ToribioMones
EQUIPOS CONTRA INCENDIOS

Santo Domingo, D. N.
11 de junio de 2019

Señores
Junta Central Electoral
División de Cotizaciones y Seguimiento de Compras
Ave.27 de Febrero esq. Luperón, Plaza de la Bandera
Sto.Dgo, D.N.

Distinguidos señores:

Anexo a la presente, nos place remitir nuestra propuestas económica para la adquisición e instalación del Sistemas de Detección de Humos para los nuevos Almacenes de Equipos de la Junta Central Electoral, en respuesta a su solicitud **No.**

Juan A. Toribio
Gerente

ToribioMones SRL
EQUIPOS CONTRA INCENDIOS

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ToribioMones
EQUIPOS CONTRA INCENDIOS

Cotización

Cliente: **Junta Central Electoral**
Dirección: Ave.27 de Febrero esq.Luperon,Plaza de la Bandera
Ciudad: Santo Dominigo,D.N
Depto: Informatica
Atención: Departamento de Compras

Fecha: 11 de junio de 2019

Descripción Producto	Cant.	Precio Unit. RD$	Precio Total RD$
Central de alarma contra incendios direccionable de 636,incluye fuente de alimentación y cargador de batería automático,marca Fire Lite Mod.MS - 9600UDLS	1	130,000.00	130,000.00
Baterias 12 Vlt. 7 AH	2	1,115.00	2,230.00
Detectores de Humos Fotoelectrico Direccionable Fire Lite Mod.SD355 12/24VDC	25	4,550.00	113,750.00
Detectores de Haz proyectado tipo FotoBeam Direccionable Fire Lite Mod.BEAM355S	4	75,300.00	301,200.00
Estacion Manual Direccionable Fire Lite Mod.BG-12 LXSP	8	4,370.00	34,960.00
Horn Strobe Fire Signal Fire Lite12/24VDC 15/75,100 Mod.P2R	15	3,535.00	53,025.00
Modulo de Expansion de 318 puntos a 636 Modelo Fire Lite SLC-2LS.	1	38,100.00	38,100.00
Cable Contra Incendios para Alarmas Mod.FR182 18/2 R P/INC Solid,Twisted,Unshielded 1000'	3	6,470.00	19,410.00
Cable Contra Incendios para Alarmas Mod.FR182 18/2 STR Solid,Twisted,Unshielded 1000' GRIS	3	6,650.00	19,950.00
Cable Contra Incendios para Alarmas Mod.FR182 18/4 FPLR Solid,Twisted,Unshielded 500'	2	10,830.00	21,660.00
Supresor de Picos DTK120HW/Ditek	1	4,145.00	4,145.00
Supresor de Picos DTK120HW/Ditek	1	4,145.00	4,145.00
Materiales de instalacion(Tuberias,EMT,Accesoios,etc)	1	360,000.00	360,000.00
Labor de Instalacion de Equipos y Programacion	1	640,500.00	640,500.00
		Sub-total	**1,613,075.00**
		Más 18% Itbis	**290,353.50**
		Total RD$	**1,903,428.50**

Tiempo Estimado de Realizacion del Proyecto: 15 a 30 dias Laborables

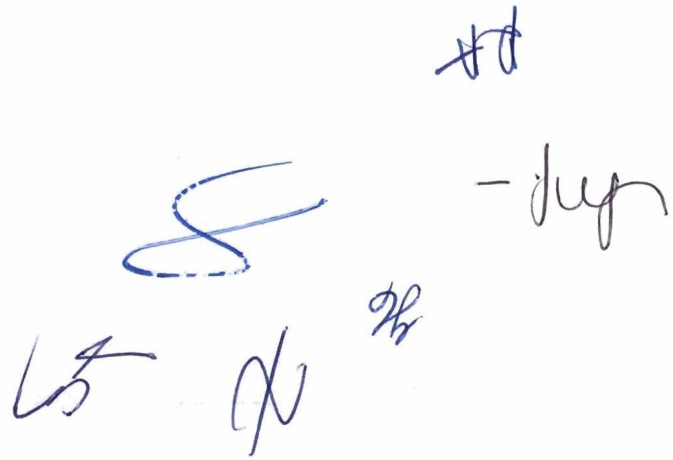
La instalacion de las tuberias sera realizada por Oteica bajo nuetra supervision

Garantia del Trabajo: 1 año en fallas tecnicas del equipo.
Condiciones de Pago: 70% con la orden y 30% restante contra entrega del sistema funcionando a su entera satisfacción.

Atentamente,

Juan A. Toribio

ToribioMones, S.R.L.
EQUIPOS CONTRA INCENDIOS



MS-9600LS(E)/MS-9600UDLS(E)

Intelligent Addressable FACP with Optional 2nd Loop

FIRE-LITE ALARMS by Honeywell

Addressable

General

Fire•Lite's MS-9600LS(E) and MS-9600UDLS(E) are compact, cost effective, intelligent addressable FACPs (Fire Alarm Control Panels) with an extensive list of powerful features. The combination of Fire•Lite's newer series devices and legacy 300 Series devices, along with the MS-9600LS(E) or MS-9600UDLSE FACP, offer the latest in fire protection technology. LiteSpeed™ is a patented technology that polls 10 devices at a time looking for new or different information. When new information is found at a specific address, the system polls that device several times for any new data. This improvement allows a fully loaded panel with up to 636 devices to report an incident and activate the notification circuits in under 10 seconds. With this new polling scheme, devices can be wired on standard twisted, unshielded wire up to a distance of 10,000 feet per loop. Each Signaling Line Circuit (SLC) loop supports up to 159 addressable detectors including photoelectric, photoelectric with heat, beam, ionization, photoelectric duct, fixed heat, fixed heat with rate-of-rise, and fixed high-heat detectors. It also supports up to 159 addressable modules including monitor (two-wire detector, normally open devices), dual-monitor functions (two monitor circuits from one module, two addresses used), multimonitor (multiple monitor circuits from one module, multiple addresses used), control (for Notification Appliance Circuits), and relay (two Form-C) modules.

The FLPS-7 power supply is a separate board while all other electronics are contained on a single main circuit board. Both boards are mounted to a quick-removable chassis and housed in a metal cabinet. The backbox can be installed allowing field wiring to be pulled. When construction is completed, the chassis with the electronics can be quickly installed with two bolts.

The MS-9600UDLS(E) includes a factory-installed DACT-UD2 Digital Alarm Communicator Transmitter. The DACT transmits system status (alarm, troubles, AC loss, etc.) to a Central Station via internet (optional IPDACT installed) or the public switched telephone network.

Optional modules, which plug into the main circuit board, are available for special functions. Available accessories include LED, graphic and LCD annunciators, reverse polarity/city box transmitter, digital alarm communicator/transmitter, SLC expansion module, local and remote upload/download software and remote power expansion.

FM APPROVED to UL ANSI 864.

Controls And Indicators

LED INDICATORS

- AC POWER (green)
- FIRE ALARM (red)
- SUPERVISORY (yellow)
- ALARM SILENCED (yellow)
- SYSTEM TROUBLE (yellow)
- MAINTENANCE/PRESIGNAL (yellow)
- DISABLED (yellow)
- BATTERY FAULT (yellow)
- GROUND FAULT (yellow)

52412cov.jpg

MEMBRANE SWITCH CONTROLS

- ACKNOWLEDGE/STEP
- ALARM SILENCE
- DRILL
- SYSTEM RESET (lamp test)
- 12-key pad with full alphabet
- 4 cursor keys
- ENTER

Special Features

- Easy mount chassis.
- 7 amp switching power supply.
- Large enclosure allows 18 amp-hour batteries
- DACT-UD2 plug-in communicator standard with MS-9600UDLS/E.
- Optional IPDACT Internet Protocol Digital Alarm Communicator/Transmitter
- Four Style Y (Class B) or two Style Z (Class A) NAC circuits.
- Selectable strobe synchronization per NAC for System Sensor, Wheelock, and Gentex devices.
- Automated control of ACC-25/50(ZS/T) audio speaker circuits
- ANN-BUS for connection to following optional modules
  Note: cannot be used if ACS annunciators are used.
  - ANN-80(-W) Remote LCD Annunciator
  - ANN-I/O LED Driver Module
  - ANN-S/PG Serial/Parallel Printer Module
  - ANN-RLY Relay Module
  - ANN-LED Annunciator Module
  - ANN-RLED Annunciator Module (alarms only)

Standard Features

SLC LOOP

- SLC can be configured for NFPA Style 4, 6, or 7 operation.
- SLC supports up to 318 addressable devices per loop (159 detectors and 159 monitor, control, or relay modules).
- SLC loop maximum length 10,000 ft. (3,048 m) @ 12 AWG (3.1 mm²) using twisted, unshielded wire (see Wire Table on page 5).

NOTIFICATION APPLIANCE CIRCUITS (NACS):

Four onboard NACs with additional NAC capability using output control modules (CMF-300 or CMF-300-6). The four Class B NACs can be converted to two Class A NACs with the NACKEY (included).

- Silence Inhibit and Auto Silence timer options.
- Continuous, March Time, Temporal or California code for main circuit board NACs with two-stage capability.
- Selectable strobe synchronization per NAC.
- 3.0 amps maximum per each NAC circuit
  Note: *Maximum 24 VDC system power output is shared among all NAC circuits and 24 VDC special application auxiliary power outputs. Total available output is 7.0 amps.*

ADVANCED FIRE TECHNOLOGY:

- Sensitivity testing with printable results, onsite or offsite.
- Automatic drift compensation.

PROGRAMMING AND SOFTWARE:

- Autoprogram (learn mode) reduces installation time.
- Fully programmable from local keypad, local PS/2 keyboard or PC (using the standard PS-TOOLS Windows® utility).
- Two-level user-programmable passwords.
- Custom English labels (per point) may be manually entered or selected from an internal library file.
- Three Form-C relay outputs (two programmable).
- 99 software zones.

USER INTERFACE:

- Optional plug-in DACT-UD2 communicator (standard with MS-9600UDLS(E) with USB port for local upload/download.
- Remote Acknowledge, Silence, Reset and Drill via addressable monitor modules, ACS Series annunciators, LCD-80F remote annunciator, or ANN-80 Series Annunciators.
- EIA-232 printer/PC interface (variable baud rate) on main circuit board.
- Integral 80-character LCD display with backlighting.
- Real-time clock/calendar with automatic daylight savings adjustments.
- History file with 1,000-event capacity.
- EIA-485/ANN-BUS supporting up to 8 ANN Series Annunciators or 32 ACS Series annunciators.

