LIFE SAFETY & INCIDENT MANAGEMENT

EST4 Remote Annunciators

4-xxANN Series



4-2ANN and 4-4ANN shown with optional equipment.

NYC FIRE DEPT. COA # 2022-TMCOAP-008086-RENL

EN54

Overview

EST4 Remote Annunciators provide front panel system status and control functions located conveniently anywhere on the EST4 network. Annunciators can be as simple as a couple of LED indicator strips, or complex enough to support up to two LCD displays, an audio telephone interface and hundreds of control points and indicators — all in a single enclosure.

Up to 576 tactile switches and 576 LED indicators may be mounted in a single EST4 annunciator cabinet. Control Display Modules (CDMs), comprise a column of programmable buttons accompanied by one or two LED indicator positions per button. Indicator-only modules hold up to 24 indicators. Switch and indicator module LEDs can be set to any of five colors, providing an additional level of feedback.

All remote annunciators feature color-matched cabinets and distinctive metallic bronze (Pantone Coated PMS# P 171-16 C, Pantone RGB# 81 75 67, and RAL Classic/RAL Design# 7022) doors for a readily-identifiable and consistent look throughout the facility.

Thanks to EST4's ingenious communications protocol, network data — as well as telephone and audio data — is carried on a single fiber optic cable or twisted wire pair. This multi-use capacity has an enormous cost-savings potential compared with conventional audio transmission, reducing not only installation costs, but also simplifying ongoing system maintenance.

Slide-in LED and switch labeling makes it easy to incorporate right into the annunciator design such information aids as descriptive text, color-coding, icons, and local languages. For custom floorplans or facility maps, EST4 offers LED driver boards perfectly suited to operate in most graphic annunciators.

Standard Features

- **Connection Over High-Speed Life Safety Network**
  Annunciator network and audio data carried on a single fiber or twisted pair.
- **Optional Color LCD Display**
  Touchscreen capability supplements control buttons for quick, intuitive access to key system status and control functions.
- **Wide Range of Annunciator Configurations**
  From a two-slot model holding a single LCD display to 24-slot cabinets for complex annunciation.
- **Supports Two LCD Displays**
  Providing users with a simplified sequence of operations.
- **Convenient Programming**
  Built-in support for radio groups of up to 24 switches in size.
- **Slide-in Switch and Indicator Labels**
  A simple, effective means to customize annunciator appearance and messaging.
- **Programmable LED Flash Rates and Colors**
  Easy to see, quick to understand.
- **Clean and robust door designs**
- **Support for all Common Networking Media**
  Annunciators connect over any combination of twisted pair wire, Multi-mode fiber, Single Mode fiber and even CAT5 cable.

Application

Use EST4 remote annunciators where a compact system status display is needed. Annunciator configuration can range from a couple of LED indicator strips, to complex arrangements supporting in a single enclosure up to two LCD displays, paging microphone, firefighter telephone and hundreds of control points and indicators.

EST4 annunciators support a range of options that make them ideal for Mass Notification, Life Safety and other emergency communications purposes. They can be used as Central Control Stations (CCS), Autonomous Control Units (ACU), Local Operating Console (LOC) and combination units from which initiated Mass Notification functions can be controlled.

Cabinets may be surface or semi-flush mounted for installation expediency and aesthetic appeal.

Annunciators connect over the high-speed EST4 network, which supports copper or fiber-optic communications in any combination. Network data and audio data share the same cabling. This results in more efficient deployment with fewer cables needed and fewer connections to be made.

The 2-wide, 4-wide, and 6-wide, 4-xANNMT series, annunciator wallboxes come standard with surface mounting trims and semi-flush mounting trims.

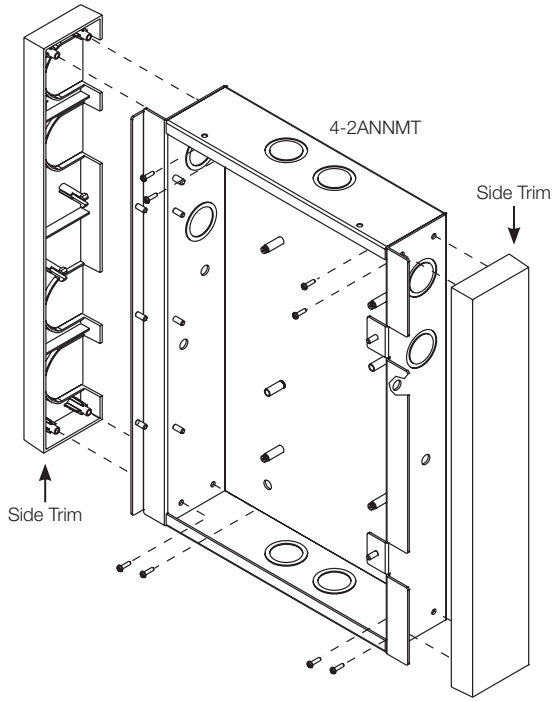
The 8-space, 16-space and 24-space 4-xxANNMT series wallboxes are designed for surface mount applications. Their depth is kept to a minimum to allow the least amount of room penetration. When semi-flush mounting is required, order the standard 3-CAB5B, 7B, or 14B wallbox.

