

BRISTOL



Fire Detection & Alarm Devices

Conventional IGN Addressable Series ADX Addressable Series



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IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Intelligent Addressable Fire Alarm Control Panel



EN 54-2
1330h(e-l)



The IGN comprise of a range of analogue addressable, microprocessor based fire alarm control equipment to offer flexibility in both design and operation. The System is modular concept for easy tailoring of system design, to meet the full requirements of

the project. The IGN Intelligent Fire Alarm Control Panel is designed and manufactured to meet the requirement of BS EN54 Part 2&4.

The IGN is designed to provide early warning fire detection, to quickly identify the location of fire and provide user definable text informing the occupants of the building of potential smoke spread. Simultaneously, the IGN will alert and evacuate the occupants, and control all necessary auxiliary command functions such as elevator control, air handling shut down, gas shut off & damper control, as per the cause and effects requirements configured through Command Builder Set-up.

COMMISSIONING ADVANTAGES

- Auto Enrolling of Devices
- Loop Mapping with color coding status
- Monitor device mismatch and dual address conflict
- Command Builder to create requirements for fire event scenario
- With Loop protection against power surge
- One-man test with On/Off sounder Programming Protection

FEATURES

- Using advance microprocessor technology with Large memory capacity
- Enhance user interface combining LCD Touch screen and keypad access
- Support real time visual algorithm
- Enhance false alarm prevention
- Keypad and PC programming
- Support Multiple interface protocol such as USB/Ethernet/Can Bus/Serial/RS485/ Fiber Optic
- Support Loop Powered devices for extra saving on cable cost
- Built-In Printer and 160 LED Zones Indicators

SYSTEM CAPACITY

- Up to 4 loop (6 loop standalone)
- Support 254 Devices (1,524 ideal)
- Network up to 512 Node
- Programmable Capacity
- Zones up to 3000
- Sounders Groups 1-1000
- Other Groups 1001- 2000
- Built-in 160 LED Zones Indicator





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Technical Data

MODEL Series	IGN-250
Standard	EN54-2: 1997 + A1: 2006 & EN54-4: 1997 + A1: 2002 + A2: 2006
Maximum Loop	4 with Network Card, 6 Standalone
Input Voltage	240VAC +10%-15%, 50/60Hz
Input Current Consumption	1A
PSU Output to CIE	24.5 to 28.5 VDC
Batteries	2 x 12V / 24AH
Panel to panel communication	Can Bus [loop]
Number of Panels	512
Interface Port	USB, RS485, RS232 Serial, Ethernet
Memory [Non-Volatile]	1,000 Fire Events, 10,000 General Event
Zones	3,000 programmable
Total Group	3,000 programmable: Sounder=1,000/Common=2,000
Protocol/Addressing	T&A, Value range from 1 to 254
Protection	Built-in 4kV Surge protection
Power rating	16 to 24Vdc
Cabling	1.2Km Max Length / 2 x 1.5mm ² solid core Fire resistance
Programmable Relays	4 circuits: Normally Open/Close
Programmable Input	1 Circuit: Power limited 24Vdc
Programmable Auxiliary Power	19 to 28 VDC (Note: Current Limited)
Fixed Outputs (FPE/Sounder)	2 Circuits: 18 to 28 VDC (Note: Current Limited)
Indicator	24 LED Status/ 16 Zone Indicator
Display	7" TFT Touch Screen
Keypad	5 Brigade buttons and Programming Keypad
Material / Color	Flat sheet Metal / with outer glass door, Orange stripe
Dimension Lx W x H	530 mm x 490 mm x 135 mm
Weight	16.70 Kg
Humidity	0 to 95% Relative Humidity, Non condensing





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Alarm Devices

Alarm Devices in Fire Detection and Alarm System are devices that are activated during presence of fire to provide notice to the concerned people in form of audio or visual signals. Though in some cases, signals are already directed to the fire department. BRISTOL offers audio/visual alarm devices that comply to international and local standards.



Manual Call Point

The IGN-8401 Addressable Manual Call point use a non-breakable glass which is designed to press under light pressure triggering the call point into an alarm condition, with LED indicator mounted onto the front face to simplify the location of an operated call point. Safe to press and no hammer is required. The protected flap on the lower part is used for reset through supplied special tool.

Technical Specifications

MODEL	IGN-8401
Compliance	EN 54-11:2001 + A1:2005
Input Voltage	24VDC [16V to 28V]
Current Consumption	Standby 0.6mA, Alarm: 1.8mA
Protocol/Addressing	T&A, Value range from 1 to 254
Indicator	Single LED / 360 degree Visual
Material / Color	Fireproof ABS / RED Glossy finishing
Dimension / Height	89 mm x 93 mm x 35 mm
Weight	102g (with Base), 80g (without Base)
Class	Type A, Indoors
Operating Temperature	-10°C to +55°C
Humidity	0 to 95% Relative Humidity, Non condensing

Features

- EN 54-11:2001 + A1:2005
- LPCB Approved
- Using microprocessor technology
- Digital addressing
- Non-breakable glass and hammerless
- Safe to operate and easy to reset
- Surface mounted, indoor application





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System Detectors

Detectors are equipment designed to monitor presence of fire which is manifested by heat and smoke. Heat detectors can be classified as fixed-temperature, rising-heat or combination of both while smoke detectors work either by optical detection or by ionization. BRISTOL Detectors are designed with great regard to quality and comply to international and local standards.

Intelligent Addressable Optical Smoke Detector

The IGN-7401 Intelligent Addressable Optical Smoke Detector is the ideal device for most applications, due to its spiffing linear response to a wide variety of different types of smoke patterns. The unit manufactured the sensitivity requirement of EN 54 part 7, European Standard. The unit is aesthetically pleasing with unobtrusive design that will complement modern building designs. The unit incorporates an intelligent processor that provides Algorithm map, inbuilt A/D converter, Drift compensation, and Self-Diagnosis and History log.

Features

- LPCB Approved
- Using microprocessor technology with memory capacity up to 10 events
- Analogue sending and digital addressing
- Provide real time algorithm to the control panel
- Smart linear drift compensation
- Onsite adjustable parameter
- 360-degree visual indicator
- Removable chamber against dust and small insect
- Ancillary remote indicator output
- Aesthetically pleasing design

MODEL	IGN-7401
Standard	EN54-7 :2000 +A1:2002 +A2:2006
Input Voltage	24VDC [16V to 28V]
Current Consumption	Standby 0.6mA, Alarm: 4mA
Protocol/Addressing	T&A, Value range from 1 to 254
Sensitivity	As per stipulated standard
Indicator	Single LED / 360 degree Visual
Material / Color	ABS / White Glossy finishing
Dimension / Height	Diameter 99.7 mm / 57 mm
Weight	145g (with Base), 90g (without Base)
Operating Temperature	-10°C to +50°C
Humidity	0 to 95% Relative Humidity, Non condensing
Approval	EN54-7:2000 +A1:2002 +A2:2006 Compliance



EN 54-2
1330h(cl-I)



0832-CPR-F1702
Y17





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Intelligent Dual Heat Detector

The IGN-7402 Intelligent Fixed and Rate of Rise Heat Detector is reliable for application in places where may have high dust level or smoky environments, making a normal smoke detector undesirable. The unit manufactured base on the sensitivity requirement of EN 54 part 5, European Standard. The unit is aesthetically pleasing with unobtrusive design that will complement modern building designs. The unit incorporates an intelligent processor that provides inbuilt A/D converter, and Self-Diagnosis and History log.



EN 54-5
1330C(d1-1)



0832-CPR-F1704
Y17



MODEL	IGN-7402
Compliance	EN54-5 :2000 +A1:2002
Input Voltage	24VDC [16V to 28V]
Current Consumption	Standby 0.6mA, Alarm: 4mA
Protocol/Addressing	T&A, Value range from 1 to 254
Heat Class Type	A1R
Indicator	Single LED / 360 degree Visual
Material / Color	ABS / White Glossy finishing
Dimension / Height	Diameter 99.7 mm / 57 mm
Weight	127g (with Base), 72g (without Base)
Operating Temperature	-10°C to +50°C
Humidity	0 to 95% Relative Humidity, Non condensing

Intelligent Smoke & Heat Detector

The IGN-7403 Intelligent Fixed and Rate of Rise Heat Detector is reliable for application in places where may have high dust level or smoky environments, making a normal smoke detector undesirable. The unit manufactured base on the sensitivity requirement of EN 54 part 5, European Standard. The unit is aesthetically pleasing with unobtrusive design that will complement modern building designs. The unit incorporates an intelligent processor that provides inbuilt A/D converter, and Self-Diagnosis and History log.



MODEL	IGN-7403
Compliance	EN54-29
Input Voltage	24VDC [16V to 28V]
Current Consumption	Standby 0.6mA, Alarm: 4mA
Protocol/Addressing	T&A, Value range from 1 to 254
Smoke Sensitivity	As per stipulated standard
Heat Class Type	A2R
Indicator	Single LED / 360 degree Visual
Material / Color	ABS / White Glossy finishing
Dimension / Height	Diameter 99.7 mm / 57 mm
Weight	145g (with Base), 90g (without Base)
Operating Temperature	-10°C to +50°C
Humidity	0 to 95% Relative Humidity, Non con-





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Beam Detector

IGN-C7404 Reflective Beam Detector has built in Laser beam pointing and Digital guide display for real user friendly alignment method. The Laser beam pointing accurately point the exact location where to mount mirror and with additional digital guide display allows to monitor and guide on the actual light intensity between the mirror and detector which cannot be seen by our naked eye making it more easy and convenient in alignment commissioning.



FEAT

Features

- EN54-12 Certified
- Hassle free alignment, built with digital guide display and laser beam pointing
- Employ single-ended design through reflective mirror
- Four ranges wide monitoring from 8-100 meters via encoder
- Three users programing sensitivity adjustment
- Built-in microprocessor
- Self-diagnosis function can monitor for internal faults
- Automatic compensation for factors weakening received signals, such as dust contamination, positional movement and ageing of the transmitter
- Fire and Fault interfacing relays
- Attractive and pleasing appearance
- Real User friendly alignment method

MODEL	IGN-C7404
Compliance	EN54-12:2002
Operating Voltage	20 V to 28 V DC
Current Parameters	Standby:23mA Commission:56mA Alarm:33mA
Beam Sensor Sensitivity [via Encoder]	Level 1: 2.6 dB High Sensitivity
	Level 2: 3.8 dB Medium Sensitivity
	Level 3: 5.8 dB Low Sensitivity
Beam Pathway Length [via Encoder]	Span 1: 8 to 20 meters Short Path (1x mirror reflector required)
	Span 2: 20 to 40 meters Short Path (1x mirror reflector required)
	Span 3: 40 to 70 meters Normal Path (4x mirror reflector required)
	Span 4: 70 to 100 meters Long Path (4x mirror reflector required)
Beam Path Angle	±0.5° Directional
Alignment Guide	Laser Beam Pointer
Digital Display Guide	Nixie Tube
LED Indicator Guide	Red: Fire; Yellow: Fault; Green: Alignment
Reset Time	Less than 2 Second (Power Cut)
Relay Capacity [Fire & Fault]	Normally Open/ 2.0 A; 30 VDC
Material / Color	ABS / White
Dimension / Weight	L:190.87 x W:126.87 x H:91.96 mm / 440 gm
Weight	0.130 Kg with base
Accessories	Mounting Bracket/ IGN-C7404R 4 x Mirror Reflector
Operating Temperature / Protection Rating	-10°C to 55°C / IP30 [IP66 glue seal-For permanent fixing]
Humidity	0 to 95% Relative Humidity, Non condensing





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Addressable Sounder Strobe

The Addressable Sounder & Strobe are alarm warning device used to notify persons in the vicinity of the occurrence fire emergency in order the person to take appropriate measures. The unit adopt multi-application device starting from the types, parameters and wiring layout in single unit. The AVI-6401 can change into different alarm warning types such as sounder-strobe type, sounder type or strobe type using programming tool. In addition, parameters can be configured according to the requirement which include alarm tone from 17 different tones, single address or dual address mode and also setting of power mode to low current consumption in a simple programming.



