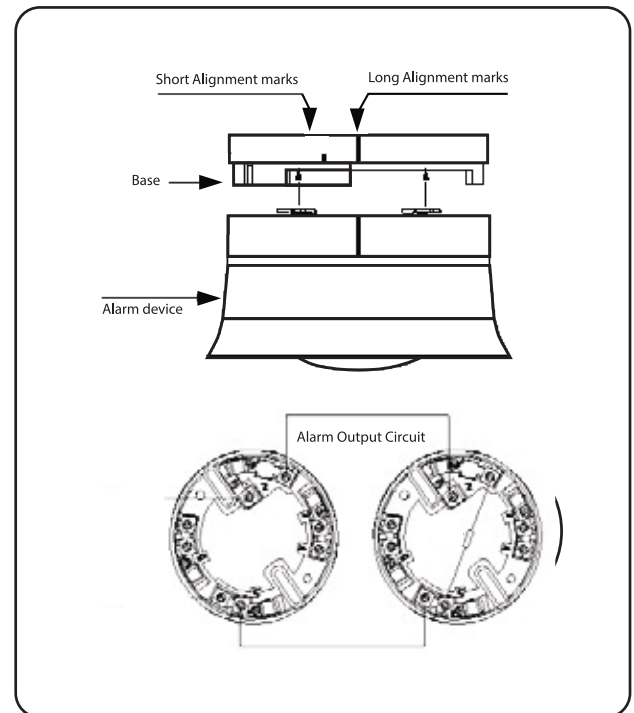


### FEATURES:

Operational Voltage	24 VDC
Current	200mA
Output Sound	110 dB
Colour	Red
LED Indicator	Red

### TECHNICAL FEATURES:

- Red body available for alarm device.
- Operates when the supply voltage is connected to the device.
- Compatible with relay outouts form control and indicating equipment, or form an output module connected to addressable alarm circuit wiring.
- DC 24 V operation.
- Loud sounder output of 85 dB at 1M.
- Long-life LEDs.
- Zero current load in quiescent condition.



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Easy to Install  
Feature

\*Models may vary from time to time due to continuous improvement in product design, features, technology and stability for a better user experience.

# MANUAL CALL POINT

MODEL NO: CFS-MCP300

## DESCRIPTION:

Alco **Resettable Call Point** is designed to have a physical presence that can be located from **approximately 8 meters distance**.

When activated the **Manual Call Point** interrupts the polling cycle for a fast response and a front reset mechanism allows for a quick and simple reset.

The **CFS-MCP300** call points includes a pressure activated displacement element to provide a safe and convenient way for building occupants to manually initiate a fire alarm condition.

*Resetting the Manual Call Points is achieved by inserting a key through the underside of the unit to replace the operating system face to the quiescent position.*



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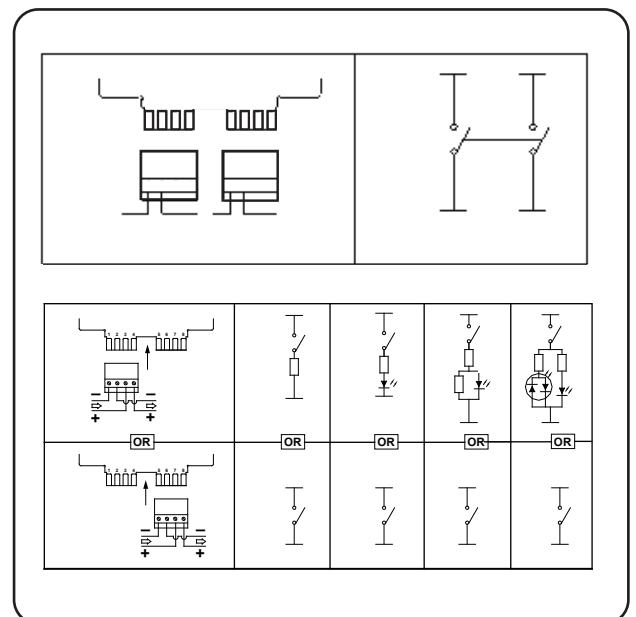


## FEATURES:

Operational Voltage	24 VDC
Current	30mA
Output Sound	50 dB
Type	Resettable

## TECHNICAL FEATURES:

- Flush or surface mount option available.
- IP54 – IP67 approved rating for installation in different environmental conditions.
- Protective flap to help avoid accidental activation of fire system.
- Size: 88x 88x55 mm (LxWxH).
- Reset mode plastic key.
- Pressure activated displacement element provides a safe user experience.



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## FIRE ALARM CONTROL PANEL

MODEL NO: CFS-FAP 4002, CFS-FAP 4004, CFS-FAP 4008, CFS-FAP 4016

### DESCRIPTION:

**Alco Fire Alarm Control Panel Series** is a 24 Volt, 2 to 16 Zones Conventional Panel. Designed exclusively to meet the latest market requirements and future ULC codes.

This highly cost effective series can be used in a variety of low to high sized applications. Alco Fire Alarm Control Panel series includes a separate bell alarming in each zone and indication of points. **It has a 48 to 72 hours power backup support.** The fire panel also has a short / open circuit indications LED display / power fault, zone isolated test.

**CFS-FAP 4016** Conventional control and indicating equipment forms the central part of a fire detection and alarm system.



### TECHNICAL FEATURES:

- 2,4,8 or 16 detection zone.
- Up to 32 conventional devices per alarm zone circuit.
- Configurable non-latching alarm zone, dependency (zone coincidence detection), and output delay time.
- 3 Access levels
- Single person test mode
- Day / Night mode.
- Manual activation of alarm sounder devices
- Supervised auxiliary DC 24 V output.
- 2 Independently programmable conventional A/V alarm output circuits.
- 2 Programmable fire alarm relay outputs
- Fault relay output.
- 3 Voltage-free inputs for remote reset,
- Evacuation start / stop, and Day / Night mode
- Supports up to 7 Repeater Panels.



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## REPEATER PANEL

MODEL NO: CFS-R4000

### DESCRIPTION:

The **R4000 Conventional Repeater Panel** and indicating equipment forms the display part of a **fire detection and alarm system**.

The repeater panel is compatible with conventional devices and can be connected to conventional devices. The repeater panel comes standard with features that allow **flexibility and expandability**.

*Default configuration programming facilitates out of box installation and rapid commissioning.*



### TECHNICAL FEATURES:

- Networkable, up to 4 control panels.
- Backlight LCD display providing 4 rows of 40 characters.
- Attractive designer enclosure available in white.
- 16 zone fire alarm LED indicators.
- Recessed mounting.

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## NETWORK INTERFACE CARD

MODEL NO: CFS-NIC300

### DESCRIPTION:

The **Network interface card** is used to form a ring network of **Alco control panels and repeaters**. Robust data communications uses separate transmit and receive transmission paths to provide superior reliability. The transmission paths are constantly monitored for fault conditions in the wiring. **A single fault will continue to allow network communications.**

The **network interface card** provides fire detection and **alarm system** designers with a flexible solution to provide multiple Networked systems for **life safety and property protection applications**.



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## TECHNICAL FEATURES:

- RS-422/RS-485 data communications protocol
- Ring topology
- Monitoring of short- and open-circuit conditions in the transmission path
- Fault-tolerant transmissions allows continuous data communications with a single fault in the transmission path



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## HEAT DETECTOR

Model No: CFS-HD300

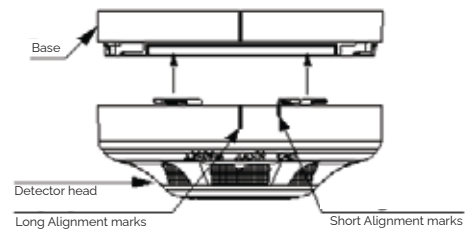
### DESCRIPTION:

**Alco Heat Detector** is designed to use a single thermistor in order to sense the air around the detector. It is ideal in environments which are smoky and dusty under normal conditions.