  EIA-485 supporting up to 32 ACS annunciators.
- Maintenance alert warns when smoke detector dust accumulation is excessive.
- Automatic device type-code verification.
- One person audible or silent walk test with walk-test log and printout.
- Point trouble identification.
- Local piezo sounder.

  Waterflow (nonsilenceable) selection per monitor point.
- System alarm verification selection per detector point.
- PAS (Positive Alarm Sequence) and presignal delay per point (NFPA 72 compliant).
- Optional 4XTMF module (conventional reverse polarity/city box transmitter).

Field-programming Features

Off-line Programming: Create the entire program in your office using a Windows®-based software package (order programming kit PK-CD, containing PS-TOOLS, separately). Upload/download system programming locally to the MS-9600LS/E in less than one minute.

Autoprogramming: Command the MS-9600LS(E) to program itself (takes less than 30 seconds). In the Auto-Program mode, the MS-9600LS(E) scans for all possible devices at all addresses, stores the device types, and addresses found, and then loads default values for all options (General Alarm). It also checks for two or more devices set to the same address.

Online Editing: While still providing fire protection, the MS-9600LS/E may be programmed from the front panel. Simple menu trees displayed on the LCD allow the trained user to perform all functions without referring back to the programming manual.

English Label Library: Quickly select labels from a standard library of more than 50 adjectives/nouns, such as "FLR 3 HALLWAY," or enter custom labels letter-by-letter. Use recall function to repeat previously used label.

Program Check: Automatically catch common errors, such as control modules not linked to any zone or input point.

Maintenance Alert

The MS-9600LS(E) continuously monitors each smoke detector and is capable of reporting maintenance conditions. This reduces the risk of false alarms due to dust accumulation. Refer to the control panel installation manual for more information.

Automatic Test Operation

The MS-9600LS(E) performs an automatic test of each detector every two hours. Failure to meet the test limits causes an AUTO TEST FAIL trouble type. System Reset clears this trouble.

Terminal Blocks

AC Power – TB1: 120 VAC, 60 Hz, 3.0 amps or 240 VAC, 50 Hz, 1.5 amps. Wire size: minimum 14 AWG (2.00 mm²) with 600 V insulation.

Battery (lead acid only) – TB2: Maximum charging circuit: Normal flat charge 27.6 VDC @ 1.0 amp. Maximum battery charger capacity: 26 AH. Minimum battery 12 AH. MS-9600LS(E) cabinet holds maximum of two 18 AH batteries. For 26 – 120 AH batteries, use the CHG-120F or CHG-75 Battery Charger and BB-55F Battery Box.

NOTE: *Jumper JP3, on the FACP main circuit board, must be cut to disable the FACP battery charger when using the CHG-120F or CHG-75.*

Communication Loop – (standard) TB8: 24 VDC nominal, 27.6 VDC maximum. Maximum length: 10,000 ft. (3048 m) total twisted, unshielded pair length. Maximum loop current: 400 mA (short circuit) or 100 mA (normal). Maximum loop resistance: 40 ohms. Supervised and power-limited.

Notification Appliance Circuits – TB4: Power-limited circuitry. Nominal operating voltage: 24 VDC. Current limit: fuseless, electronic, power-limited circuitry. Maximum signaling current per circuit: 3.0 amps. End-of-Line Resistor: 4.7K ohm, 1/2 watt (P/N 71252 UL listed) for NACs. Refer to *Fire•Lite Device Compatibility Document* for listed compatible devices.

Programmable and Trouble Output Relays – TB5: Contact rating: 2.0 amps @ 30 VDC (resistive), 0.5 amps @ 30 VAC (resistive). Form-C relays.

Four-Wire Resettable Smoke Detector Power (24 VDC nominal) – TB3, Terminals 1(+) & 2(–): Maximum ripple voltage: 10 mVRMS. Up to 1.5 amps for powering four-wire smoke detectors. Power-limited circuit. Refer to *Fire•Lite Device Compatibility Document* for listed compatible devices.

Nonresettable Power #1 (24 VDC Nominal) –TB3, Terminals 3 (+) & 4 (–): Maximum ripple voltage: 10 mVRMS. Up to 1.5 amps total DC current available from each output. Power-limited circuit. TB3, Terminals 5 (+) & 6 (–): non-resettable power #2.

Nonresettable Special Application Power #2 (24 VDC Nominal) - TB3, Terminals 5 (+) & 6 (-): Maximum ripple voltage: 10mVRMS. Total DC current available from each output is up to 1.5 amps. Power-limited circuit, nonsupervised.

EIA-485 (ACS/ANN) – TB6: Annunciator connector, programmable for type ANN or ACS. Terminal 1 (+) and Terminal 2 (–).

EIA-485 (TERM) – TB7: Terminal mode annunciator connector, Terminal 1 (Out +), 2 (In +), 3 (Out –), 4 (In –).

EIA-232 – TB8: PC/printer connector, Terminal 1 (Transmit), 2 (Receive), 3 (DTR), 4 (Ground).

Ordering Options

MS-9600LS(E): 318-point addressable Fire Alarm Control Panel, one SLC loop. Includes 80-character LCD display, single printed circuit board, and cabinet.

MS-9600UDLS(E): 318-point addressable Fire Alarm Control Panel, one SLC loop. Includes DACT-UD2, 80-character LCD display, single printed circuit board, and cabinet.

DACT-UD2: Optional communicator for remote monitoring (standard with MS-9600UDLS).

4XTMF: Optional Transmitter Module provides a supervised output for local energy municipal box transmitter, alarm and trouble reverse polarity. It includes a disable switch and disable trouble.

IPDACT-2/2UD, IPDACT Internet Monitoring Module: Mounts in bottom of enclosure with optional mounting kit (P/N: IPBRKT). Connects to primary and secondary DACT telephone output ports for internet communications over customer provided ethernet internet connection. Requires compatible Teldat VisorALARM Central Station Receiver. Can use DHCP or static IP. (See data sheet DF-60407 or DF-52424 for additional information.

IPBRKT: Optional mounting bracket kit consisting of screws and battery shield with standoffs required when mounting the IPDACT in lower enclosure section of FACP.

IPSPLT: Optional Y-Adaptor which allows connection of both panel dialer outputs to one cable input to IPDACT (sold separately).

ACM-8RF: Optional plug-in relay module provides 8 Form-C 5.0 amp relays.

PK-CD: Contains PS-TOOLS programming software for Windows®-based PC computer (cable not included).

SLC-2LS: Optional expander module, enables second SLC loop.

DP-9692: Optional dress panel for MS-9600LS(E).

TR-CE: Optional Trim Ring for semi-flush mounting.

BB-55F: Battery box, required to house two 25 AH batteries and one CHG-120F battery charger. For batteries greater than 25 AH, consult factory for housing/mounting arrangements.

BB-26: Battery backbox, holds up to two 25 AH batteries.

CHG-120F: Remote battery charging system for lead-acid batteries with a rating of 25 to 120 AH. CHG-120F or CHG-75 required for charging greater than 25 AH batteries.

CHG-75: Battery charger for lead-acid batteries with a rating of 25 to 75 AH. CHG-120F or CHG-75 required for charging greater than 25 AH batteries.

BAT Series: Batteries, see data sheet DF-52397.

PRT/PK-CABLE: Cable printer/personal computer interface cable.

PRN-6F: UL listed compatible event printer which uses tractor-fed paper.

Compatible Addressable Devices

All feature a polling LED and rotary switches for addressing.

CP355: Addressable low-profile ionization smoke detector.

SD355: Addressable low-profile photoelectric smoke detector.

SD355T: Addressable low-profile photoelectric smoke detector with thermal sensor.

H355: Fast-response, low-profile heat detector.

H355R: Fast-response, low-profile heat detector with rate-of-rise option.

H355HT: Fast-response, low-profile heat detector that activates at190° F (88°C).

AD355: Low-profile, intelligent, "Adapt" multi-sensor detector; B350LP base included.

BEAM355: Intelligent beam smoke detector.

BEAM355S: Intelligent beam smoke detector with integral sensitivity test.

D350PL: Photoelectric low-flow duct smoke detector.

D350RPL: Photoelectric low-flow duct smoke detector with relay option.

MMF-300: Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 4.0" (10.16 cm.) box. Includes plastic cover plate and end-of-line resistor. Module may be configured for either a Style B (Class B) or Style D (Class A) IDC.

MDF-300: Dual Monitor Module. Same as MMF-300 except it provides two Style B (Class B) only IDCs.

MMF-301: Miniature version of MMF-300. Excludes LED and Style D option. Connects with wire pigtails. May mount in device backbox.

MMF-302: Similar to MMF-300, but may monitor up to 20 conventional two-wire detectors. Requires resettable 24 VDC power. Consult factory for compatible smoke detectors.