AVI-6401

Technical Specifications

AVI-6401	
Standard	EN54-3:2001+A1:2002 + A2:2006
Input Voltage	Loop Power: 24VDC [18V to 27.5V]
Typical Current	Loop: Standby 0.6mA, Alarm: 1.5mA
Saving Current	Standby 1.2mA, Alarm: 9mA
Protocol/Addressing	T&A, Value range from 1 to 254
Tones	17 Tones (refers to Manual)
Address Sequence	Single Address: Evacuate tone
Dual Address:	1st Alert Tone / 2nd Evacuate tone
Strobe Light	10 Highlights LED
Material / Color	ABS / Red Glossy finishing
Dimension	Diameter 110 mm / 39.6 (with Base)
Weight	176g (with Base), 110g (Without Base)
Ingress Protection Rating	IP21
Class	Type A, Indoors
Operating Temperature	-10°C to +50°C
Humidity	0 to 95% Relative Humidity, Noncondensing

Features

- EN54-3:2001+A1:2002 + A2:2006 Compliance
- Built-in MCU processor and digital addressing
- 17 tones Programmable sound output
- Programmable types such as Sounder-Strobe, Sounder or Strobe alone
- Programmable Evacuate or Pre-alarm/Evacuate signal
- Low and normal consumption mode
- One or Two addresses mode
- 10 Highlights LED status cluster
- Onsite Adjustable Parameters
- Loop or external power input
- Aesthetically pleasing design
- Universal mounting with fix base for simple installation





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Addressable Sounder

AVI-6402

The AVI-6402 Addressable Sounder Strobe is alarm warning device used to notify persons in the vicinity of the occurrence fire emergency in order the person to take appropriate measures. The unit adopt multi-application device starting from the types, parameters and wiring layout in single unit. The AVI-6402 can change into different alarm warning types such as sounder-strobe type, sounder type or strobe type using programming tool. In addition, parameters can be configured according to the requirement which include alarm tone from 17 different tones, single address or dual address mode and also setting of power mode to low current consumption in a simple programming.



AVI-6402

Technical Specification	
Standard	EN54-3:
Input Voltage	Loop Power: 24VDC [18V to 27.5V]
Typical Current	Loop: Standby 0.6mA, Alarm: 1.5mA
Saving Current	Standby 1.2mA, Alarm: 4mA
Protocol/Addressing	T&A, Value range from 1 to 254
Tones	17 Tones (refers to Manual)
Address Sequence	Single Address: Evacuate tone
Dual Address:	1st Alert Tone / 2nd Evacuate tone
Material / Color	ABS / Red Glossy finishing
Dimension	Diameter 110 mm / 39.6 (with Base)
Weight	180g (with Base), 114g (Without Base)
Ingress Protection Rating	IP21
Class	Type A, Indoors
Operating Temperature	-10°C to +50°C
Humidity	0 to 95% Relative Humidity, Noncondensing

Features

- EN54-3 Compliance
- Built-in MCU processor and digital addressing
- 17 tones Programmable sound output
- Programmable Evacuate or Pre-alarm/ Evacuate signal
- Low and normal consumption mode
- One or Two addresses mode
- Onsite Adjustable Parameters
- Loop or external power input
- Aesthetically pleasing design
- Universal mounting with fix base for simple installation





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Intelligent Sounder Strobe

The AVI-6403 Intelligent Sounder Strobe is alarm warning device used to notify persons in the vicinity of the occurrence fire emergency in order the person to take appropriate measures. The unit adopt multi-application device starting from the types, parameters and wiring layout in single unit. The AVI-6403 can change into different alarm warning types such as sounder-strobe type, sounder type or strobe type using programming tool. In addition, parameters can be configured according to the requirement which include alarm tone from 17 different tones, single address or dual address mode and also setting of power mode to low current consumption in a simple programming.

Features

- EN54-3 Compliance
- Built-in MCU processor and digital addressing
- 17 tones Programmable sound output
- Programmable types such as Sounder-Strobe, Sounder or Strobe alone
- Programmable Evacuate or Pre-alarm/Evacuate signal
- Low and normal consumption mode
- One or Two addresses mode
- 10 Highlights LED status cluster
- Onsite Adjustable Parameters
- Loop or external power input
- Aesthetically pleasing design
- Universal mounting with fix base for simple installation



AVI-6403

Technical Specification	
Standard	EN54-3
Input Voltage	Loop Power: 24VDC [18V to 27.5V]
Typical Current	Loop: Standby 0.6mA, Alarm: 1.5mA
Saving Current	Standby 1.2mA, Alarm: 9mA
Protocol/Addressing	T&A, Value range from 1 to 254
Address Sequence	Single Address: Evacuate tone
Dual Address:	1st Alert Tone / 2nd Evacuate tone
Strobe Light	10 Highlights LED
Material / Color	ABS / Red Glossy finishing
Dimension	L:152.5 x W:88.5 x H46.75 mm (without Base)
Weight	184g (with Base), 124g (Without Base)
Ingress Protection Rating	IP21
Class	Type A, Indoors
Operating Temperature	-10°C to +50°C
Humidity	0 to 95% Relative Humidity, Noncondensing





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Loop Passive Repeater



IGN-5096 LCD Repeater Panel is designed with built-in MCU processor to display exact fire event messages from the control panel and fast relay response with simultaneous audible and visual signal output. This repeater panel can also program to limit the zone display from All Zones into a particular zone or three adjacent zones through the panel key buttons. The unit is connected through the communication loop of IGN Intelligent control panel along with the devices and can install up to 254 units per loop. The repeater panel can be used whenever there is a need to relay information to multipoint informing key personnel.

MODEL	IGN-5096
Standard	EN 54-2: 1997+A1: 2006
Input Voltage	Loop Power: 24VDC [16V to 28V]
Current Consumption	Loop: Standby 1mA, Alarm: 1.2mA External PSU: Standby 25mA, Alarm: 80mA
Memory Capacity	Up to 300 fire event history
Number per loop	Up to 254 units (ideal)
Material / Color	ABS / White Glossy finishing
Dimension	180mm x 110 mm x44 mm
Weight	300g (with Base), 256g (without Base)
Operating Temperature	0°C to + 40°C
Humidity	0 to 95% Relative Humidity, Noncondensing

Features

- EN54-2 Compliance
- Loop Fire display passive repeater panel
- Built-in MCU processor and digital addressing
- Fast response of audible and visible signal from the panel
- Direct access common keys such as MUTE, UP, DOWN and BROWSE.
- Programmable Zone Display such as All Zone, Single Zone and Three Adjacent Zone
- LED status indicator
- Onsite Adjustable Parameter
- Loop sited wiring with external 24V supply
- Compact size and aesthetically pleasing design
- Surface mounting with fix base for simple installation

Module and Wiring Details

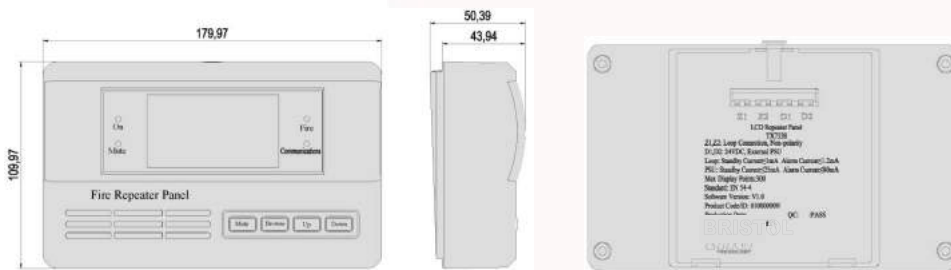


Fig.1 LCD Repeater Panel Structure

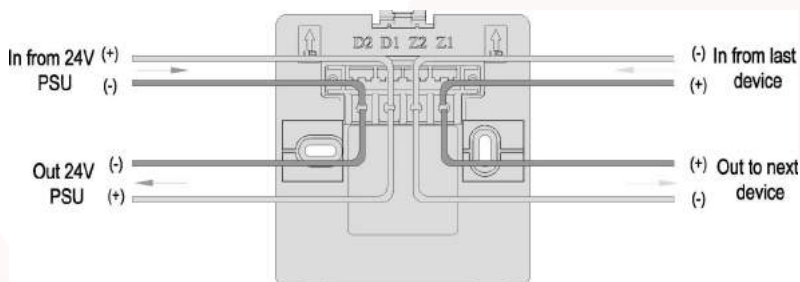


Fig.2 Wiring Details

Terminal Description

- Z1 Signal In (+)
- Z1 Signal Out (+)
- Z2 Signal In (-)
- Z2 Signal Out (-)
- D1 External Power Supply In (+)
- D2 External Power Supply In (-)
- D1 External Power Supply Out (+)
- D2 External Power Supply Out (-)



IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Addressable Input Module,

The IM-8410 Addressable Input Module is used to acknowledge normally open monitor signal from interface equipment then sending communication signal to the control panel, ideally for monitoring sprinkler system, pressure switch, position switch, signal valves and other third party equipment such as conventional panel.

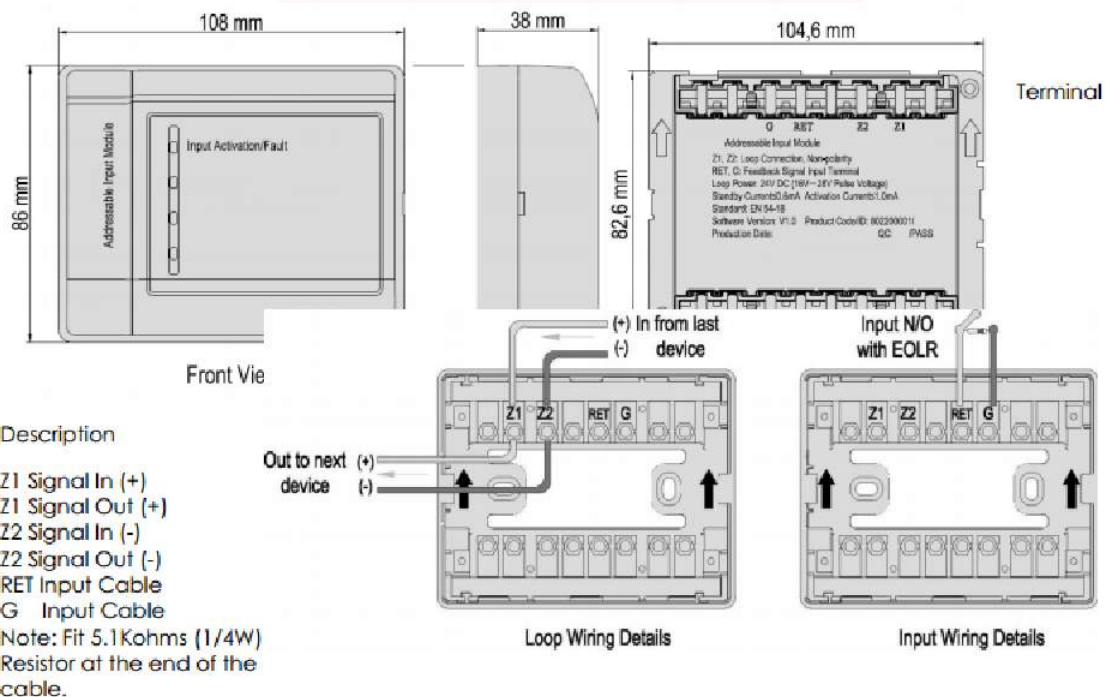
IM 8410



- EN54-18 Compliance
- LPCB Pending
- Built-in MCU processor and digital addressing
- Fire or Supervisory signal configuration
- Input cable monitored
- Normally open configuration
- LED status indicator
- Loop powered device
- Aesthetically pleasing design
- Surface mounting with fix base for simple installation

MODEL	IM 8410
Listed	LPCB Pending
Compliance	EN54-18:2005/AC2007
Power Rating	
Input Voltage	24VDC [16V to 28V]
Current Consumption	Standby 0.6mA, Alarm: 1.0mA
Module	
Protocol/Addressing	T&A, Value range from 1 to 254
Input Relay	Normally Open dry contact
Input Resistance	5.1Kohms/ ¼ W
Indicator Status	Normal: Single blink/Active: Steady/Fault: Double Blink
Material / Color	ABS / White Glossy finishing
Dimension	108 mm x 86 mm x38 mm
Weight	155g (with Base), 85g (without Base)
Class	Type A, Indoors
Operating Temperature	-10°C to +50°C
Ingress Protection Rating	IP30
Humidity	0 to 95% Relative Humidity, Non condensing

Module and Wiring Details



IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Addressable Single Input / Output Module , IM 8412

The IM 8412 Addressable Single Input/output Module is characterized as one input or output volt free relay and control module. The unit is normally used for overriding equipment such as lift return, door holder, smoke extract fans, air handling unit, auto dialler to fire brigade, BMS and etc. The unit has built-in feedback signal feature, according to the pre-configured interface module command fire scenario, the alarm controller send out start command to the equipment required to start. After receiving the command, output module enables its relay to change state. Once the module is under control and operated a confirmation signal will be sending back to the alarm controller. In addition, the unit incorporates an intelligent processor that provides automatic monitoring for both open and short circuit of the input signal line.