The heat detector is designed in such a way that it is unaffected by atmospheric pressures or wind and makes it more ideal to use and error free.

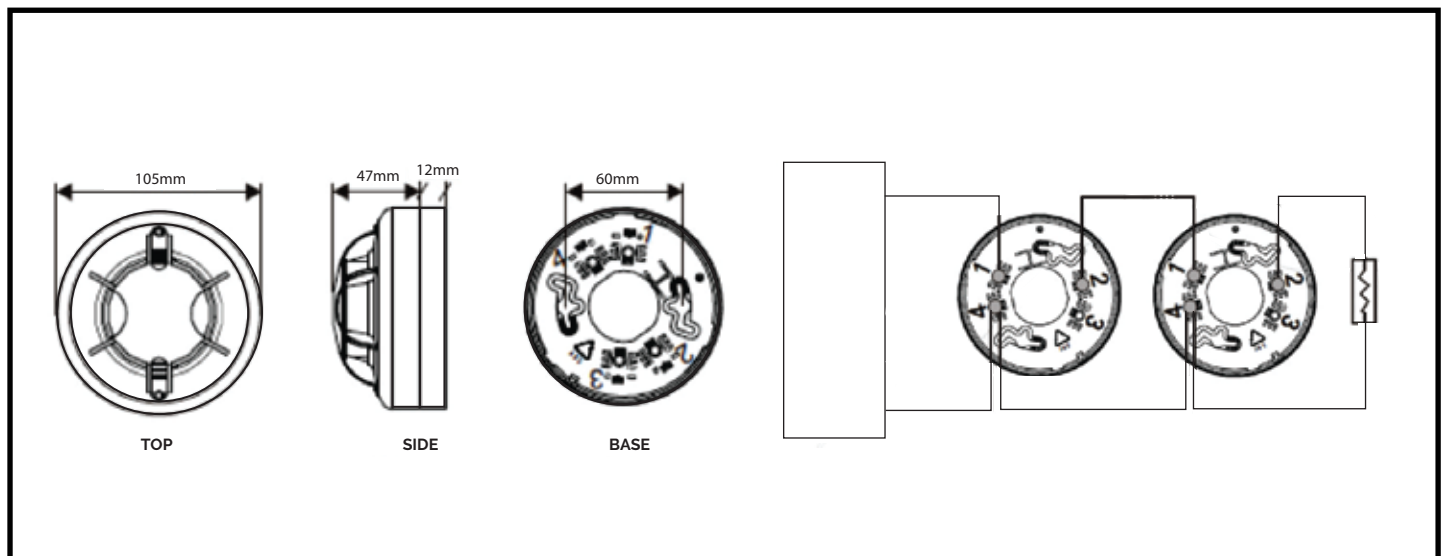
**HD300** conventional fire heat detectors are suitable for connection to **2-wire** conventional fire detection control and indicating equipment, or to conventional fire detection control and indicating equipment that can accept conventional type detectors.

*An electronic thermistor provides sensitive rate-of-rise operation or fixed-temperature operation when the response threshold value is exceeded.*



### TECHNICAL DIAGRAMS:

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\*Models may vary from time to time due to continuous improvement in product design, features, technology and stability for a better user experience.

## TECHNICAL FEATURES:

- Wire: 2 wire model (4 wire also available)
- System Voltage: 9V-28VDC
- Standby Current: 40uA
- Alarm Current: 30mA
- Temperature Range: -10 C~ 50 C
- Humidity Range: 10%~ 93%
- Fixed Temperature Range: 57 C
- Installation Height: 3 - 5 Meters (Recommended)
- No. of Detectors per Zone: 20-25 (Recommended)
- Weight of smoke and heat: 155g
- Advanced algorithms provide analogue detection discrimination
- Surface-mount device (SMD) circuit board design
- High immunity against unwanted alarms
- Stable smoke sensing chamber. No adjustment or replacement required
- 2-wire and 4-wire models for DC 12 V and DC 24 operation
- 4-wire model for DC 48 V operation
- 2-wire models available with remote LED output
- 4-wire models available with a N/O alarm relay output
- 4-wire model compatible with relay base
- 4-wire models available with auto-reset function
- Connects to zone monitor for use with addressable control and indicating equipment
- Sleek low-profile housing design
- Dual LEDs for 360° visibility
- Low maintenance



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# HEAT DETECTOR

MODEL NO: CFS-HD301

## DESCRIPTION:

HD 301 Conventional Heat Detectors are suitable for connection to 2-wire conventional fire detection control and indicating equipment, or to addressable fire detection control and indicating equipment that can accept conventional type detectors.

An electronic thermistor or fixed-temperature provides sensation rate of rise operation or fixed-temperature operation when the *response threshold value is exceeded*.

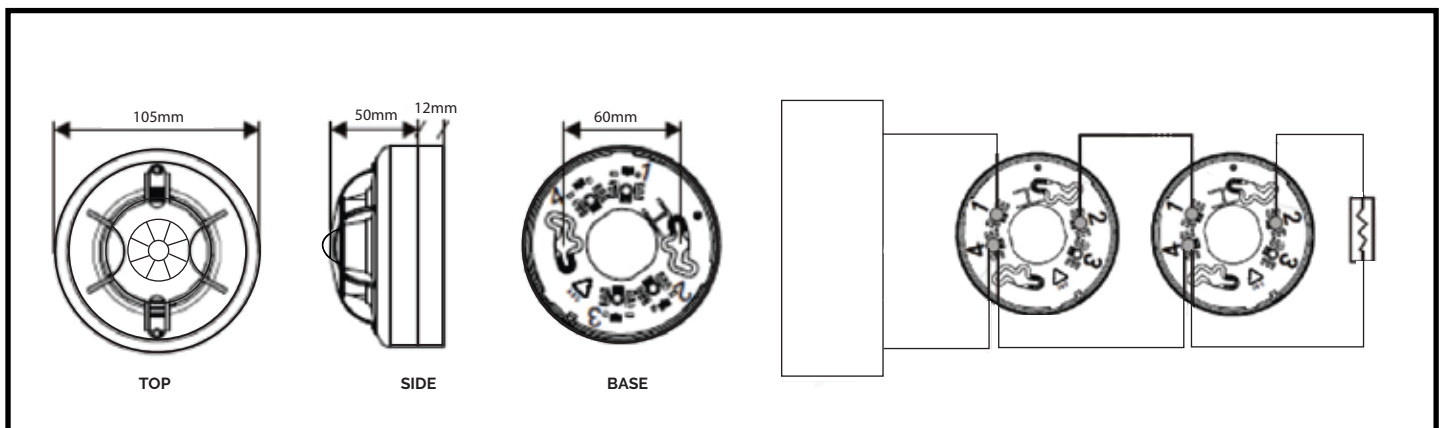
## TECHNICAL FEATURES:

- Durable heat sensor.
- Analogue detection discrimination.
- Dual LEDs for 360 visibility.
- 2-wire and 4-wire models for DC 12 V and DC 24 V operation.
- 4-wire models available with auto-reset.
- 2-wire models available with remote LED output.
- Connects to zone monitor for use with addressable control and indicating equipment.



