# **AutoPulse**

## AUTOPULSE Z-10 Agent Release Control Panel

### Features

Agent Release Control Panel designed specifically for suppression release operation with:

- Four initiating device circuits (IDCs)
- Two notification appliance circuits (NACs)
- Two release appliance circuits (RACs)
- Two special purpose monitor inputs (SPMs) for manual release request and manual abort request
- Three auxiliary relays with selectable functions
- Easily selected activity timing options

### Agent release operation includes:

- Automatic extinguishing release
- Deluge and preaction sprinkler system release
- Dual or single hazard area protection
- Combined agent release and preaction operation\*
- IDCs are selectable for cross-zoning or for activation from a single detection input
- Short circuit RAC supervision

### **Operator interface provides:**

- Status LEDs per circuit for Alarm, Trouble, and Supervisory (where appropriate)
- Acknowledge, alarm silence, and system reset
- Operating mode and timer selection when in programming mode

### Audible Escalation of Events:

- Single Audible Appliance Tone: Stage 1 activates Temporal or 20 bpm March Time pattern; Stage 2 activates 120 bpm March Time pattern to indicate release timer active; Release activates On Steady to indicate release timer expired and actuator is activated
- Dual Audible Appliance Control\* (Single Hazard): RAC 2 provides a third NAC for dedicated Stage 1 Bell control; NACs 1 & 2 indicate release as On Steady

# Compatible with Listed/Approved 24 VDC coil automatic water control valves

### **Required system components:**

- Coil supervision module (Part No. 430687), one per solenoid control RAC
- Maintenance Switch (Part No. 433936 or 433937), one per solenoid control RAC



### AUTOPULSE Z-10 Agent Release Control Panel One-Line System Reference Drawing

Recommended accessory (where appropriate):

- Abort Switch:
- Part No. 433940, Flush Mount
- \* Requires software revision 4.01 or higher

### Introduction

**Dedicated for Agent Release:** AUTOPULSE Z-10 Suppression Release Panels provide conventional fire alarm control circuits and are equipped with the features required for a wide variety of single or dual hazard suppression release applications. Capabilities include automatic extinguishing agent release, and deluge and preaction sprinkler control.

Flexible I/O Capabilities: Four IDCs allow for either four separately monitored zones or two cross-zoned connections. Two SPMs allow dedicated manual inputs for release or abort. Two releasing appliance circuits (RACs) supervise to the actuator coils and activate the actuators when required. The two NACs and the three panel auxiliary relays provide status condition information.

**Easy Program Selections:** The operator panel has a program mode that allows selection of panel operation type and detailed operating selections using an easily selected sequential programming operation.

**History Log:** The last 50 events are stored in non-volatile memory. This information is accessed by connecting a technician's computer to the service port which is also used to set the date and time.



### **Panel Feature Description**

**Operator Panel:** The operator panel has alarm and trouble status indicating LEDs for each input and output, visible through the locking cabinet door. Unlocking the door provides access to the Acknowledge, Alarm Silence, and System Reset push-button switches.

**Four Class B IDCs** provide coverage for either two cross-zoned areas or four separately zoned areas. IDCs are capable of supporting up to 30 current-limited smoke detectors or electronic heat detectors as well as manual stations and other compatible contact closure initiating devices. IDCs are capable of Class A operation with an optional adapter module and can be programmed as Class C (short or open initiates a trouble) for use with current limited devices only. Single hazard agent release applications monitor low pressure switches on IDC3 and tamper switches with IDC4.

Two Class B Special Purpose Monitoring Circuits (SPMs) are dedicated for manual release or abort, waterflow and supervisory, or release/abort and pressure, depending on system type. Inputs are normally open switches. An abort switch stops release while activated and upon deactivation, the release operation occurs after a selectable time delay. Manual release inputs override abort switches and activate the release after selectable delays of from 0 to 30 seconds in 5 second increments. For Dual Hazard applications, current limited abort operation is required. SPMs are programmable as Style C and capable of Class A operation with the optional adapter module.

**Two Class B NACs** are provided for reverse polarity, notification appliance operation, each rated 2 A. Class A operation is available with the optional adapter module. NAC operation is selectable per application.

Two Class B Release Appliance Circuits (RACs): Rated 2 A each, these circuits are dedicated to operating release control actuators. RAC cutout timing is selectable as no cutout, 45 seconds, or 1, 3, 3.5, 4, 5, 6, 7, 21, 25, 34, 44, or 64 minutes. For bell/horn/ strobe single hazard applications, RAC 2 functions as a third NAC (NAC 3).