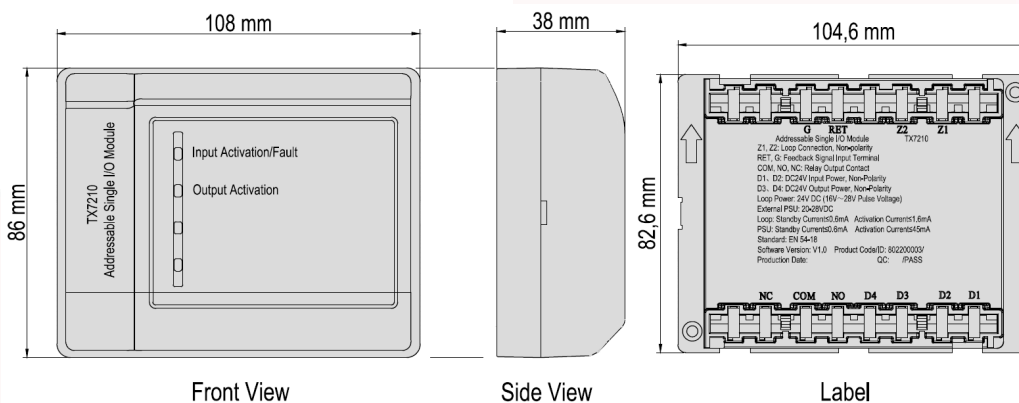


MODEL	IM 8412
Listed	LPCB / CE-CPR
Compliance	EN54-18:2005
Power Rating	
Input Voltage	Loop Power:24VDC [16V to 28V]; External PSU: 20 to 28VDC
Current Consumption	Standby 0.6mA, Alarm: 1.6mA; External PSU: Standby 0.6mA,
Module	
Protocol/Addressing	T&A, Value range from 1 to 254
Input Relay	Normally Open dry contact
Input Resistance	5.1Kohms/ ¼ W
Indicator Status	Normal: Single blink/Active: Steady/Fault: Double Blink
Material / Color	ABS / White Glossy finishing
Dimension	108 mm x 86 mm x38 mm
Weight	170g (with Base), 92g (without Base)
Operating Temperature	-10°C to +50°C
Ingress Protection Rating	IP30
Humidity	0 to 95% Relative Humidity, Noncondensing

Features

- EN54-18:2005 Compliance
- LPCB Approved
- Built-in MCU processor and digital addressing
- 24Vdc/3A Output relay contact and Control module
- Input Fire or Supervisory signal configuration
- LED status indicator
- Onsite Adjustable Parameter
- Loop or external power input
- Aesthetically pleasing design
- Surface mounting with fix base for simple installation

Module and Wiring Details



Terminal Description

Z1 Signal In (+)	D1 External Power Supply In (+)
Z1 Signal Out (+)	D2 External Power Supply In (-)
Z2 Signal In (-)	D3 Not Use
Z2 Signal Out (-)	D4 Not Use
RET Input Cable	COM Output Cable
G Input Cable	NO, NC Output Contact





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Module and Wiring Details

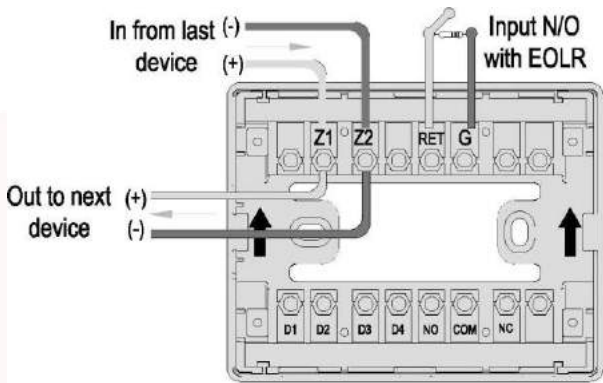


Figure 1: Input Wiring Details

Note: Change the parameter Input Check into 3Y
(Loop Powered)

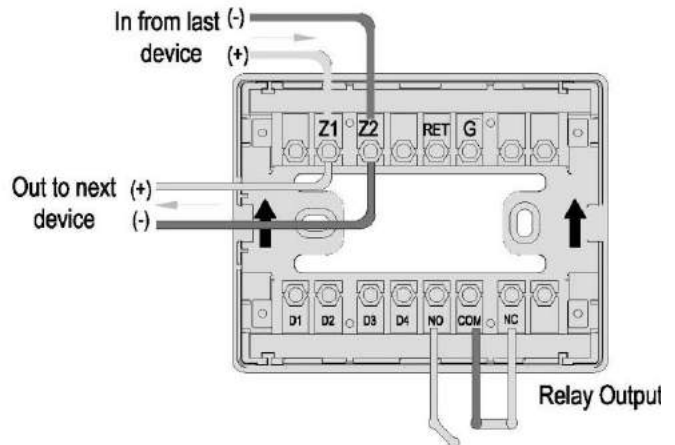


Figure 2: Relay Output Wiring Details

(Loop Powered) mostly used

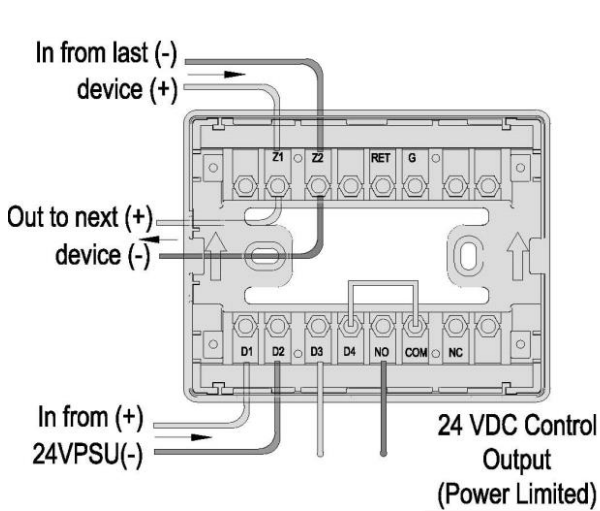


Figure 3: Control Output Wiring Details

(Required External Power Supply)

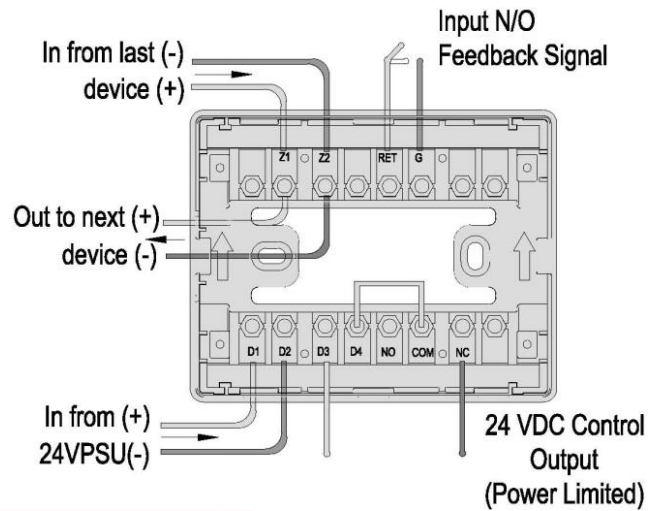


Figure 4: Control Output with Feedback

Signal Wiring Details

(Required External Power Supply)



IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Addressable Dual Input / Output Module , IM 8413

The IM-8413 Addressable Dual Input/output Module is characterized as two inputs or outputs volt free relay and control module. The unit is normally used for overriding equipment such as lift return, door holder, smoke extract fans, air handling unit, auto dialler to fire brigade, BMS and etc. The unit has built-in feedback signal feature, according to the pre-configured interface module command fire scenario, the alarm controller send out start command to the equipment required to start. After receiving the command, output module enables its relay to change state. Once the module is under control and operated a confirmation signal will be sending back to the alarm controller. In addition, the unit incorporates an intelligent processor that provides automatic monitoring for both open and short circuit of the input signal line.

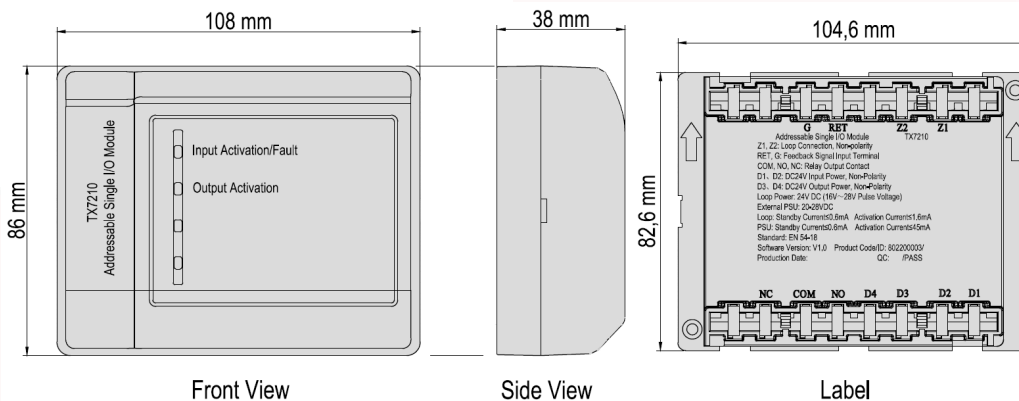


IM 8413

Features

- EN54-18 Compliance
- Built-in MCU processor and digital addressing
- Two circuits 24Vdc/3A Output relay contact and Control module
- Two circuits Input Fire or Supervisory signal configuration
- Dis/Enable Input and output cable monitored
- LED status indicator
- Onsite Adjustable Parameter
- Loop or external power input
- Aesthetically pleasing design
- Surface mounting with fix base for simple installation

Module and Wiring Details



Terminal Description

- | | |
|-------------------------------|---------------------------------|
| Z1 Signal In (+) | D1 External Power Supply In (+) |
| Z1 Signal Out (+) | D2 External Power Supply In (-) |
| Z2 Signal In (-) | D3 Not Use |
| Z2 Signal Out (-) | D4 Not Use |
| RET Input Cable | COM1 Output Cable (Circuit1) |
| G1 Input Cable | NO1, NC Output Cable |
| G2 Input Cable (Circuit1) | |
| RET 2 Input Cable (Circuit 2) | |
| COM2 Output Cable (Circuit 2) | |
| NO2 Output Cable (Circuit 2) | |



MODEL	IM 8413
Listed	LPCB Pending
Compliance	EN54-18:2005/AC2007
Power Rating	
Input Voltage	Loop Power:24VDC [16V to 28V]; External PSU: 20 to 28VDC
Current Consumption	Standby 0.6mA, Alarm: 1.6mA; External PSU: Standby 0.6mA,
Control Output Voltage	24VDC / 3A rating (per circuit)
Module	
Protocol/Addressing	T&A, Value range from 1 to 254
Input Relay	Normally Open dry contact
Input Resistance	5.1Kohms/ ¼ W
Indicator Status	Normal: Single blink/Active: Steady/Fault: Double Blink
Material / Color	ABS / White Glossy finishing
Dimension	108 mm x 86 mm x38 mm
Weight	182g (with Base), 100g (without Base)
Operating Temperature	-10°C to +50°C
Ingress Protection Rating	IP30
Humidity	0 to 95% Relative Humidity, Noncondensing

IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Module and Wiring Details

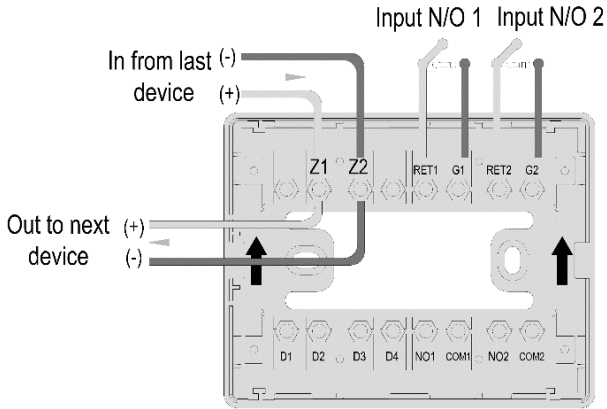


Figure 1: Input Wiring Details

Note: Change the parameter Input Check into 3Y
(Loop Powered)

