DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND JILDING PERM



This is to certify that **PROTECTION PROFESSIONALS** of 325 US Route 1, Falmouth, ME 04105

Job ID: 2011-06-1490-CH OF USE

For installation at 26 EVERGREEN DR, UNIT B New England Distilling

CBL: 329- A-014-001

has permission to install supervised fire alarm for NE Distilling

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.
- Permits expire in 6 months. If the project is not started or ceases for 6 months.
- If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.

Final Fire

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life . www.portlandmaine.gov

Director of Planning and Urban Development Penny St. Louis

Job ID: <u>2011-06-1490-CH OF USE</u> install supervised fire alarm for NE Distilling

For installation at:

26 EVERGREEN DR, UNIT B
New England Distilling

CBL: <u>329- A-014-001</u>

Conditions of Approval:

Fire

Fire alarm system design is based on an analysis of the distillery by Mark Cummings from Fire Risk Management and recognizes the isolated hazard posed by the distillery. This is a required system.

The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.

In field installation shall be installed per code as conditions dictate.

Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.

Central Station monitoring shall be by zone.

All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".

Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance.

The fire alarm system shall be certified by a master fire alarm company and have a new fire alarm inspection sticker.

System acceptance and commissioning must be coordinated with the Fire Department. Call 874-8703 to schedule.

Fire Alarm system shall be maintained. If system is to be off line over 4 hours a fire watch shall be in place. Dispatch notification required 874-8576.

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Date Applied: 12/19/2011		CBL: 329- A-014-001						
Owner Name: AIM EVERGREEN LLC			V	Phone:				
Contractor Name: PROTECTION PROFESS	SIONALS	i			Phone: (207) 775-5755			
Phone:		Permit Type: FIRE ALARM			Zone:			
Proposed Use: Same – Distillery – install fire alarm		Cost of Work: 6636.00 Fire Dept:	Fire Dept: Approved of conditions Denied					
): :					Signature:			
			Zoning Approval					
-th-Administration	Special Z	one or Reviews	Zoning Appeal	Historic P	reservation			
 This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building Permits do not include plumbing, septic or electrial work. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work. 		is one sion	Variance Miscellaneous Conditional Use Interpretation Approved Denied Date:	Does not Requires Approved				
	Owner Name: AIM EVERGREEN LLC Contractor Name: PROTECTION PROFES: Phone: Proposed Use: Same – Distillery – in alarm does not preclude the ng applicable State and include plumbing, d if work is not started the date of issuance. validate a building	Owner Name: AIM EVERGREEN LLC Contractor Name: PROTECTION PROFESSIONALS Phone: Proposed Use: Same – Distillery – install fire alarm Special Z does not preclude the applicable State and include plumbing, d if work is not started the date of issuance. validate a building	Owner Name: AIM EVERGREEN LLC Owner Address: 123 SOUTH ORANG ORANGE, CA 9286 Contractor Name: PROTECTION PROFESSIONALS Phone: Permit Type: FIRE ALARM Proposed Use: Same — Distillery — install fire alarm Cost of Work: 6636.00 Fire Dept: Signature: Pedestrian Activity Special Zone or Reviews — Shoreland — Wetlands include plumbing, d if work is not started the date of issuance. validate a building MajMinMM	Owner Name: AIM EVERGREEN LLC Owner Address: 123 SOUTH ORANGE ST ORANGE, CA 92866 Contractor Name: PROTECTION PROFESSIONALS Phone: Permit Type: FIRE ALARM Proposed Use: Cost of Work: 6636.00 Fire Dept: Approved (a) / C Denied N/A Signature: Back Signature: Back Signature: Back Signature: Cost of Work: 6636.00 Fire Dept: Approved (a) / C Denied N/A Signature: Back Signature: Cost of Work: 6636.00 Fire Dept: Approved (a) / C Denied N/A Signature: Back Signature: Conting Approval Approval Approval Include plumbing, Girwork is not started the date of issuance. Validate a building Maj Min MM	Owner Name: AIM EVERGREEN LLC Owner Address: 123 SOUTH ORANGE ST ORANGE, CA 92866 Contractor Name: PROTECTION PROFESSIONALS Permit Type: FIRE ALARM Proposed Use: Same – Distillery – install fire alarm Cost of Work: 6636.00 Fire Dept: Approved 3/ conditions Denied N/A Signature: Pedestrian Activities District (P.A.D.) Zoning Approval Special Zone or Reviews Denied Wetlands Include plumbing, dif work is not started the date of issuance. Validate a building Maj _Min _MM Owner Address: 123 SOUTH ORANGE ST ORANGE, CA 92866 Contractor Address: 325 US FALMOUTH ME 04105 Cost of Work: 6636.00 Fire Dept: Approved 3/ conditions Denied N/A Not in Division Linterpretation Approved Approved Approved Approved Approved Approved Approved Approved Denied Denied Denied Denied			

to enforce the provision of the code(s) applicable to such permit.

IGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE (OF WORK, TITLE	DATE	PHONE

ELECTRICAL PERMITCity of Portland, Me.

To the Chief Electrical Inspector, Portland Maine:
The undersigned hereby applies for a permit to make electrical installations in accordance with the laws of Maine, the City of Portland Electrical Ordinance, National Electrical Code and the following specifications:

Date\	2-19-W	*
Permit #_		. (
CBL#	329	Ady

		(AL EACH	FEE
UTLETS		Receptacles	Switches		Smoke Detector	.20	
IVTUDEO							
IXTURES	-	Incandescent	Fluorescent		Strips	.20	
ERVICES	 	Overhead	Underground	1	TTI AMPC	15.00	
DELLAIOES	 	Overhead	Underground		TTL AMPS <800	15.00	
	 	Overnead	Onderground	1	>800	25.00	
emporary Service		Overhead	Underground	, 	TTL AMPS	25.00	
politing out that		Overneda	Onderground	1	TTE AIVII 3	25.00	
METERS	<u> </u>	(number of)		-		1.00	
/IOTORS		(number of)				2.00	
RESID/COM	†	Electric units		+		1.00	. "
HEATING	 	oil/gas units	Interior	+	Exterior	5.00	
PPLIANCES	 	Ranges	Cook Tops		Wall Ovens	2.00	
		Insta-Hot	Water heater		Fans	2.00	
		Dryers	Disposals	1	Dishwasher	2.00	
		Compactors	Spa		Washing Machine	2.00	
	<u> </u>	Others (denote)	-			2.00	•
/IISC. (number of)		Air Cond/win	-			3.00	
		Air Cond/cent			Pools	10.00	
		HVAC .	EMS		Thermostat	5.00	· ·
		Signs :				10.00	
		Alarms/res .				5.00	
	1	Alarms/com		Second In		15.00	1.5
•		Heavy Duty(CRKT)			CEIVED	2.00	•
		Circus/Carnv				25.00	
		Alterations			DEC 10 2011	5.00	
		Fire Repairs	·		DEC 19 2011	15.00	
		E Lights				1.00	
		E Generators	D	ept. o	of Building Inspections	20.00	
A NAME OF THE OWNER OWNER OF THE OWNER OWN		"		Un	of Portland Maine		
ANELS		Service	Remote		Main	4.00	
RANSFORMER		0-25 Kva				5.00	
		25-200 Kva				8.00	
		Over 200 Kva				10.00	
					TOTAL AMOUNT DUE		
		MINIMUM FEE/COMN	IERCIAL 55.00		MINIMUM FEE 45.0	0	