**Auxiliary Power Output:** Rated at 750 mA, this output can be wired as continuous or as resettable. Resettable is normally used to power 4-wire smoke detectors.

**Standard Auxiliary Relay Outputs:** Three relays outputs are available, selectable as normally open or normally closed, rated 2 A @ 30 VDC.

**Trouble Relay** (Aux Relay 1) is energized when Normal and is de-energized with a Trouble condition.

**For Single Hazard Operation:** Aux Relay 2 is the Alarm relay and Aux Relay 3 indicates Time Delay Started or can optionally be selected as a Supervisory relay.

**For Dual Hazard Operation:** Aux Relay 2 is for Hazard Area 1 Alarm; Aux Relay 3 is for Hazard Area 2 Alarm.

**Power Supply and Battery Charger**: During alarm, the power supply provides 3 A at 25.5 VDC, filtered and regulated. The temperature compensated battery charger provides 27.5 VDC for charging batteries suitable for up to 90 hour standby and 10 minutes of alarm. External battery chargers and cabinets can be used for more battery backup.

### **Release Control System Reference**

Automatic Agent Release Systems: These systems automatically activate solenoid control valves for the release of a fire extinguishing agent in response to fire detection device input.

Automatic Extinguishing Release Systems with Separate Bell Control (single hazard) (SW rev. 4.01 or higher). RAC 2 operates as a bell control NAC. When cross-zoned, stage 1 alarm activates the bell until the release timer starts. When not crosszoned, stage 1 alarm activates the bell until expiration of the release timer. In both cross-zoned and non cross-zoned applications, NAC2 may be programmed to indicate either a tamper switch supervisory condition or the start of the release timer using a cadence pattern operation.

**UL and FM Extinguishing Release System Panels must have** a minimum of 24 hours of standby power. Initiating devices must be Listed/Approved for the application, and may be wired either Class A or B. Actuators must be electrically compatible with the control panel circuits and power supplies, and are wired Class B to provide coil supervision.

**Deluge and Preaction Sprinkler Systems** automatically activate water control valves in response to fire detection device input.

**Deluge Sprinkler Systems** employ open sprinkler heads and provide water flow when the fire detection system activates a common automatic water control valve. They are used to deliver water simultaneously through all of the open sprinkler heads. This type of system is applicable where the immediate application of large quantities of water over large areas is the proper fire response.

**Preaction Sprinkler Systems** are similar to deluge systems except that normally closed sprinkler heads are used and supervisory air pressure is maintained in the pipe. Operation requires both an activated sprinkler head and an activated fire alarm initiating device.

**Combined Agent Release and Preaction Systems** provides agent release and preaction control. (Available with software revision 4.01 or higher.) For applications where agent release may not be sufficient for fire control, sprinklers are put in preaction mode to allow waterflow to continue the fire response. (Preaction is assumed, selected deluge could be provided, determined by the sprinkler installation, panel operation is the same.)

**UL requirements** for Fire Alarm Systems Listed for Automatic Release or Deluge and Preaction Sprinkler Systems are the same as described previously for Automatic Extinguishing Release Systems.

**FM Approved requirements** for Fire Alarm Systems for Automatic Release of Deluge and Preaction Sprinkler Systems require operation of specific compatible FM Approved Automatic Water Control Valves, a minimum secondary power capacity of 90 hours, and all circuits for the automatic release initiating devices must be capable of operation during a single open circuit fault condition (Class A).