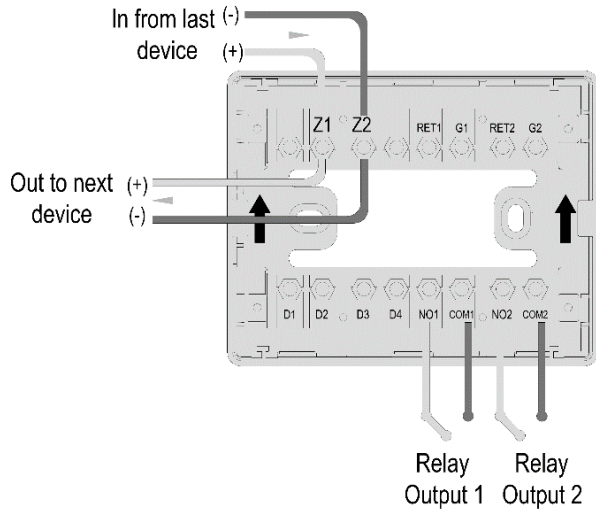


Figure 2: Relay Output Wiring Details
(Loop Powered) mostly used

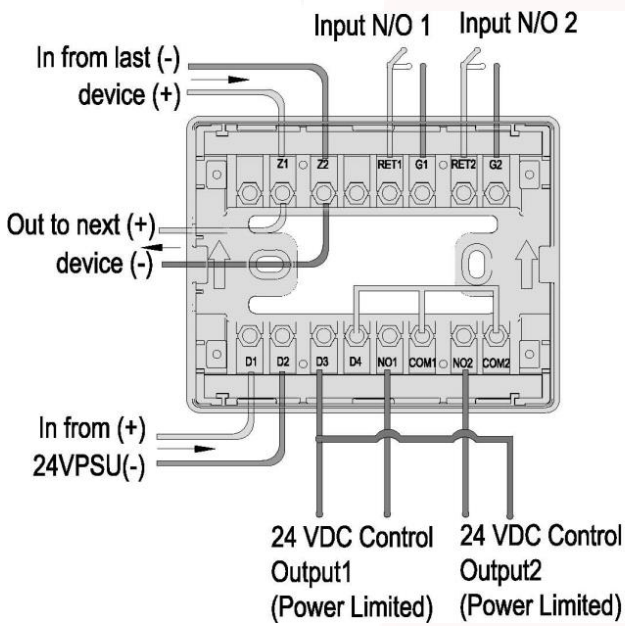


Figure 3: Control Output Wiring Details
(Required External Power Supply)

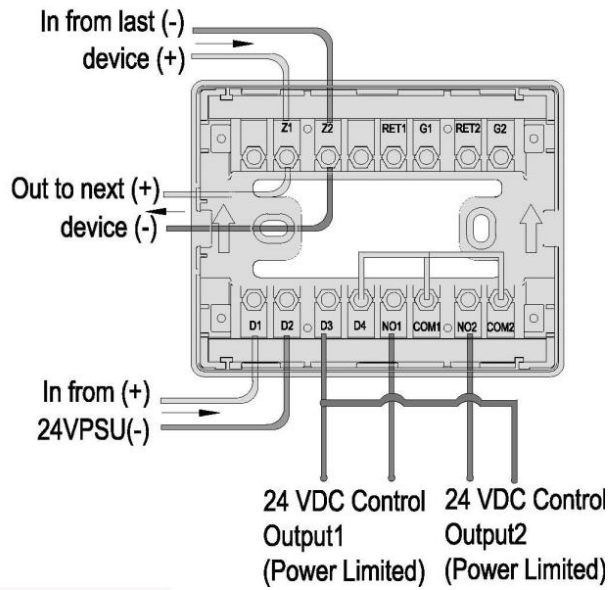


Figure 4: Control Output with Feedback
Signal Wiring Details
(Required External Power Supply)





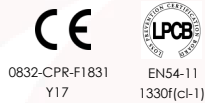
IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Isolator Module , IM 8414

The IM-8414 manufactured base on the requirement of EN 54 part 17, European Standard. In the event of short circuit on the detection loop the IM-8414 Isolators either side of the loop will detect the problem and open circuit and isolates the faulty part of the loop, enabling other devices on the unaffected part of the loop to operate normally. The module will continue to monitor for the fault to be repaired, once the fault is cleared the isolator will automatically reinstate the effected part of the loop.

FEAT



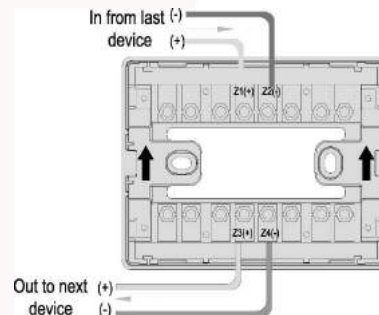
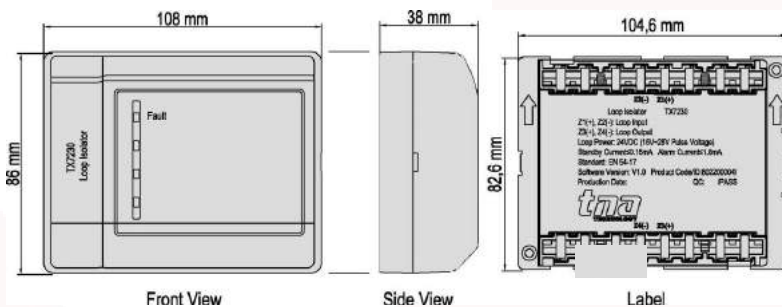
IM 8414

Features

- EN54-17:2005 Compliance
- LPCB Approved
- In the event of a short circuit isolates faulty parts of the loop.
- Automatically resetting once the fault has been cleared
- Can monitor up to 70 devices
- LED status indicator
- Loop powered device
- Aesthetically pleasing design
- Surface mounting with fix base for simple installation

MODEL	IM 8414
Listed	LPCB / CE-CPR
Compliance	EN54-17:2005
Power Rating	
Input Voltage	24VDC [16V to 28V]
Current Consumption	Standby 0.15mA, Alarm: 1.8Ma
Maximum Open Voltage (V SO MAX)	11V
Minimum Open Voltage (V SO MIN)	8V
Maximum Close Voltage (V SC MAX)	3V
Minimum Close Voltage (V SC MIN)	1.4V
Maximum Continuous Current (I C MAX)	500mA
Maximum Transient Output Current (I S MAX)	5mA
Maximum Leakage Current (I L MAX)	2mA
Max closed impedance (Z C MAX)	0.65ohms
Module	
Protocol/Addressing	T&A
Number of monitored	Max 70 Devices
Output Impedance	480 ohms
Indicator Status	Indicator Status Normal: Single blink/
Material / Color	ABS / White Glossy finishing
Dimension	108 mm x 86 mm x38 mm
Weight	152g (with Base), 81 g (without Base)
Ingress Protection Rating	IP30
Humidity	0 to 95% Relative Humidity, Noncon-

Module and Wiring Details



Terminal Description

- Z1 Signal In (+)
- Z1 Signal Out (+)
- Z2 Signal In (-)
- Z2 Signal Out (-)



IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Addressable Zone Monitor Module, IM 8411



IM 8411

Features

- EN54-18 Compliance
- Built-in MCU processor and digital addressing
- Intelligent self-diagnosis of open circuit
- Enhanced capacity of interference resistance by using multilevel wave filtering process
- LED status indicator
- Onsite Adjustable Parameter
- Loop and external power input
- Aesthetically pleasing design
- Parallel connecting up to 16 conventional detector
- Unit mounting with fix base for simple installation

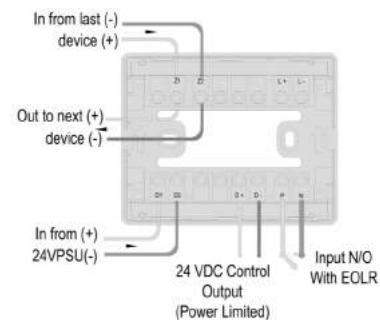
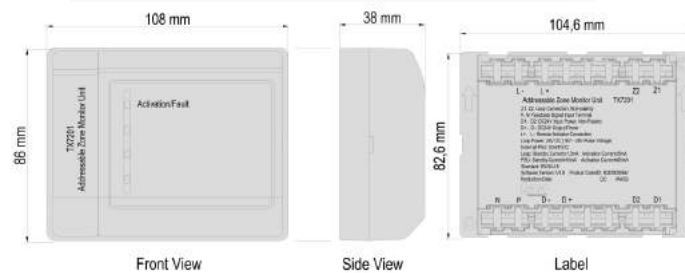
IM-8411 Addressable Zone Monitor unit is an addressable interface module, which will integrate conventional detectors or conventional manual call points to addressable system. When any of the connected devices alarms are active, the unit can send the alarm message to fire alarm controller, which generates alarm signal and displays its address. The unit can match with the conventional optical smoke detector, conventional rate of rise and fixed temperature detector and conventional manual call point etc. It has the function of checking short or open circuit of the output connection, by the End of Line Resistor (EOLR). The fault message includes open circuit, short circuit or any removal of the detectors.

MODEL	IM 8411
Listed	LPCB Pending
Compliance	EN54-18:2005/AC2007
Power Rating	
Input Voltage	Loop Power: 24VDC [18V to 28V] External PSU: 24 VDC [20V to 28V]
Current Consumption	Loop: Standby 1.3mA, Alarm: 5mA External PSU: Standby 10mA, Alarm: 60mA
Control output voltage	24VDC (Only for the use of IGN-C7404 do not allow the short circuit)
Module	
End of line Resistance	5.1Kohms/ ¼ W
Protocol/Addressing	T&A, Value range from 1 to 254
Indicator Status	Normal: Single blink/Active: Steady/Fault: Double Blink
Material / Color	ABS / White Glossy finishing
Dimension	108 mm x 86 mm x38 mm
Weight	154g (with Base), 83g (without Base)
Ingress Protection Rating	IP30
Operating Temperature	-10°C to +50°C
Humidity	0 to 95% Relative Humidity, Noncondensing

Module and Wiring Details

Terminal Description

- Z1 Signal In (+) Z1 Signal Out (+)
 Z2 Signal In (-) Z2 Signal Out (-)
 P connect detectors, Non-polarity
 N connect detectors, Non-polarity
 D1 External Power Supply In (+)
 D2 External Power Supply In (-)
 D+, D- Output Cable(Only for the use of TX7130)
 L+ Remote Indicator (+)
 L- Remote Indicator (-)



IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Power Supply Unit



Features

- EN54-4 Compliance
- Intelligent 5A Power supply unit
- Can sit on the loop to monitor by the Fire control panel
- Digital display showing output voltage and load current
- Overload, overcharge and over usage protection
- Fully Monitored with Self-test function
- Wall mount

MODEL	7090-0500	7096-0600
Compliance	EN 54-4	
Power Rating		
Power Supply	Mains: AC220V(110-240V),50/60Hz, <130W	
Backup	24VDC/12Ah sealed lead-acid battery (Not included)	
Output Power	120W (24VDC/5A)	240W (24VDC/10A)
PSU		
Protocol/Addressing	T&A, Value range from 1 to 254	
Mains and backup switching time	No delay	
Indicator	Numerical Display	
Material / Color	Flat sheet Metal / Light Gray	
Dimension	400mm x 320mm x 120mm	
IP Grade	IP30	
Operating Environment		
Temperature	-10°C~+60°C	
Relative Humidity	≤95%, non-condensing	
Atmosphere	86~106KPa	





IGN SERIES ADDRESSABLE

Fire Alarm & Detection System

Handheld Programmer , 7096-0400

The 7096-0400 is the general purpose programming tool use for IGN Series family products. This unit is designed to suit for entering device parameters such as address, sensitivity, mode and types to meet the site situation and environmental requirements. In addition, the programmer is capable to read the previous encoded parameters to use for testing application and troubleshooting purposes.

The 7096-0400 is miniature and robust design makes it convenient to bring in the work place. The programmer is packed with twin 1.5V AA battery and cable, ready for usage once received. Easy to understand the display and with functional keys allow easy single-button activation of the common used parameters.



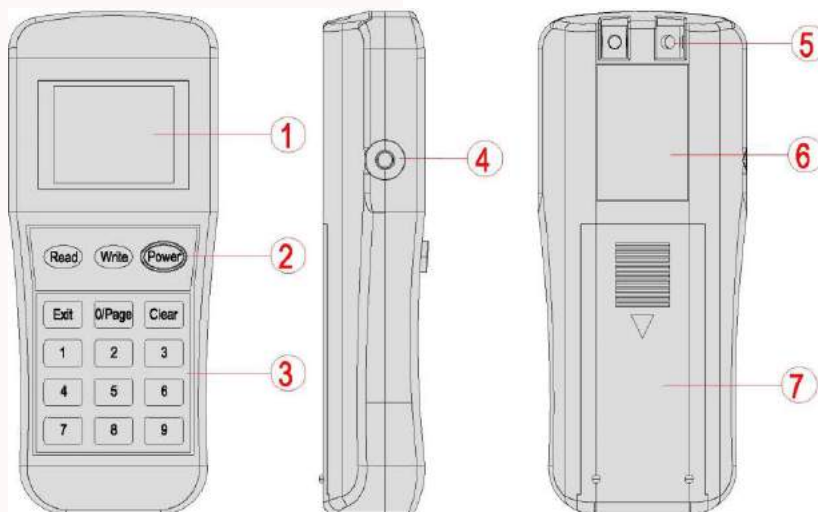
MODEL	7096-0400
Battery Required	2X1.5 AA / Included
Current Consumption	Standby 0µA, In-use: 3mA
Protocol	T&A
Material / Color	ABS / Grey Glossy finishing
Dimension	130 mm x 54 mm x28 mm
Relative Humidity	0 to 95% Relative Humidity, Non condensing

Features

- Write, read and erase device parameters
- Pluggable cable with end alligator clip to hold tight the terminals
- LCD display and functional keys
- Low current consumption for longer battery lifespan
- Circuit protection against clip
- Auto power-off within 5 minutes

Names and Locations

- ① **Data Display** 16 Characters, four-segment display shows the device address, set types and mode and ID value
- ② **Function Key** Allow easy single-button activation of the common used parameters such as exit, clear, page, read and write function
- ③ **Numerical Key** 0 to 9 keys used to enter numeric values
- ④ **Jack Socket** Location for male connector of programming cable
- ⑤ **Loop Terminal** Connection to signalling loop used for testing the loop wiring
- ⑥ **Label** Programmer details and specification
- ⑦ **Battery Compartment** Location for programmer batteries





ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

UL Addressable Fire Alarm System ADX Series

Addressable fire alarm systems are made up of series of fire detectors and devices that are connected back to a central control panel. With addressable systems, each device has an address or location, enabling the exact detector that was triggered to be quickly identified. This makes addressable alarm systems ideal for large buildings, particularly commercial premises spread over a wide area. Bristol UL Addressable Fire Alarm System ADX Series is ideal for NFPA 72 installation.

