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**FIRE ALARM SYSTEM SHOP DRAWINGS
TOWN OF ANGIER HEADQUARTERS BUILDING
29 MCIVER STREET
ANGIER, NORTH CAROLINA**

MEMBER NATIONAL ASSOCIATION OF FIRE EQUIPMENT DISTRIBUTORS

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FIRE ALARM SYSTEM SHOP DRAWINGS
TOWN OF ANGIER POLICE
HEADQUARTERS BUILDING
29 MCIVER STREET
ANGIER, NORTH CAROLINA

Electrical Contractor: Allen R. Wood & Co.
86 Allen Wood Lane
Benson, NC 27504

Fire Alarm Contractor: BFPE International
115 Bestwood Drive
Clayton, NC 27520

Project No.: RA-A7854-A-25

Date: November 17, 2025

Cerberus® PRO

252-Point and 504-Point Addressable Fire Alarm Control Panel Models FC922 | FC924

Architect & Engineer Specifications

- Addressable fire alarm control panel (FACP) intended for mid-size building applications
- Comprised of the following system components:
 - Operating units
 - Periphery boards
 - Power supplies
 - System enclosures 'Walk Test'
- System features:
 - Supports 252-to-504 addressable devices:
 - One (1) to four (4) 'Class B'; one (1) to two (2) 'Class A' for Model FC922
 - One (1) to eight (8) 'Class B'; one (1) to four (4) 'Class A' for Model FC924
- 10,000-event history-logging capability
- Includes one (1) 'Class A' or two (2) 'Class B' notification appliance circuits (NACs)
- Resettable and non-resettable 24VDC, [nominal] auxiliary power
- Connectivity to a leased-line / city-tie module
- Releasing module supports activation of releasing valves in pre-action / deluge systems / agent release
- Off-normal warning message prior to reset
- Fast and easy set-up with auto-configuration feature
- Networkable up to 32 panels using CV Web or up to 16 panels using SafeDLink
- Cerberus® DMS Danger Management Station can monitor and control up to 32 Models FC922 and FC924 FACP
- Supports multiple global displays
- Digital alarm communication transmitter (DACT)
- UL 864 10th Edition Listed, ULC-S527 Listed
- FM, CSFM & NYC Fire Department Approved

Product Overview

The Cerberus PRO 252-point (Model FC922) / 504-point (Model FC924) addressable FACP is designed to meet the fire-protection needs of mid-size buildings. This advanced FACP offers features typically required in mid-size buildings in a package that is easy to install and competitively priced.

Additionally, Models FC922 and FC924 are networkable, allowing the systems to fulfill the growing fire-protection needs of the building. The programming software for the 252/ 504-point fire systems is held in flash electrically erasable programmable read-only memory (EEPROM).

The following Cerberus PRO system components are used in the 252-point / 504-point FACP:

- Operating units
- Periphery boards
- Power supplies
- System enclosures

Other options are available to meet specific needs.

Models FC922 and FC924 are FM (#3010); CSFM (#7165-0067:0259) and FDNY (#6104) Approved.



Model FC922

Specifications

Operating Interface Unit

The Operating Interface Unit (Model FCM2018-U3 or Model FCM2019-U3) functions as the operating interface and central microprocessor for Models FC922 and FC924 with up to 10,000 event history log.

Either operating interface unit provides multi-use capability for each end-user to efficiently 'Acknowledge' events; to quickly control the NACs of the FACP, and to permit a manual reset of the respective system. Detailed data about the nature and location of the events can also be displayed, via a backlit, 2" x 4-3/4" (5.1 cm. x 12.1 cm.) LCD screen and the four-way navigation push button at the top of the FACP.

Note: For applications in **Canada** that require a Desigo operating unit with LEDs, Model FCM2035-U3 must be ordered.

Periphery Boards

The periphery boards (Models FCI2016-U1 and FCI2017-U1) serve as the main operating components for the 252 / 504-point FACP. Each module operates and monitors input-device identity; as well as controls the signaling-line circuits that communicate with smoke detectors and other field devices (i.e. -C-NET).



Specifications (cont.)

Power Supplies

All functions are supported by the power supplies (Model FP2011-U1 or Model FP2012-U1), which therefore eliminate the need for external power supplies.

Further, the 170-Watt power supply (Model FP2011-U1) and 300-Watt power supply (Model FP2012-U1) provide primary, 24VDC nominal power for normal operation to Models FC922 and FC924. Both power supplies are filtered and regulated. Model FP2011-U1 is rated at 6.5 Amps, and the rating for Model FP2012-U1 is 11.5A.

The 170-Watt power supply incorporates a 4.0A, non-resettable slow-blow fuse on the primary input, and includes a built-in AC-line filter for surge and noise suppression. Model FP2011-U1 mounts in the FACP enclosure, and there are no serviceable Cerberus PRO parts to be maintained.