Yellow Copy - Applicant

White Copy - Office

IM

2011-14133

Profection Professionals



Fire Alarm Permit

FACHOUTH ME

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: 26 Evergr		_ CBL: 329 A014						
Exact location: (within structure)	New England Distilling, Un	it B	Red-delibiles miss recommonly this property of the property of					
Type of occupancy(s) (NFPA & I	_{CC):} Warehouse							
Building owner:								
Must be System Designer (point of contact	:): Rich Brobst, Jr (based u	oon Fire Risk Management des	sign)					
Designer phone: 207-775-575	5	E-mail: rich@protectionprofess	sionals.ne					
Installing contractor: Tom Campell Certificate of Fitness No: M1001								
Contractor phone: 207-252-24	.11	_ _{E-mail:} tcampbell@maine.rr.co	om					
This is a new application:		AES Master Box: YES Olude Master Box approval form)	NO (
Amendment to an existing permit:	YES NO Perm	nit no:	- Color Language					
The following documents shall be p	rovided with this application:							
Floor plans	Scope of Work	COST OF WORK: \$6,636.	26					
Wiring diagram	√ 11 ½ x 17s	PERMIT FEE: (\$10 PER \$1,000 + \$30 FOR THE FIRS	<u> </u>					
Annunciator details	pdf copy (may be e-mailed)	(\$10 PER \$1,000 + \$30 FOR THE FIRS	T \$1,000)					
Input/ Output Matrix	✓ Designer qualifications	Mirror Van						
Equipment data sheets	Battery/ voltage drop calcs		WED					
Electrical Permit Pulled (che	ck alarm/com)	DEO. +						
Master box approval only: YES (If yes check New AES M	NO NO	DEC 19	24111					
· · ·	,	Dept. of Building ownload a new copy of this application at a	a Inspections					
www.portlandmaine.gov/fire for eve	ery submittal. Submit all plans in e	ormond a new copy of the ஆழகுகிறியுள் lectronic PDF in <u>addition</u> to readable 1	nd Maine					
	ment, 389 Congress Street, Room		11 /2 X 1/5 tU					
		ng and acceptance test must be coordinate	ed with all					
	e Department, and proper document							
All installation(s) must comply wit	th the City of Portland Technical Sta	andard for Signaling Systems for the Pro	tection of					
Life and Property, available at ww			-					
Applicant signature:	Hamai	Date: 12-14-11						

Ohild Fosher Dolli4134

Protection Professionals

325 US Route 1 Falmouth, ME 04105 Ph 207-775-5755

Fax 207-781-2064

Device List No. 3389

List Date	
11/29/2011	

Bill To Name / Address	Job Site	
New England Distilling, LLC		
26 Evergreen Drive, Unit B		
Portland, Maine 04103		

CHANGING THIS DEVICE LIST DOES NOT ALTER THE ORIGINAL ESTIMATE Attach copy to Purchase Order for accounting

Estimate No.

Item	Description	Qty To Order	Qty Ordered
	This quote is based upon a fire alarm system as designed by the Portland Fire Department and Fire Risk Management. We have provided heat detection in the warehouse, pull stations at the exit doors in the distillery, and audio/visual notification in the entire building. We have not provided any initiating devices in the rest of the building. Knox box is provided by the customer.		
FPD-7024 FPC-7034	Fire alarm control panel, 4 zones expandable to 8 zones, expandable to 247 addressable points, 2 NACs at 4amp maximum 4 Zone Expander Module	1	
Bat 12-12	Battery	i	
IM-RJ31XSET	IM-RJ31XSET	1	
06-SSU00672	Fire Document box 12 inches wide X 13.1 inches high X 2.25 inches deep, CAT 30 keyed	1	
AD-TG7FS	Fire Alarm Communicator, cell based	1	
Bat 12-7	12V 7AH Batteries	1	
D8004	UL TRANSFORMER KIT	1	
FD-302-ET-135 500-648507FA	All Weather heat detector 135 degrees	12	
D101	MANUAL PULL STATION DUAL ACTION KEY RESET CAST METAL D101 Lock & Key Set	2	
500-636161	ZH-MC-R Horn/strobe, red, wall mount, Hi or Lo volume, 15cd, 30cd, 75cd, or 110cd State of Maine Sales Tax	4 6	

Ordered By:	Date:	
Received By:	Date:	

Bosch 7024

Quantity	Part #	Description	Standby	Alarm	Total standby	Total alarm
1	7024	Fire Panel	0.200	0.380	0.200	0.380
0	D7036	Annunicator	0.080	0.100	0.000	0.000
1	D7034	Expander	0.044	0.160	0.044	0.160
0	D7039	Multiplex	0.150	0.150	0.000	0.000
	FAI	Pull Station	0.000	0.000	0.000	0.000
	D285	Smoke	0.001	0.001	0.000	0.000
			0.001	0.001	0.000	0.000
			0.001	0.001	0.000	0.000
			0.001	0.001	0.000	0.000
			0.001	0.001	0.000	0.000
		Duct Detector	0.001	0.001	0.000	0.000
		Duct smoke	0.001	0.001	0.000	0.000
		Duct relay	0.001	0.001	0.000	0.000
		Duct Remote	0.001	0.001	0.000	0.000
		Remote light	0.001	0.001	0.000	0.000
	··········		0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
1		NAC power maximum	0.000	4.000	0.000	4.000
					0.000	0.000
					0.000	0.000
					0.000	0.000
		Miscellaneous			0.000	0.000
TOTAL			0.484	4.800	0.244	4.540

	Hours	Standby current		Total
	24	0.2440		5.856
Minutes		Alarm current		
5	0.08333333	4.5400		0.378
		Battery Capacity		
	20%	6.2343	3	7.481