Arius™ Addressable Fire Alarm Control Panel

The Arius control panel is an analogue addressable fire alarm panel containing 2 or 4 SLC loops with each loop supporting 127 devices of any combination (sensors or modules), and 127 analog sounder bases, for a possible total of 254 points. Communication between devices is transferred through standard cable (shielded or twisted pair is not required). Each panel includes a 5.25 amp power supply and has 4 on board NAC circuits. An RS-485 bus provides communication to the panel network, while the RS-232 interface allows the convenience of programming via a PC. The system will support a variety of devices such as photo and heat sensors, which contain a unique, patented sensor design incorporating automatic drift compensation and day/night sensitivity mode. Additional devices include contact monitors, relay controllers, supervised auxiliary output and short circuit isolator modules. In addition, interfaces to conventional detection systems can be established by using a conventional zone-monitoring module.



Features

- Analogue design using advanced DCP protocol for fast and robust communication
- Up to 127 sensors & modules, plus 127 analog sounder bases, for a total of 254 points possible per loop
- Uses standard wire, no shielded or twisted pair required on SLC loops
- Supports Class B (style 4) and Class A (style 6 or 7) SLC loops
- 4 on board Class B (style Y) NAC circuits rated at 2.5 Amps each
- Programmable sensitivity levels per device & automatic day/night sensitivity modes
- Automatic daily calibration & drift compensation routine
- 2 loop or 4 loop versions (800 addresses/sub-addr. max.)
- 2 built-in RS-232 interfaces for programming via a PC and serial printer interface
- 5 on board programmable Form C relays rated at 1 amp at 30VDC (Fire1, Fire2, trouble, supervisory, aux.)
- 500mA of auxiliary power available rated at 24 VDC
- Loop Explorer Windows® configuration utility
- 500 network wide software zones
- Network capability of up to 64 panels
- RS485 slave bus for expansion - up to 32 IO boards or up to 15 serial annunciators and up to 17 IO boards
- Auto-learn feature; Fire Drill test function; Walk test function; Alarm verification feature
- Powerful & versatile Cause & Effect programming (up to 500 maximum, network wide) including:
Cause & Effect action
Disable function configuration
Test mode configuration

MODEL	ADX-2NR/4NR
Primary AC	120VAC @ 2.1 Amps 60hz or 220VAC @ 1.1Amps 50hz
Output DC	24VDC @ 5.25 Amps (4 Amps available for system power)
Power Supply	5.25 Amps integrated
Charger Current	1.5 Amps max.
Dimensions	14.5" W x 24" H x 5" D
Weight	31 lbs. (without batteries)
Color	Red (optional gray)
Material	ABS/steel enclosure
Display	8 line x 40 character LCD (320 characters total)
Network	Dual RS485 ports (64 panels max.)
Zones	500 network wide software zones per system
SLC loops	2 or 4 (class A, "style 6 or 7" or class B, "style 4")
Devices per loop	127 sensors & modules, plus 127 analog sounder bases, 254 total
Addresses per panel	(800 addresses + sub-addresses max. per panel)
NAC Outputs	4) 2.5 Amps @ 24VDC (class B)
Relay Outputs	(5) Form C 1 Amp @ 30VDC
Voltage Outputs	(3) 500mA @ 24VDC
Aux. Power	500mA @ 24VDC
Aux. Inputs	(8) digital pull downs
PC Port / Printer	RS232
Operating Temp.	32°F (0°C) 120°F (49°C)
Relative Humidity	85% RH Non-Condensing



ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Arius™ Network LCD Annunciator

ADX-NANN

The ADX-NANN type LCD network annunciator is designed to be used with the Arius analog addressable system. It allows for remote access, monitoring & control of the system throughout the building.

The ADX-NANN is a true network annunciator that can access, monitor & control any or all Arius panels in the network. Each ADX-NANN is completely independent. The highly intuitive user interface and 320 character LCD display of the ADX-NANN is exactly the same as the Arius panel. In addition to routing any panel in the network to the ADX-NANN, every event category within each panel can also be individually routed, as well as routing of all remote control functions (reset, alarm silence, re-sound alarm) from individual panels. The ADX-NANN supports the same RS485 expansion port as the Arius panel, allowing for Arius expansion boards and accessories to be connected to the network annunciator.



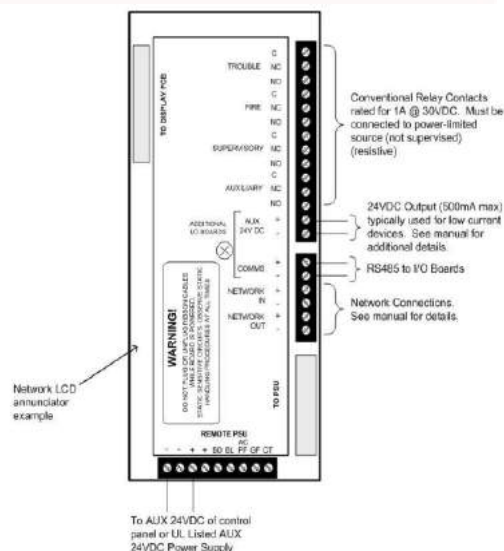
Technical Information

MODEL	ADX-NANN
Input DC	24VDC @ 270mA Max. (+ Aux. Power Load)
Aux. Output DC	24VDC @ 500mA
Dimensions	14.5" W x 10" H x 3.3" D
Weight	9.4 lbs
Color	Red
Material	ABS/steel enclosure
Operating Temp.	32°F (0°C) 120°F (49°C)
Relative Humidity	85% RH Non-Condensing
Display	8 line x 40 character LCD (320 characters total)
Network	Dual RS485 ports (64 nodes max.)
Relay Outputs	(4) Form C 1amp@30VDC
PC Port	RS232
Printer Port	RS232
Expansion Port	RS485 (for optional expansion boards)

FEATURES

- 320 character liquid crystal display (8 line x 40 character) allows viewing of system status
- LED indicators for Fire, Supervisory Alarm, Pre-Alarm, Fire Output Active, Power On, On Test, Panel Sounder Silenced, Delay Active, More Events, Point Bypassed, General Trouble, Power Trouble, System Trouble & NAC Trouble
- 4 on board programmable Form C relays rated at 1 Amp at 30VDC (Fire, Supervisory, Trouble & Auxiliary)
- Same controls as the Arius fire panel (Reset, Panel Sounder Silence, Lamp Test, Alarm Silence, Re-sound Alarm, Fire Drill, Programmable Function, More Events, More Fire Events, Enter & Exit)
- Local piezo sounder for event notification
- Supports user codes & firefighter key to enable access & controls
- True network annunciator, any or all panels can be routed to the ADX-NANN. In addition, each event category can be individually routed to the ADX-NANN
- Up to (64) Arius panels & ADX-NANN's can be networked together in any combination
- 500mA of auxiliary power available rated at 24VDC
- Auto-learn feature
- Built-in help & alarm information screens

WIRING DIAGRAM



ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Arius™ Serial LCD Annunciator

ADX-SANN

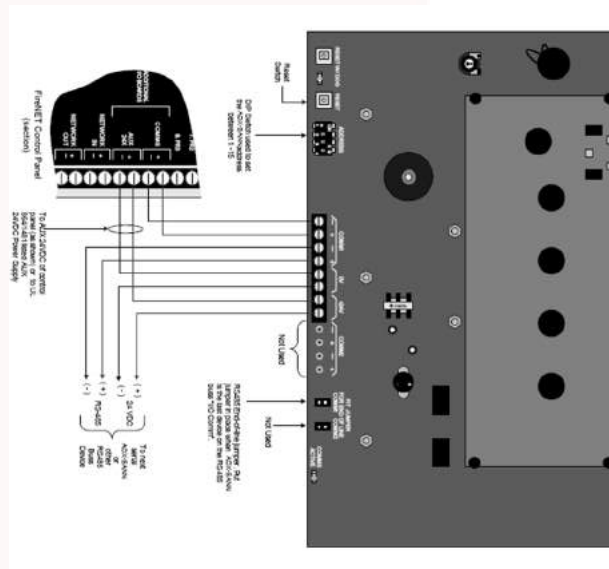
The ADX-SANN serial annunciator provides a convenient and cost effective remote annunciator solution. Up to 15 ADX-SANN annunciators can be connected to the slave RS-485 port of the Arius control panel or network annunciator. The ADX-SANN's large 320 character display and navigation buttons are a complete mimic of the Arius control panel display. The use of a common interface allows the user to easily operate the FN-LCD-S as if he were operating the Arius control panel directly.

Security is established by the use of a password or firefighters enable key. Designed to be aesthetically pleasing, the ADX-SANN is available in charcoal grey or red enclosures. The ADX-SANN can be surface or flush mounted without the need for a trim ring.

Technical Information

MODEL	ADX-SANN
Current Draw	Standby: 20mA @ 24VDC; Alarm: 110mA @ 24VDC
Dimensions	ADX-SANN: 10.88" W x 8.00" H x 1.38" D Back Box: 10.38" W x 7.38" H x 1.25" D
Weight	3.5 lbs
Color	Red (optional charcoal)
Material	ABS/steel enclosure
Operating Temp.	32°F (0°C) 120°F (49°C)
Relative Humidity	85% RH Non-Condensing
Display	8 line x 40 character LCD (320 characters total)
Network	RS485 port

WIRING DIAGRAM



FEATURES

- Large 320 character liquid crystal display (8 line x 40 character) allows viewing of system status
- LED indicators for Fire, Supervisory Alarm, Pre-Alarm, Fire Output Active, AC Power On, On Test, Panel Sounder Silenced, Delay Active, More Events, Point Bypassed, General Trouble, Power Trouble, System Trouble & NAC Trouble
- Same controls as the Arius fire panel (Reset, Panel Sounder Silence, Lamp Test, Alarm Silence, Re-sound Alarm, Fire Drill, Programmable Function, More Events, More Fire Events, Enter & Exit)
- Up to 15 ADX-SANN serial annunciators may be connected to a Arius control panel or network annunciator
- Resides on the Arius slave RS-485 line
- Local piezo sounder for event notification
- Supports user codes & firefighter key to enable access & controls
- Powered by Arius Aux 24VDC or Aux. 24VDC supply
- Available in red or charcoal, and can be surface or flush mounted
- Built-in help & alarm information screens
- Fire drill function





ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Addressable Manual Pull Station

FEATURES

- Addressable integrated design
- All metal construction
- Single and dual action models available
- Extremely easy to operate
- Bi-colored status LED indicates Standby and Alarm conditions
- Address is programmable in EEPROM
- Address can be programmed when installed
- Key lock or hex key lock models available
- Enclosed switch with glass rod (included)
- Terminals accept up to 14AWG wire
- Surface mount back box available
- ADA compliant (except dual action models)



The PSA are the series of addressable manual pull stations that provide a fast and practical means of manually initiating a fire alarm signal. Both single action and dual action manual pull stations are available. Resetting of the pull station requires either a Cat 30 key or a 1/8" hex key (depending upon the model used). An alarm condition is actuated by pulling down on the handle of the PSA-SHL and PSA-SKL single action models. On the dual action models PSA-DHL and PSA-DKL the Lift and Pull cover must be lifted before pulling down on the pull station handle. Once the pull station is activated, the handle cannot be put back into a normal standby condition without using the key operated reset feature. The PSA series is electronically addressable and includes a bi-colored status LED. The LED blinks green indicating normal communication with the DCP compatible SLC loop. When an alarm condition is actuated by pulling the handle, the LED will latch Red to indicate the alarm condition.



ADX SERIES ADDRESSABLE

Fire Alarm & Detection System



Intelligent Smoke Detector

STK-S01

Bristol STK-S01 Photoelectric Smoke Sensor is particularly suited to detecting optically dense smoke typical of fires involving materials such as soft furnishings, plastic, foam or other similar materials which tend to smoulder and produce large visible smoke particles. Bristol's unique design allows fast response to flaming fires as well as smouldering fires while preventing false alarms.