## TECHNICAL DIAGRAMS:

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## SMOKE DETECTOR

MODEL NO: CFS-SD300

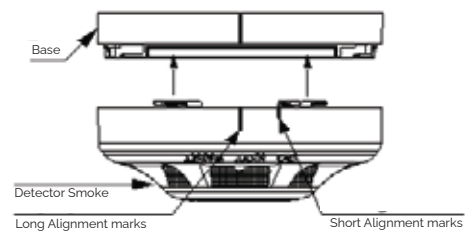
### DESCRIPTION:

Alco optical **Smoke Detector** is a 2-wire type detector (also available in 4 wire). The innovative **SD300 series detectors** have been carefully designed in order to sense both slow and fast developing fires with the help of optical sensing chamber along with a refined signal processing technology.

**SD-300 conventional photoelectric smoke detectors** are state-of-the-art detectors suitable for connection to **2-wire** or **4-wire** conventional fire detection control and indicating equipment, or to conventional fire detection control and indicating equipment that can accept conventional type detectors.

*Advanced electronics in conjunction with a photoelectric smoke sensing chamber and an electronic thermistor provide early detection of fire and high immunity against unwanted alarms.*

The heat sensor provides sensitive rate-of-rise operation or fixed-temperature operation when the **response threshold value is exceeded**



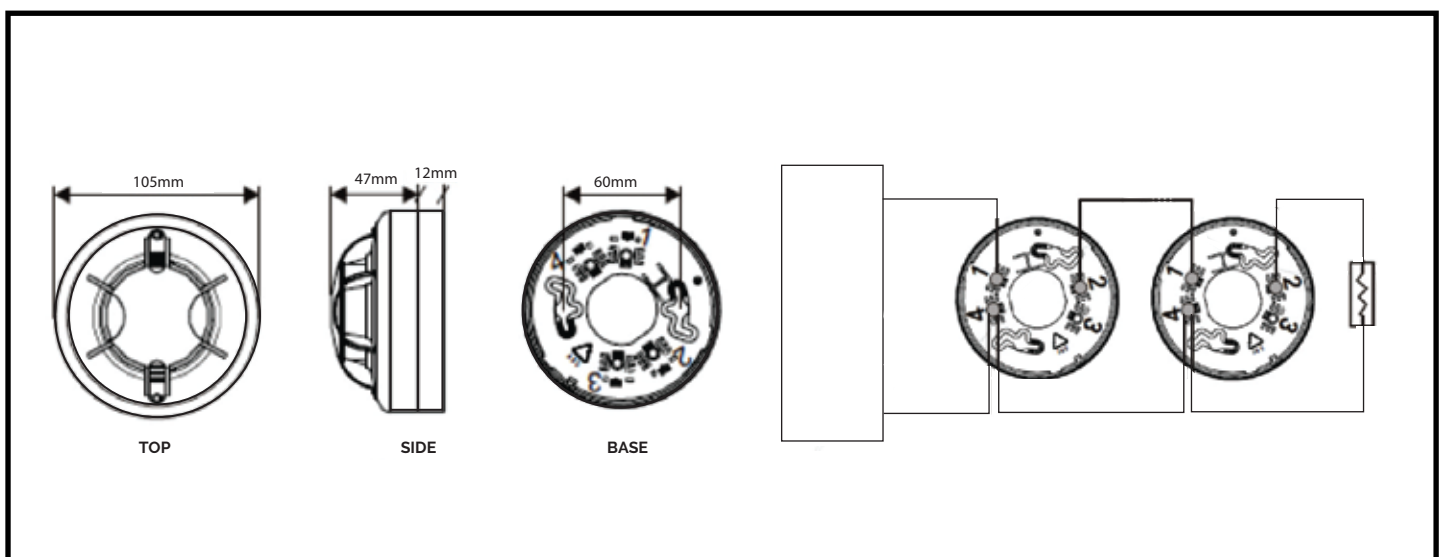
### TECHNICAL DIAGRAMS:

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\*Models may vary from time to time due to continuous improvement in product design, features, technology and stability for a better user experience.

**TECHNICAL FEATURES:**

- Wire: 2 wire model ( 4 wire also available )
- System Voltage: 9V - 28VDC
- Standby Current: 60uA
- Alarm Current: 30mA
- Temperature Range: 10 C ~ 50 C
- Humidity Range: 10% ~ 95%
- Fixed Temperature Range: 57
- Installation Height: 3- 5 Meters (Recommended)
- No. of Detectors per Zone: 20-25 (Recommended)
- Smoke and heat sensors
- Analogue detection discrimination
- Dual LEDs for 360° visibility
- 2-wire and 4-wire models for DC 12 V and DC 24 V operation
- 4-wire model for DC 48 V operation
- 4-wire models available with a N/O alarm
- 4-wire models available with auto-reset
- 2-wire models available with remote LED output
- Connects to zone monitor for use with addressable control and indicating equipment



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## SMOKE + HEAT DETECTOR

MODEL NO: CFS-SHD300

### DESCRIPTION:

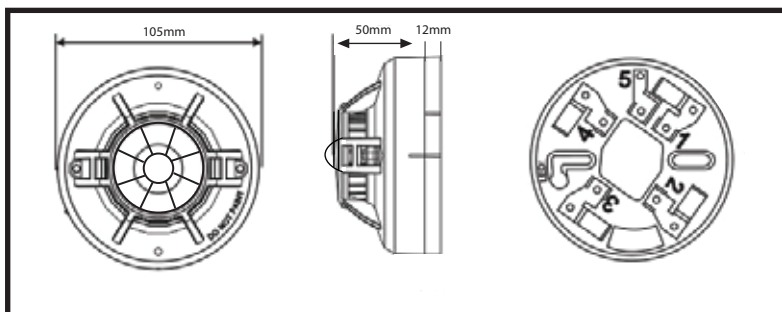
SHD300 conventional photoelectric smoke / heat detectors are state-of-the-art detectors suitable for connection to **2-wire or 4-wire conventional fire detection control** and indicating equipment, or to conventional fire detection control and indicating equipment that can accept **conventional type detectors**.

Advanced electronics in conjunction with a photoelectric smoke sensing chamber and an electronic thermistor provide early detection of fire and high immunity against unwanted alarms.

*The heat sensor provides sensitive rate-of-rise operation or fixed-temperature operation when the response threshold value is exceeded.*

### TECHNICAL FEATURES:

- Photoelectric smoke and heat sensors
- Analogue detection discrimination
- Dual LEDs for 360° visibility
- 2-wire and 4-wire models for DC 12 V and 24 V operation DC
- 4-wire model for DC 48 V operation
- 4-wire models available with a N/O alarm relay output
- 4-wire models available with auto-reset
- 2-wire models available with remote LED output
- Connects to zone monitor for use with addressable control and indicating equipment



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Easy to Install  
Feature

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## CO GAS DETECTOR

MODEL NO: CFS-400C

### DESCRIPTION:

**400C-series conventional carbon monoxide (CO) alarms** are suitable for connection to **2-wire and 4-wire conventional fire detection control** and indicating equipment.

**400C detectors** can also connect to **2-wire and 4-wire** conventional fire detection control and indicating equipment that can accept conventional detectors.

*Advanced electronics in conjunction with a semiconductor gas sensor provide early detection of carbon monoxide gas and high immunity against unwanted alarms.*



### TECHNICAL FEATURES:

- Detector auto-reset once gas levels fall below alarm threshold levels
- 2-wire and 4-wire models for DC 12 V and DC 24 V operation
- High sensitivity UVtron sensor tube technology
- Solar blind, with an electronic filter to eliminate unwanted alarms from naturally occurring phenomena
- High immunity to electrical noise and RF interference
- Connects to zone monitor for use with addressable control and indicating equipment

## FLAME DETECTOR

MODEL NO: CFS-400F

### DESCRIPTION:

The **400F conventional ultra-violet flame detectors** are suitable for connection to 2-wire and 4-wire conventional fire detection control and indicating equipment, or to addressable fire detection control and indicating equipment that can accept conventional type detectors.