Sequence of Operations

	Audio/visual activation		Activate audible/visual signal at FACP & Annunciator	Device Description at FACP & Annunciator	Shutdown of HVAC equipment	Log event in system history	Activate Elevator Fire Hat	Activate Elevator primary or secondary control	Activate Elevator shunt trip	Silence of audible devices	Including FACP & annunciator	Release door holders	Release locked doors	Event acknowledgement	Reset of all system functions	and all visual devices	Remote transmission to Central Station A=alarm; T=trouble; S=Supervisory; L = log only	Remote indicator
Manual Pull Stations	X	X		X	S	X	┫	┥	✓	S	<u> </u>	X X	X X	Ú	<u> </u>		A & &	<u> </u>
Smoke detectors common area	X	x		X		X	 					X	x	\vdash			A	
Smoke detectors elevator lobbies	X	x		Х		X		Х				X	X	 			A	-
Smoke Detectors elevator shaft/machine room	X	x		Х		Х	Х	Х	 			X	X	<u> </u>			A	
Duct mounted Smoke Detectors		x		x	Х	Х				 	-				+-		S	Х
Heat Detectors common area/inside apartments	X	X		x		X						Х	X		+		A	-
Heat Detectors Elevator shaft/machine room	Х	X	****	х		Х	Х		Х	<u> </u>			X		 		A	-
Sprinkler flow or pressure switches	Х	X		X		Х							X				A A	\vdash
Sprinkler Tamper, low temp, or low air		x		Х		Х									 	\dashv	<u>S</u>	$\vdash \vdash \vdash$
Secondary fire panel such as kitchen hood	Х	X		Х		Х						Χ	X		 		<u>э</u> А	
FACP/annunciator silence button		Х		Х		Х				Х	$\neg \dagger$					\dashv	<u> </u>	\vdash
FACP/annunciator acknowledge button		Х		Х		Х					\dashv			Х		$\neg \dagger$	_	
FACP/annunciator reset button		X		Х		Χ								<u> </u>	X	_	L	1
Removal of any device		Х		Х		Х					1						T	
Ground fault		X		Х		Χ											<u>'</u> T	-
System wiring "open"		X		Х		Х			$\neg \uparrow$							-	T I	
AC Power loss		X		Х		Х					\dashv						T	
Secondary power loss		X		Х		Х					\dashv						r l	
Telephone line loss		X		Х		X	1	7			\dashv						r l	-



FPD-7024 Fire Alarm Control Panels



- Four initiating zones (expandable to eight); up to 20 two-wire smoke detectors per zone
- ▶ Built-in DACT
- Two notification appliance circuits (NACs) on board with a shared internal regulated 24 VFWR, 4 A NAC power supply
- Easily converts to addressable with the addition of a D7039 Multiplex Expansion Module
- Programmable through front panel interface, remote FMR-7033 Liquid-crystal Display (LCD) Keypads, remote programming software (RPS), or DX4010V2 or DX4020

The FPD-7024 Fire Alarm Control Panels (FACPs) can be used in commercial and public building applications such as schools, universities, manufacturing plants, and health care facilities. They are listed by UL for central station, local, auxiliary, and remote station systems.

The FPD-7024 FACPs support four on-board initiating zones that can be expanded to eight using the FPC-7034. Each initiating zone supports two-wire and four-wire detectors configurable as Class A, Style D or Class B, Style B loops. Each zone can support up to 20 two-wire detectors, or any number of four-wire detectors depending on available power. Each FACP has a built-in digital fire alarm communicator transmitter (DACT).

Enhance the FPD-7024 conventional system features by adding a D7039 Multiplex Expansion Module. Adding a D7039 Multiplex Expansion Module to the FPD-7024 turns the conventional FACP into an addressable FACP. The D7039 adds up to 247 addressable points to the base system and adds an additional 400 events to the history buffer for a total of 499 events. The D7039 also increases the number of programmable relay outputs from 19 to 59 and expands system users to 100.

Functions

Notification Appliance Circuits (NACs)

Two Class A, Style Z or Class B, Style Y NACs provide up to 4 A of regulated 24 VFWR power to operate horns, strobes, bells, and other notification appliances. Each NAC can be programmed to provide Temporal Code 3, California March, steady, pulsed, and synchronized output for either Wheelock or System Sensor notification appliances.

User Interface

A viewing port in the locked control panel enclosure door shows the system status light-emitting diodes (LEDs) and liquid-crystal display (LCD) while maintaining system keypad security. Unlocking the enclosure door provides access to the system controls for silencing off-normal conditions, zone bypassing, detector resetting, testing, other fire functions, and programming. These functions are also available on all FMR-7033 LCD Keypads connected to the system.

Organized Event Display

Sorts alarm, trouble, and supervisory events into categories and allows scrolling through specific events.

History Buffer

The system stores events in a 99-event history buffer.

Note

The number of events that can be stored in the history buffer increases to 499 with the

addition of a Di	'039 Multiplex	Expansion
Module.		

Central Station Reporting

The FPD-7024 FACPs send reports to two telephone numbers (or IP addresses with a DX4020 Network Interface Module installed) with full single, double, and backup reporting. They communicate in BFSK, SIA, Contact ID, Modem IIIa², and 4/2 and 3/1 Tone Bursts.

Dirty Smoke Detector Monitoring

All on-board zones and FPC-7034 zones are continuously monitored for smoke detectors signaling a dirty condition using the Bosch Chamber Check feature and CleanMe protocol. If a detector's smoke chamber is dirty, the detector sends a CleanMe signal on the two-wire loop or a dirty detector signal on the addressable loop. The control panel annunciates that there is a dirty detector on the loop or the address. The Chamber Check feature signals a dirty smoke chamber using the LED on the detector head.

Accessories

The FPD-7024 enclosure has space for additional accessory modules and two D1218 (18 Ah) batteries or two D126 (7 Ah) batteries.