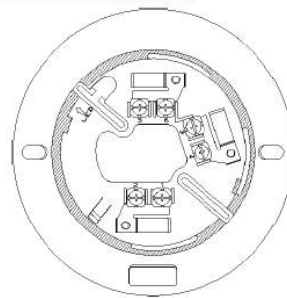
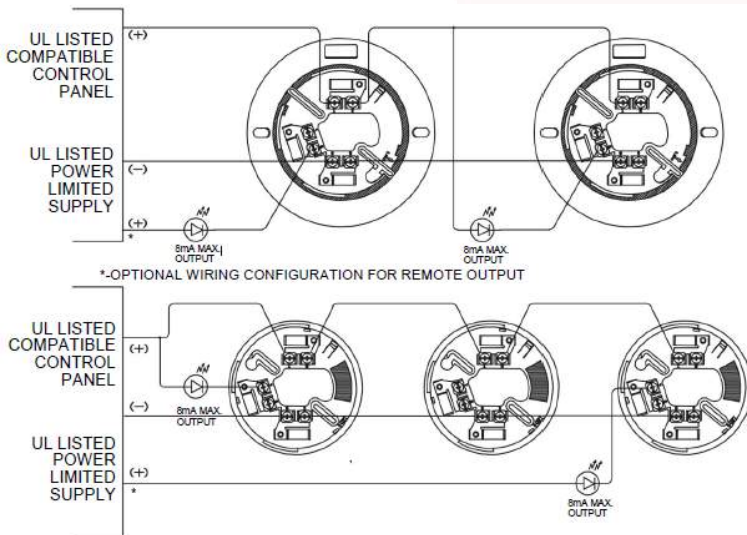
Technical Information

MODEL	STK-S01
Standard	ANSI/UL 268
Operating Voltage	17-41 VDC
Standby Current	450µA
Alarm Current	540µA
Transmission Method	DCP - Digital Communication Protocol
Maximum Humidity	95% RH Non-Condensing
UL Temperature Range	32°F to 115°F (0° C to 47° C)
Operating Temperature Range	14°F to 122°F (-10°C to 50°C)
Sensitivity Range	0.7-4.0%/FT@300FPM
	0.7-3.86%/FT@2000FPM
	0.7-2.65%/FT@4000FPM
Air Velocity Range	0-4000 fpm
Color & Case Material	Bone - ABS Blend
Weight	3.4oz (5.1 oz. with 4ll base)
Bases	STK-B14, STK-B26,

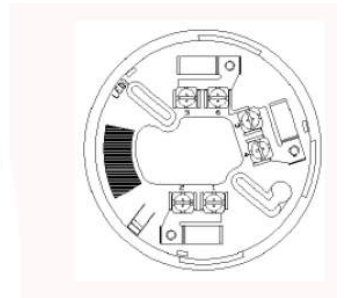
FEATURES

- Low profile - only 2.00" high, including base
- Simple and reliable device addressing
- Automatic compensation for sensor contamination
- Built-in fire test feature
- Uses the noise-immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- Two built-in power/alarm LEDs
- Programmable non-polling LEDs
- Non-directional smoke chamber
- Vandal resistant security locking feature
- Removable smoke labyrinth

Typical Wiring Diagram



STK-B26 BASE



STK-B14 BASE



ADX SERIES ADDRESSABLE

Fire Alarm & Detection System



Intelligent Heat Detector

Bristol STK-H02 Fixed Temperature/Rate of Rise Sensor provide accurate temperature measurement data to the fire alarm control panel. These sensors are well-suited for environments where dust, cooking fumes or other factors make the use of smoke sensors impractical.

MODEL	STK-S02
Standard	ANSI/UL 521
Operating Voltage	17-41 VDC
Standby Current	350µA
Alarm Current	500µA
Transmission Method	DCP - Digital Communication Protocol
Rate of Rise	15°F /Min (8.3 °C/Min)
UL Temperature Range	135°F to 190°F (57.2° C to 87.8° C)
UL maximum Spacing	70 ft
Maximum Humidity	95% RH Non-Condensing
Color & Case Material	Bone - ABS Blend
Air Velocity Range	0-4000 fpm
Color & Case Material	Bone - ABS Blend
Weight	3.2oz (4.9 oz. with 4"base)
Bases	STK-B14, STK-B26, STK-B3SB, STK-B14SCI, STK-B26SCI



FEATURES

- Low profile - only 2.00" high, including base
- Simple and reliable device addressing
- Uses the noise-immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- Rate of rise temperature threshold = 15°F/min (determined by panel)
- Adjustable threshold temperature = 135°F - 190°F (determined by panel)
- UL maximum spacing of 70 feet



ADX SERIES ADDRESSABLE

Fire Alarm & Detection System



Intelligent Multisensor

STK-M03

Bristol STK-M03 Multi-Criteria Sensor is particularly suited for detecting smoke produced by a wide range of combustibles found in various applications. Temperature monitoring is achieved by a thermistor placed for optimum sensitivity. Bristol's unique design allows fast response to flaming fires as well as smoldering fires while minimizing false alarms.



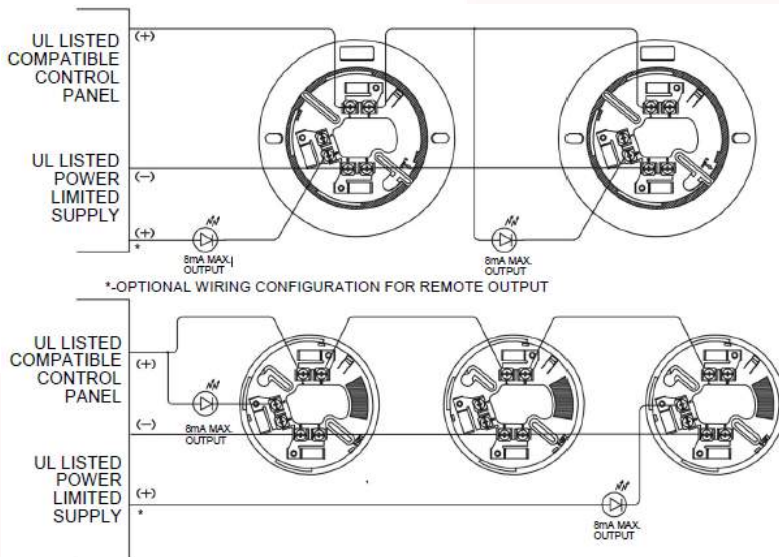
FEATURES

- Low profile - only 2.00" high, including base
- Simple and reliable device addressing
- Automatic compensation for sensor contamination
- Built-in re test feature
- Uses the noise-immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- Two built-in power/alarm LEDs
- Programmable non-polling LEDs
- Non-directional smoke chamber
- Vandal resistant security locking feature

Technical Information

MODEL	STK-M03
Standard	ANSI/UL 268
Operating Voltage	17-41 VDC
Standby Current	450µA
Alarm Current	450µA
Transmission Method	DCP - Digital Communication Protocol
Maximum Humidity	95% RH Non-Condensing
UL Temperature Range	135°F to 150°F (57° C to 65° C)
Operating Temperature Range	14°F to 122°F (-10°C to 50°C)
Sensitivity Range	0.7-4.0%/FT@300FPM 0.7-3.86%/FT@2000FPM 0.7-2.65%/FT@4000FPM
Air Velocity Range	0-4000 fpm
Color & Case Material	Bone - ABS Blend
Weight	4.2oz (5.9 oz. with 4" base)
Bases	STK-B14, STK-B26, STK-B3SB, STK-B14SCI, STK-B26SCI

Typical Wiring Diagram



Bases

Bristol STK-B26 and the STK-B14 mounting bases are electronics free and are a simple rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is provided which is enabled by removing a small plastic tab on the back of the sensor. Once locked, the head can be removed using a small diameter screwdriver.

NOTE: Fire alarm control panel compatibility is required for DCP products. DCP communications protocol allows system components (DCP sensors STK-M03, STK-S01, and STK-H02 bases and modules) to be used concurrently on a system's SLC (Signaling Line Circuit).





ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Dual Relay Module

MID-R20/I & MID R21/I

The Dual Relay Modules (MID-R20) have been designed to provide -exible and quick response to emergency conditions. The MID-R20 allows independent control of two form contacts for a variety of normally open and normally closed contact applications such as fan operation, elevator recall, door closure, and auxiliary



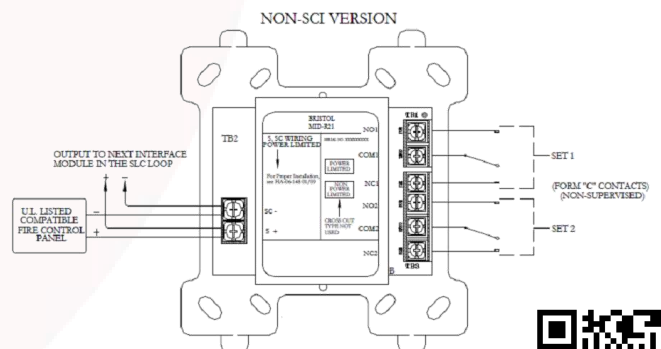
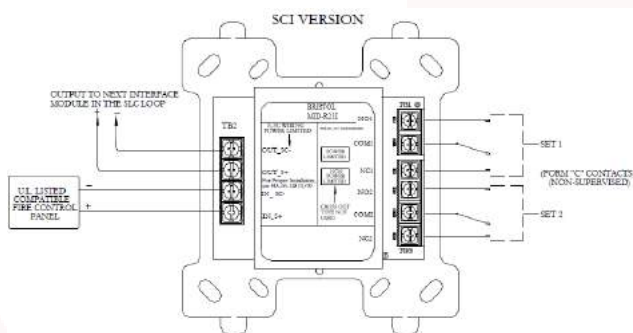
FEATURES

- Provides two independently configurable Form C contacts per address
- Contacts are rated as follow:
R2ML: 2A @ 30 VDC / 0.5A @ 120 VAC
R2MH: 8A @ 30VDC / 4.8A @ 250 VAC
- @ 250 VAC
- Up to 127 devices can be used on each SLC loop
- Visible Bi-colored LED is software controlled and can be programmed to
- blink red or green when polled. The LED can be latched on when activated
- Yellow LED indicates a short circuit condition (MID-R201 & MID- R211 only)
- Programming is highly -exible providing 16 priority states plus zoning capability
- Operates on Class A or Class B
- UL 864 Listed

Technical Information

MODEL	MID-R20/I & MID-R21/I
Standard	UL 864
Supply Voltage (S-SC)	25.3 ~ 39 VDC
Average Current Consumption	350µA (Typical) 405µA (Alarm)
Contacts	R2ML: 2A @ 30VDC / 0.5A @ 120 VAC
SCI On Resistance	40m ohm Max. (Normal Condition)
SCI Fault Detection Threshold	12 volts (Typical)
SCI Isolation Current (Short Circuit Condition)	10mA (Typical)
SCI Isolation Current (Short Circuit Condition)	10mA (Typical)
Dimensions	4.2"W x 4.7"H x 1.4"D
Ambient Temperature	32°F (0°C) ~ 120°F (49°C)
Mounting	4" square electrical box
Relative Humidity	90% RH Non-Condensing

WIRING DIAGRAM



ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Fast Response Contact Module

MID-M10



The MID-M10 Fast Response Contact Monitoring Modules are designed to be used with pull stations, water flow switches, and other applications requiring the monitoring of dry contact devices. The interrupt driven Digital Communications Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. The MID-M10 contact monitoring module does not require a separate 24 VDC power source.