Engineering Specification

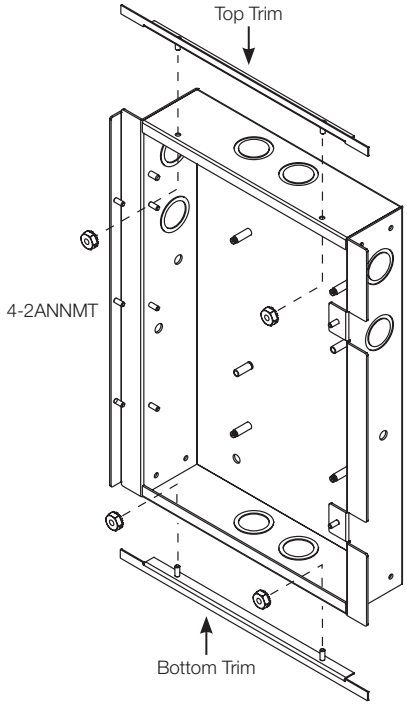
The Life Safety system shall incorporate annunciation of Alarm, Supervisory, Trouble and Monitor operations. Annunciation must be through the use of both LED display strips complete with a means to custom label each LED as to its function. LED color shall be selectable at configuration time. Where applicable control switches must be provided. Switches with LEDs must provide positive feedback to the operator of remote equipment status. A color touchscreen LCD display with basic common control LEDs and switches shall be provided. Optionally a second color touchscreen display may be added to support audio and telephone operations. The Common Control Switches and LEDs provided as minimum will be: Reset switch and LED, Alarm Silence switch and LED, Panel Silence switch and LED, Drill switch and LED. It must be possible to add additional common controls as required through the use of modular display/control units. The LCD must provide the emergency user, hands-free viewing of the first highest priority event. System events must automatically be placed in queues. It shall be possible to view specific event types separately. The total number of active events by type must be displayed. It must be possible to customize the designations of all user interface LEDs and switches for local language requirements. It must be possible to route system event messages to specific annunciator locations. It must be possible for the annunciator to contain a paging microphone and firefighter telephone.

Installation and Mounting

4-2ANNMT, 4-4ANNMT, and 4-6ANNMT included side trim installation for surface mount applications



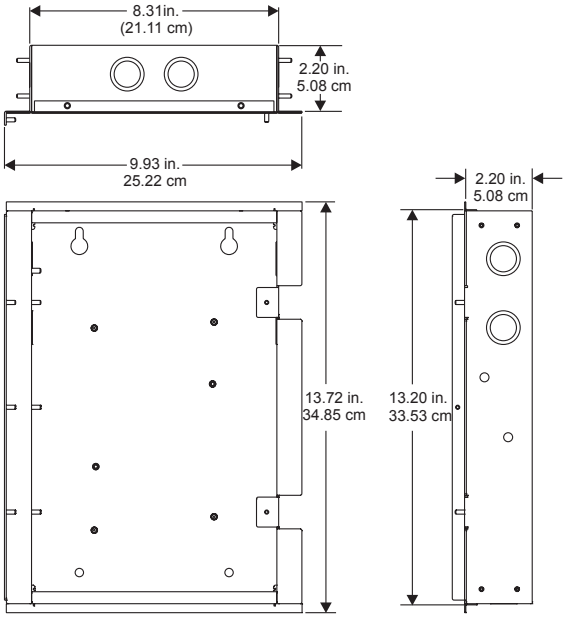
4-2ANNMT, 4-4ANNMT, and 4-6ANNMT included trim installation for semi-flush mount applications



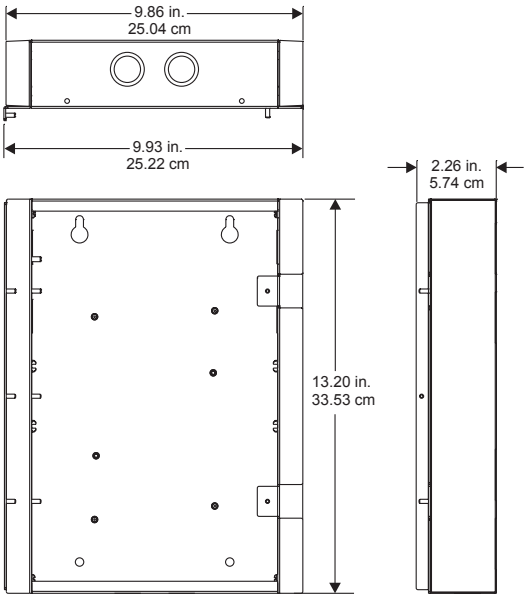
See Specifications Table for 4-8ANNMT, 4-16ANNMT, 4-24ANNMT mounting options.

Dimensions, wallboxes

4-2ANNMT Wallbox Assembly, Surface and Semi-Flush Mounting (both trims are included)

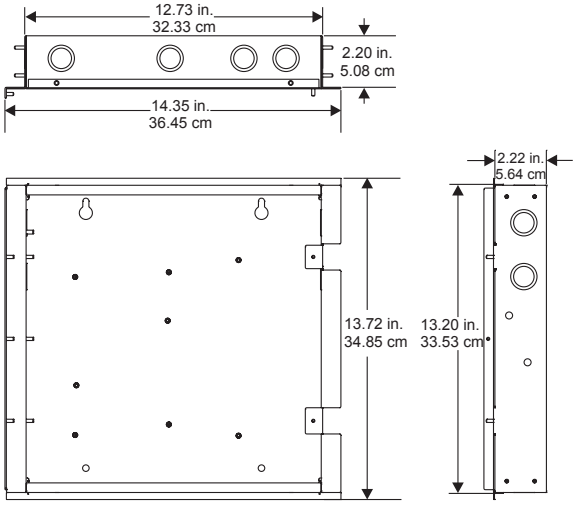


Semi-flush mount (trim installed top and bottom)