Certifications and Approvals

Region	Certificat	tion
USA	UL	UL864, 9th edition
	FM	
	CSFM	7165-1615:227
	FCC	ESVAL04B7024
	FDNY- CoA	#6024

Installation/Configuration Notes

Compatible Products

The following products are compatible with the FPD-7024 FACP:

Category	Product ID	Product Description
Batteries and	D126	12 V, 7 Ah battery
Power Supplies	D1218	12 V, 18 Ah battery
	D7038	Remote NAC power supply
Detectors	For two-wire detector compatibility, refer to FPD-7024 Smoke Detector Compatibility List Technogram (P/ N: F01U010790)	
Keypads and Annunciators	D7030X	Eight-point LED annunciator (eight red)
	D7030X-S2	Eight-point LED annunciator (two yellow, six red)

Category	Product ID	Product Description
	D7030X-S8	Eight-point LED annunciator (eight yellow)
	D7032	Eight-point LED annunciator ex- pander (eight red)
	FMR-7033	LCD fire system keypad
	FMR-7036	LCD annunciator
Modules	D132B	Smoke detector reversing relay module
	D184A	Local energy kit
	D185	Reversing polarity module
	D275	EOL power supervision module
	FPC-7034	Four-point expander
	D7039	Multiplex expansion module
Option Bus Devi- ces	D7035	Octal relay module
	D7035B	Octal relay module in box
	DX4010V2	USB/serial interface module
	DX4020	Network interface module
NAC Devices	Refer to FPD-7024 gram (P/N: F01U0)	Device Compatibility List Techno- 10791)

The following additional products are compatible with the FPD-7024 Addressable FACPs:

Category	Product ID	Product Description
Detector Heads and Bases	D7050	Addressable Photoelectric Smoke Detector Head
	D7050TH	Addressable Photoelectric Smoke and Heat Detector Head
	D7050-B6	Detector Base
Modules	D7042	Multiplex eight-input remote mod- ule
	D7042B	Multiplex eight-input remote mod- ule in box
	D7044	Multiplex single-input module
	D7044M	Mini multiplex single-input module
	D7048	Multiplex octal driver
	D7048B	Multiplex octal driver in box
	D7052	Multiplex dual-input module
	D7053	Multiplex input-output module
Pull Stations	FMM-7045	Single-action manual station
	FMM-7045-D	Double-action manual station

Parts Included

 Quant.
 Component

 1
 FPD-7024 board in a static-resistant bag

 1
 Enclosure (P/N: 30897)

 1
 Lock set with two #1358 (D102) keys (P/N: F01U009775)

 1
 Transformer (P/N: F01U008702)

 6
 2.21 kΩ end-of-line (EOL) resistors (P/N: 25899 or 4998113202)

Hardware pack
 Literature pack

Note For the FPD-7024 to be addressable, a D7039

Multiplex Expansion Module must be installed.

The D7039 is purchased separately.

Technical Specifications

Electrical

Current (alarm): 380 mA
Current (standby): 200 mA

Power (primary): 120 VAC, 1.2 A maximum, 60 Hz or

240 VAC, 0.75 A maximum, 50 Hz

Environmental

Environment: Indoor, dry

Relative Humidity: Up to 95%, non-condensing Temperature (operating): $+32^{\circ}$ F to $+120^{\circ}$ F (0°C to $+49^{\circ}$ C)

Mechanical Properties

Color: Red

Dimensions (HxWxD): 20.8 in. x 15 in. x 4.3 in.

(52.8 cm x 38.1 cm x 10.9 cm)

Material: Cold-rolled steel

Base: 18 gauge (1.2 mm) Cover: 19 gauge (1.1 mm)

Indicating Device Circuits (IDC)

Current: 44 mA maximum per loop

Line resistance: 150Ω

Voltage: 24 VDC nominal

Outputs

NAC: 24 VDC nominal, 4 A maximum

On-board Relays: Three Form C contacts rated at 5 A, 28 VDC

Off-board Relays: Up to two D7035 Octal Relay Modules with each pro-

viding eight Form C relay outputs; contacts rated at

5 A, 28 VDC

In an addressable system, up to 20 D7053 Multiplex Input-Output Modules are allowed per bus for a total

of 40

Trademarks

Trademark names are used throughout this document. In most cases, these designations are claimed as trademarks or registered trademarks in one or more countries by their respective owners. Rather than placing a trademark symbol in every occurrence of a trademark name, Bosch Security Systems, Inc. uses the names only in an editorial fashion and to the benefit of the trademark owner with no intention of infringing the trademark.

Chamber Check is a registered trademark of Bosch Security Systems, Inc. in the United States.

CleanMe is a registered trademark of GE Interlogix in the United States and/or other countries.

Wheelock is a trademark of Cooper Wheelock, Inc.

System Sensor is a registered trademark of System Sensor, a brand of Honeywell International, Inc. in the United States and/or other countries.

Ordering Information

FPD-7024 FACP FPD-7024

Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone

FPD-7024-LC FACP without Enclosure and FPD-7024-LC Transformer

Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone

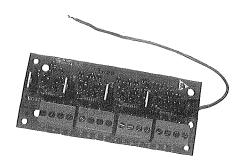
FPD-7024-LT FACP without Transformer FPD-7024-LT

Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone.

Available only in Latin America.



FPC-7034 Four-Point Expander



- Adds four Class B (Style B) or two Class A (Style D) initiating circuits to the FPD-7024 FACP
- For use with normally-open (NO) or normally-closed (NC) alarm contacts
- Compatible with two-wire or four-wire smoke detectors
- ▶ Up to 20 two-wire smoke detectors per circuit
- Easy installation due to plug-in design and screw terminal circuit connections
- No programming necessary

The FPC-7034 Four-point Expander doubles the number of alarm initiating device circuits on the FPD-7024 Fire Alarm Control Panel (FACP). These circuits are identical to the circuits on the FACP.

This plug-in module is automatically recognized by the control panel's firmware when power is restored to the system.

Certifications and Approvals

Region	Certification	
USA	UL	UL864, 9th edition
	FM	
	CSFM	7165-1615:227
	FDNY- CoA	#6024

Installation/Configuration Notes

Compatible Products

The following products are compatible with the FPC-7034 Four-point Expander:

Category	Product ID	Product Description
Control Pan- els	FPD-7024	Addressable or conventional FACP
Detectors	nogram (P/N: FC	24 Smoke Detector Compatibility List Tech- 11U010790) for a list of smoke detectors the FPD-7024 FACP.
Note	power must	vire smoke detectors are used, be supplied to the detectors from ontrol panel or an external power

Mounting Considerations

The FPC-7034 mounts on the FPD-7024 control board, just to the right of the keypad. Use the four nylon stand-offs supplied with the expander.

Initiating Circuit Wiring

Circuit connection for the expansion initiating circuits is identical to the on-board circuit configuration. Refer to the *FPD-7024 Installation Guide* (P/N: F01U008458) for wiring details.

Install a supplied EOL resistor at the end of each wiring run.