The **400F flame detectors** are suited to applications where flames rapidly develop due to the nature of the combustible materials such as where petrochemical products are used or stored detector for *life safety and property protection applications*.



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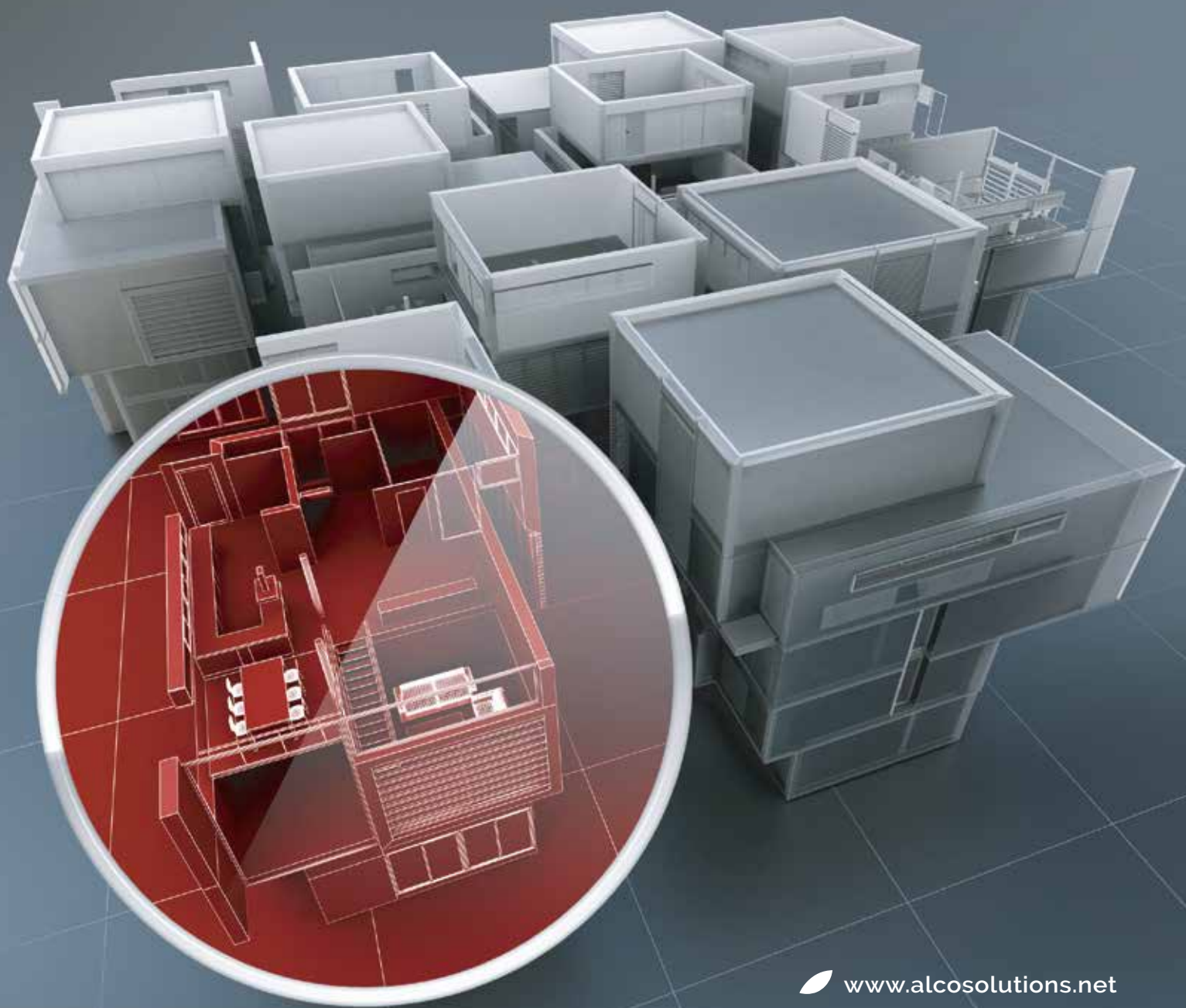
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# ADDRESSABLE FIRE ALARM SYSTEM





## INTRODUCTION

**Alco addressable fire detection** and alarm system are **microprocessor** controlled state-of-the-art products. The range includes control and indicating equipment detectors, modules and manual all point. Up to **125** devices can be connected to each alarm zone looping providing a flexible alarm zone configuration solution to most building configuration requirements. Devices use problem-free DIP switch address setting. *The Alco range of addressable products fire detection and alarm system designers with premium products for life safety and property protection applications.*

## ADDRESSABLE CONTROL AND INDICATING EQUIPMENT

**Control** and **indicating** equipment forms the central hub of the fire detection and alarm system. Products are available as single or multiple-loop models. Network able models provide a flexible and powerful solution for small and medium sized application. Easy to configure and commission, Alco control and installation with a minimum of time and effort. *Designer housing in a small foot-print adds attractiveness to architects and building owner.*

## ADDRESSABLE MULTI-SENSOR DETECTORS

**Addressable** photoelectric **smoke/heat detectors** use a photoelectric smoke sensing chamber in combination with an electronic thermistor to provide early detection of fire and high immunity against unwanted alarms. The heat sensor provides sensitive rate-of-rise Operation or fixed temperature operation when this responsethres hold value is exceeded. *The reliable detectors are ideal for general applications in commercial and industrial buildings.*

## ADDRESSABLE SMOKE DETECTORS

**Addressable photoelectric** smoke detectors use a photoelectric smoke sensing chamber to provide early detection of smoke and high immunity against unwanted alarms.

## ADDRESSABLE HEAT DETECTORS

**Addressable heat detectors** use an electronic thermistor sensor to provide sensitive rate-of-rise alarm operation, or fixed-temperature operation when the response threshold and taxis gas can build up before a heat detector might operation. Where life safety and building evacuation is necessary in the event of a **fire, smoke, gas** or combination detectors usually provide earlier warning then heat detectors alone. *Earlier warning then heat detectors alone.*

## DETECTOR BASES AND ACCESSORIES

The range of bases is suitable for **2-wire fire detection** and alarm system. Both functional and passive bases provide fire detection and alarm system designers with **standards-compliant**, to up-flexible solution. Loop isolators allow up-steam detectors to continue to work, even in the case of a short-circuit fault in the alarm zone loop wiring. Remote indicators provide visual alarm indication when the connected detector enters the alarm condition. *The indicator is useful where the detector cannot be easily seen when installed in the building.*

## ADDRESSABLE MANUAL CALL POINTS

**Manual call points** have integral alarm indicators that illuminates when the manual call point had been activated operation is achieved through the use of pressure activated displacement element which provides a safe and convenient way for building occupants to manually initiate a fire alarm condition resetting the manuall call point achieved by inserting a key to return the operating face to the quiescent position.

## ADDRESSABLE MODULES

The range of modules provides both input and output and output control for **fire detection** and **alarm systems** Both dry contact and opto-isolated outputs are available to drive **audio/visual alarm devices** and relays. Some inputs are specifically designed to connect non-addressable detectors to the Alco addressable loop. *Three miniature sized modules complement the range to provide convenient space-saving solution.*

# FIRE ALARM CONTROL PANEL

MODEL NO: AFS-FAP6000

## DESCRIPTION:

The **FAP 6000 Addressable Control** and indicating equipment forms the central part of a Fire detection and alarm system.