# **AUTOPULSE Z-10 Product Selection**

RELEASE CONTROL PANEL			
Part No.	Description	Referenece	
430525	Basic Releasing Panel, operates with AC input of: 20/220/230/240 VAC, 50/60 Hz (auto-select)	Includes: Fou NACs, two S RACs, 3 A po with battery cabinet and	ur IDCs, two PMs, two ower supply charger, door
EXPANSIO	N MODULES		
Part No.	Description	Referenece	
430529	Auxiliary Relay Module; four relays, Form C, rated 7 A @ 120 VAC, 5 A @ 30 VDC, unsupervised contacts	Two maximum	Select as
430531	Two Circuit Class A Adapter Module for IDCs, SPMs, or NACs	Four maximun	required
BATTERIES	;		
Part No.	Description	Referenece	
<b>Part No</b> . 417692	Description 7.0 AH Battery Pack, 24 VDC	Referenece Select one b	attery
Part No. 417692 417693	Description 7.0 AH Battery Pack, 24 VDC 12 AH Battery Pack, 24 VDC	Referenece Select one b shipping ass system stand requirements batteries are	attery embly per dby s; two included
Part No. 417692 417693 417694	Description         7.0 AH Battery Pack, 24 VDC         12 AH Battery Pack, 24 VDC         17 AH Battery Pack, 24 VCD	Reference Select one b shipping ass system stand requirements batteries are Requires ext	attery embly per lby s; two included ernal
Part No.           417692           417693           417694           417695	Description7.0 AH Battery Pack, 24 VDC12 AH Battery Pack, 24 VDC17 AH Battery Pack, 24 VCD25 AH Battery Pack, 24 VDC	ReferenceSelect one bshipping asssystem standrequirementsbatteries areRequires extbattery cabir	attery embly per dby s; two included ernal net
Part No. 417692 417693 417694 417695 RELEASE C	Description         7.0 AH Battery Pack, 24 VDC         12 AH Battery Pack, 24 VDC         17 AH Battery Pack, 24 VCD         25 AH Battery Pack, 24 VDC         CONTROL SYSTEM MODULES	Reference Select one b shipping ass system stand requirements batteries are Requires ext battery cabir	attery embly per dby s; two included ernal et
Part No. 417692 417693 417694 417695 RELEASE C Part No.	Description 7.0 AH Battery Pack, 24 VDC 12 AH Battery Pack, 24 VDC 17 AH Battery Pack, 24 VCD 25 AH Battery Pack, 24 VDC CONTROL SYSTEM MODULES Description	Referenece Select one b shipping ass system stand requirements batteries are Requires ext battery cabir	attery embly per dby s; two included ernal net
Part No.           417692           417693           417694           417695           RELEASE O           Part No.           430687	Description         7.0 AH Battery Pack, 24 VDC         12 AH Battery Pack, 24 VDC         17 AH Battery Pack, 24 VCD         25 AH Battery Pack, 24 VDC         CONTROL SYSTEM MODULES         Description         Coil Supervision Module, one         refer to pages 6 and 7 for detar	Referenece         Select one bis         shipping assister         system stand         requirements         batteries are         Requires ext         battery cabir	attery embly per dby s; two included ernal net
Part No. 417692 417693 417694 417695 RELEASE C Part No. 430687 433936 or 433937	Description         7.0 AH Battery Pack, 24 VDC         12 AH Battery Pack, 24 VDC         17 AH Battery Pack, 24 VCD         25 AH Battery Pack, 24 VDC         CONTROL SYSTEM MODULES         Description         Coil Supervision Module, one refer to pages 6 and 7 for deta         Maintenance Switch, one required	Referenece Select one be shipping ass system stand requirements batteries are Requires ext battery cabir	attery embly per dby s; two included ernal net
Part No. 417692 417693 417694 417695 RELEASE C Part No. 430687 433936 or 433937 433940	Description         7.0 AH Battery Pack, 24 VDC         12 AH Battery Pack, 24 VDC         17 AH Battery Pack, 24 VCD         25 AH Battery Pack, 24 VDC         CONTROL SYSTEM MODULES         Description         Coil Supervision Module, one refer to pages 6 and 7 for deta         Maintenance Switch, one required         Abort Switch	Referenece Select one b shipping ass system stand requirements batteries are Requires ext battery cabir	attery embly per lby s; two included ernal net

# **FM Approved Water Control Valves**

FM Group	Manufacturer	Model Number	Details
A	Skinner	LV2LBX25	24 VDC, 11 W, 458 mA, 1/2 in. NPS, 1/2 in. orifice
В	ASCO	T8210A107	
		R8210A107	24 VDC, 16.8 W, 700 mA, 1/2 in. NPS, 5/8 in. orifice
		8210A107	
С	Star Sprinkler	5550	24 VDC, part of Model D deluge valve
D	ASCO	8210G207	
		V2648571, N.C.	24 VDC, 10.6 W, 440 mA, 1/2 in. NPS, 1/2 in. orifice
		HV2648581, N.O.	
E	Skinner	73218BN4UNLVNOC111C2	24 VDC, 10 W, 420 mA, 1/2 in. NPS, 5/8 in. orifice
		73212BN4TN00N0C111C2	24 VDC, 10 W, 420 mA, 1/2 in. NPS, 5/8 in. orifice; 5-300 psi
			(0.3-20.7 bar) rated working pressure
F	Skinner	73212BN4TNLVNOC322C2	24 VDC, 22 W, 1/2 in. NPS, 920 mA, 250 psi (17.2 bar),1/2 in. orifice
G	Skinner	71395SN2ENJ1NOH111C2	24 VDC, 10 W, 420 mA, 1/4 in. NPS, 1/16 in. orifice,
			250 psi (17.2 bar) rated working pressure
Н	Viking	HV-274-060-001	24 VDC, 22.6 W, 940 mA, 1/2 in. NPS, 250 psi (17.2 bar), 3/4 in. orifice