Parts Included

Quant.Component1Four-loop expander board42.21 kΩ End-of-Line (EOL) Resistors (P/N: 25899)4Stand-offs (P/N: 26510)1Literature pack

Technical Specifications

Environmental Considerations

Environment:

Indoor, dry

Relative Humidity:

Up to 95%, non-condensing

Temperature (operating):

+32°F to +122°F (0°C to +50°C)

Mechanical Properties

Dimensions (HxWxD):

2.0 in. x 4.5 in. x 1.3 in. (5.1 cm x 11.4 cm x 3.3 cm)

Response Time:

Choice of fast (500 ms) or programmable from 1 sec

to 89 sec

Power Requirements

per initiating circuit:

Alarm Current (short circuit):

40 mA maximum

Alarm Current (threshold):

>25 mA

Detector Standby Current (total):

3 mA maximum

Loop Supervision Current:

 $8.0\,\text{mA}$ to $15.0\,\text{mA}$

Trouble Current Threshold:

<7 mA

Voltage (supply):

18.0 VDC to 25.5 VDC

per FPC-7034 module:

Current (standby):

60 mA maximum

Current (alarm):

160 mA maximum

Ordering Information

FPC-7034 Four-Point Expander

FPC-7034

Doubles the number of alarm initiating device circuits on the FPD-7024 FACP



NFPA 72 section 6.2.2.1 states. "A record of installed software and firmware version numbers. shall be maintained at the location of the fire alarm control unit." The FDB is large enough to hold Operating Manuals, Permits, Shut-Down Instructions and more.

Standard Features:

- Overall Dimensions are: 12" Wide x 13.1" High x 2.25" Deep
- CAT 30 Secured Locking Door
- Piano Hinged Door w/Notes Sticker
- Removable document holder can hold 1" of 8.5" x 11" paperwork
- Powder Coat Red Finish
- 16 Gauge CRS construction
- Embossed:

Key Ring Hooks **Business Card Holder** CD Case Slot

- 1.4 Oz. can of detector test gas
- Private labeling available







2008

ISO 9001 REGISTERED COMPANY



FDB

Fire Alarm Control Unit (FACU) **Records & Document Box**

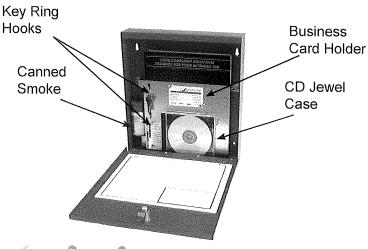
The Space Age FDB has been developed to be a code compliant solution to a mandated item specified by the National Fire Code (NFPA 72).

An internal galvanized sleeve holds the documents safely and securely. Access to the documents is via a high security CAT 30 Lock Set.

The galvanized sleeve also contains 2 hooks for key rings or thumb drives, a place for several business cards, a cutout for a 1.4 Oz. can of test gas and a slot where a standard CD "jewel" case can be stored.

Held in by two "wing nuts" the sleeve is easily removable to allow storage of a 1.5" 3 ring binder.

The door reads "FACU MAINTENANCE RECORDS" in 1" tall white lettering. Custom Logo and Lock Sets are available upon request.



Space Age Electronics, Inc. www.1sae.com 800.486.1723 Toll Free 508.485.0966 Local 508.485.4740 Fax

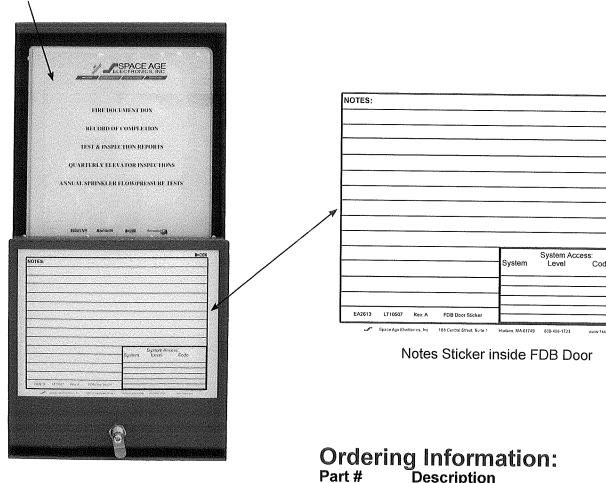


Specifications:

The Fire Document Box (FDB) shall be constructed of 16 gauge cold rolled steel (CRS), it shall be painted with a durable red powder coat paint. The front door shall be lettered with the words "FACU MAINTENANCE RECORDS" in White indelible letters 1" in height. The door of the FDB shall be locked with a keyed lock (standard shall be CAT 30, but others shall be available along with Private Labeling).

Inside the cabinet shall contain a16 gauge galvanized CRS sleeve. This sleeve shall allow for the storage of 1" of paper, test and inspection records, manuals and other important documents. The sleeve shall also facilitate the hanging of key rings and thumb drives (for data storage) along with business cards and space for a CD 'jewel" case. The unit shall also contain a 1.4oz can of smoke detector test gas. Inside the door shall have a "Notes" label for the recording of valuable information such as AHJ approvals, various system codes and the location of hard to find devices.

If so desired, the internal sleeve (held in by 2 wing nuts) may be removed and the space used to insert a 1.5" 3 ring binder.



SSU00672

ED0447

MCER(I)

Space Age Electronics, Inc. www.1sae.com
800.486.1723 Toll Free
508.485.0966 Local
508.485.4740 Fax

CK1 Replacement 1.4 Oz Test Gas

This document is subject to change without notice, see doc # ED0479 for legal disclaimer

SSU00673 FDB Custom Logo/lock

FDB Fire Document Box

(ask for Form FD10498 to order custom box)



TG-7FS CELLULAR ALARM COMMUNICATOR

. Wei

mant power: 1.0W-2.0W

Eximum allowable).

Ver Consumption:

John A (Standby)

John A (Transmission).

Reformer: 12VAC 800mA

CONTRACTOR OF THE STATE OF THE

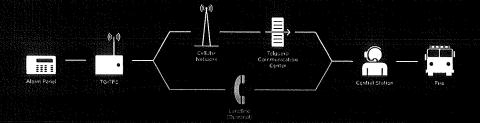
Bill band cellular and PCS,
SM 850MHz: Class 4 (2 watts),
SM 1980MHz: Class 1 (1 watt),
SM 1980MHz: Class 1 (1 watt),
SM 1980MHz: Class 1 (1 watt),
SM 1980MHz: Class 1 (2 watt),
SM 1980MHz: Class 1 watth 2 watth 2

Biyara Dalaik

75: 75' H x 11,5" W x 3,5" D feeing Weight: 8lbs pereting Environment: Dito +50"C; up to 95% humidity en-condensing),

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ata eporting,
constitution self-test (5 min. & dally)
supply With battery harmess
ing, rad metal encloure.
brogrammable supervisory
outputs
in format support for SIA2
inet ID, pulse (3x1, 4x2),
incle & Ma2, DMP.
Chone line monitor built-in,
candard Line Security.



Telguard technology allows full data reporting for unlimited pointto-point signal details and maximum transmitting power for superior in-building penetration.