The **FAP 6000** is compatible with **Alco Addressable devices** and supports both Alco ST and TP loop protocols. Either 125 or 250 devices per loop are supported. Addressable devices can also be connected to the 6000, when used with addressable input modules.

The **FAP 6000** comes standard with **2-loops**, and is expandable up to 24-loops. Default configuration programming facilitates out-of-box installation and rapid commissioning.

*A powerful and versatile cause-and-effect PC-based programming tool enables rapid customization with software for sites that require special operating features.*



## TECHNICAL FEATURES:

- Single loop or 2-loop options available
- Single loop, expandable to 2-loops available
- Networkable, up to 4 control panels
- Supports up to 125 addressable devices per loop
- Automatic device detection on start-up
- Automatic device type-code verification
- 2 independently programmable non-addressable sounder output circuits
- 2 programmable relay outputs
- Remote disable and evacuation inputs
- Backlit LCD display providing 4 rows of 40 characters
- 16 zone fire alarm LED indicators 3000 event history log
- Attractive designer enclosure available in white
- Surface mounting
- Easy installation

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Feature

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## REPEATER PANEL

MODEL NO: AFS-R6000

### DESCRIPTION:

The **6000 Addressable AC Repeater Panel** extends the 6000 Addressable control and indicating equipment display to a remote location.

The **Repeater Panel** is compatible with all Alco 6000 control panels and is powered from an external AC supply.

The **Repeater Panel** comes standard with features that allows flexibility and expandability.

*Default configuration programming facilitates out-of-box installation and rapid commissioning.*



### TECHNICAL FEATURES:

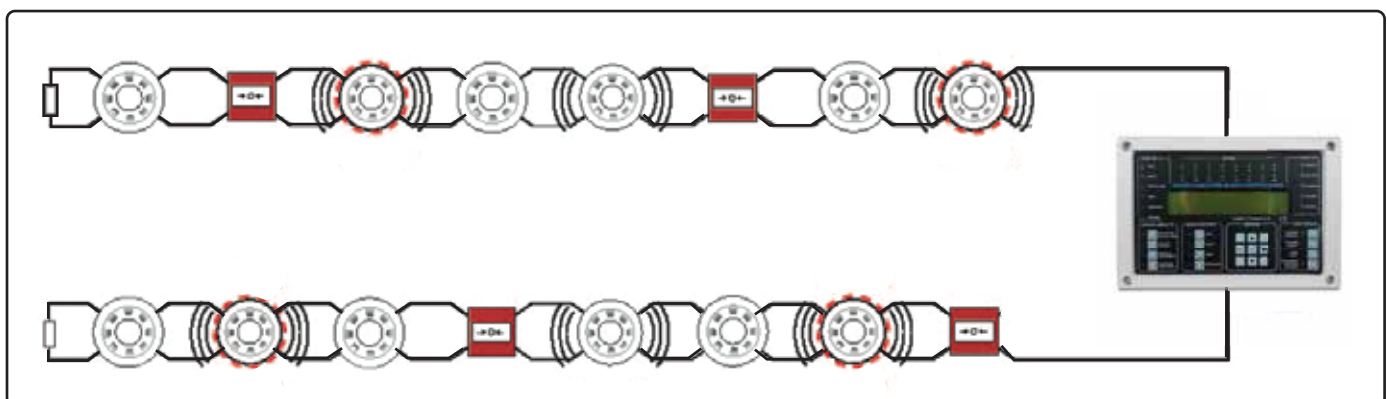
- Backlit LCD display provides 4 rows of 40 characters
- 16 zone fire alarm LED indicators
- Recessed mounting enclosure
- Powered from an external AC supply
- Up to 4 repeater panels can be connected to a single control panel.

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## NETWORK INTERFACE CARD

MODEL NO: CFS-NIC6000

### DESCRIPTION:

The **6000 Network Interface Card** is used to form a ring network of Alco control panels and repeaters. Robust data communications uses separate transmit and receive transmission paths to provide superior reliability.

The transmission paths are constantly monitored for fault conditions in the wiring. A single fault will continue to allow network communications.

### TECHNICAL FEATURES:

- RS422/RS-485 data communications protocol
- Ring topology
- Monitoring of short- and open-circuit conditions in the transmission path
- Fault-tolerant transmissions allows continuous data communications with a single fault in the transmission



## REMOTE LED DISPLAY CARD

MODEL NO: AFS-LDC6000

### DESCRIPTION:

The **6000 remote LED display card** is used to repeat the discrete LED indications of Alco control panels. Sixteen discrete LEDs can be configured to display multiple Alarm and Fault conditions, or system status conditions remotely from the control panel.



### TECHNICAL FEATURES:

- Configurable for 8-zone LED Display of Alarm and Fault conditions
- Configurable for 16-zone LED Display of Alarm conditions
- Configurable for 16 LED Display of system status conditions
- High intensity, low power consumption LEDs

## LOOP EXPANSION CARD

MODEL NO: AFS-LEC6000

### DESCRIPTION:

The **6000 1-Loop Expansion card** is used with the 6001-05 Control Panels to add an additional loop, and up to 125 devices to the base panel.

### TECHNICAL FEATURES:

- Compatible with 6000-05 Control Panel
- Supports up to 125 devices
- Easy installation and configuration



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Feature

\*Models may vary from time to time due to continuous improvement in product design, features, technology and stability for a better user experience.

# SMOKE + HEAT DETECTOR

MODEL NO: AFS-SHD600

## DESCRIPTION:

SHD600 Addressable Smoke/Heat detectors are microprocessor controlled state-of-the-art detectors compatible with popular control and indicating equipment loop protocols.

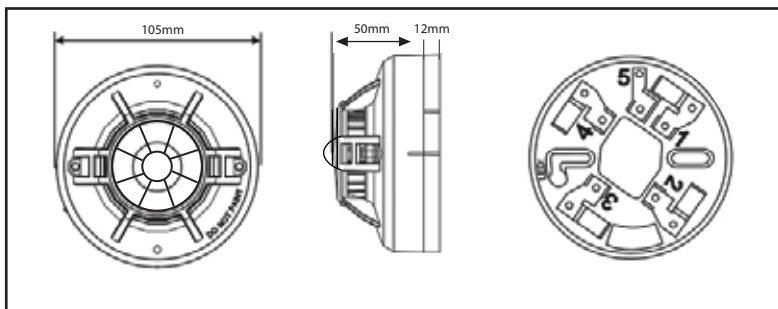
Advanced electronics in conjunction with a photoelectric smoke sensing chamber and an electronic thermistor provide early detection of fire and high immunity against unwanted alarms.

The heat sensor provides sensitive rate-of-rise operation or fixed-temperature operation when the response threshold value is exceeded. The 600 comes standard with features that allows flexibility and expandability



## TECHNICAL FEATURES:

- Photoelectric Smoke and Heat sensors
- Analogue detection discrimination
- Dual LEDs for 360° visibility
- 2-wire connection to many popular loop protocols
- DIP switch address setting
- 125 usable detector address settings per Loop
- Optional remote LED output



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## SMOKE DETECTOR

MODEL NO: AFS-SD600

### DESCRIPTION:

**SD-600 Addressable Smoke Detectors** are microprocessor controlled state-of-the-art detectors suitable for connection to **Alco Addressable Fire detection** control and indicating equipment.