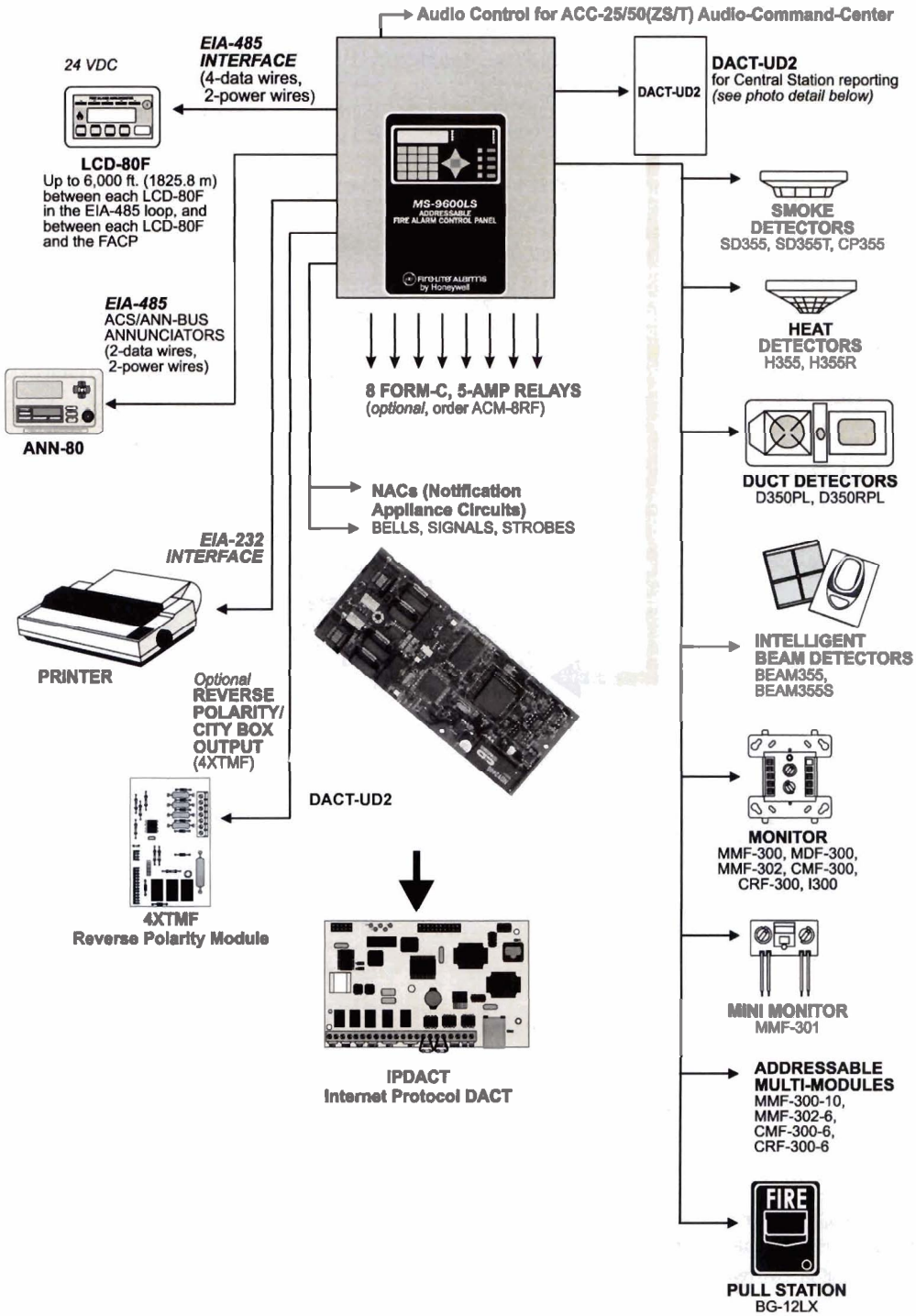
CMF-300: Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances. Mounts directly to a 4.0" (10.16 cm.) electrical box. Notification Appliance Circuit option requires external 24 VDC to power notification appliances.

CRF-300: Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 4.0" (10.16 cm.) box, surface mount using the SMB500.

BG-12LX: Addressable manual pull station with interface module mounted inside.

I300: This module isolates the SLC loop from short circuit conditions (required for Style 6 or 7 operation).

SMB500: Used to mount all modules except the MMF-301 and M301.


Audio Control for ACC-25/50(ZS/T) Audio-Command-Center
EIA-485 INTERFACE
(4-data wires, 2-power wires)
24 VDC
LCD-80F
Up to 6,000 ft. (1825.8 m) between each LCD-80F in the EIA-485 loop, and between each LCD-80F and the FACP
MS-9600LS
ADDRESSABLE FIRE ALARM CONTROL PANEL
DACT-UD2
DACT-UD2 for Central Station reporting (see photo detail below)
SMOKE DETECTORS
SD355, SD355T, CP355
HEAT DETECTORS
H355, H355R
DUCT DETECTORS
D350PL, D350RPL
INTELLIGENT BEAM DETECTORS
BEAM355, BEAM355S
MONITOR
MMF-300, MDF-300, MMF-302, CMF-300, CRF-300, I300
MINI MONITOR
MMF-301
ADDRESSABLE MULTI-MODULES
MMF-300-10, MMF-302-6, CMF-300-6, CRF-300-6
FIRE
PULL STATION
BG-12LX
EIA-485 ACS/ANN-BUS ANNUNCIATORS
(2-data wires, 2-power wires)
ANN-80
8 FORM-C, 5-AMP RELAYS
(optional, order ACM-8RF)
NACs (Notification Appliance Circuits)
BELLS, SIGNALS, STROBES
EIA-232 INTERFACE
PRINTER
Optional REVERSE POLARITY/ CITY BOX OUTPUT
(4XTMF)
4XTMF
Reverse Polarity Module
DACT-UD2
IPDACT
Internet Protocol DACT

MMF-300-10: Ten-input monitor module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

MMF-302-6: Six-zone interface module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

CMF-300-6: Six-circuit supervised control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

CRF-300-6: Six Form-C relay control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

Compatible Annunciators

ANN-80(-W): Remote LCD annunciator that mimics the information displayed on the FACP's LCD display. Recommended wire type is unshielded. (Basic model is red; order -W version for white; *see DF-52417*).

ANN-LED: Annunciator Module provides three LEDs for each zone: Alarm, Trouble and Supervisory. Ships with red enclosure *(see DF-60241)*.

ANN-RLED: Provides alarm (red) indicators for up to 30 input zones or addressable points *(see DF-60241)*.

ANN-RLY: Relay Module, which can be mounted inside the cabinet, provides 10 programmable Form-C relays *(see DF-52431)*.

ANN-S/PG: Serial/Parallel Printer Gateway module provides a connection for a Serial or Parallel printer *(see DF-52429)*.

ANN-I/O: I/O Driver Module provides connections to a user supplied graphic annunciator *(see DF-52430)*.

ACS-LED Zone Series: LED-type fire annunciators capable of providing up to 99 software zones of annunciation. Available in increments of 16 or 32 points to meet a variety of applications.

ACS-LDM Graphic Series: Lamp Driver Module series for use with custom graphic annunciators.

TERM MODE LCD-80F (Liquid Crystal Display) point annunciator: 80-character, backlit LCD-type fire annunciators capable of displaying English-language text. Up to 32 LCD-80F annunciators may be connected to the EIA-485 terminal mode serial interface on the MS-9600LS(E) motherboard.

***NOTE:** For more information on **Compatible Annunciators** for use with the MS-9600LS(E), see the following data sheets (document numbers) ACM-8RF (DF-51555), ACS/ACM Series (DF-52378), LDM Series (DF-51384), LCD-80F (DF-52185).*

Wiring Requirements

While shielded wire is not required, it is recommended that all SLC wiring be twisted-pair to minimize the effects of electrical interference. Refer to the panel manual for wiring details.

SYSTEM SPECIFICATIONS

System Capacity

- Intelligent Signalling Line Circuits.....1 expandable to 2
- Intelligent detectors .....159 per loop
- Addressable monitor/control modules.....159 per loop
- Programmable software zones 99
- ANN-BUS devices 8
  ACS Annunciators 32
  LCD Annunciators 32

Electrical Specifications

- Primary input power:
  120 VAC, 50/60 Hz, 3.0 A.
  240 VAC, 50 Hz, 1.5 A.
- Battery: 27.6 VDC @ 1.0 A (max).
  Maximum battery charger capacity: 26 AH.
  Minimum battery: 12 AH.
  MS-9600LS cabinet holds maximum of two 18 AH batteries.
- Communication Loop: 24 VDC nominal, supervised and power-limited.
- Notification Appliance Circuits: terminal block provides connections for four Style Y (Class B) or two Style Z (Class A) NACs.
  Maximum signaling current per circuit: 3.0 A.
  End-of-Line Resistor: 4.7 K ohms, ½ watt (P/N 71252 UL listed) for Style Y (Class B) NAC.
  Supervised and power-limited.
  Refer to panel documentation and *Fire-Lite Device Compatibility Document* for listed compatible devices.
- Two Programmable Form-C Relays and One Fixed Trouble Form-C Relay: Contact rating: 2.0 A @ 30 VDC (resistive) 0.5 A @ 30 VAC (resistive).
- Four-wire Resettable Special Application Power (24 VDC nominal): Up to 1.5 A for powering four-wire smoke detectors. Power-Limited, nonsupervised.
  Refer to *Fire-Lite Device Compatibility Document* for listed compatible devices.
- Nonresettable Special Application Power #1 (24VDC nominal) TB3, Terminals 3 (+) & 4 (-):
  Maximum ripple voltage: 10 mV_{RMS}
  Total DC current available from each output is up to 1.5 A.
  Power-limited, nonsupervised.
- Nonresettable Special Application Power #2 (24VDC nominal) TB3, Terminals 5 (+) & 6 (-):
  Maximum ripple voltage: 10 mV_{RMS}
  Total DC current available from each output is up to 1.5 A.
  Power-limited, nonsupervised.

***NOTE:** Although each Special Application power output can deliver 1.5 A individually, the total power output from these circuits cannot exceed 1.5 A in standby. The total Alarm output for all Special Application power and NAC circuits cannot exceed 7 A.*

Cabinet Specifications

Door: 19.26" (48.92 cm.) high x 16.82" (42.73 cm.) wide x 0.67" (1.70 cm.) deep. **Backbox:** 19.00" (48.26 cm.) high x 16.65" (42.29 cm.) wide x 5.21" (13.23 cm.) deep. **Trim Ring (TR-CE):** 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide.

Shipping Specifications

Dimensions: 20.00" (50.80 cm) high, 22.5" (57.15 cm) wide, 8.5" (21.59 cm) deep. **Weight:** 27.3 lbs (12.38 kg).

Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

Agency Listings and Approvals

The listings and approvals below apply to the MS-9600LS(E) and MS-9600UDLS(E) control panels. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

ULC: S624 (MS-9600LSC only; see DF-60438)

- **FM APPROVED:** to UL ANSI 864
- **CSFM:** 7170-0075:217
- **MEA:** 87-08-E

NFPA Standards

The MS-9600LS(E) and MS-9600UDLS(E) control panels comply with the following NFPA 72 Fire Alarm Systems requirements:

- **LOCAL** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- **AUXILIARY** (Automatic, Manual and Waterflow) (requires 4XTMF).
- **REMOTE STATION** (Automatic, Manual and Waterflow) (Requires 4XTMF where DACT-UD2 is not accepted.)
- **PROPRIETARY** (Automatic, Manual and Waterflow).
- **CENTRAL STATION** (Automatic, Manual and Waterflow, and Sprinkler Supervised).
- **OT (Other Technologies-PSDN)** For use with IPDACT.

ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

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

Made in the U.S.A.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.