Telguard products are easy to install, economical, and UL Listed.

Accessories

- ACD 12, ACD 35, ACD 50, ACD 100:
 12/35/50/100 feet of low loss, high performance cable.
- HGD-0: High gain directional antenna.
- EXD-0: External antenna.

UL Listings Commercial Fire

864 • Control units & accessories for fire alarm systems

Commercial Burglary

365 • Police Station connected burglar alarm units and systems

1610 • Central station burglar alarm units

Residential

985 • Household fire warning systems

1023 • Household burglar alarm systems













TG-7FS CELLULAR ALARM COMMUNICATOR

8 COMMERCIAL FIRE

PRODUCT FEATURES

- Meets UL 864 requirements for sole, primary or backup path communications.
- Supports virtually all alarm formats for universal panel compatibility.
- Connects to your central station's PSTN or IP receivers.
- Saves your customers money by replacing landline costs.

The Telguard TG-7FS is the ideal cellular alarm communications solution for commercial fire systems. The TG-7FS transmits alarm signals from the fire panel over the digital cellular network to the designated monitoring station.

Compliant with the 2010 Edition of NFPA 72, the TG-7FS can serve as the sole communications path for the fire alarm system, replacing all of the landlines currently dedicated to the master control unit. On average, cellular monitoring costs the end user significantly less than a dedicated landline. For each landline replaced with a TG-7FS, the monthly communications bill decreases.

By being able to signal failures to the central station within five minutes of an outage, the TG-7FS can be installed as the sole path for commercial fire installations. For existing installations, all landlines can be swapped for a single TG-7FS because of the new five minute supervision mode.

The TG-7FS can also be installed as a backup path, and upgraded to sole path at a later date.

Telejusird Online

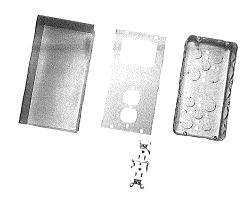
Telguard Cellular Service

 \bigcirc

Advanced Reliability



D8004 Transformer Enclosure



The D8004 Transformer Enclosure protects the AC plug-in transformer and ensures that it remains securely fixed to the AC wall outlet. The D8004 Transformer Enclosure may be required for certain applications; the most common being fire alarm.

Certifications and Approvals

Region	Certification	on
USA	UL	AMCX: Central Station Alarm Units (UL1610, UL1635), AOTX: Local Alarm Units (UL464, UL609), APAW: Police Station Alarm Units (UL365, UL464), NBSX: Household Burglar Alarm System Units (UL1023), UOXX: Control Unit Accessories, System (UL864, 9th edition), UTOU: Control Units and Accessories - Household System Type (UL985)
	FM	
	CSFM	7167-1615: 100, 7165-1615: 112, 7165-1615: 119
	NYC-MEA	12-92-E, Vol. 12
		12-92-E, Vol. 15

Technical Specifications

Environmental Considerations

Environment:

Indoor, dry

Mechanical Properties

Cover

Color:

Light gray

Dimensions:

8.8 in. x 4.7 in. x 3.0 in.

(22.4 cm x 11.9 cm x 7.6 cm)

Material:

Cold-rolled steel, 18 gauge (1.2 mm)

Outlet Box

Dimensions:

8.7 in. x 4.6 in. x 1.7 in.

(22.1 cm x 11.7 cm x 4.3 cm)

Material:

Galvanized steel, 18 gauge (1.2 mm)

Power Requirements

Voltage (supply):

120 VAC

Ordering Information

D8004 Transformer Enclosure

D8004

For applications such as fire alarm that might

require a transformer enclosure.

THERMOTECH AUTOMATIC HEAT DETECTORS

2900 N. 1000 W. OGDEN, UTAH 84414 (801) 782-2233 FAX: (801) 782-1746 www.thermotechheatdetectors.com

Four Basic Models

MODEL	DESCRIPTION	REFER TO:
302-135 302-194	135°F - Interior Vertical Mounting FM & UL 194°F - Interior Vertical Mounting FM & UL	Fig. 1
302-ET-135 302-ET-194	135°F - All Weather Vertical Mounting FM & UL 194°F - All Weather Vertical Mounting FM & UL	Fig. 2
302-AW-135 302-AW-194	135°F - All Weather Vertical Mounting FM & UL 194°F - All Weather Vertical Mounting FM & UL	Fig. 3
302-EPM-135 302-EPM-194	135°F - Explosion Proof Mounting UL 194°F - Explosion Proof Mounting UL	Fig. 4
AP-P	Decorative white plastic adapter plate for mounting 302, 302ET and 302AW to any 3" outlet box or 4" octagon outlet box.	Fig. 5

Fig. 2 MODEL 302-ET

direct sunlight and adverse weather conditions.

Hermetically sealed for moisture proof or dust proof installations. Requires no special back box. Has plastic hexagonal grip bushing with 1/2" conduit threads for attachment to threaded hub cover, or any outlet box. Must be hand tightened only. For indoor and outdoor use. Protect from



Hermetically sealed for moisture proof or dust proof installations. Requires no special back box. For indoor and outdoor use. Protect from direct sunlight and adverse weather conditions.

Fig. 1 MODEL 302

connections.

For interior mounting in any atmosphere that is compatible with terminal screw type

Fig. 4 MODEL 302-EPM

Explosion proof for installation in hazardous locations. Has hexagonal grip bushing with 1/2' conduit threads for attachment to threaded hub cover of series JL fixture fitting as manufactured by Killark Electric Co., or equal. Must be *hand tightened only*. For Interior use.





THERMOTECH AUTOMATIC HEAT DETECTORS

2900 N. 1000 W. OGDEN, UTAH 84414 (801) 782-2233 FAX: (801) 782-1746 www.thermotechheatdetectors.com

General

Each model is a normally open device designed especially for fire detection and alarm systems. These rate compensation type detectors are available in either 135° F. or 194° F. ratings. All four basic models are self restoring, hermetically sealed, shock and corrosion resistant, and are tamper proof. Refer to NFPA STANDARD 72, STANDARD FOR AUTOMATIC FIRE DETECTORS for application requirements, testing and maintenance.

Principal of Operation

All models operate on the principles of a rate compensation detector. The detector consists of a high expansion aluminum tube which encases two insulation struts with opposing open constant points (see cut-away view). The high expansion sensing shell and the expansion struts have a different coefficient of expansion. A slow rate of temperature rise allows the heat to penetrate the inner expansion struts. Therefore, the tubular shell and the struts expand slowly until the total device has been heated to its rated temperature level of 135° F./194°F. At this point, the silver contact points close which initiates the alarm. When subjected to a rapid rate temperature rise there is not as much time for heat to penetrate the inner strut. The rapid lengthening of the shell allows the struts to come together at a lower level which compensates for thermal lag inherent in conventional fixed temperature detectors. When the surrounding air temperatures goes below the rated temperature level, the shell contracts which forces contacts to open, thus automatically resetting the detector.