Up to 125 detectors can be connected to each alarm zone loop. Advanced electronics in conjunction with a photoelectric smoke sensing chamber provides early detection of fire and high immunity against unwanted alarms.



### TECHNICAL FEATURES:

- Advanced algorithms provide analogue detection discrimination
- Surface-mount device (SMD) circuit board design
- High immunity against unwanted alarms
- Easy installation with simple address setting DIP switches
- Sleek low-profile housing design
- Dual LEDs for 360° visibility
- Convenient 2-wire connection

## HEAT DETECTOR

MODEL NO: AFS-HD600

### DESCRIPTION:

**HD-600 Addressable Heat detectors** are microprocessor controlled state-of-the-art detectors compatible with popular control and indicating loop protocols.

An electronic thermistor sensor provides sensitive rate-of-rise alarm operation, or fixed-temperature operation when the response threshold value is exceeded.

### TECHNICAL FEATURES:

- Durable heat sensor
- Analogue detection discrimination
- Dual LEDs for 360° visibility
- 2-wire connection to many popular loop protocols



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## 4-TERMINAL PASSIVE BASE

MODEL NO: AFS-TPB604

### DESCRIPTION:

**Terminal bases** are used with **2-wire fire detectors** that do not include additional features, such as remote indicator or alarm relay outputs.

### TECHNICAL FEATURES:

- Low profile
- Flexible mounting pitch
- Secure mounting to all surfaces
- Cable entry through the rear of the base
- Plated contacts for durable connection to detectors
- Fitted square washer for easy and reliable cable clamping
- Alarm zone circuit continuity models available



## 8-TERMINAL PASSIVE BASE

MODEL NO: AFS-TPB608

### DESCRIPTION:

**Terminal bases** are used with **2-wire fire detectors** that include remote **LED indicator** outputs.

### TECHNICAL FEATURES:

- Secure mounting to all surfaces
- Flexible mounting pitch Low profile
- Cable entry through the rear of the base
- Plated contacts for durable connection to detectors
- Alarm zone circuit continuity models available
- Fitted square washer for easy and reliable cable clamping



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## LOOP ISOLATOR

MODEL NO: AFS-LI600

### DESCRIPTION:

The **600 Loop Isolator** provides electrical isolation of alarm zone wiring for addressable fire detection control and indicating equipment.

The use of the 600 as part of the detector zone wiring ensures that short-circuit faults in the alarm zone loop wiring disable a minimum number of detectors.



### TECHNICAL FEATURES:

- Compatible with 2-wire fire detection and alarm systems
- Automatic operation
- LED activation indicator
- DC 24 V operation
- Automatic reset

## REMOTE INDICATOR

MODEL NO: AFS-RI600

### DESCRIPTION:

The **600 remote indicator** is used to identify the detector in alarm, and is useful where the detector cannot be easily seen when installed in the building.



### TECHNICAL FEATURES:

- Easily seen when in the alarm condition
- Wide operating voltage
- Easy installation with no adjustments required



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## MANUAL CALL POINT

MODEL NO: AFS-MCP600

### DESCRIPTION:

The **600 Manual Call Points** includes a pressure activated displacement element to provide a safe and convenient way for building occupants to manually initiate a **fire alarm condition**.

Resetting the manual call point is achieved by inserting a key through the underside of the unit to replace the operating face to the quiescent position



### TECHNICAL FEATURES:

- Pressure activated displacement element provides a safe user experience
- Integral indicator to show polling and alarm activation
- Resettable with simple key operation
- Monitors for quiescent, alarm and fault conditions
- 125 usable detector address settings per loop

## ALARM SOUNDER

MODEL NO: AFS-AB600

### DESCRIPTION:

The **Addressable Alarm Devices** are suitable for connection to **2-wire** addressable fire detection and alarm systems.

**AB600** is loop-powered and activation is initiated by a dedicated initiation message from the control and indicating equipment.

**Up to 125 devices can be connected to each alarm zone loop.**



### TECHNICAL FEATURES:

- Red available for alarm device
- Loop-powered from control and indicating equipment
- Operates when a dedicated message is received from the control and indicating equipment
- Loud sounder output of 85 dB at 1 m
- Low quiescent current
- DIP switch address setting



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## INPUT + OUTPUT MODULE

Model No: AFS-IOM600

### DESCRIPTION:

**600 Addressable** single Input/Output Modules provide the interface to connect an electrically isolated dry contact switched input to Alco addressable fire detection control and indicating equipment.

A parallel resistive input filter allows multiple states to be monitored at the input.

*The states are converted to the loop communications protocol by the module, to enable them to be displayed on the control and indicating equipment.*

### TECHNICAL FEATURES:

- Single voltage-free relay output
- Output relay can be powered internally or externally (selectable at installation)
- Single input for connection to dry contact inputs
- Monitors and signals three distinct input states: Normal; Alarm; Open-circuit
- Separate indicators for Quiescent, Alarm and Fault conditions
- Polling indicator shows quiescent operation
- DIP switch address setting
- 125 usable detector address settings per loop



## INPUT MODULE

Model No: AFS-IM600



## ALARM ZONE INPUT MODULE

Model No: AFS-IM601

### TECHNICAL FEATURES:

- Signals normal alarm and open-circuit alarm zone conditions
- Capable of supplying 35 mA to power non-addressable devices
- Fault condition indicator
- DIP switch address setting
- 125 usable detector address settings per loop



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## MINI INPUT MODULE

MODEL NO: AFS-IM602

### DESCRIPTION:

**602 Addressable Alarm Zone Mini-Modules** provide the interface to connect non-addressable input devices (such as detectors or manual call points) to Alco addressable control and indicating equipment.

### TECHNICAL FEATURES:

- Signals normal, alarm and open-circuit alarm zone conditions
- Small size
- Capable of supplying 13 mA to power non-addressable devices
- DC 24 V operation
- DIP switch address setting
- 125 usable detector address settings per loop



## MINI OUTPUT MODULE

MODEL NO: AFS-OM600

### DESCRIPTION:

**600 Addressable Output Mini-Modules** provide the interface to connect Conventional output devices (such as alarm devices) to Alco addressable control and indicating Equipment

### TECHNICAL FEATURES:

- Ideal for control of Alarm devices
- Signals normal and short-circuit alarm zone conditions
- Capable of supplying 35 mA to power Conventional devices
- DC 24 V operation
- DIP switch address setting



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# **RESIDENTIAL FIRE ALARM SYSTEM**

## INTRODUCTION

**Alco** has a comprehensive range of detection and alarm products suitable for residential applications. The range includes stand alone and interconnected devices, all with loud internal sounders. Devices for the detection of **smoke, heat, gas, water are available.**

## MULTI-SENSOR ALARM

**Multi-sensor alarms devices** provide high detection capability with a low level of **unwanted alarm** to provide the minimum **occupant disruption.**

## SMOKE ALARM

All **smoke alarms** use a photoelectric smoke sensing chamber to provide early detection of smoke and high immunity immunity against unwanted alarms form **cooking fumes.**

## GAS ALARM

**Advanced electronics** in conjunction with a semiconductor gas sensor provide early detection of the **carbon monoxide, natural gas or propane gas,** and **high immunity against unwanted alarms.**

## HEAT ALARM

**Heat alarms** are available as stand-alone or inter-connectable models, powered form an internal battery or mains supply. **Heat alarms** are suitable for installation where smoke alarms may be susceptible to a high level of unwanted alarms.