Model BEAM1224(S) Single-ended Reflected Type Beam Smoke Detector

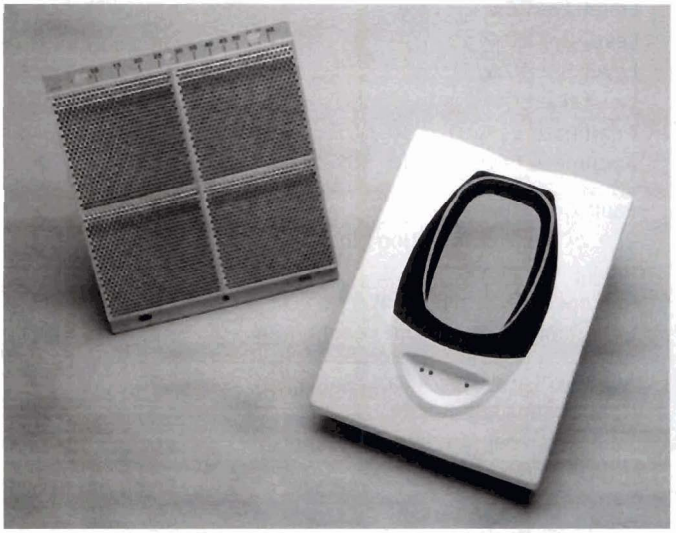
SYSTEM SENSOR®

Models Available

BEAM1224	4 wire conventional beam smoke detector with 8" reflector
BEAM1224S	4 wire conventional beam smoke detector with 8" reflector and integral sensitivity test

Accessories

BEAMLRK	Long range accessory kit (3) additional reflectors (Required for applications in excess of 230 ft. [70m])
BEAMMMK	Multi-mount kit (Provides ceiling or wall mount capability with increased angular adjustment for either the beam or the reflector)
BEAMSMK	Surface mount kit
RTS451	Remote test station used to initiate the NFPA sensitivity test function
RTS451KEY	Remote test station with key lock



Product Overview

16 to 328 foot protection range

Single-ended, reflective design

User friendly alignment procedure

6 user selectable sensitivity levels

Optional integral NFPA 72 sensitivity test feature

Removable plug-in terminal blocks

Digital display for easy alignment

Built-in automatic gain control compensates for signal deterioration from dust build-up

Remote test station optional

Paintable cover

Easiest alignment in the industry

UL LISTED S911

FM APPROVED 3017888

System Sensor Model BEAM1224 is a 4-wire conventional projected beam smoke detector. It is uniquely suited for protecting open areas with high ceilings where other methods of smoke detection are difficult to install and maintain. It is to be used with UL Listed compatible control panels only. Installation of the single-ended reflective design is much easier than the dual-ended projected beam detectors. Alignment is quickly accomplished via an optical sight and a 2-digit signal strength meter incorporated into the product. Listed for operation from –22°F to 131°F, BEAM1224 can be used in open area applications to provide early warning in environments where temperature extremes exceed the capability of other types of smoke detection.

BEAM1224 consists of a transmitter/receiver unit and a reflector. When smoke enters the area between the unit and the reflector it causes a reduction in the signal and, when the smoke level reaches the predetermined threshold, an alarm is activated.

BEAM1224 has four standard sensitivity selections along with two Acclimate settings. When either of the two Acclimate settings are selected the detector will automatically adjust its sensitivity using advanced software algorithms to select the optimum sensitivity for the specific environment.

BEAM1224S is equipped with an integral sensitivity test feature that consists of a test filter attached to a servo motor inside the detector optics. Using the remote test station RTS451, the motor is activated and moves the filter in the pathway of the light beam, thereby testing detector sensitivity. This integral sensitivity test feature allows the user to quickly and easily meet the annual maintenance and test requirements of NFPA 72.

Operational Specifications

Protection Range
16 ft. to 328 ft.
(5m to 100m)

Adjustment Angle
+/– 10 Degrees horizontal & vertical
(The optics move independent of the unit)

Sensitivity Levels
Level 1 – 25%
Level 2 – 30%
Level 3 – 40%
Level 4 – 50%
Acclimate Level 1 – 30–50%
Acclimate Level 2 – 40–50%

Fault Condition (Trouble)
96% or more obscuration blockage
In alignment mode
Improper initial alignment
Self-compensation limit reached

Alignment Aid
Optical gunsight
Integral signal strength indication
2-digit display

Alarm Indicator
Local red LED and remote alarm

Trouble Indicator
Local yellow LED and remote trouble

Normal Indicator
Local flashing green LED

Test/Reset Features
Integral Sensitivity Test Filter
(BEAM1224S only)
Sensitivity filter
(Incremental scale on reflector)
Local alarm test switch
Local alarm reset switch
Remote test and reset switch
(Compatible with RTS451 and RTS451KEY test station)

Smoke Detector Spacing
On smooth ceilings, 30–60 feet between projected beams and not more than one-half that spacing between a projected beam and a sidewall. Other spacing may be used depending on ceiling height, airflow characteristics, and response requirements. See NFPA 72.

Environmental Specifications

Temperature
–22°F to 131°F (–30°C to 55°C)

Humidity
10–93% RH Noncondensing

Electrical Specifications

Voltage
10.2 to 32 VDC (BEAM1224)
15 to 32 VDC (BEAM1224S)

AVG. Standby Current (24 VDC)
17mA Max

AVG. Current During Testing
500mA Max

AVG. Alarm Current (24 VDC)
38.5mA Max

AVG. Fault Current (24 VDC)
8.5mA Max

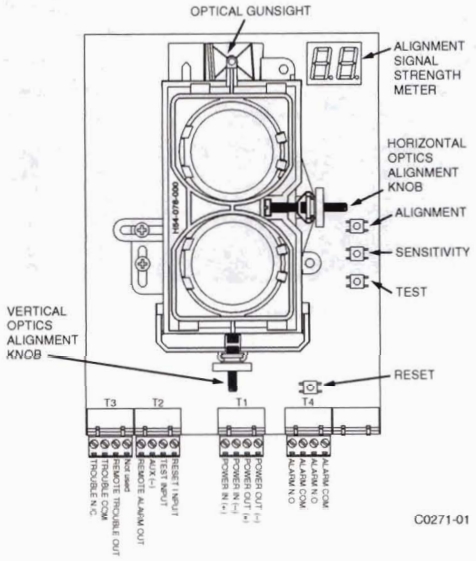
AVG. Alignment Mode Current (24 VDC)
28mA Max

Mechanical Specifications

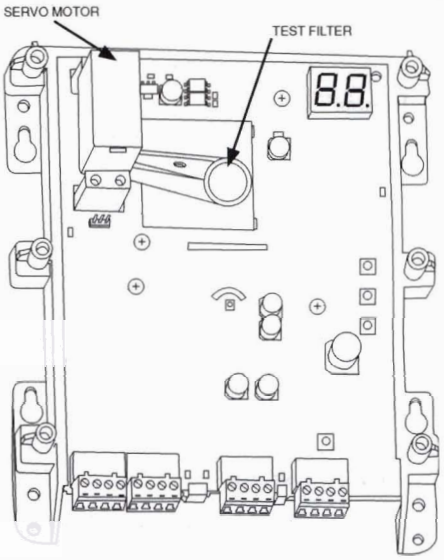
Detector Dimensions
10″H × 7.5″W × 3.3″D
(254mmH × 191mmW × 84mmD)

Reflector Dimensions (16′ to 230′)
7.9″ × 9.1″ (200 × 230mm)

Reflector Dimensions for (beyond 230′)
15.7″ × 18.1″ (400 × 460mm)



Activated Test Feature (BEAM1224S only)



BEAMMMK
(detector and surface mount kit not included)

RTS451

System Sensor Sales and Service

System Sensor Headquarters
3825 Ohio Avenue
St. Charles, IL 60174
Ph: 800/SENSOR2
Fx: 630/377-6495
Documents-on-Demand
800/736-7672 x3

System Sensor Canada
Ph: 905.812.0767
Fx: 905.812.0771

System Sensor Europe
Ph: 44.1403.891920
Fx: 44.1403.891921

System Sensor in China
Ph: 86.29.524.6253
Fx: 86.29.524.6259

System Sensor in Singapore
Ph: 65.6273.2230
Fx: 65.6273.2610

System Sensor – Far East
Ph: 85.22.191.9003
Fx: 85.22.736.6580

System Sensor – Australia
Ph: 613.54.281.142
Fx: 613.54.281.172

System Sensor – India
Ph: 91.124.237.1770 x.2700
Fx: 91.124.237.3118

System Sensor – Russia
Ph: 70.95.937.7982
Fx: 70.95.937.7983

www.systemsensor.com

A05-0365-000•1/04•#1166

SD355(A) Series

Addressable Photoelectric Smoke Detectors

FIRE·LITE ALARMS by Honeywell

Addressable Devices

General

The **SD355(A)**, **SD355T(A)**, and **SD355R(A)** addressable, low-profile plug-in photoelectric detectors use a state-of-the-art photoelectric sensing chamber with communications to provide open area protection and are used exclusively with Fire•Lite's Addressable Fire Alarm Control Panels (FACPs). The **SD355T(A)** adds thermal sensors that will alarm at a fixed temperature of 135°F (57°C). Since these detectors are addressable, they will help emergency personnel quickly locate a fire during its early stages, potentially saving precious rescue time while also reducing property damage. Two LEDs on each sensor light to provide a local, visible sensor indication. Remote LED annunciator capability is available as an optional accessory, PN RA100Z(A). The **SD355R(A)** is a remote test capable detector for use with D355PL(A) or DNR(A)/DNRW duct smoke detector housings.

2151_2251B_CEILING.png

SD355(A) in B210LP(A) Base

Features

SLC LOOP

- Two-wire loop connection.
- Unit uses base for wiring.

ADDRESSING

- Addressable by device.
- Rotary, decimal addressing: 01 – 99 with MS-9200UD(LS), and 01 – 159 with MS-9600UD(LS).

ARCHITECTURE

- Unique single-source, dual-chamber design to respond quickly and dependably to a broad range of fires.
- Sleek, low-profile design.
- Integral communications and built-in type identification.
- Built-in tamper-resistant feature.
- Removable cover and insect-resistant screen for simple field cleaning.

OPERATION

- Withstands air velocities up to 4,000 feet-per-minute (20 m/sec.) without triggering a false alarm.
- Factory preset at 1.5% nominal sensitivity for panel alarm threshold level.
- Visible LED "blinks" when the unit is addressed (communicating with the fire panel) and latches on in alarm.

MECHANICALS

- Sealed against back pressure.
- Direct surface mounting or electrical box mounting.
- Mounts to: single-gang box, 3.5" (8.89 cm) or 4.0" (10.16 cm) octagonal box, or 4.0" (10.16 cm) square electrical box *(using a plaster ring — included)*.

OTHER SYSTEM FEATURES

- Fully coated circuit boards and superior RF/transient protection.
- 94-V0 plastic flammability rating.
- Low standby current.

OPTIONS

- Remote LED output connection, PN RA100Z(A).