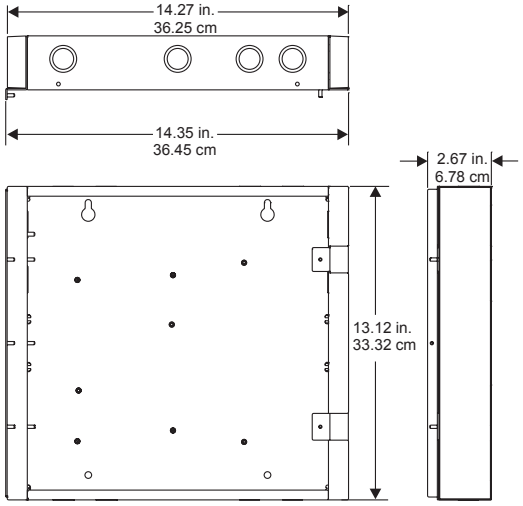


Surface mount (trim installed right and left sides)

4-4ANNMT Wallbox Assembly, Surface and Semi-Flush Mounting (both trims are included)

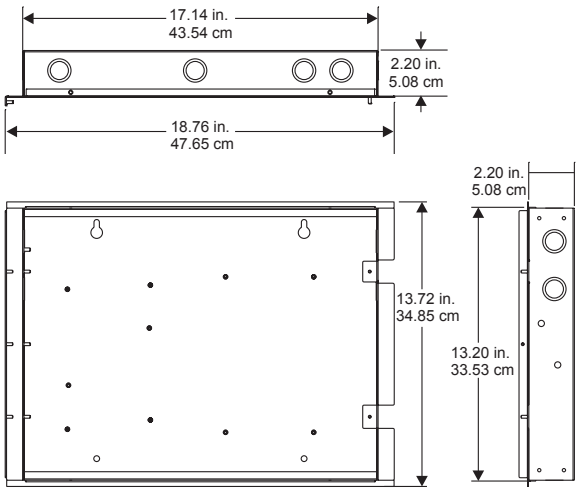


Semi-flush mount (trim installed top and bottom)

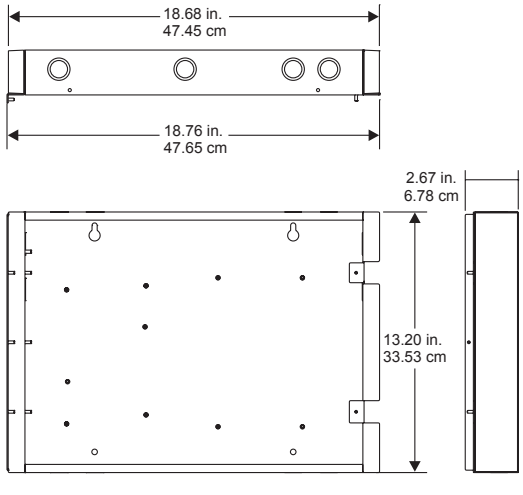


Surface mount (trim installed right and left sides)

4-6ANNMT Wallbox Assembly, Surface and Semi-Flush Mounting (both trims are included)



Semi-flush mount (trim installed top and bottom)

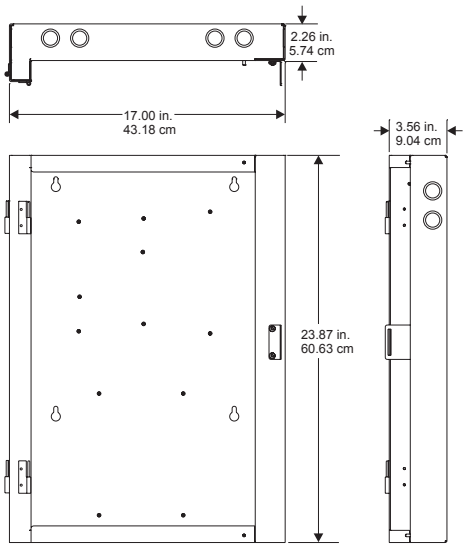


Surface mount (trim installed right and left sides)

Dimensions, wallboxes

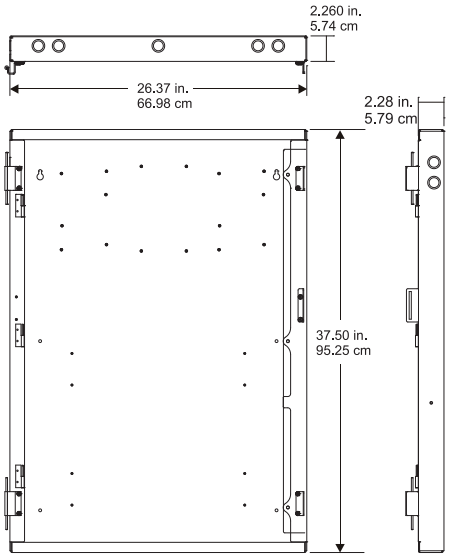
4-8ANNMT Wallbox Assembly, Surface Mount

For semi-flush mounting, use a 3-CAB5B wallbox.