**Note:** *Hazardous levels of smoke and toxic gas can build up before a heat detector might operate. Where life safety and building evacuation is necessary in the event of a fire, smoke, gas or combination detectors unusually provide earlier warning then detectors.*

## WATER ALARM

A **water alarms** provide home owners and installers with an **easy-to-install,** economical solution where **early detection of water leaks id wanted.**



## SMOKE + HEAT DETECTOR (DC)

MODEL NO: CFS- SHD500

### DESCRIPTION:

**SHD500 Smoke/Heat detector** provide battery powered Smoke and Heat detection and alarm functions within a single unit.

Advanced electronics in conjunction with a photoelectric smoke sensing chamber and sensitive heat detection provide early detection of fire and high immunity *against unwanted alarms*.



### TECHNICAL FEATURES:

- Photoelectric Smoke and Heat sensing
- Fixed temperature and rate-of-rise operation using electron thermistors with microprocessor control
- Integrated indicator provides visual indication of an alarm condition
- Test button verifies battery and alarm operation
- Loud 85 dB sounder to alert occupants
- 30 day low battery warning signal
- Battery missing indicator

## SMOKE DETECTOR (AC / DC)

MODEL NO: CFS- SD500

### DESCRIPTION:

**SD500 Smoke Detector** provide smoke detection and alarm functions within a single unit.

Advanced electronics in conjunction with a photoelectric smoke sensing chamber provide early detection of fire and high immunity *against unwanted alarms*.



### TECHNICAL FEATURES:

- Test and hush features in a single button
- Loud 85 dB sounder to alert occupants
- Single DC 9 V user-replaceable battery
- 30 day low battery warning signal
- 10-year end-of-life timer
- Twist-on mounting base

\*Models may vary from time to time due to continuous improvement in product design, features, technology and stability for a better user experience.

## SMOKE DETECTOR (DC)

MODEL NO: RFS- SD501

### DESCRIPTION:

**SD501 Smoke Detector** provide battery powered smoke detection and alarm functions with in a single unit.

Advanced electronics in conjunction with a photoelectric Smoke sensing chamber provide early detection of fire and high immunity against unwanted alarms.

**SD501 smoke detector** are powered by a **10-year lithiumion** battery and do not require a mains supply. An automatic switch disconnects power from the unit when it is removed from its base.



### TECHNICAL FEATURES:

- Photoelectric Smoke Sensor
- Switch function disconnects power when removed from base
- Test button verifies battery and alarm operation
- Hush feature to temporarily silence unwanted alarms
- Loud 85 dB sounder to alert occupants
- 30 day low battery warning signal
- Integrated indicator provides visual indication of an alarm condition

## SMOKE DETECTOR (DC)

MODEL NO: RFS- SD502

### DESCRIPTION:

**SD502 Smoke detector** provide battery powered smoke detection and alarm functions with in a single unit.

Advanced electronics in conjunction with a photoelectric smoke sensing chamber provide early detection of fire and high immunity **against unwanted alarms**.

**SD502 Smoke detector** are battery powered, do not require a main supply and are suitable for general residential applications.



## HEAT DETECTOR (DC)

MODEL NO: RFS- HD500

### DESCRIPTION:

**HD500 Heat detector** provide battery powered heat detection, and alarm functions within a single unit.

**HD500 Heat detectors** are battery powered, do not require mains supply and are suitable for residential applications where smoke or gas detectors may cause unwanted alarms (**such as cooking areas or parking garages**).



### TECHNICAL FEATURES:

- Test button verifies battery and alarm operation.
- Loud 85 dB sounder to alert occupants.
- Surface-mount device (SMD) circuit board design.
- Single DC 9 V user-replaceable battery provides up to 18 months operation under normal conditions
- 30 day low battery warning signal
- Battery missing indicator

## CO GAS ALARM

MODEL NO: RFS-500C

### DESCRIPTION:

**500C Carbon Monoxide (CO) Gas Alarms** are state of the art detectors with an internal sounder. Models are available powered by a user-replaceable battery or AC mains.

Advanced electronics in conjunction with a semiconductor gas sensor provide early detection of **carbon monoxide gas** and *high immunity against unwanted alarms*.



### TECHNICAL FEATURES:

- Loud 85 dB Internal Alarm Sounder
- Dual action button for Hush and Test
- Separate indicators for Power, Alarm and Service
- N/C or N/O alarm relay output models available
- AC mains powered models available
- DC 9 V models available, including 10-year lithium battery models
- 5-year end-of-life timer
- Low power consumption

\*Models may vary from time to time due to continuous improvement in product design, features, technology and stability for a better user experience.



## NATURAL GAS ALARM

MODEL NO: RFS-500N

### DESCRIPTION:

**500N Natural Gas (LPG)/Natural Gas Alarms** are state-of-the-art inflammable gas detectors with an internal sounder.

Advanced electronics in conjunction with a semiconductor gas sensor provide early detection of propane gas, with high immunity against unwanted alarms.

*Models are available powered by AC mains or from a DC 12/24 V supply (such as a security system).*



### TECHNICAL FEATURES:

- Detects Propane (LPG) Gas (C<sub>3</sub> H<sub>8</sub> )/Natural Gas (CH<sub>4</sub>)
- Loud 85 dB internal alarm sounder
- Dual action button for Hush and Test
- Separate indicators for Power, Alarm and Service
- N/C or N/O alarm relay output models available.
- AC mains operating models available
- DC 12/24 V models available
- 5-year end-of-life timer
- Low power consumption
- Low maintenance

## WATER ALARM

MODEL NO: RFS-500W

The **500W Water Alarm** is a **Water Leakage Detector** with an alarm sounder. Advanced electronics provides rapid detection of water in at-risk locations, such as *sumps, under sinks, around washing machines, in bathrooms, etc.*

The **500W** is powered from an internal battery. A dry contact alarm relay output is available for connection to other equipment, *such as a security system.*



### TECHNICAL FEATURES:

- Operates in water depths exceeding 2 mm
- Operates from a replaceable DC 9 V battery
- Loud 85 dB internal alarm sounder lasts for up to 72 hours
- Sounder will reset automatically when water is no longer detected
- Low power consumption
- Dry-contact relay output model available
- Shock resistant from up to 1.8 m fall onto concrete
- Splash proof (not water proof)
- Easy installation.

\*Models may vary from time to time due to continuous improvement in product design, features, technology and stability for a better user experience.

A photograph of a hallway with red walls and a red ceiling. Two recessed circular ceiling lights are visible. A green fire exit sign is mounted on the wall, featuring a white silhouette of a person running and an arrow pointing right. The sign has the words "FIRE" and "EXIT" stacked vertically. The hallway leads to a set of double doors with vertical handles. The overall lighting is warm and red-tinted.