Applications

Use photoelectric detectors in life-safety applications to provide a broad range of fire-sensing capability, especially where smoldering fires are anticipated. Ionization detectors are often better than photoelectric detectors at sensing fast, flaming fires.

Construction

These detectors are constructed of off-white fire resistant plastic. SD355(A) series plug-in, low-profile smoke detectors are designed to commercial standards and offer an attractive appearance.

Installation

SD355(A) series plug-in detectors use a detachable mounting base to simplify installation, service and maintenance.

Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see *DF-60059*.

***NOTE:** Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class B) wiring. SD355R(A) mounts in a D355PL(A) or DNR(A)/DNRW duct detector housing.*

Operation

Each SD355(A) series detector uses one of 99 possible addresses on the MS-9200UD(LS) and up to 318 (159 on each loop) on the MS-9600UD(LS) Signaling Line Circuit (SLC). It responds to regular polls from the system and reports its type and status.

The addressable photoelectric sensor in the SD355(A) series has a unique unipolar chamber that responds quickly and uniformly to a broad range of smoke conditions. It can withstand wind gusts up to 4,000 feet-per-minute (20 m/sec.) without sending an alarm level signal. Because of its unipolar chamber, the SD355(A) series is approximately two times more responsive than most photoelectric sensors. This makes it a more stable detector.

Detector Sensitivity Test

Each detector can have its sensitivity tested (required per NFPA 72, Chapter 14 on *Inspection, Testing and Maintenance*) when installed/connected to a MS-9200UD(LS) or MS-9600UD(LS) addressable fire alarm control panel. The results of the sensitivity test can be printed off the MS-9200UD(LS) or MS-9600UD(LS) for record keeping.

Specification

Voltage range: 15 – 32 VDC (peak).

Standby current: 300 µA @ 24 VDC.

LED current: 6.5 mA @ 24 VDC (latched "ON").

Air velocity: 4,000 ft./min. (20 m/sec.) maximum.

Size: 2.1" (5.33 cm) high; base determines diameter.

- **B210LP(A):** 6.1" (15.5 cm) diameter.
- **B501(A):** 4.1" (10.4 cm) diameter.
- **B200SR(A):** 6.875" (17.46 cm) diameter.
- **B224RB(A):** 6.2" (15.748 cm) diameter.

Weight: 3.6 oz. (102 g).

Operating temperature range: ***for SD355(A):*** 0°C to 49°C (32°F to 120°F); ***for SD355T(A):*** 0°C to 38°C (32°F to 100°F). ***SD355R(A):*** installed in a DNR(A)/DNRW -20°C to 70°C (-4°F to 158°F).

Temperature: 0°C – 49°C (32°F – 120°F).

Relative humidity: 10% – 93%, non-condensing.

Listings

Listings and approvals below apply to the SD355(A), SD355T(A), and SD355RT(A) detectors. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed**: S1059.
- **ULC Listed:** S1059.
- **CSFM**: 7272-0075:0194.
- **MEA**: 243-02-E.
- **FM approved.**

Product Line Information

NOTE: "A" suffix indicates ULC Listed model.

SD355: Addressable photoelectric detector; B210LP base included.

SD355A: Sames as SD355 with ULC Listing; B210LPA base included.

SD355T: Same as SD355 but with ***thermal*** element; B210LP base included.

SD355TA: Same as SD355T with ULC Listing; B210LPA base included.

SD355R: Remote test capable addressable photoelectric detector for use with a D355PL(A) or DNRA/DNRW duct detector housing; B210LP base included.

SD355RA: Same as SD355R with ULC Listing for use with a D355PLA or DNRA duct detector housing; B210LPA base included.

INTELLIGENT BASES

***NOTE:** "A" suffix indicates ULC Listed model.*

***NOTE:** The detector's plug-in base can be changed off for special applications. For details about intelligent bases and their mounting, see DF-60059.*

B210LP(A): Plug-in detector base (included); standard U.S. flanged low-profile mounting base.

B210LPBP: Bulk pack of B210LP; package contains 10.

B501(A): Standard European flangeless mounting base.

B501BP: Bulk pack of B501; package contains 10.

B200SR(A): Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Replaces B501BH series bases in retrofit applications.

B224RB(A): Plug-in System Sensor **relay** base. Screw terminals: up to 14 AWG (2.0 mm²). Relay type: Form-C. Rating: 2.0 A @ 30 VDC resistive; 0.3 A @ 110 VDC inductive; 1.0 A @ 30 VDC inductive.

B224BI(A): Plug-in System Sensor ***isolator*** detector base. Maximum 25 devices between isolator bases *(see DF-52389).*

ACCESSORIES

F110: Retrofit flange to convert B210LP(A) to match the B350LP(A) profile, or to convert older high-profile bases to low-profile.

F110BP: Bulk pack of F110; package contains 15.

F210: Replacement flange for B210LP(A) base.

RA100Z(A): Remote LED annunciator. 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B210LP(A) bases only.

SMB600: Surface mounting kit

M02-04-00: Test magnet.

M02-09-00: Test magnet with telescoping handle.

XR2B: Detector removal tool. Allows installation and/or removal of detector heads from bases in high ceiling applications.

XP-4: Extension pole for XR2B. Comes in three 5-foot (1.524 m) sections.

T55-127-010: Detector removal tool without pole.

BCK-200B: Black detector covers for use with SD355(A) only; box of 10.

WCK-200B: White detector covers for use with SD355(A) only; box of 10.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

BG-12LX

Addressable Manual Pull Station

FIRE·LITE ALARMS by Honeywell

Addressable Devices

General

The Fire·Lite BG-12LX is a state-of-the-art, dual-action (i.e., requires two motions to activate the station) pull station that includes an addressable interface (mounted inside) for Fire·Lite's addressable fire alarm control panels (FACPs) Because the BG-12LX is addressable, the control panel can display the exact location of the activated manual station. This leads fire personnel quickly to the location of the alarm.

Features

- Maintenance personnel can open station for inspection and address setting without causing an alarm condition.
- Built-in bicolor LED, which is visible through the handle of the station, flashes in normal operation and latches steady red when in alarm.
- Handle latches in down position and the word "ACTIVATED" appears to clearly indicate the station has been operated.
- Captive screw terminals wire-ready for easy connection to SLC loop (accepts up to 12 AWG/3.25 mm² wire).
- Can be surface mounted (with SB-10 or SB-I/O) or semi-flush mounted. Semi-flush mount to a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box.
- Smooth dual-action design.
- Meets ADAAG controls and operating mechanisms guidelines (Section 4.1.3[13]); meets ADA requirement for 5 lb. maximum activation force.
- Highly visible.
- Attractive shape and textured finish.
- Key reset.
- Includes Braille text on station handle.
- Optional trim ring (BG12TR).
- Meets UL 38, Standard for Manually Actuated Signaling Boxes.

Construction

Shell, door, and handle are molded of durable polycarbonate material with a textured finish.

Specifications

- **Shipping Weight:** 9.6 oz. (272.15 g)
- **Normal operating voltage:** 24 VDC.
- **Maximum SLC loop voltage:** 28.0 VDC.
- **Maximum SLC standby current:** 375 µA.
- **Maximum SLC alarm current:** 5 mA.
- **Temperature Range:** 32°F to 120°F (0°C to 49°C)
- **Relative Humidity:** 10% to 93% (noncondensing)
- **For use indoors in a dry location**

Installation

The BG-12LX will mount semi-flush into a single-gang, double-gang, or standard 4" (10.16 cm) square electrical outlet box, or will surface mount to the model SB-10 or SB-I/O surface backbox. If the BG-12LX is being semi-flush mounted, then the optional trim ring (BG12TR) may be used. The BG12TR is usually needed for semi-flush mounting with 4" (10.16 cm) or double-gang boxes (not with single-gang boxes).

FLPullStation.jpg

Operation

Pushing in, then pulling down on the handle causes it to latch in the down/activated position. Once latched, the word "ACTIVATED" (in bright yellow) appears at the top of the handle, while a portion of the handle protrudes from the bottom of the station. To reset the station, simply unlock the station with the key and pull the door open. This action resets the handle; closing the door automatically resets the switch.

Each manual station, on command from the control panel, sends data to the panel representing the state of the manual switch. Two rotary decimal switches allow address settings (1 – 159 with Breakaway Tab removed for MS-9600 Series, 1 – 99 and MS-9200UDLS, 1 – 50 for MS-9050UD).

Architectural/Engineering Specifications

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

within the limits defined by the Americans with Disabilities Act (ADA) or per national/local requirements. Manual Stations shall be Underwriters Laboratories listed.

Manual stations shall connect with two wires to one of the control panel SLC loops. The manual station shall, on command from the control panel, send data to the panel representing the state of the manual switch. Manual stations shall provide address setting by use of rotary decimal switches.

Product Line Information

BG-12LX: Dual-action addressable pull station. Includes key locking feature. (Listed for Canadian and non-Canadian applications.)

SB-10: Surface backbox; metal.

SB-I/O: Surface backbox; plastic.

BG12TR: Optional trim ring.

17003: Keys, set of two.

Agency Listings and Approvals

In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL/ULC Listed:** S711 (listed for Canadian and non-Canadian applications).
- **MEA:** 67-02-E.
- **CSFM:** 7150-0075:0184.
- **FM Approved.**

Patented: U.S. Patent No. D428,351; 6,380,846; 6,314,772; 6,632,108.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

SYSTEM SENSOR®

Selectable Output Horns, Strobes, and Horn/Strobes

SpectrAlert® Advance selectable-output horns, strobes, and horn/strobes are rich with features guaranteed to cut installation times and maximize profits.

SPECTRAlert ADVANCE from System Sensor

Features

- Electrically compatible with existing SpectrAlert products
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Plug-in design
- Field selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185
- Same mounting plate for wall- and ceiling-mount units
- Shorting spring on mounting plate for continuity check before installation
- Tamper resistant construction
- Outdoor wall and ceiling products rated from –40°F to 151°F
- Design allows minimal intrusion into the back box
- Horn rated at 88+ dbA at 16 volts
- Rotary switch for horn tone and three volume selections
- Outdoor products UL listed to UL 1638 (strobe) and UL 464 (horn) outdoor requirements
- Outdoor products NEMA 4X rated
- Compatible with MDL sync module

Agency Listings

SIGNALING UL LISTED
S4011
S5512
S3593

FM APPROVED
3023572

MEA approved
MEA452-05-E

7125-1653:186 (Indoor strobes)
7300-1653:187 (outdoor strobes)
7125-1653:188 (horn/strobes, chime/strobes)
7135-1653:189 (horns, chimes)

The SpectrAlert Advance series of notification appliances is designed to simplify installations, with features such as plug in designs, instant feedback messages to ensure correct installation of individual devices, and 11 field-selectable candela settings for wall and ceiling strobes and horn/strobes.

When installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Next, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

The SpectrAlert Advance series includes outdoor notification appliances. Outdoor strobes and horn/strobes (two wire and four wire) are available for wall or ceiling. Outdoor horns are available for wall only. All System Sensor outdoor products are rated between minus 40 degrees Fahrenheit and 151 degrees Fahrenheit in wet or dry applications.

SpectrAlert Advance Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance horns, strobes and horn/strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 1⅞-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt rated notification appliance circuit outputs shall operate between nine and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC, or full-wave rectified, unfiltered power supply. Strobes and horn/strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn/Strobe Combination

The horn/strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn/strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn/strobe models shall operate on a coded or non-coded power supply.

Outdoor Products

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by UL and shall operate between minus 40 degrees and 151 degrees Fahrenheit. The products shall be listed for use with a System Sensor outdoor/weatherproof back box with half inch and three-fourths inch conduit entries.

Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn/strobe models over a single pair of wires. The module shall mount to a 4 11/16 × 4 11/16 × 2⅛-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
K Series Operating Temperature	–40°F to 151°F (–40°C to 66°C)
Humidity Range	10 to 93% non-condensing (indoor products)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12DC/FWR or regulated 24DC/FWR[1]
Operating Voltage Range[2]	8 to 17.5 V (12V nominal) or 16 to 33 V (24 nominal)
Input terminal wire gauge	12 to 18 AWG
Ceiling mount dimensions (including lens)	6.8˝ diameter × 2.5˝ high (173 mm diameter × 64 mm high)
Wall mount dimensions (including lens)	5.6˝L × 4.7˝W × 2.5˝D (142 mm L × 119 mm W × 64 mm D)
Horn dimensions	5.6˝L × 4.7˝W × 1.3˝D (142 mm L × 119 mm W × 33 mm D)
Wall-mount back box skirt dimensions (BBS-2, BBSW-2)	5.9˝L × 5.0˝W × 2.2˝D (151 mm L × 128 mm W × 56 mm D)
Ceiling-mount back box skirt dimensions (BBSC-2, BBSCW-2)	7.1˝ diameter × 2.25˝ high (180 mm diameter × 57 mm high)
Wall-mount weatherproof back box dimensions (SA-WBB)	5.7˝L × 5.1˝W × 2.0˝D (145 mm L × 130 mm W × 51 mm D)
Ceiling-mount weatherproof back box dimensions (SA-WBBC)	7.1˝ diameter × 2.0˝ high (180 mm diameter × 51 mm high)
Wall-mount trim ring dimensions (TR-HS, TRW-HS)	5.7˝L × 4.812˝W × 0.35˝D (146 mm L × 122 W mm × 9 D mm)
Ceiling-mount trim ring dimensions (TRC-HS, TRCW-HS)	6.9˝ diameter × 0.35 high (176 mm diameter × 9 mm high)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
	Candela	DC	FWR	DC	FWR
Standard Candela Range	15*	123	128	66	71
	15/75*	142	148	77	81
	30*	NA	NA	94	96
	75*	NA	NA	158	153
	95*	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

UL Max. Horn Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
Sound Pattern	dB	DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-temporal	High	57	56	69	75
Non-temporal	Medium	42	50	60	69
Non-temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

UL Max. Current Draw (mA RMS), 2-wire Horn/Strobe, Standard Candela Range (15–115 cd)

	8–17.5 Volts		16–33 Volts						
DC Input	15	15/75	15	15/75	30	75	95	110	115
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-temporal High	141	152	91	100	116	176	201	221	229
Non-temporal Medium	133	145	75	85	102	163	187	207	216
Non-temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-temporal High	142	161	103	112	126	181	203	221	229
Non-temporal Medium	134	155	85	95	110	166	189	208	216
Non-temporal Low	132	154	80	90	105	161	184	202	211

UL Max. Current Draw (mA RMS), 2-wire Horn/Strobe, High Candela Range (135–185 cd)

	16–33 Volts					16–33 Volts			
DC Input	135	150	177	185	FWR Input	135	150	177	185
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-temporal High	255	270	303	309	Non-temporal High	233	248	275	281
Non-temporal Medium	242	259	293	299	Non-temporal Medium	219	232	262	267
Non-temporal Low	238	254	291	295	Non-temporal Low	214	229	256	262

Candela Derating

For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

Strobe Output (cd)

Listed Candela	Candela rating at –40°F
15	Do not use below 32°F
15/75	
30	
75	44
95	70
110	110
115	115
135	135
150	150
177	177
185	185

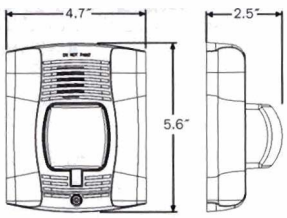
Horn Tones and Sound Output Data

Horn and Horn/Strobe Output (dBA)

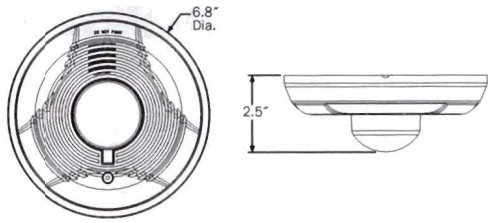
			8–17.5 Volts		16–33 Volts		24 Volt Nominal Reverberant		24 Volt Nominal Anechoic	
Switch Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-temporal	High	82	82	88	88	93	92	100	100
5	Non-temporal	Medium	78	78	85	85	90	90	98	98
6	Non-temporal	Low	75	75	81	81	88	84	96	92
7†	Coded	High	82	82	88	88	93	92	101	101
8†	Coded	Medium	78	78	85	85	90	90	97	98
9†	Coded	Low	75	75	81	81	88	85	96	92

†Settings 7, 8, and 9 are not available on 2-wire horn/strobe.

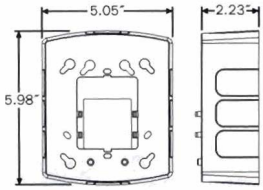
SpectrAlert Advance Dimensions



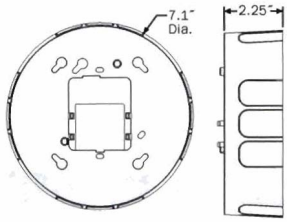
Wall-mount horn/strobes



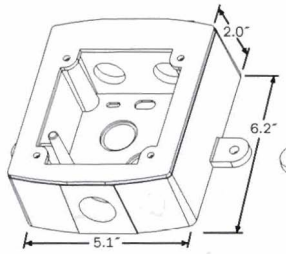
Ceiling-mount horn/strobes



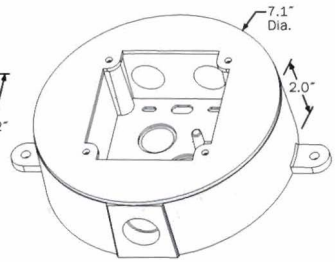
Wall back box skirt



Ceiling back box skirt



Wall weatherproof back box



Ceiling weatherproof back box

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn/Strobes	
P2R*†	2-wire Horn/Strobe, Standard cd‡, Red
P2RH*	2-wire Horn/Strobe, High cd, Red
P2RK*¤	2-wire Horn/Strobe, Standard cd, Red, Outdoor
P2RHK¤	2-wire Horn/Strobe, High cd, Red, Outdoor
P2W*	2-wire Horn/Strobe, Standard cd, White
P2WH*	2-wire Horn/Strobe, High cd, White
P4R*	4-wire Horn/Strobe, Standard cd, Red
P4RH*	4-wire Horn/Strobe, High cd, Red
P4RK¤	4-wire Horn/Strobe, Standard cd, Red, Outdoor
P4RHK¤	4-wire Horn/Strobe, High cd, Red, Outdoor
P4W*	4-wire Horn/Strobe, Standard cd, White
P4WH*	4-wire Horn/Strobe, High cd, White
Wall Strobes	
SR*†	Strobe, Standard cd, Red
SRH*†	Strobe, High cd, Red
SRK¤	Strobe, Standard cd, Red, Outdoor
SRHK	Strobe, High cd, Red, Outdoor
SW*	Strobe, Standard cd, White
SWH*	Strobe, High cd, White
Ceiling Horn/Strobes	
PC2R*	2-wire Horn/Strobe, Standard cd, Red
PC2RH*	2-wire Horn/Strobe, High cd, Red
PC2RK¤	2-wire Horn/Strobe, Standard cd, Red, Outdoor
PC2RHK¤	2-wire Horn/Strobe, High cd, Red, Outdoor
PC2W*†	2-wire Horn/Strobe, Standard cd, White
PC2WH*†	2-wire Horn/Strobe, High cd, White
PC4R	4-wire Horn/Strobe, Standard cd, Red
PC4RH	4-wire Horn/Strobe, High cd, Red
PC4RK	4-wire Horn/Strobe, Standard cd, Red, Outdoor
PC4RHK¤	4-wire Horn/Strobe, High cd, Red, Outdoor

Model	Description
Ceiling Horn/Strobes (cont'd.)	
PC4W	4-wire Horn/Strobe, Standard cd, White
PC4WH	4-wire Horn/Strobe, High cd, White
Ceiling Strobes	
SCR*	Strobe, Standard cd, Red
SCRH*	Strobe, High cd, Red
SCRK¤	Strobe, Standard cd, Red, Outdoor
SCRHK¤	Strobe, High cd, Red, Outdoor
SCW*†	Strobe, Standard cd, White
SCWH*†	Strobe, High cd, White
Horns	
HR	Horn, Red
HRK¤	Horn, Red, Outdoor
HW	Horn, White
Accessories	
BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White
TR-HS	Trim Ring, Wall, Red
TRW-HS	Trim Ring, Wall White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

Notes:

*** Add "-P"** to model number for plain housing (no "FIRE" marking on cover), e.g., P2R-P.

† Add "-SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP.

‡ **"Standard cd,"** refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. **"High cd,"** refers to strobes that include 135, 150, 177, and 185 candela settings.

All outdoor units ending in **"K"** include a weatherproof back box.

¤ Add **"-R"** to model number for weatherproof replacement device (no back box included).