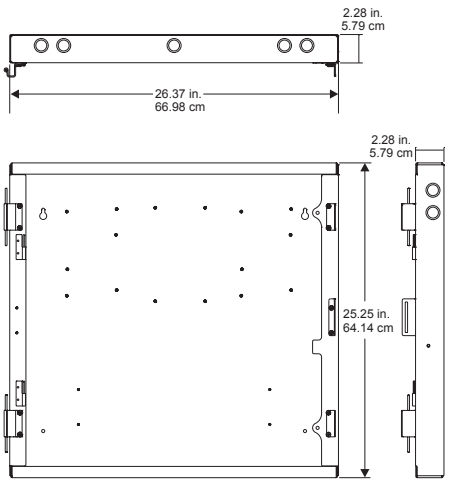
4-24ANNMT Wallbox Assembly, Surface Mount

For semi-flush mounting, use a 3-CAB14B wallbox.



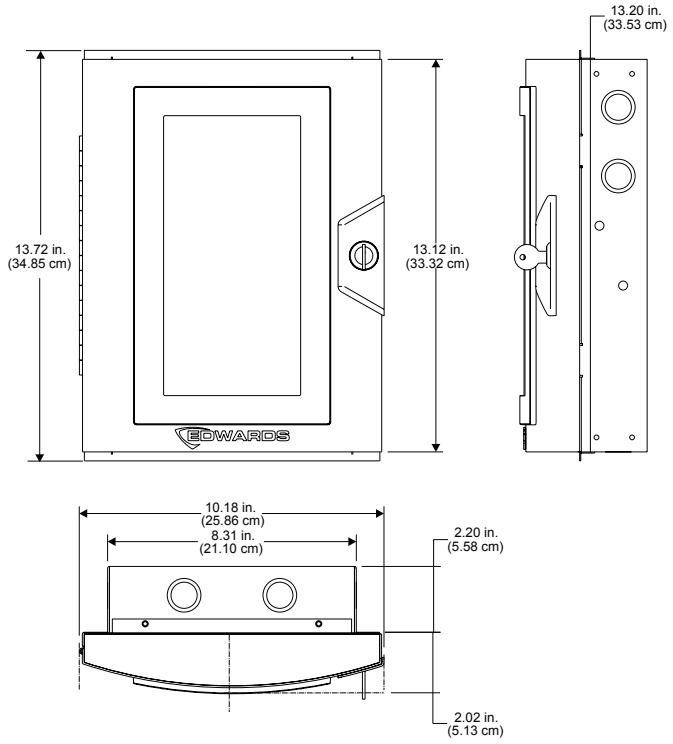
4-16ANNMT Wallbox Assembly, Surface Mount

For semi-flush mounting, use a 3-CAB7B wallbox.