# EXIT AND EMERGENCY LIGHTING

# EXIT LIGHTING SERIES

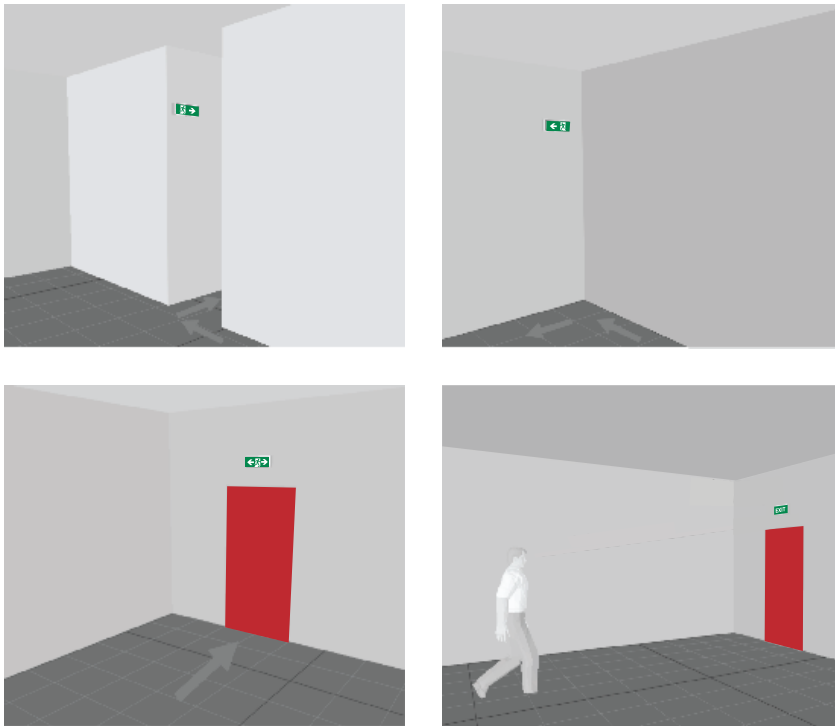
MODEL NO: CFS-EXT300L, CFS-EXT300R, CFS-EXT300LR, CFS-EXT300D

Alco provides a complete range of exit and emergency lighting as an integral part of Fire Detection System, which has a number of varieties in terms of signage.

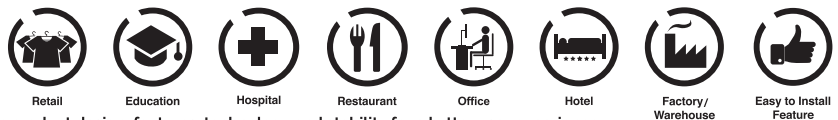
Our Exit and Emergency lights consist of a conventional indication sign and specially designed to be used in different situations in order to indicate with accuracy.

## TECHNICAL FEATURES:

- Lighting Source: **Led**
- Lighting Wattage: **6w**
- Backup Time: **Upto 90 Minutes**
- Power Source: **Ni-cd (6v, 2.8ah)**
- Unit Size: **270 x 310 x 75(mm)**



\* Different Arrow Option Available

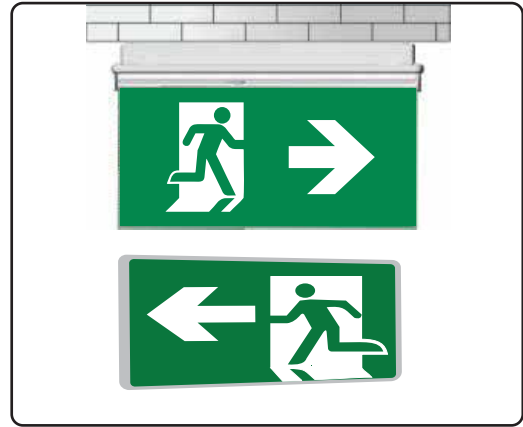


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**TECHNICAL FEATURES:**

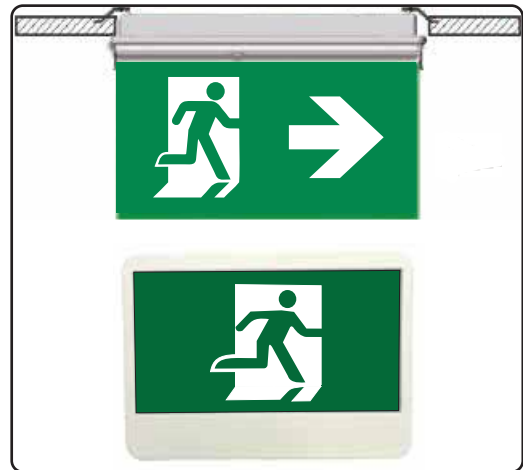
MODEL NO: CFS-EXT301

- Voltage: **220-240V 50 / 60HZ.**
- AC Power: **3.5w MAX**
- Battery: **Ni-Cad 4.8v / 650mAH**
- Emergency Duration: **90 Minutes**
- Lighting Source: **14PCS, SMD 2835**  
LED, CCT 6000K for LED escape sign.
- Test Facility: Auto Test (*Self Test and Self Diagnostic*) or CAN Bus Control.

**TECHNICAL FEATURES:**

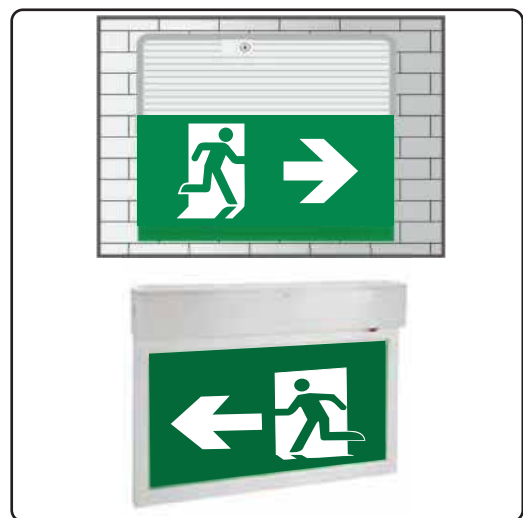
MODEL NO: CFS-EXT302

- Voltage: **220 - 240V 50 / 60HZ.**
- AC Power: **3.5w MAX.**
- Battery: **Ni - Cad 4.8 V / 650 mAH.**
- Emergency Duration: **3 hour.**
- Lighting Source: **14PCS, SMD 2835**  
LED, CCT 6000K for LED escape sign.
- Test Facility: Auto test (*self test and self diagnostic*) or CAN BUS control.

**TECHNICAL FEATURES:**

MODEL NO: CFS-EXT303

- LED **120 / 347V AC** input.
- Injection moulded thermoplastic ABS housing.
- Innovative, snap-together design.
- Wall, side or ceiling mounting.
- Battery backup for 3 hours emergency duration.
- **24 hours** Charging Time.
- Battery overcharge protection.
- Charging LED indicator and push to test button.
- Working Temperature: **-10 - 50°C.**
- Working Humidity: **<90%.**
- Used in **Commercial / Residential** areas.

\* **Different Arrow Option Available**

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## EMERGENCY LIGHTING SERIES

\* Technical features may vary according to lighting design series.

### DESCRIPTION:

The Emergency Light is capable to switch between the lamps and has the ability to switch either one LED lamp or both based on personal preference. This Emergency Light is suitable for wall mounting.

### TECHNICAL FEATURES:

MODEL NO: CFS-EMG 300

- Backup Time: Upto **3 hours** (Fully Charged)
- Power Source: **Ni-cd (6v, 2.8ah)**
- Unit Size: **270 x 310 x 75**
- Lighting Source: **Led**
- Lighting Wattage: **3w**



### TECHNICAL FEATURES:

MODEL NO: CFS-EMG 301

- Certificate: **UL and CUL**.
- The housing is adopt with high precision molding.
- Color of housing is white, material is fire retardant **ABS**.
- Innovative, universal mounting
- Long - life LED light source.
- Double face configuration (**also can be used as single side**).
- Replaceable directional arrow inserts are easily removed and reinserted.



### TECHNICAL FEATURES:

MODEL NO: CFS-EMG 302

- Voltage: **220-240V 50 / 60HZ**
- AC Power : **9W MAX**.
- Battery: Ni-CAD **3.6v / 1800AH** or Ni-CAD **3.6V / 2500mAH**.
- Emergency Duration: **1.5 hour or 3 hour**.
- Lighting Source: **20PCS, SMD 2835 LED, CCT 6000K**.
- Type: **Maintained or AC & EM**.



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