SYSTEM SENSOR®

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ToribioMones
EQUIPOS CONTRA INCENDIOS

Cotización

Cliente: **Junta Central Electoral**
Dirección: Ave.27 de Febrero esq.Luperon,Plaza de la Bandera
Ciudad: Santo Dominigo,D.N
Depto: Informatica
Atención: Departamento de Compras

Fecha: 11 de junio de 2019

Descripción Producto	Cant.	Precio Unit. RD$	Precio Total RD$
IP Cominicador para Sistemas de Alarmas de Deteccion de Humos. IPDACT-2 Fire Watch.	1	45,460.00	45,460.00
		Sub-total	**45,460.00**
		Más 18% Itbis	**8,182.80**
		Total RD$	**53,642.80**

Se requiere una linea IP para su implementacion.

Tiempo Estimado de Realizacion del Proyecto: 15 a 30 dias Laborables

La instalacion de las tuberias sera realizada por Oteica bajo nuetra supervision

Garantia del Trabajo: 1 año en fallas tecnicas del equipo.

Condiciones de Pago: 70% con la orden y 30% restante contra entrega del sistema funcionando a su entera satisfacción.

Atentamente,

Juan A.Toribio

ToribioMones, S.R.L.
EQUIPOS CONTRA INCENDIOS

ToribioMones
EQUIPOS CONTRA INCENDIOS

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Depto: Informatica
Atención: Departamento de Compras

Fecha: 11 de junio de 2019

Descripción Producto	Cant.	Precio Unit. RD$	Precio Total RD$
Marcador por Voz para discar automaticamente hasta cuatro numeros telefonicos y eniva hasta dos mensajes diferentes cuando se activa el sistema de alarmas.	1	22,730.00	22,730.00
		Sub-total	**22,730.00**
		Más 18% Itbis	**4,091.40**
		Total RD$	**26,821.40**

Se requiere una linea telefonica para su implementacion.

Tiempo Estimado de Realizacion del Proyecto: 15 a 30 dias Laborables

La instalacion de las tuberias sera realizada por Oteica bajo nuetra supervision

Garantia del Trabajo: 1 año en fallas tecnicas del equipo.

Condiciones de Pago: 70% con la orden y 30% restante contra entrega del sistema funcionando a su entera satisfacción.

Atentamente,

Juan A.Toribio

ToribioMones, S.R.L.
EQUIPOS CONTRA INCENDIOS

IPDACT-2/2UD

FireWatch™ IP Series: New IP Fire Alarm Communicator

FIRE·LITE ALARMS by Honeywell

Control/Communicators

General

The new FireWatch™ IPDACT-2 and IPDACT-2UD are communicators based on the original IPDACT optional digital alarm communications module from Fire•Lite. The new IPDACT-2 duplicates the previous function found in the original IPDACT but adds two supervised inputs, two additional outputs, an improved terminal strip and the addition of several legacy panels to the compatibility list. The IPDACT-2UD version 6.0 adds a modem daughter board (2UD) that supports upload/download over the Internet or a customer's Intranet.

Refer to the *IPDACT Series Installation Document* PN 53109 for more information.

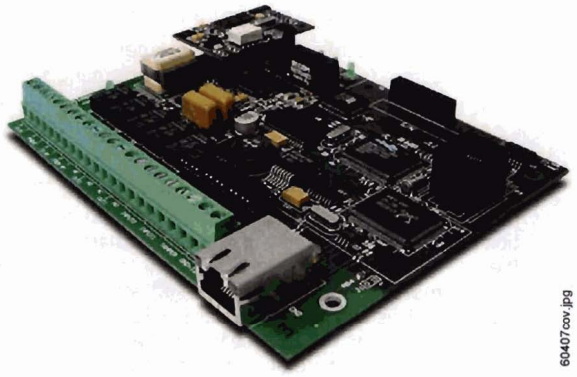
Both models connect to the primary and secondary communication ports of the panel's DACT, converting the analog signals into digital signals at the panel for transmission to a compatible Teldat VisorALARM PLUS IP receiver at a central station. The panel operates normally during an alarm, supervisory or trouble event and sends contact-ID formatted analog information out of the telephone ports to the IP Communicator. The IP Communicator reformats the data into highly encrypted Ethernet UDP packets for transmission to a compatible receiver at the central station. This new listing only requires an IP connection. No backup analog phone line is necessary. Customers can still use a traditional backup phone line from the panel's second phone port if desired.

With Contact ID DACT-equipped panels from Fire•Lite, the IP Communicators allow for faster and more economic digital alarm transmissions, improving response times and decreasing costs found with traditional analog systems. They offer value-added features such as supervised line functionality, where a central station can detect any off-line alarm panels within seconds. On the central station side, a compatible VisorALARM® Plus IP receiver from the Teldat Corporation emulates popular receiver formats and allows seamless integration into existing conventional central station architectures.

The benefit of an IP Communicator is that it is always on, increasing the security and supervision of the central station connection from once every 24 hours for a supervisory test signal to once every 30 - 90 seconds.

The IPDACT-2UD allows a programmer to upload and download data between the user's PC and a supported fire alarm panel. The panel and PC can be anywhere on the world wide web or within a corporate intranet.

The user's computer runs a program called UDPORT.exe to capture the modem signals from Fire•Lite's PK-PLUS or the newer PS-Tools panel programming software. In UDPORT.exe the user enters the main IP address of the VisorALARM receiver, the UDP port to use, username, and password. Instead of using the PC's modem, this process communicates between the IPDACT-2UD's modem at the panel and the panel's own modem. While speed is still limited to the baud rate of the panel's modem, panel communications are now 100% digital over IP from the remote program PC all the way to the remote panel installation. This eliminates any dropouts in modem communications caused by noise or other factors. If an alarm should occur during upload or download, the panel is able to interrupt modem communications immediately and transmit the alarm to the central station.



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Each IPDACT-2UD is registered in the VisorALARM Receiver with a unique serial number. A subscriber number must be entered into the subscriber number database field for each IPDACT-2UD. This same number is entered into the subscriber telephone number field (panel to call) in PK-PLUS or PS-Tools as if calling the panel on a telephone. If these numbers match, and the master username and password are correct, full duplex communication is permitted to the panel.

***NOTE:** UL 864 Ninth Edition prohibits downloading to a panel without entering a local panel password. Uploading is permitted at any time without entering a password.*

Features

- Listed to UL Standard 864, Ninth Edition when used with Fire•Lite UL 864 Ninth Edition-listed panels.
- Eliminates the cost of two dedicated phone lines. Only the customer's shared IP equipment is required.
- Increases connection supervision to the central station from the once-a-day test signal to once every 30 - 90 seconds.
- Requires no change to the existing panel configuration. The IP Communicator connect directly to the primary and secondary analog panel telephone ports.
- Fast alarm transmission (less than 10 second transmission time).
- Works over any type of customer-provided Ethernet 10/100 Base network connection (LAN or WAN), DSL modem or cable modem.
- Data transmits over standard contact-ID protocol but is secured with the industry's highest level of encryption (AES 512 bit).
- Supports both dynamic (DHCP) or Public and Private Static IP addressing.
- Supports dual-destination IP receiver address for high redundancy configurations: all signals are sent to a secondary address should the primary become unavailable.
- User programmable UDP ports for flexibility and compatibility with firewalls and other network security components.
- Supports an optional third maintenance receiver installed at the end user's facility that permits local alarm monitoring.

Alarms are received simultaneously at both the central station and the customer's facility. A filter can be applied to annunciate specific alarm types such as trouble-only events.

- Supports upload/download using existing, familiar programming tools.
- Two supervised inputs and two outputs.

Easy to Program

There are three ways to configure the IP Communicator:

1. Console terminal using the HyperTerminal™ software program found on all Microsoft® operating systems.
2. Local or remote Telnet session via Ethernet connection.
3. Windows-based configuration software (shipped with IP Communicator).

The IP Communicator can be pre-programmed. The programmer enters all central-station information and an auto-registration password. This is saved to the unit's flash memory. When the IP Communicator is installed at the site and connected to the Internet/Intranet, it registers itself with the central station receiver. This eliminates the need for a PC at the remote site for programming. The IP receiver at the monitoring station will automatically configure other parameters during registration.

- For most installations, the only required parameters are:
- Selection of either DHCP or Static IP
- Destination primary and secondary receiver IP addresses
- Account identification number (CID)
- Port number
- Installation password

All of these parameters are assigned by the central station. See "Installation Requirements" for full details.

Panel Capabilities

The IPDACT-2/2UD unit is compatible with the following fire alarm panels: MS-5024UD, MS-5210UD, MS-9200UD, MS-9200UDLS, MS-9600 (with optional DACT-UD), MS-9600UDLS or MS-9600LS (with optional DACT-UD2), MS-5UD, MS-10UD, and MS-9050UD. Use 411 or 411UD Slave Dialer and HP300ULX power supply to connect to Alarm Trouble and Supervisory relay outputs of any competitive fire panel.

The following panels require an external enclosure kit (PN: IPENC or optional HP300ULX power supply with bracket kit PN: IPBRKT); both enclosures must be close-nipple to the FACP:

- MS-5024UD
- MS-5210UD
- MS-9200UD
- MS-9600 (with optional DACT-UD)
- 411 or 411UD Slave Dialer (for use with any competitive fire panel)

If using 411 or 411UD Slave Dialer with a competitive fire panel, the HP300ULX power supply is required for mounting and powering the IP Communicator. Order bracket kit PN: IPBRKT separately. Both enclosures must be close-nippled to the FACP.

The following panels may use an internal mounting bracket (PN IPBRKT) for use with the common enclosure or can use the HP300ULX power supply when more power is required:

- MS-9050UD
- MS-9200UDLS
- MS-9600UDLS or MS-9600LS (with optional DACT-UD2)
- MS-5UD
- MS-10UD

NOTE: See "Installation Requirements" for current draws.

VisorALARM PLUS® IP Receiver

The *FireWatch*™ IP Communicator reports to the VisorALARM-PLUS IP receiver (manufactured by the Teldat Corporation). Each IP receiver can manage up to 3,000 IP Communicator accounts and is compatible with existing central station alarm monitoring software.

The VisorALARM IP receiver is based on high-availability router technology and uses a high-performance embedded operating system for higher reliability and efficiency. All IP receiver configuration and operating data is backed up to a smart card. This allows for an immediate equipment replacement within 60 seconds with almost no downtime and no information loss. The Primary and Secondary receiver configurations provide maximum level of redundancy and both can be backed up by additional "clustered" receivers for the highest reliability available in the industry. Both receivers communicate in real-time over the network to keep information synchronized and up-to-date. Each VisorALARM Plus Receiver can handle up to 20 concurrent TCP/IP connections from Upload/Download Users.