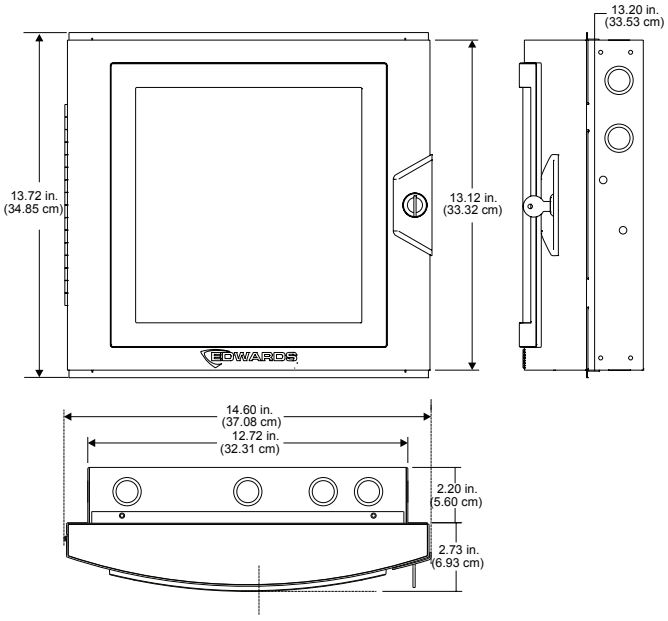


Dimensions, door assemblies

4-2ANN Series Door Assembly

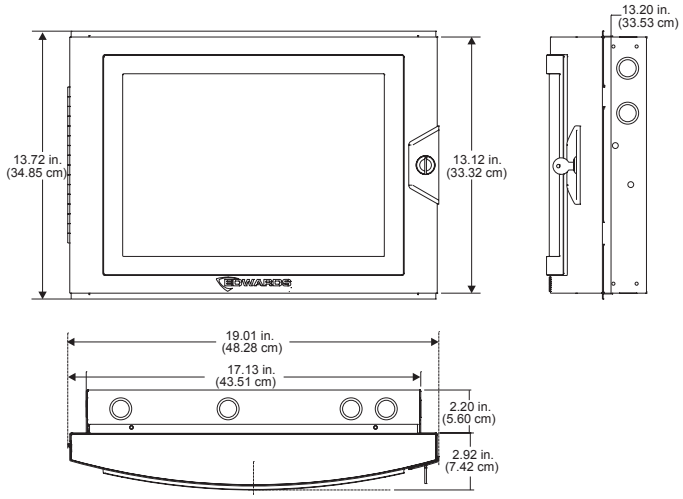


4-4ANN Series Door Assembly

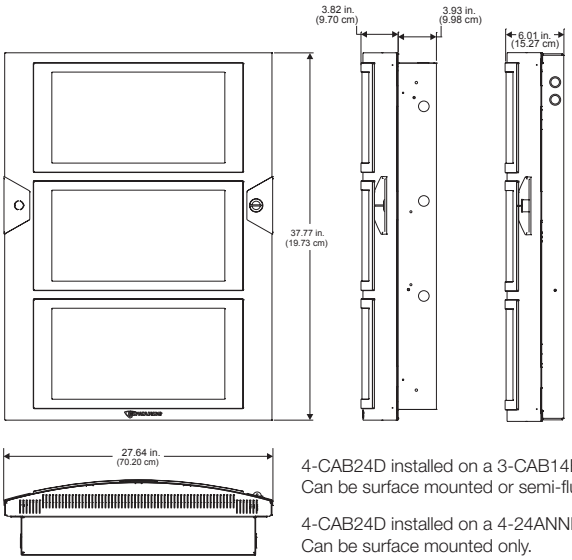


Dimensions, door assemblies continued

4-6ANN Series Door Assembly



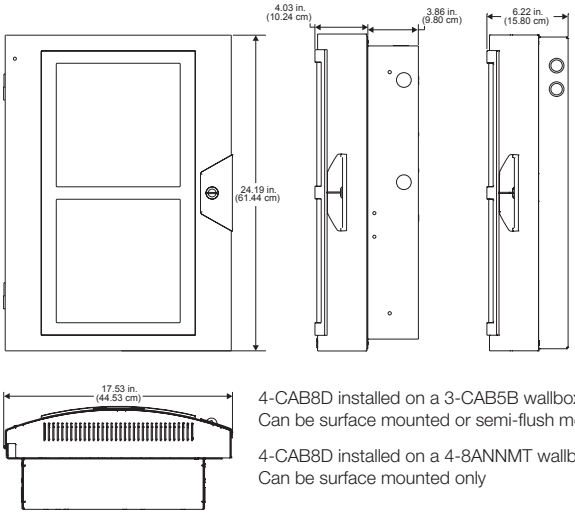
4-CAB24D Series Door Assembly



4-CAB24D installed on a 3-CAB14B wallbox.
Can be surface mounted or semi-flush mounted.

4-CAB24D installed on a 4-24ANNMT wallbox.
Can be surface mounted only.

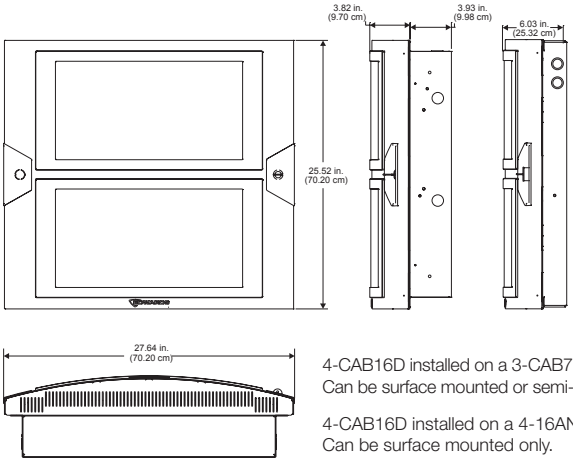
4-CAB8D Series Door Assembly



4-CAB8D installed on a 3-CAB5B wallbox.
Can be surface mounted or semi-flush mounted.

4-CAB8D installed on a 4-8ANNMT wallbox.
Can be surface mounted only

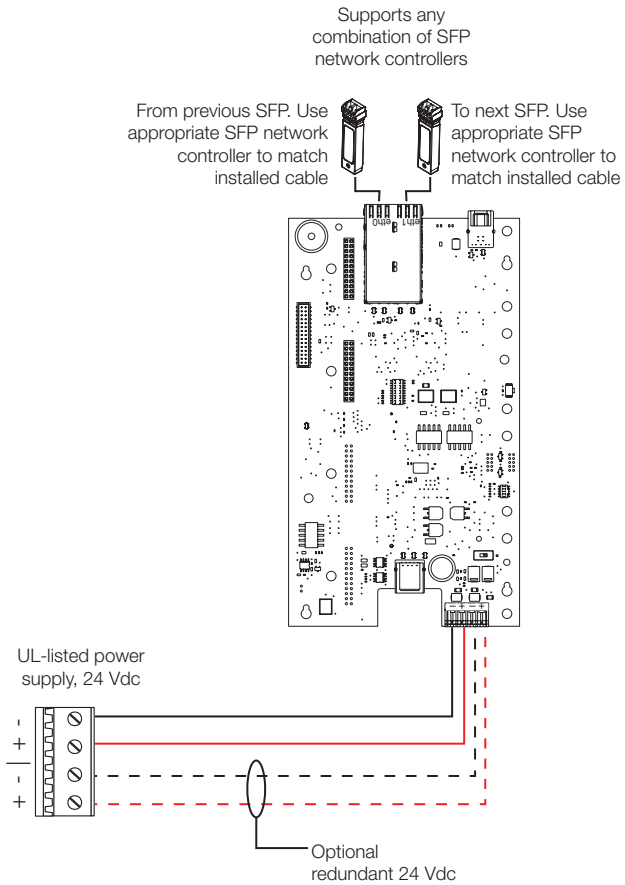
4-CAB16D Series Door Assembly



4-CAB16D installed on a 3-CAB7B wallbox.
Can be surface mounted or semi-flush mounted.

4-CAB16D installed on a 4-16ANNMT wallbox.
Can be surface mounted only.