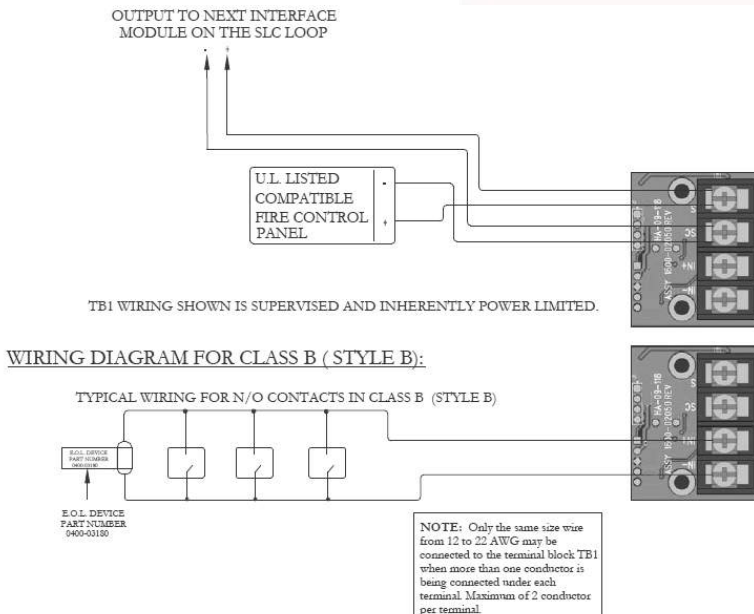
FEATURES

- UL 864 9th Edition Listed
- Single input contact monitor
- Fast, reliable contact monitoring utilizing the DCP
- (Digital Communications Protocol)
- 127 devices can be used per DCP loop
- Can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts
- Operates on Class A or Class B SLC loop
- Accepts up to 12 AWG wire

Technical Information

MODEL	MID-M10
Standard	UL 864
Supply Voltage (S-SC)	25.3 ~ 39 VDC
Average Current Consumption (On S-SC Line)	339µA (Typical); 358µA (Alarm)
Programmable Input	1 Monitoring Inputs
EOL Device	10.0K ohms Resistor
Max. Quantity Per Loop	127
Max. Quantity Per Loop	127
Dimensions	1.75"W x 2.37"H x 0.5"D
Operating Temperature	32°F (0°C) ~ 120°F (49°C)
Mounting	2" square electrical box
Relative Humidity	90% RH Non-Condensing

Typical Wiring Diagram



NOTE: For Normally Closed (N/C) contact monitoring, the MID-M10 can only be used to generate a trouble condition, not an alarm or supervisory.

NOTE: SLC Circuit is in reference to S, and SC for Class A/B wiring diagram.

NOTE: ANY NUMBER OF UL LISTED N/O CONTACT CLOSURE DEVICES MAY BE USED, SUBJECT TO NFPA AND AHJ REQUIREMENTS. DO NOT MIX FIRE ALARM AND SUPERVISORY INITIATING DEVICES ON THE SAME MODULE.





ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Conventional Zone Input Module *MID-CZM*

The MID-CZM is designed for use on an analogue addressable Fire Alarm system. Up to 127 devices can be placed on a single SLC loop. The device address is uniquely stored on an on-board EEPROM. The module allows the panel to interface and monitor two-wire conventional detectors or pull stations. Each MID-CZM transmits the status on one zone of devices (25 maximum per zone) back to the panel. It supervises the power supply as well as the entire zone of devices. Status conditions are reported as normal, open or alarm. All 2-wire smoke detectors must be UL listed as compatible to be interfaced with the MID-CZM. The interrupt driven Digital Communication Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. The module has a single bicolored LED to indicate device status. It fits into a standard 4" square or double gang electrical back box.

Technical Information

MODEL	MID-CZM
Standard	UL 864
Supply Voltage (S-SC)	25.3 ~ 39 VDC
Auxiliary Supply Voltage	18.8 ~ 27.2 VDC
Average Current Consumption (On S-SC Line)	670µA
2-Wire Detector Loop Current Standby Detector Load	1mA Max.
From Auxiliary Supply	60mA Max.
EOL Device	4.7K ohms Resistor
Max. Quantity Per Loop	127
Alarm Threshold Level	< 1.5K ohms
Wiring Threshold Level	> 2.5K ohms & < 6K ohms
Open Circuit Threshold Level	> 10K ohms
Max. 2-Wire Conventional Detector (Loop Resistance)	50 ohms (total wire length)
Dimensions	4.2"W x 4.7"H x 1.4"D
Operating Temperature	32°F (0°C) ~ 120°F (49°C)
Mounting	4" square electrical box
Relative Humidity	90% RH Non-Condensing



FEATURES

- UL 864 9th Edition Listed
- Provides an address point for a zone of up to 25 conventional smoke detectors
- Blinks green when polled. Latched on red (controlled by panel) when activated
- Device address can be programmed with a handheld programmer. Device address-ranges from 1 to 127
- Compatible with Class B and Class A wiring
- Auxiliary power source provides power for the zone of detectors, CD-PIC, CD, CD-H Series





ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Supervised Output Module

MID-CZM

The Supervised Output Module (MID-S31) is designed for Single-Interlock Pre-Action sprinkler systems. During an alarm condition, the MID-S31 output will operate which will trip a solenoid valve, allowing water to fill the sprinkler system piping. Water is not discharged until a sprinkler head operates due to heat from the fire. Pre-Action systems provide an added level of protection against inadvertent water discharge and are frequently employed in water sensitive locations such as archival vaults, fine art storage rooms, rare book libraries and computer centres.



FEATURES

- UL 864 9th Edition Listed
- Flexible Pre-Action application
- Quick response to emergency conditions
- Operation parameters are maintained by the module, and individual communication with the control system during emergency conditions is not required
- Contacts are rated 2.0 Amps @ 24VDC
- Programming is highly flexible providing 16 priority states plus zoning capability

Program status:

- LED will flash red or green
- Programmed device output is turned off, silenced, or programmed to active continuously

Technical Information

MODEL	MID-S31
Standard	UL 864
Supply Voltage (S-SC)	25.3 ~ 39 VDC
Auxiliary Supply Voltage	24 VDC
Average Current Consumption	154µA (Typical) Maximum
Current Consumption on Auxiliary Power Lines	Typical 1.15mA
Maximum Output Current	2A @ 2.4 VDC Power Limited
Solenoid Current Consumption	Maximum : 443mA
EOL Device	10K ohm s Resistor & 1N5817 Diode
Dimensions	4.2"W x 4.7"H x 1.4"D
Operating Temperature	32°F (0°C) ~ 120°F (49°C)
Mounting	4" square electrical box
Maximum Output Current	2A@24VDC power limited
Relative Humidity	90% RH Non-Condensing



ADX SERIES ADDRESSABLE

Fire Alarm & Detection System

Short Circuit Isolator

MID-SCI

The MID-SCI short circuit isolator should be located between any devices on the SLC loop. In the event of a short on the SLC loop, the two adjacent isolators (closest isolators to the left and right of the shorted section) will activate and their respective LED indicators will be turned on. All devices between the active short circuit isolators will lose communication. This will prevent entire loop failure. Upon removal of the short condition, the MID-SCIs will automatically restore the entire loop to the normal operating state.



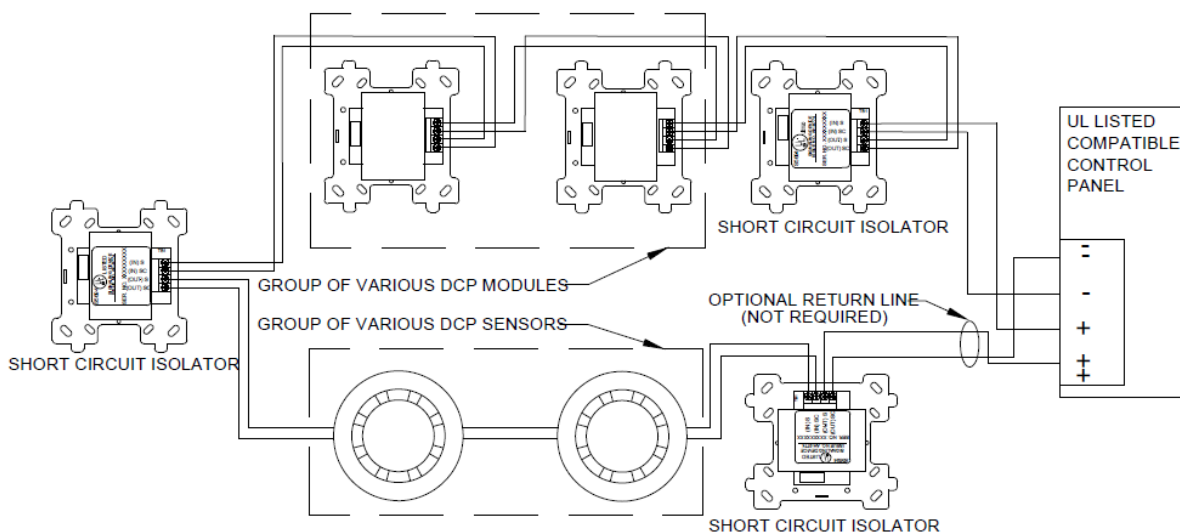
FEATURES

- Can be placed at any location on SLC loop
- Checks the line for short circuit at power up. If the line is normal, the relay will be returned on. If a line short is detected, the relay remains open
- Indication of a single short circuit by a yellow LED

Technical Information

MODEL	MID-SCI
Standard	UL 864
Supply Voltage (S-SC)	33 ~ 41 VDC
Average Current Consumption	270µA (Typical) 10 mA (Active Short Condition)
Visual Indicator (Yellow LED)	Normal: Off Active: On
Dimensions	4.2"W x 4.7"H x 1.4"D
Operating Temperature	32°F (0°C) ~ 120°F (49°C)
Mounting	4" square electrical box
Relative Humidity	90% RH Non-Condensing

WIRING DIAGRAM



TYPICAL WIRING DIAGRAM EXAMPLE, CONNECTED TO A COMPATIBLE LISTED CONTROL PANEL

ALL WIRING SHOWN IS SUPERVISED AND INHERENTLY POWER LIMITED. ANY COMBINATION OF MODULES AND/OR SENSORS MAY BE PLACED BETWEEN ISOLATORS





ADX SERIES ADDRESSABLE

Fire Alarm & Detection System



Selectable Candela Evacuation Signals

The HE Series is a low profile strobe and horn/strobe combination that offers dependable audible and visual alarms and the lowest current available. The HE Series is a low profile strobe and horn/strobe combination that offers dependable audible and visual alarms and the lowest current available. The 12VDC models offers tamperproof field selectable candela options of 15, 30, 60, and 75 candela. The HE Series horn offers a continuous or synchable temporal three in 2400Hz and mechanical tone, a chime and whoop tone. All tones are easy for the professional to change in the field by using switches.



FEATURES

- UL Listed ; UL 464 & UL 1971 Listed - S8369
- CSFM Listed - 7135-0410:0187, 7135-0410:0188
- Product Compliance - NFPA 72; ADA
- Nominal voltage 12VDC and 24VDC
- 24VDC units have field selectable candela options of 15, 30, 60, 75, and 110 candela
- 12VDC units have field selectable candela options of 15, 30, 60, and 75 candela
- Unit Dimensions: 5" high x 4.5" wide x 2.5" deep
- Synchronize strobe and/or horn with Hochiki Series Control Module (12VDC product must use the HAVSM Module)
- Prewire entire system, then install signals
- Lower installation and operating costs
- Input terminals supports 12 to 18 gauge wire
- Switch selection for high or low dBA
- Switch for chime, whoop, mechanical and 2400Hz tone
- Switch for continuous or temporal 3 (not available on whoop tone)
- Surface mount with the HSB (Hochiki surface mount box)
- Silence horn while strobes remain flashing
- Wide voltage range 8-17.5VDC (12VDC units) 16 33VDC or FWR (24VDC units)
- Faceplate available in red or off-white

HEH 12VDC or 24VDC Low Profile Evacuation Horn

Model Number	Part Number	Nominal Voltage	Reverberant dBA @ 10ft., per UL 464	In Anechoic Room dBA @10ft.
HEH24-WR	0500-05880	24VDC	62-82	100
HEH24-WW	0500-05890	24VDC	62-82	100

HES3 12VDC or 24VDC Selectable Candela Low Profile Evacuation Strobe

Model Number	Part Number	Part Number	Candela (UL 1971)
HES3-12WR	0500-05900	12 VDC	15, 30, 60, 75
HES3-12WW	0500-05910	12 VDC	15, 30, 60, 75
HES3-12PWR	0500-05920	12 VDC	15, 30, 60, 75
HES3-12PWW	0500-05930	12 VDC	15, 30, 60, 75
HES3-24WR	0500-05940	24 VDC	15, 30, 60, 75, 110
HES3-24WW	0500-05950	24 VDC	15, 30, 60, 75, 110
HES3-24PWR	0500-05960	24 VDC	15, 30, 60, 75, 110
HES3-24PWW	0500-05970	24 VDC	15, 30, 60, 75, 110

Model Designations:
 W = Wall mount
 R = Red faceplate
 W = Off-white faceplate
 P = Plain (no lettering)
 ALERT bezel available
 AGENT bezel available.