# **Specifications**

Power ratings					
	Voltage Ratings	s 120 VAC, 60 Hz; 220/230/240 VAC, 50/60 Hz, auto-select			
AC Input	Current Ratings	2 A maximum @ 120 VAC input; 1 A maximum @ 240 VAC input			
Power Supply Output		3 A maximum available for external loads			
Battery Charger		Temperature compensated, capable of recharging batteries required for			
		90 hour standby and 10 minute alarm (contingent on auxiliary power load)			
Standby Current		100 mA; with IDCs fully loaded, tone-alert silenced, trouble LED on, charger off			
Alarm Current		264 mA + external loads; (2 zones in alarm & 2 internal relays, NACs and RACs on)			
Standard Circuit Ratings		(Note: Total DC current = 3 A maximum; see NAC ratings for details)			
	Supervisory	3 mA maximum; 3.3 kΩ end-of-line resistor per circuit			
Initiating Davies	Alarm Current	75 mA maximum			
Circuits (IDCs)	Output Voltage	28 VDC maximum			
	Capacity	Each IDC supports up to 30 detectors (smoke or electronic heat) and manual stations			
		as required; wiring distance is limited to 50 $\Omega$ maximum			
	Application	For Manual Release, Abort Switches, or Supervisory functions only; not for			
		detectors; wiring distance is limited to 50 $\Omega$ maximum			
Special Purpose Monitoring	For Dual Hazard	Dual Hazard Application Abort Switches require a current limiting resistor of 1.2 k $\Omega$ ,			
Circuits	Applications	1 W, or an external Abort Supervision Module per SPM			
(SPMs)	Supervisory	6 mA; 3.3 kΩ end-of-line resistor per circuit			
	Activated	75 mA maximum			
	Output Voltage	28 VDC maximum			
		Special Application appliance rating = 2 A maximum on a NAC			
		Note: Special Application appliance rating = full 3 A power supply rating			
Notification Appliance	Alarm Current	Regulated 24 DC appliance power = 1.5 A maximum on a circuit			
Circuits		Note: Regulated 24 DC strobe load = 1.35 A maximum total for power supply			
(NACs)	Output Voltage	Alarm = 26 VDC max.; supervisory = 29 VDC maximum; 10 k $\Omega$ end-of-line resistor			
	Synchronized	Requires NAC dedicated to strobe control with non-coded output; use an external Synch			
	Strobe Operation	Module; up to 33 strobes can be synchronized per Z-10			
Notification Appliance Reference	Regulated 24 DC	Power for other appliances listed to UL Standard 1971 or UL Standard 464;			
	Appliances	use associated external synchronization modules where required			
	Output Current	2 A maximum per circuit			
Release Appliance Circuits (RACs)	Output Voltage	Activated = 26 VDC maximum; non-alarm = 29 VDC maximum; 10 k $\Omega$ end-of-line resistor			
Auxiliary Power Output; for		Two outputs are available, continuous operation or resettable operation;			
Special Application loads only		combined output is 750 mA maximum; output voltage = 19.25 to 27 VDC			
Auxiliary Relay Outputs		Contacts rated 2 A @ 30 VDC, 0.35 p.f., inductive, selectable as			
(Trouble, Aux Relay 2, Aux Relay 3)		N.O. or N.C. by jumper			
Wiring Connections for Above and	AC Input				
Auxiliary Module Ratings					
Class A Adapter Module		Two circuits per module, rated same as circuits; not applicable to RACs			
(Part No. 430531)	<b></b>	(no additional current required)			
Auxiliary Relay Module	Relay Type	Four relays with two outputs per relay; individually selectable as N.O. or N.C.			
(Part No. 430529)	AC Ratings	7 A @ 120 VAC, resistive			
4	DC Ratings	5 A @ 30 VDC, 0.35 power factor, inductive			