Installation Requirements

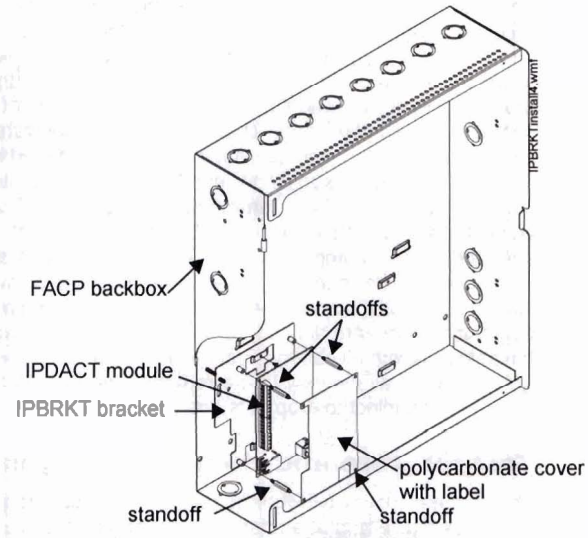
The following are required for proper installation of the IP Communicator:

- 24 VDC nonresettable, filtered, regulated power:
  - IPDACT-2UD : 155 mA in alarm; standby 98 mA.
  - IPDACT-2: 136 mA in alarm; 93 mA standby.
- Ethernet network connection (ITE-listed router/gateway).
- Although not required to meet NFPA, a small UPS is recommended to provide backup power for customer-provided router/switch (the HP3-300ULX can provide 12 VDC backup power for small 12 volt routers drawing 500 mA or less for over 24 hours).
- Dynamic or static IP address (dynamic addressing requires DHCP server present on the local network. NOTE: DSL and cable modems typically use dynamic addressing as supplied by network providers).
- UDP port for IP communication with the monitoring station (default port: 80 may be changed by central station).
- Destination IP addresses of the IP receivers where the communicator will be sending alarms and other events (If installed on a private Intranet, the gateway address of the public router will be required to allow the IP card to access the Internet and the public router at the central station).
- Panel account ID number (CID).
- Installer password (provided by the monitoring station managing the IP receiver).
- Separate username and password supplied by central station for upload/download operation. (Note: this is different than installation password.)

MOUNTING METHODS

There are three mounting methods depending on project requirements and panel used.

1. The IP Communicator can be mounted directly inside the common enclosure used with the MS-9050UD, MS-9200UDLS, MS-9600UDLS, MS-5UD, and MS-10UD. When mounting inside the common enclosure the IPBRKT is used as shown on the previous page. A special polycarbonate cover is supplied that serves to protect the unit from installed batteries.

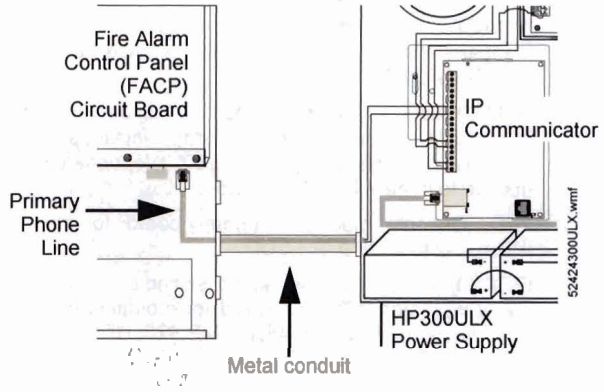


Mounting in the Control Panel Enclosure

2. The IP Communicator can be mounted inside the small add-on IPENC enclosure. This is typically used with previous panels that did not use the common enclosure such as the MS-9600, MS-9200UD, MS-5024UD, and MS-5210UD. This will be connected to the fire alarm panel with a short piece of conduit.

***NOTE:** The 411UD application for monitoring Alarm, Trouble and Supervisory relays of a competitive FACP requires mounting both the 411UD and IPDACT-2UD inside the HP300ULX.*

3. When more power is required, the IP Communicator can be mounted inside the HP300ULX power supply. The power supply should be connected to the fire alarm panel with a short piece of conduit.



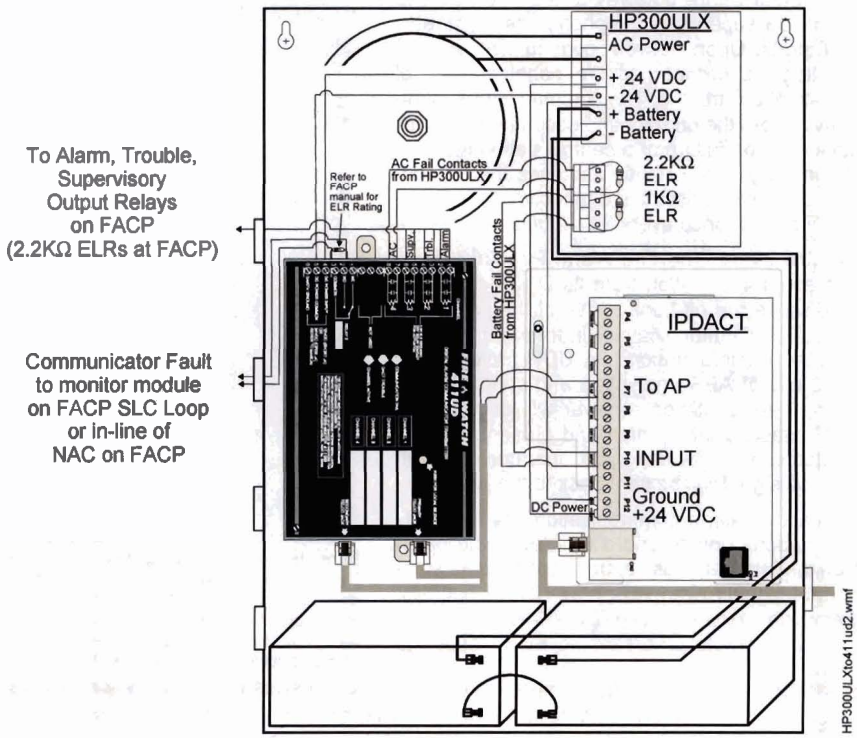
Mounting in the HP300ULX Power Supply

***NOTE:** Refer to the IP Communicator Series Installation Document PN 53109 for additional installation information.*

PROGRAMMING OPTIONS

1. Console terminal using the HyperTerminal software program found on all Microsoft operating systems. Requires serial programming cable PN ALMSC-119.

2. Local or remote Telnet session via Ethernet connection. Requires either switch/hub connection or Ethernet crossover cable from laptop to Ethernet Port and programming PC. The PC's IP address must be set to the default range of the IPDACT-2/2UD such as 192.168.0.XX.



Connecting the IPDACT, 411UD, and HP300ULX

3. Windows-based configuration software (shipped with IP Communicator version 6.0 or higher). Version 6.0 permits use of either Ethernet Crossover cable or Serial Cable.

ORDERING OPTIONS

IPDACT-2: IP Communicator. Includes configuration software, manuals, and prepared 30" telephone cable for connection to panel's DACT Telco ports.

IPDACT-2UD: IP Communicator with upload/download capability (2UD modem daughter board). Includes configuration software, manuals, and prepared 30" telephone cable for connection to panel's DACT telco ports.

2UD: Optional modem daughter board for upgrading an IPDACT-2 to an IPDACT-2UD.

IPBRKT: Mounting bracket kit consisting of screws and battery shield with standoffs. Required for mounting in lower enclosure section of MS-9050UD, MS-9200UDLS, MS-9600LS, MS-9600UDLS, MS-5UD, and MS-10UD. Required for use with 411 and HP300ULX in competitive fire panels.

IPENC: External mounting enclosure consisting of mounting bracket IPBRKT, and screws. Enclosure must be "close-nipple" to a panel. (Red)

IPSPLT: Y adaptor option to allow connection of both panel dialer outputs to one cable input to IPDACT-2/2UD.

ALMSC-119: Serial programming cable.

HP300ULX: Honeywell Power Products UL 1481-listed auxiliary power supply. Enclosure must be "close-nipple" to a panel via conduit. Requires IPBRKT purchased separately.

System Architecture/Operating Theory

The *FireWatch* IP Communicators and an Ethernet connection simply replace the telephone lines as the primary communications path to the central station. It connects to customer supplied network equipment with a gateway to the Internet. The communicators provide supervised telephone line voltage to both panel DACT ports. Upon network communication loss, telephone line voltage is dropped to the panel and panel reports communication loss trouble. The communicators monitor the connectivity to both the primary and secondary receiver at the central station. Upon failure of a central station receiver the backup automatically and instantly assumes the primary role. The communicator supervises the connection to the central station at a minimum of once every 90 seconds.

For a Fire or Trouble event, The Fire Alarm Panel will send Contact ID alarm event information from its DACT port. The communicator will sense the off-hook status of the panel and accept all data. The IP Communicator will then immediately packetize the Contact ID information into UDP protocol and encrypt it with 512 bits of AES encryption and send it to the central station. The central station receiver will decrypt and unpacketize the Contact ID information and present it to the central station automation software. Upon operator acknowledgement the kiss-off signal will be sent back to the panel.

In addition to Contact ID alarm communication, the IPDACT-2UD version 6.0 supports upload and download to the panel from anywhere on the Internet. This communication uses standard modem control signals wrapped up in TCP/IP packets. Standard programming software such as PK-PLUS or PS-Tools are used on the remote programming PC. A separate application (UDPORT.exe) is started on the programming PC. This software contains settings that include central station receiver IP address, port number, upload/download username and password (supplied by central station). UDPORT is set to a specific communication port that will be used by the programming software. The PK-PLUS program is also set to this same communication port. The programming software must contain a subscriber number that matches the desired remote IPDACT-2UD card's subscriber number set at the central station. PK-PLUS "dials" the remote via standard ATDT modem commands. The IPDACT-2UD v.32 modem daughter card sees the modem commands via TCP/IP and provides a RING to the panel. The modem on the panel handshakes with the local IPDACT-2UD modem and communications begin. While communications are limited to the panel's baud rate, the advantage is that all communications from the remote site programming PC all the way to the remote panel are fully digital and are not subject to drop outs due to phone line noise.

Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 - 49°C/32 - 120°F and at a relative humidity up to 93% ± 2%RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F) However, the useful life of the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15-27°C/60 - 80°F.

Agency Listings and Approvals

The listings and approvals below apply to the IP Communicator. In some cases certain modules may not be listed by certain approval agencies, or listings may be in process. Consult factory for latest listing status.

- UL: S2424
  CSFM: 7300-0075:223.

ISO 9001 CERTIFIED
ENGINEERING & MANUFACTURING QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
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We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
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