Wiring



SFP Network Controllers

Model #	Description	Network Interconnection Media Supported
4-NET-CAT	100 Mbps SFP Network Controller	Cable type - Cat 5e or better Connector type - RJ-45 Distance 328 ft. (100 m) max
4-NET-MM	Multi-mode fiber-optic SFP Network Controller	SFP network media interface, multi-mode fiber-optic, supports 50/125 µ (OM3/OM4) fiber pair up to 1.24 mi. (2 km), 62.5/125 µ (OM1) fiber pair up to 0.62 mi. (1 km), or a 100/140 µ fiber pair up to 150 m. Order one 4-NET-MM for “in” wiring and one for "out" wiring for connections from previous node and to next node as required. Each 4-NET-MM supports one multi-mode fiber pair between network cards.
4-NET-SM	Single-mode fiber-optic SFP Network Controller	Single mode 9/125 µ (G.652) fiber pair up to 6.2 miles (10 km). Order one 4-NET-SM for “in” wiring from the previous node and a second 4-NET-SM for “out” network wiring to the next node. Each 4-NET-SM supports one single-mode fiber pair between network cards
4-NET-SMH	Single-mode fiber-optic SFP Network Controller High output	Single-mode fiber-optic, high-power output, with a 9/125 µ (G.652) fiber pair up to 24.8 mi (40km). Order one 4-NET-SMH for “in” wiring from the previous node and a second 4-NET-SMH for “out” network wiring to the next node. Each 4-NET-SMH supports one single-mode fiber pair between network cards.
4-NET-SMU	Single-mode fiber-optic SFP Network Controller Bi-Directional	Bi-directional, single-mode fiber-optic with a 9/125 µ (G.652) fiber up to 6.2 miles (10 km). The 4-NET-SMU must be paired with a 4-NET-SMD over one single-mode fiber between network cards.
4-NET-SMD	Single-mode fiber-optic SFP Network Controller Bi-Directional	Bi-directional, single-mode fiber-optic with a 9/125 µ (G.652) fiber up to 6.2 miles (10 km). The 4-NET-SMD must be paired with a 4-NET-SMU over one single-mode fiber between network cards.
4-NET-TP	2 Mbps Twisted Pair SFP Network Controller	Twisted pair. Following specifications are between any two panels. • 16 to 22 AWG (1.3 to 0.33 mm²) • Six twists per foot minimum • Circuit Capacitance 0.09 µF max. • 5,000 ft. (1,524 m) between any two panels • Circuit resistance 90 Ω max.
4-NET-TP-HC	0.3 Mbps Twisted Pair SFP Network Controller	Twisted pair or Shielded twisted pair. Following specifications are between any two panels. • 16 to 24 AWG (1.3 to 0.20 mm²) • Six twists per foot minimum • 5,000 ft. (1,524 m) between any two nodes with unshielded twisted pair • Circuit capacitance 0.3 µF max. • 3280 ft. (1,000 m) between any two nodes shielded twisted pair • Circuit resistance 90 Ω max. • For UL/ULC applications only

Refer to Data Sheet E85014-0008 for additional details on SFP network controllers.

Technical Specifications

Annunciator Assemblies

Each annunciator space holds a control-display module. LCD displays, 4-MIC and 4-FT take two spaces.

	4-2ANN	4-4ANN	4-6ANN	4-8ANN	4-16ANN	4-24ANN
Number of Spaces	Two	Four	Six	Eight	Sixteen	Twenty-four
Wallbox, Surface Mounting	4-2ANNMT	4-4ANNMT	4-6ANNMT	4-8ANNMT	4-16ANNMT	4-24ANNMT
Wallbox, Semi-flush Mounting				3-CAB5B	3-CAB7B	3-CAB14B
Agency Approvals:	UL, ULC, FM, CSFM, CE, EN54 and NYC Fire Dept.			UL, ULC, FM, CSFM and NYC Fire Dept.	UL, ULC, FM, CSFM, CE, EN54 and NYC Fire Dept.	
Door Color	Metallic Bronze (Pantone Coated PMS# P 171-16 C, Pantone RGB# 81 75 67, and RAL Classic/RAL Design# 7022)					
Wallbox Color	Black					

4-ANNCPU Central Processor

Comes standard with annunciator assemblies.

Voltage	16 to 32 Vdc
Current draw Standby Alarm/Active	 205 mA at 16 VDC; 145 mA at 24 VDC; 125 mA at 32 VDC; 205 mA at 16 VDC; 145 mA at 24 VDC; 125 mA at 32 VDC
USB support	One USB 3.0, Type A – female port One USB 3.0, Type B – female port
SFP support	Supports all 4-NET series SFPs. Refer to EST4 Network Controllers Catalog sheet 85014-0008 for details.
Wire Size	TB1 backup power connection 12 to 18 AWG (2.5 to 1.0 mm²)
Operating Temperature	32 to 120°F (0 to 49°C)
Operating relative Humidity	0 to 93% noncondensing
Option modules	4-ANNAUDTEL: Annunciator Audio/Telephone interface module. Adds audio and telephone processing capabilities to the 4-ANNCPU, required for the use of the 4-MIC and/or 4-FT with the 4-ANNCPU.