### **Specifications (Continued)**

Auxiliary Module Ratings (Continued)		
Auxiliary Relay Module	Module Current	12 mA standby; 70 mA with all four relays energized; @ 24 VDC
(Part No. 430529) (Continued)	Wiring	Terminals rated for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> )
Coil Supervision Module		
Construction		Epoxy encapsulated
Dimensions		1-3/8 in. W x 2-7/16 in. L x 1-1/16 in. H (34 mm x 62 mm x 27 mm)
Wiring		18 AWG (0.82 mm <sup>2</sup> ) wire leads, color coded
Coil Supervision Module Current Rating		2 A maximum; internally fused at 3 A, non-replaceable
Environmental Ratings		
Operating Temperature Range		32 °F to 120 °F (0 °C to 49 °C)
Operating Humidity		Range up to 93% RH, non-condensing @ 100 °F (38 °C) maximum

### **Reference Information, Compatible Detectors**

Part No.	Туре	Component Sheet
430559	LIFEalarm® Photoelectric Detector 2.8%/ft Obscuration (Standard)	T 2007152
430562	LIFEalarm® Photoelectric Detector 3.5%/ft Obscuration	1-2007153
430565	135 °F (57 °C) Fixed Heat Detector	T-2007159
430566	200 °F (93 °C) Fixed with Rate-of-Rise Heat Detector	T-2007159

### **AUTOPULSE Z-10 System Connection Reference**



#### GENERAL WIRING NOTE:

WIRING SHOWN IS FOR. EVALUATION INSTRUCTIONS FOR DETAILED WIRING INFORMATION.

# **Programming Modes And Selection Choices**

Sequence	Select one of the 13 Application Modes (numbered 1 through 13)					
		Single Hazard	Cross-Zoned 1	Combined Release		
			Either Zone 2	(RACs activate together)		
	Agent Release	Dual Hazard	Cross-Zoned 3	Independent Release		
			Either Zone 4	(RACs are separate)		
	Proaction/Dolugo	Single Hazard	Cross-Zoned 5	Combined Release		
			Either Zone 6	(RACs activate together)		
1	Treaction/Deluge	Dual Hazard	Cross-Zoned 7	Independent Release		
		Duai mazaru	Either Zone 8	(RACs are separate)		
	Agent Release; Single Hazard	Cross-Zoned 9	NYC Abort (not UL listed)			
	Agent Release and Preaction;	Cross-Zone 10	RAC 2 provides Preaction Control;			
	Single Hazard	Either Zone 11	RAC 1 is Agent R	C 1 is Agent Release Control		
	Agent Release, Bell/Horn/Strobe;	Cross-Zone 10	RAC 2 operates as NAC 3 for Stage 1 Bell Control			
	Single Hazard	Either Zone 11	(separate sound from release alarm)			
Sequence	Programming Mode Description	Description				
2	Select Relay Operation for	Select "Original" operation mode or "Enhanced" mode				
	Application Modes 1-9					
3	IDC and SPM Circuit Style	Class B/Class A or Style C				
4	Automatic Release Time Delay	Selectable in 5 second increments from 0 to 60 seconds (default is 60 seconds)				
5	RAC Cutout Timer	No cutout, 45 seconds, or 1, 3, 3.5, 4, 5, 6, 7, 21, 25, 34, 44, or 64 minutes				
6	Manual Release Time Delay	0, 5, 10, 15, 20, 25, or 30 seconds				
		UL Standard 864 listed		Immediate or 10 seconds remaining		
7	Abort Release Time Delay	Not UL Standard 864 listed		IRI abort (cross-zoned systems only), NYC abort,		
				or original release delay		
8	NAC Coding (where selectable)	Temporal pattern or 20 beats per minute (first cross-zone alarm)				
	NAC Operation	Standard Operation No inhibit or one minute inhibit selected as: both on until silence,				
			NAC 1 on until reset and NAC 2 on until silence, or both on until reset;			
9		Pre-Discharge Note: For clean agent release, a pre-discharge NAC must be		gent release, a pre-discharge NAC must be		
		Operation	configured to wa	rn of impending discharge, the release timer selects		
		the duration of the pre-discharged signal				
10	Supervisory Latching	Latching or non-latch	ning			
11	Supervisory Notification	LED and tone-alert of	nly, or with: NAC 2	2 also on; Aux Relay 3 also on;		
		or both NAC 2 and Aux Relay 3 also on				