HEC3 12VDC or 24VDC Selectable Candela Low Profile Evacuation Horn/Strobe

Model Number	Part Number	Nominal Voltage	Candela (UL 1971)	Reverberant dBA @ 10ft., per UL	In Anechoic Room dBA @10ft.
HEC3-12WR	0500-05980	12 VDC	15, 30, 60, 75	62-82	100
HEC3-12WW	0500-05990	12 VDC	15, 30, 60, 75	62-82	100
HEC3-12PWR	0500-06000	12 VDC	15, 30, 60, 75	62-82	100
HEC3-12PWW	0500-06010	12 VDC	15, 30, 60, 75	62-82	100
HEC3-24WR	0500-06020	24 VDC	15, 30, 60, 75, 110	62-82	100
HEC3-24WW	0500-06030	24 VDC	15, 30, 60, 75, 110	62-82	100
HEC3-24PWR	0500-06040	24 VDC	15, 30, 60, 75, 110	62-82	100
HEC3-24PWW	0500-06050	24 VDC	15, 30, 60, 75, 110	62-82	100



CONVENTIONAL

Fire Alarm & Detection System



Fire Alarm Control Panel

Fire Alarm Control Panels are the main the controlling units of fire detection and alarm systems. Fire Alarm Control Panels receive information from sensors designed to detect changes associated with fire so that when preset thresholds are met, alarm devices are activated. BRISTOL Fire Alarm Control Panels are known for its quality and reliability.

Features

- ◆ Fully programmable using simple menu options
- ◆ Up to 25 devices for each zone including detector and manual call point
- ◆ Compatible with wide range of conventional devices
- ◆ Keypad entry to a wide range of engineering functions, including self-test, zone test, zone delay, non-latching zone, evacuation override
- ◆ Manual settable between DAY and Night mode
- ◆ Fault buzzer mute facility
- ◆ Up to four programmable supervised sounder circuits
- ◆ Reserved repeater panel interface for fire alarm indication of multiple zones
- ◆ Three access levels settable via a key switch and internal switch
- ◆ 2-wire system to reduce installation cabling and installer friendly

Technical Data

MODEL	B61-801/02	B61-801/04	B61-801/08	B61-801/16
Standard	EN 54-2 / EN 54-4			
Zones	2	4	8	16
Power Supply	220V / 230 VAC / AC110V			
Battery Size	7Ah / 12V			
Frequency	50 / 60Hz			
Input Current	0.35A			
Loop Voltage	15V _{DC} ~ 28V _{DC} , 300mA			
Fault Output	Volt-free 1A/24V _{DC}			
Auxiliary Power Output	15V _{DC} ~ 28V _{DC} , Standby 20mA and Action 500mA			
Temperature	0°C ~ 40°C			
Humidity	≤ 95%, non-condensing			
Dimension	430*330*105mm			
Installation	Wall-mounted			
Cable	1.5mm ² or above shield cable			



CONVENTIONAL

Fire Alarm & Detection System

Alarm Devices

Alarm Devices in Fire Detection and Alarm System are devices that are activated during presence of fire to provide notice to the concerned people in form of audio or visual signals. Though in some cases, signals are already directed to the fire department. BRISTOL offers audio/visual alarm devices that comply to international and local standards.

Manual Call Point



1174d-(cl-3)



Bristol Manual Call Points are fully compatible with most of the existing conventional systems. Red, yellow, blue, and green finishing are available.

FEATURES

- Available in flush or surface mounted models
- Plastic film on glass
- Test key inserted from bottom
- Clear protection cover is also available (Optional)
- diodes for fault monitoring

MODEL	B61-5101
Operating Voltage	12VDC ~ 28VDC
Standby Current	≤0.5mA
Alarm Current	≤20mA (equivalent resistance is 470 / 1W)
LED indicator	Red, Illuminating when alarm fire
Wiring	Two-wire
Class	Type A, indoor use
Ingress Protection	IP43
Temperature	-10°C ~ + 55°C
Humidity	≤95%, non-condensing
Dimensions	(LxWxH): 88mm x 88mm x 58mm (w/ back box) (LxWxH): 88mm x 88mm x 23mm (w/out back box)
Weight	About 160g (w/ back box) About 107g (w/out back box)

Fire Alarm Bell



506e-(cl-2)



0197



Bristol Fire Alarm Bells have low power consumption and long operating life.

FEATURES

- Electricity insulating base
- Can accept 2.5mm terminal cables
- Fitted with 2 series diodes for fault monitoring
- EN-54-3

MODEL	BF-AB-0418
Voltage	24V _{DC}
Current	25mA
Sound Output	93dB @ 1m
Movement	Motor, Pinion and Striker
Movement Feature	DC Motor, Acetral Gear Wheel, Steel Striker
Material	Steel Plate
Base Plate	Molded Black Polycar-
Dimensions	Ø6" (152mm) x 58mm (H)
Weight	≈850g

Conventional Sounder Strobe

Electronic Sounder and Beacons are audio-visual devices suitable for places where high sound output and visual indication is required.



1174c-(cl-3)



MODEL	B61-6301
Operating Voltage	20VDC ~ 28VDC
Alarm Current	≤35mA
Flashing Frequency	1.4 x (1± 20%) Hz
Ingress Protection Rating	IP21C
Temperature	-10°C ~ + 50°C
Humidity	≤95%, non-condensing
Dimensions	(LxWxH): 152mm x 91mm x 49.5mm
Weight	About 210g

FEATURES

- Alert Sound and flash combined in one unit
- A select of 16 different tones
- Using ultra bright LEDs as source for light indication
- Fully synchronized operating frequencies and LED beacon
- Low power consumption
- Plug-in structure design for easy installation
- Compatible with a wide range of conventional panel or interface



CONVENTIONAL

Fire Alarm & Detection System



Detectors

Detectors are equipment designed to monitor presence of fire which is manifested by heat and smoke. Heat detectors can be classified as fixed-temperature, rising-heat or combination of both while smoke detectors work either by optical detection or by ionization. BRISTOL Detectors are designed with great regard to quality and comply to international and local standards.

Conventional Smoke Detectors

Optical Smoke Detector are activated when smoke particles enter the light path, and some of the light is scattered by reflection and refraction onto the sensor. The light signal is processed and used to convey an alarm condition when it meets the preset criteria.



MODEL	B61-1001
Operating Voltage	9VDC ~ 28VDC
Quiescent Current	≤60uA
Alarm Current	10mA ≤ I ≤ 50mA
LED indicator	Red, flashing every 2s ~ 4s when standby; Illuminating when alarm fire
Remote indicator output	10kΩ resistor is required
Power-Up Time	≤ 10s
Class	-
Wiring Method	Polarized two-wire
Ingress Protection Rating	IP32
Temperature	-10°C ~+ 55°C
Humidity	≤95%, non-condensing
Dimension	Diameter: 100mm, Height: 43mm (w/out base)
Weight	About 120g
Standard	EN 54-7

Features

- ◆ Intelligent drift compensation to the variation of external environment (temperature, humidity, dust, static) Can accurately detect the chronic fire happened in 24 hours
- ◆ Intelligent algorithm and judgment, warning reminder for dirty and cleaning
- ◆ Filter designed in both software and hardware, enhance the ability of anti-interference
- ◆ PCB board inside is sealed with full protection
- ◆ Unique chamber design for protection against dust, insects and other external interferences
- ◆ Talented design of structure without a single screw
- ◆ Compatible with a wide range of conventional panel or interface

Conventional Heat Detectors

Conventional Dual Heat Detectors respond either when the detecting element reaches a predetermined fixed temperature or to a specified rate of temperature change.



MODEL	B61-2001
Operating Voltage	9VDC ~ 28VDC
Quiescent Current	≤60uA
Alarm Current	10mA ≤ I ≤ 50mA
LED indicator	Red, flashing every 2s ~ 4s when standby; Illuminating when alarm fire
Remote indicator output	10kΩ resistor is required
Power-Up Time	≤ 10s
Class	A1R
Wiring Method	Polarized two-wire
Ingress Protection Rating	IP32
Temperature	-10°C ~+ 55°C
Humidity	≤95%, non-condensing
Dimension	Diameter: 100mm, Height: 43mm (w/out base)
Weight	About 120g
Standard	EN 54-4





CONVENTIONAL

Fire Alarm & Detection System



506b-(cl-2)



AE 50205180 0001
AE 50305250 0001
AE 50203154 0001



Multi Sensors

Bristol Combined Heat and Smoke Detectors are combination of fixed-temperature and photo-electric smoke detection and are fully compatible with most of the existing conventional systems. 2-Wire, 3-Wire, and 4-Wire configurations are available.

Features

- ◆ Improved dust protection and detection accuracy
- ◆ Dual LEDs for 360-degree visibility
- ◆ Low current consumption and wide voltage range
- ◆ Bases fitted with shorting spring to permit easy maintenance

Technical Specifications

MODEL	BF-SH-0115-2	BF-SH-0115-3	BF-SH-0115-4
Wiring Configuration	2-Wire	3-Wire with Remote Indicator Output	4-Wire with Relay Output
Standard	EN 54-5 / EN 54-7		
Voltage Range	12-30V _{DC}		
Standby Current	55µA		
Alarm Current @ 24V _{DC}	40mA	30mA	40mA
Thermal Setting	58°C		
Response Grade	Comply to EN54, Grade 1		
Ambient Temperature	-10°C to 55°C		
Material	Fire-Proof Plastic		
Dimensions	102mm(Dia)x58mm(H)		
Weight	155g	157g	165g
Color	White		



CONTROL PANEL



KM 598387



Designed and manufactured to the highest standards in a quality controlled environment and with European EN-12094-1 approvals, the BF-ECP Series extinguishant releasing panel offers outstanding value and performance for small to medium fixed firefighting installations.

With three detection zones as standard, extinguishant release can be configured to activate from any combination of detection zone inputs to allow (among other combinations) any two from three type activations such as would be required for detection in ceiling void, room and floor void applications.

The extensive configuration options of the BRISTOL allow the functionality of the system to be extensively modified while still complying with the requirements of the controlling standard for the equipment (EN 12094-1, EN54-2 and EN54-4).

The panel contains a large LED display to enable easy configuration and control which also displays the time remaining until extinguishant release for added user safety.

The countdown timer is duplicated on up to seven remote status units to provide local indication of the extinguishant system status.

With all the electronics mounted on a single easy removable, steel plate BRISTOL panels are both robust and easy to install.

Features:

- Three detection zones as standard
- Any single zone or any combination of zones can be configured to release
- Configurable first stage sounder delays
- Configurable detection delays
- Zero time delay upon manual release option
- Compatible with I.S. barriers
- Non-latching zone input option to receive signals from other systems such as aspirating equipment
- Configurable extinguishant duration up to 5 minutes in 5 seconds steps
- Countdown timer shows time remaining until release
- Supports up to seven, four wire status indicators
- Built-in Extract Fan Control



CONTROL PANEL

Technical Information	
Construction	1.2 mm mild sheet steel
IP Rating	IP30
Finish	Epoxy powder coated
Color-lid and box	Red
Color-controls plate and labels	RAL 7047 light gray satin
Mains supply	230V AC, 50Hz +10% - 15% (100 Watts maximum)
Mains supply fuse	1.6 Amp (F1.6A L250V)
Power supply rating	3 Amps total including battery charge 28V +/- 2V
Maximum ripple current	200 millivolts
Battery type	Two 12 Volt 7Ah sealed lead acid in series
Battery charge voltage	27.6VDC nominal (temperature compensated)
Battery charge current	0.7A maximum
Battery fuse	20mm, 3.15A glass
Maximum current draw from batteries	3 Amps
Quiescent current of panel in mains fail	0.095A
ROV output	Fused at 500mA with electronic fuse
Sounder outputs	21 to 28V DC Fused at 500mA with electronic fuse
Fault relay contact rating	30VDC 1A Amp maximum
Fire relay contact rating	30VDC 1A Amp maximum
Local fire relay contact rating	30VDC 1A Amp maximum
First stage contact rating	30VDC 1A Amp maximum
Second stage contact rating	30VDC 1A Amp maximum
Extract contact rating	30VDC 1A Amp maximum
Zone quiescent current	2mA maximum
Terminal capacity	0.5mm ² to 2.5mm ² solid or stranded wire
Number of detectors per zone	Dependent on type
Number of sounders per circuit	Dependent on type and current consumption
Detection circuit end of line	6K8 +/- 5% ½ Watt resistor
Monitored input end of line	6K8 +/- 5% ½ Watt resistor
Sounder circuit end of line	10K +/- 5% ¼ Watt resistor
Extinguishant output end of line	1N4004 Diode
No. of detection circuits	3
No. of sounder circuits	2 x 1st Stage, 1 x 2nd Stage
Extinguishant release output	Fused at 1 Amp
Extinguishant release delay	Adjustable 0 to 60 seconds (in 5 seconds steps)
Extinguishant release duration	Adjustable 60 to 300 seconds (in 5 seconds steps)
SIL, AL, FLT, RST inputs	Switched -ve, max resistance 100 Ohms
Zone normal threshold	8K Ohms to 1K Ohms

OTHERS



Hold Off Switch

Technical Information	
Construction	1.2mm mild sheet steel
IP Rating	IP30
Color - lid & box	Red
Weight	1kg
Contacts	1 N.O and 1 N.C
Trigger resistor	470R 1 Watt



K1823-10

Hold-off switch is a manually-activated, electric device designed to suspend the release of clean agent of the fixed fire protection system. The fire suppression system shall include an hold-off switch to help guard against accidental discharge of fire suppression agent.