Ordering Information, annunciators and accessories

Model # (SKU)	Description	Shipping Weight
4-2ANN	LCD Annunciator - Comes with 4-LCDANN color touchscreen display, 4-ANNCPU, metallic bronze outer door and black inner door. Order wallbox assembly model 4-2ANNMT and required network Controllers 4-NET-XX separately (see Notes 1 and 4).	10.3lb (4.67kg)
4-4ANN	Metallic bronze Annunciator supports 4 slots (1 row of 4). Comes with 4-ANNCPU, metallic bronze outer door and black inner door. Order wall Mounting assembly 4-4ANNMT, required network controllers 4-NET-XX series (See Notes 1 and 4), any user interfaces and filler plates separately.	11.5lb (5.22kg)
4-6ANN	Metallic bronze Annunciator, 6 slots (1 row of 6). Comes with 4-ANNCPU, metallic bronze outer door and black inner door. Order wall Mounting assembly 4-6ANNMT, required network Controllers 4-NET-XX series (see Notes 1 and 4), any user interfaces and required filler plates separately.	12.5lb (5.67kg)
4-8ANN	Metallic bronze Annunciator, 8 slots (2 rows of 4). Comes with 4-ANNCPU, metallic bronze outer and black inner doors. Order wall Mounting assembly 4-8ANNMT (surface mounting), or 3-CAB5B (Semi-flush mounting) required network Controllers 4-NET-XX series (see Notes 1 and 4), End User interfaces and required filler plates separately. Not approved for EN54 applications.	24.5lb (11.11kg)
4-16ANN	Metallic bronze Annunciator, 16 slots (2 rows of 8). Comes with 4-ANNCPU, metallic bronze outer and black inner doors. Order wall Mounting assembly 4-16ANNMT (Surface mount) or 3-CAB7B (semi-flush mount), required network Controllers 4-NET-XX series (see Notes 1 and 4), end user interfaces and required filler plates separately.	37.9lb (17.19kg)
4-24ANN	Metallic bronze Annunciator, 24 slots (3 rows of 8). Comes with 4-ANNCPU, metallic bronze outer and black inner doors. Order wall mounting assembly 4-24ANNMT, required network Controllers 4-NET-XX series (see Notes 1 and 4) and End User interfaces and required filler plates separately.	52.9lb (24.02kg)
Accessories and Related Equipment		
4-LCDANN	Color LCD display, includes silicon rubber common control buttons, mounts in remote annunciators, communicates to 4-ANNCPU. Comes with interconnect cable. LCD ordered separately for mounting in 4-4ANN or 4-6ANN. 4-2ANN comes with one 4-LCDANN.	1.9lb (0.85kg)
4-LCDLE	Color LCD display, includes silicon rubber common control buttons, mounts in remote annunciators sizes 4-8ANN, 4-16ANN or 4-24ANN, communicates to 4-ANNCPU. Comes with interconnect cable	1.9lb (0.85kg)
4-LCDAUD TELANN	LCD display for control of paging and firefighter telephone. Comes with one 4-LCDAUDTEL and mounting and cabling hardware for mounting in 4-16ANNMT or 4-24ANNMT enclosures where separate LCD display of Audio and Telephone is required. Is not supported in other annunciator sizes. Order annunciator application specific equipment separately.	1.8lb (0.81kg)
4-ANNCPU	Annunciator Central Processor Unit (CPU), provides mounting for up to two network controllers (see Notes 1 and 4), one USB device port, one USB host port and one 4-ANNAUDTEL module.	1.0lb (0.45kg)
4-24L	Control Display Module with 24 indicators. See Notes 2 and 4.	0.6lb (0.27kg)
4-24L12S	Control Display Module with 24 indicators and 12 switches. See Notes 2 and 4.	0.7lb (0.29kg)
4-24L18S	Control Display Module with - 24 indicators and 18 switches See Notes 2 and 4.	0.7lb (0.29kg)
4-24L24S	Control Display Module with - 24 indicators and 24 switches. See Notes 2 and 4.	0.7lb (0.29kg)
4-FIL	Fills one indicator/switch space on inner doors when no Switch or LED strips are installed.	0.1lb (0.04kg)
4-MIC	Audio paging microphone. Requires 4-ANNAUDTEL support card be installed on the 4-ANNCPU card. Can be mounted in 4-4ANN through 4-24ANN annunciators. See Note 4.	1.2lb (0.54kg)
4-FT	Master Fire Fighters telephone. Requires a 4-ANNAUDTEL support card be installed on the 4-ANNCPU card. Can be mounted in 4-4ANN through 4-24ANN annunciators.	1.4lb (0.64kg)
4-ANN AUDTEL	Annunciator Audio/Telephone interface module. Adds audio and telephone processing capabilities to the 4-ANNCPU, required for the use of the 4-MIC and/or 4-FT with the 4-ANNCPU.	0.3lb (0.14kg)
4-CPUGRPH	Graphic Annunciator Central Processor Module. See Notes 3 and 4.	1.5lb (0.68kg)
3-EVDVR	LED/SWITCH Driver Module Assembly for ENVOY graphics. See Note 3.	0.4lb (0.18kg)
3-EVDVRA	LED/SWITCH Driver Module Assembly for Third-party Graphics. See Note 3.	0.7lb (0.32kg)
3-EVPWR	Power Supply Assembly space for one 4-CPUGRPH for ENVOY Graphics. See Note 3.	0.2lb (0.09kg)
3-EVPWRA	Power Supply Assembly c/w 19-inch rail mounting chassis assembly space for one 4-CPUGRPH for Third-party Graphics. See Note 3.	2.9lb (1.34kg)
3-EVDVRX	Plastic mounting extrusion 19” mounting - for up to 3 3-EVDVRAs. See Note 3.	0.9lb (0.41kg)

Note 1: Refer to Catalog Sheet part number E85014-0008 for a complete list and description of available Network Controllers.
Note 2: Refer to Catalog Sheet part number E85014-0006 for a complete description of Control Display Modules.
Note 3: SKU not FM approved.
Note 4: Add suffix “-E” for EN54 compliant versions.