Special Considerations

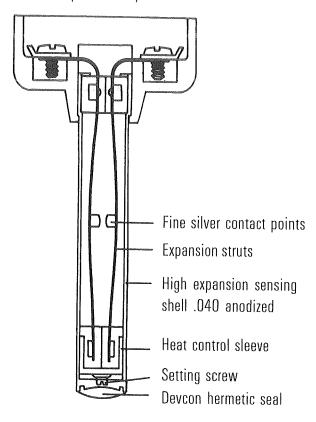
Temp. Rating °F.	Max Ceiling Temp. °F.
135	115
194	155

Detectors are not directionally effected, can be mounted horizontally or vertically. Detectors have a smooth ceiling UL rating of 50' x 50' (2500 sq. ft.) on 8 to 10 ft. ceilings. Detectors, hub covers, or outlet boxes must never be installed in direct sunlight. Refer to NFPA STAN-DARD 72 for spacing and other considerations. For further information refer to www.thermotechheatdetectors.com

Electrical Rating

Voltage	Current
6-125 VAC 6-25 VAC 125 VDC	5 amps 1 amp 0.5 amp

(actual size)



Dimensions (Model 302): Total overall length 4 $^{1}/8$ ". Base Diameter: 2".

Approvals/Listings



Underwriters' Laboratories



Factory Mutual



California State Fire Marshall. Listing No. 7270-0021:001



MEA Acceptance # 193-03-E



Series PM6600 & PM6700 Manual Non-Code Keyed Stations

Features

- MM101 Key Switch Cover
- Sturdy Metal Construction
- Enclosed Switch with Optional Glass Rod
- 10 Amp @ 120 Vac, 5 Amp @ 24 Vdc Switch Contact Rating
- Stations Available are: Single Action, Dual Action, Pre-Signal / General Alarm, Institutional, Weatherproof, and Explosion Proof
- UL, CSFM Listed & MEA approved
- Made in USA

Description

The PM6600/6700 series meets the requirements of the keyed reset station in every way. By using the standard Faraday MM101 series key, the user eliminates the need to search through many different reset keys. All stations are constructed of a solid die cast housing and come painted glossy red. The back switch plate is made of thick 14 Ga. plated steel and comes in a one gang size.

The electrical switch has a hefty 10 Amp @ 120 Vac normally open contact rating. All stations come with terminal block connections with the exception of the single action stations. These may be ordered with terminal blocks or pigtails (See ordering information for a more detailed description).

Explosion proof and weatherproof units come complete with their own back box. Optional PM6767 matching red surface interior back boxes are also available.

Operation

Alarm

To activate the manual station, a firm downward pull of the recessed pull lever is required. Such action locks the lever in the down position, breaks the glass rod, (if used) and actuates the switch creating an alarm condition.

Reset

To restore an operated manual station to normal standby condition requires the use of a standard Faraday MM101 key. The lock, located at the top of the station, is turned with an inserted MM101 key.



This lets the front of the station swing down and allows the recessed pull down lever to be reset in the normal up position. Replacement of the glass rod (if used) is not necessary to reset the station. However, spare glass rods can be stored inside the station. To lock the station swing the front of the station back up to its original position and turn the MM101 key in the previously operated position.

Engineering Specification

Furnish and install where located on the drawings Faraday non-code pull stations. The stations should be pull down operation type with operation instructions provided on the station in raised letters. The station should be of metal construction, finished in fire alarm red/white, and shall be capable of proper operation with or without a break glass rod. Stations using any plastic parts other than the switch body, or requiring the use of a break glass rod to maintain a standby condition shall not be acceptable.

Upon operation the pull down lever shall lock into the alarm position and remain so until manually reset. A common Faraday MM101 key shall be required to gain access for resetting the station, testing the station or replacing the glass rod. Stations with test features that do not test the actual station actuating switch shall not be acceptable.

Stations shall contain one or more normally open alarm contacts. Wiring to the fire alarm system initiating circuit shall be via pressure type screw terminals or pigtail wires with in and out wiring required.

Specifications

Electrical

Contacts – All contacts except General Alarm: 10A @ 120 Vac, General Alarm: 5A @ 30 Vdc

Dimensions

4-3/4" (H) x 3-3/16" (W) x 7/8" (D)

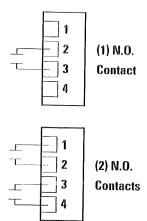
Weight

15-1/2 oz.

Mounting

Single gang box

Wiring



Ordering Information

Model	Description	Residente.
Single Actio	n Stations	(\$1)\$\$(10)
PM6700	(RMS-1P-KL) Station, N.O., Pigtails	500-648504FA
PM6608	(RMS-1T-KL) Station, N.O., Terminals	500-648505FA
Dual Action	Stations	300-040303FA
PM6696	(RMS-2T-LP-KL) Station, (2) N.O., Terminals	500-648507FA
Pre-Signal/G	General Alarm Stations	300-040307FA
PM6695	(RMS-1T-KS-KL) N.O. Pre-sig, N.O.Terminals	500-648265FA
Weatherproc	of Stations	000-046203FA
PM6699	(RMS-2T-WP-KL) (2) N.O.Terminals	500-648266FA
Accessories		300-046200FA
PM6698	(BB) Surface Back Box, Interior	500-648506FA
PM7601	Glass Rods (pack of 10)	500-648306FA
10531	(STI1130) Cover, surface mount w/horn	
10538	(STI1130) Cover, flush mount, w/ horn	500-648563FA
10539	(STI1200) Cover, flush mount, w/o horn	500-648591FA
ويتستوسن والمستحدد والمعاومة والمعادمة والمعادمة	AND	500-648253FA



Siemens Building Technologies, Inc. 8 Fernwood Road • Florham Park, NJ 07932 Tel: (973) 593-2600 • Fax: (973) 593-6670 Web: www.faradayfirealarms.com WARNING - The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information, are provided with the product and are available from the Manufacturer. Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.