### **Operator Panel Function Reference**



### **Release Control System Requirements**

- Solenoid valves are connected as 2-wire, Class B notification/releasing circuits with only one 24 VDC solenoid valve per circuit (or two, 12 VDC solenoids in series if applicable) to ensure supervision.
- 2. Coil Supervision Module (Part No. 430687) must be wired electrically before the solenoid valve and located in the solenoid valve wiring junction box.
- For FM Approved Deluge and Preaction Sprinkler operation, initiating device circuits must be Class A, wired to Listed/ Approved devices.
- Power supply loading and wiring distances must be per Installation, Programming, and Operating Instructions (Part No. 430545).
- 5. For FM Approved Deluge and Preaction Sprinkler Systems, battery standby capacity must be a minimum of 90 hours with 10 minutes of alarm.
- 6. For FM Approved Automatic Extinguishing Release, battery standby must be a minimum of 24 hours with 5 minutes of alarm.
- Battery standby must be selected for a minimum voltage of 23 VDC to ensure proper valve operation.
- 8. Maintenance Switch (Part No. 433936 or 433937) are required to allow the system to be tested or serviced.
- 9. For FM Approved Deluge and Preaction Sprinkler operation, the specified compatible Automatic Water Control Valves must be used.
- 10. For UL Listed and FM Approved Automatic Extinguishing Release, solenoid valves must be electrically compatible.
- Abort Switch (Part No. 433940) is available when abort operation is required. When used, wire on Special Purpose Monitoring Circuits (SPMs) as Class A or B, the same as required for other initiating devices.
- 12. Manual Release Stations are used for direct activation of the release solenoids with the appropriate time delay implemented by the fire alarm control panel.

### **Listings and Approvals**

- UL Listed: S4935
- FM Approved: J.I.3012391
- CSFM: 7165-0595:113
- MEA (NYC): 49-03-E

### **Expansion Modules and Accessories**

**Auxiliary Relay Module** (Part No. 430529). Four relays per module are available as required. Dual hazard applications will require two modules for auxiliary relay operation. Each relay module has a manual disconnect switch that controls relays 2 through 4 (Trouble Relay is not controlled). Relay outputs are required to be connected to 15 A maximum circuit breaker.

Operation is per the following actions:

Relay 1 activates on any trouble associated with its hazard

Relay 2 activates on any alarm associated with its hazard

**Relay 3** activates for pressure switch as required per application or actuates with second zone for cross-zoned systems (hazard specific)

Relay 4 activates when the hazard specific RAC activates

**Dual Circuit Class A Adapter Module** (Part No. 430531). This module converts two Class B circuits to Class A operation. It consumes no additional current and is compatible with IDCs, SPMs, and NACs. Up to four modules may be mounted within the AUTOPULSE Z-10 cabinet.

**Maintenance Switch.** Proper service of release appliance circuits requires the ability to securely disconnect the release circuit during installation and maintenance. Maintenance switches are controlled by keyswitch and initiate a supervisory condition when in disconnect/disable position. Models with lamp are on a double-gang plate and are powered from separate 24 VDC wiring. Mounting is on stainless steel plates and models are available as either surface or flush mount (see drawing below).

Maintenance switches, one per RAC, are required per NFPA 72, the National Fire Alarm Code, to allow the system to be tested or serviced without actuating the fire suppression systems. Their use may not be allowed in some jurisdictions; always confirm local requirements. When used, maintenance switches are required to ensure that operation initiates a supervisory condition.



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**Abort Switch.** For manual abort requests, these abort switches are available with or without a built-in 1.2 k $\Omega$ , 1 W resistor and are mounted on single-gang stainless steel plates. Abort switches are connected to the SPM inputs per system requirements.

Activity abort occurs while the switch is pushed and continues after releasing the switch for the selected Abort Release Time Delay (see drawing below).



Abort Switch

006550

### **Mounting Reference Information**



NOTE: A SYSTEM GROUND MUST BE PROVIDED FOR EARTH DETECTION AND TRANSIENT PROTECTION DEVICES. THIS CONNECTION SHALL BE MADE TO AN APPROVED, DEDICATED EARTH CONNECTION PER NFPA 70, ARTICLE 250, AND NFPA 780.

### **Ordering Information**

Part No.	Description
430525	AUTOPULSE Z-10 FACP, 120/240 VAC

**Note:** Proper operation of release control systems requires that the system design, installation, and maintenance be performed correctly and in accordance with all applicable local and national codes, and equipment manufacturer's instructions. No liability for total system operation is assumed or implied.

**Note:** The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement. AUTOPULSE and the product names listed in this material are marks and/or registered marks. Unauthorized use is strictly prohibited.