Ordering Information, wallboxes and replacement parts

Model # (SKU)	Description	Shipping Weight
Wallboxes		
4-2ANNMT	Mounting assembly for 4-2ANN, two wide annunciator. Supports surface or semi-flush mounting. Comes with black wallbox, surface mounting plastic fillers and semi-flush trim.	6.4lb (2.9kg)
4-4ANNMT	Mounting assembly for 4-4ANN, four wide annunciator. Supports surface or semi-flush mounting. Comes with black wallbox, surface mounting plastic fillers and semi-flush trim.	9.0lb (4.08kg)
4-6ANNMT	Mounting assembly for 4-6ANN, six wide annunciator. Supports surface or semi-flush mounting. Comes with wallbox, surface mounting plastic fillers and semi-flush trim.	10.3lb (4.67kg)
4-8ANNMT	Mounting assembly for 4-8ANN, four wide x two row high annunciator. Supports surface mounting. Not approved for EN54 applications.	19.0lb (8.62kg)
3-CAB5B	Wallbox – Black Semi-flush wallbox, ideal for use when semi-flush mounting 4-8ANN annunciators. Not approved for EN54 applications.	20.0lb (9.07kg)
4-16ANNMT	Surface Mount Wall box assembly for eight wide by two high annunciators (16 spaces)	27.0lb(12.25kg)
3-CAB7B	Wallbox – Black Semi-flush wallbox, ideal for use when semi-flush mounting 4-16ANN annunciators. Add suffix "-E" for EN54 compliant versions.	29.5lb (13.38kg)
4-24ANNMT	Surface mount wallbox assembly for eight wide by three high annunciator (24 spaces).	37.0lb (16.78kg)
3-CAB14B	Wallbox – Black Semi-flush wallbox, ideal for use when semi-flush mounting 4-24ANN annunciators.	40.8lb (18.5kg)
Service Replacement Parts		
4-2ANND	Service replacement metallic bronze Annunciator Door for 4-2ANN annunciators includes the inner and outer doors.	7.7lb (3.5kg)
4-2ANND-E	Service replacement metallic bronze Annunciator Door for 4-2ANN annunciators includes the inner and outer doors. For EN54 market only.	
4-4ANND	Service replacement metallic bronze Annunciator Door for 4-4ANN annunciators includes the inner and outer doors.	10lb (4.5kg)
4-4ANND-E	Service replacement metallic bronze Annunciator Door for 4-2ANN annunciators includes the inner and outer doors. For EN54 market only.	
4-6ANND	Service replacement metallic bronze Annunciator Door for 4-6ANN annunciators, includes the inner and outer door.	11lb (5kg)
4-6ANND-E	Service replacement metallic bronze Annunciator Door for 4-2ANN annunciators includes the inner and outer doors. For EN54 market only.	
4-CAB8D	Service replacement metallic bronze door for 3-CAB5B or 4-8ANNMT - four spaces wide by two high (8 spaces) Includes inner (black) door and outer metallic bronze door. Not approved for EN54 applications.	23lb (10.4kg)
4-CAB8DR	Red door for 3-CAB5B - four spaces wide by two high (8 spaces). Includes inner (black) door and outer red door. May be used to provide a red door for 4-8ANN annunciators. Not approved for EN54 applications.	23lb (10.4kg)
4-CAB16D	Service replacement metallic bronze door for 3-CAB7B eight spaces wide by two high (16 spaces). Includes inner (black) door and outer metallic bronze door. Not approved for EN54 applications.	36lb (16.3kg)
4-CAB16DR	Red door for 3-CAB7B - eight spaces wide by two high (16 spaces). Includes inner (black) door and outer red door. May be used to provide a red door for 4-16ANN annunciators.	36lb (16.3kg)
4-CAB16DR-E	Red door for 3-CAB7B - eight spaces wide by two high (16 spaces). Includes inner (black) door and outer red door. May be used to provide a red door for 4-16ANN annunciators. For EN54 market only.	
4-CAB24D	Service replacement metallic bronze door for 3-CAB14B eight spaces wide by three high (24 spaces). Includes inner (black) door and outer metallic bronze door. Not approved for EN54 applications.	51lb (23.1kg)
4-CAB24DR	Red door for 3-CAB14B - eight spaces wide by three high (24 spaces). Includes inner (black) door and outer red door. May be used to provide a red door for 4-24ANN annunciators.	51lb (23.1kg)
4-CAB24DR-E	Red door for 3-CAB14B - eight spaces wide by three high (24 spaces). Includes inner (black) door and outer red door. May be used to provide a red door for 4-24ANN annunciators. For EN54 market only.	
4-2ANNFA	Service replacement part - plastic frame assembly with mounting screws for 4-2ANN annunciators. Not approved for EN54 application.	1.5lb (0.68kg)
4-4ANNFA	Service replacement part - plastic frame assembly with mounting screws for 4-4ANN annunciators.	2lb (0.91kg)
4-6ANNFA	Service replacement part - plastic frame assembly with mounting screws for 4-6ANN annunciators.	2lb (0.91kg)
4-4X2ANNFA	Service replacement part – plastic frame assembly with mounting screws for 4-8ANN annunciators and 4-CAB5D door assemblies.	3lb (1.36kg)
4-8ANNFA	Service replacement part - plastic frame assembly with mounting screws for 4-CAB16D and 4-CAB21D(L) door assemblies.	3lb (1.36kg)

Note 1: Unless otherwise specified, all SKUs may be used in EN54/UL/ULC applications

LIFE SAFETY & INCIDENT MANAGEMENT

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