Z Strobes, Horns, Horn/Strobes

Features

- · UL listed. ULC, CSFM, and FM pending.
- ADA/NFPA compliant
- EZ Mount design, with separate base plate, provides ability to pre-wire the base and test the circuit wiring before the walls are covered
- The base plate is protected by a disposable cover and the appliances can quickly snap onto the base after the walls are painted.
- EZ Mount Universal Mounting Plate (ZBB) uses single plate for ceiling and wall mount installations
- Wall Mount models feature field selectable candela settings of 15/30/75/110cd and 135/185cd
- Ceiling Mount models feature field selectable candela settings of 15/30/75/95cd and 115/177cd
- Strobes can be synchronized using the Siemens 5406B sync modules, MPC-6000 panel, MPC-7000 panel, or RSE-300 power supply with built-in sync protocol
- "Special Applications" listed with Siemens panels
- Strobes produce 1 flash per second
- Selectable Continuous Horn or Temporal (Code-3) Tones with selectable 90 or 95 dBA setting (ZH model)

Description

The Siemens Series Z notification appliances feature an easy snap on base that is designed to simplify the installation and testing of horns, strobes, and horn/strobes. The separate Series Z snap on base can be pre-wired so circuit wiring can be fully tested before the appliance is installed and before the walls are covered. Once all surrounding work is complete, the appliance can be simply installed by snapping it on the base. Shorting contacts in the base, which provide continuity for circuit testing, are permanently opened when the appliance is installed so any subsequent removal of the appliance will indicate a trouble condition on that circuit at the control panel when circuit supervision is enabled. The same base is used for all Series Z horns, strobes and horn/strobes to provide consistent installation and easy replacement of appliances if required. A locking screw is also included for the appliance to provide extra secure installation.

The Siemens Series Z appliances incorporate the same dependable circuitry and high efficiency optics that are used in Siemens ST strobes, NS horn/strobes and NH horns and have the same high performance ratings. The Series Z appliances are "Special Applications" listed with Siemens panels.



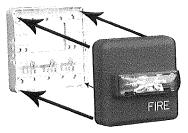


Series ZH





Series ZR



ZR AND ZH Mounting

Engineering Specifications

General

Audible/visual notification appliances shall be listed for indoor use and shall meet the requirements of FCC Part 15 Class B. These appliances shall be listed under UL Standard 1971, (Standard for Safety Signaling Devices for Hearing Impaired) and UL Standard 464 (Fire Protective Signaling). The appliances shall use a universal backplate that shall allow mounting to a single-gang, double-gang, 4-inch square, 4" octal, or a 3-1/2" octal backbox. Two wire appliance wiring shall be capable of directly connecting to the mounting back plate. Continuity checking of the entire NAC circuit prior to attaching any audible/visual notification appliances shall be allowed. A dust cover shall fit and protect the mounting plate. The dust cover shall be easily removed when the appliance is installed over the backplate. Removal of an appliance shall result in a trouble condition by the Fire Alarm Control Panel (FACP).

Strobes

Strobe appliances shall produce a minimum flash rate of 60 flashes per minute (1 flash per second) over the Regulated Input Voltage Range and shall incorporate a

Xenon flashtube enclosed in a rugged Lexan® lens. The strobes shall be available with two or four field selectable settings in one unit and shall be rated, per UL 1971, for up to 185 cd for wall mounting and 177 cd for ceiling mounting. The strobes shall operate over an extended temperature range of 32°F to 120°F (0°C to 49°C) and be listed for maximum humidity of 95% RH. Strobe inputs shall be polarized for compatibility with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP).

Audibles and Audible/Strobe Combinations

Horns and horn/strobes shall be listed for Indoor use under UL Standard 464. The horns shall be able to produce a continuous output or a temporal code-3 output that can be synchronized. The horns shall have at least 2 sound level settings of 90 and 95 dBA.

Synchronization Modules

When synchronization of strobes or temporal Code-3 audibles is required, the appliances shall be synchronized using the Siemens 5406B sync modules, MPC-6000 panels, MPC-7000 panels, or RSE-300 power supplies with built-in sync protocol. The strobes shall not drift out of synchronization at any time during operation. Au-

dibles and strobes shall be able to be synchronized on a 2-wire circuit with the capability to silence the audible if required. If the sync module or power supply fails to operate (i.e., contacts remain closed), the strobes shall revert to a non-synchronized flash rate. All notification appliances shall be listed for "Special Applications".

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Input Voltage Range".
- All candela ratings represent minimum effective strobe intensity based on UL Standard 1971.
- Series ZH Strobe products are listed under UL Standards 1971 and 464 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%).
- Series ZH horns are listed under UL Standard 464 for audible signal appliances (Indoor use only).

Technical Information

For complete technical information, please consult the relevant installation sheets as well as the Siemens Compatibility Guide.

Ordering Information / Mounting Requirements / Approvals

Model Number	Order Code	Mounting Options#	Agency Approvals			
			UL	ULC	CSFM	FM
ZH-MC-R	500-636161	B, D, E, F	X	#	#	#
ZH-MC-W	500-636162	B, D, E, F	X	#	#	#
ZH-HMC-R	500-636163	B, D, E, F	X	#	#	#
ZH-HMC-W	500-636164	B, D, E, F	X	#	#	#
ZH-R	500-636159	B, D, E, F	X	#	#	#
ZH-W	500-636160	B, D, E, F	$\frac{\lambda}{x}$	#	#	#
ZH-MC-CR	500-636165	B, D, E, F	X	#	#	#
ZH-MC-CW	500-636166	B, D, E, F	X	#	#	#
ZH-HMC-CR	500-636167	B, D, E, F	X	#	#	#
ZH-HMC-CW	500-636168	B, D, E, F	X	#	#	#
ZR-MC-R	500-636169	B, D, E, F	X	#	#	#
ZR-MC-W	500-636170	B, D, E, F	X	#	#	#
ZR-HMC-R	500-636171	B, D, E, F	X	#	#	" #
ZR-HMC-W	500-636172	B, D, E, F	$\frac{\lambda}{X}$	#	#	#
ZR-MC-CW	500-636174	B, D, E, F	X	#	#	#
ZR-MC-CR	500-636173	B, D, E, F	X	#	#	#
ZR-HMC-CR	500-636175	B, D, E, F	$\frac{\lambda}{X}$	#	#	
ZRS-HMC-CW	500-636176	B, D, E, F	$\frac{\lambda}{X}$	#	#	#
ZBB-R	500-636193	Accessory - Includes base, dust cover, mounting screws		1		#
ZBB-W	500-636194	Accessory - Includes base, dust cover, mounting screws and installation sheet				

X = listed/approved

= pending

* = Refer to Data Sheet #9675 for mounting options.

WARNING: PLEASE READ THESE SPECIFICATIONS AND INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.



Siemens Building Technologies, Inc. 8 Fernwood Road • Florham Park, NJ 07932 Tel: (973) 593-2600 • Fax: (973) 593-6670 Web: www.faradayfirealarms.com