The 300-Watt power supply incorporates two (2) 6.3A replaceable, non-resettable slow-blow fuses on the primary input and includes a built-in AC line filter for surge and noise suppression. Model FP2012-U1 mounts in the FACP's enclosure, and there are no serviceable Cerberus PRO parts to be maintained.

System Enclosures

The Cerberus PRO fire-alarm enclosures and their accessories provide a complete set of hardware for mounting all Cerberus PRO main-system and remote terminal cards and modules.

The hardware allows this Cerberus PRO system to be configured for a variety of applications, as well as for future system upgrades. Included in the enclosure series are back box and door sets; removable mounting plates and clear lenses, as well as blank plates for use with the enclosure doors.

All enclosures come with ground straps for the inner and outer doors, shield termination lugs, grounding lugs, and tie wrap lances for securing wire. All Cerberus PRO two height-unit (2HU) enclosures can also mount system back-up batteries to 33AH in capacity.

Models FC922 and FC924 utilize a two-height-unit enclosure. The following components comprise a complete two-height-unit enclosure:

- One (1) back box, (Model FHB2002-U1 / R1)
- One (1) or two (2) inner doors, (Models FHD2004-U1 or FHD2005-U1)
- One (1) outer door, (Model FHD2002-U3 / R3 or FHD2003-U3 / R3)
- One (1) or two (2) clear windows, (Model FHD2006-U1)

The approximate size for each two-height-unit enclosure is: 27.5" (70cm.) high; 21.5" (54.6cm.) wide, and 5.75" (14.6cm.) deep. The weight, without any attached components, is approximately 6.3 Lbs. (2858 g).

Note: One (1) window is installed for Model FHD2002-U3 / R3 outer door, and two (2) windows are required for Model FHD2003-U3 / R3

Additionally, the two-height-unit enclosure supports the following optional components:

- Enclosure trim kit (for flush-mounting)
- Battery bracket (to comply with seismic certification)
- DIN rail kit (provides connection between internal-system wiring and field wiring)

Optional Accessories

Digital Alarm Communication Transmitter (DACT)

The DACT is used to provide communication between Models FC922 and FC924 and with either a central or remote monitoring station. The Model FCA2015-U1 module mounts directly on the back enclosure and connects to the periphery boards. The DACT enables remote transmission of alarms and events via a public telephone line.

Releasing Module

The releasing module (Model XCI2001-U1) supports activation of releasing valves in pre-action / deluge systems (including double-interlock pre-action systems, or Sinorix® Engineered Fire Suppression systems). Activation can be event-controlled or performed by addressable manual pull stations. The releasing module is installed on the periphery board and supports 'Class B' releasing circuits.

When installed on Models FC922 / FC924, the releasing module contains an integral manual-disconnect switch for releasing circuits. This essential feature protects the releasing circuits from accidental discharge during maintenance.

Leased-Line / City-Tie Module

The Leased-Line / City-Tie module (Model FCI2020-U1) is used as an optional module, providing a local-energy output for municipal call-box connection.

Model FCI2020-U1 also gives a reverse-polarity output for leased-line connection. Model FCI2020-U1 is installed on the periphery board for Models FC2025 and FC2050 FACPs. When used for connection to a municipal call box, the city-tie function supports Alarm-event transmission. When used for leased-line connection, the module supports two (2) leased telephone lines for transmitting *Alarm*, *Trouble* and *Supervisory* events.

Battery Disconnect Module

The Battery Disconnect Module (Model FCA2032-U1) is specifically designed to disconnect the backup battery on the Cerberus PRO 252 / 504-point addressable FACP when its voltage drops below 19VDC. Model FCA2032-U1's cut-off capability prevents the battery from operating beyond its normal power level for basic system operation.

Hardware Migration Kit

The Cerberus PRO 922/924 panel offers support for Siemens legacy addressable and conventional systems. Model FHA2056-series kits are specifically designed for the seamless transition of an existing Siemens FS-250 (FireSeeker) or MPC6000 control panel into a fully operational 50 | 252 or 504-point addressable Cerberus PRO fire-alarm FACP, [FC901 | FC922 or FC924], respectively.

Each shipment of the Model FHA2056-series kits contains the following pieces of equipment:

- One (1) outer door
- One (1) inner door
- One (1) hinge-assembly bracket
- One (1) back plate
- One (1) inner-door bracket

NOTE: The five (5) items that comprise one (1) Model FHA2056-series hardware-migration kit cannot be ordered individually.

Model FHA-MIQKIT-04/-05 offers support for legacy MXL and MXL-IQ peripherals using the FCL2004 device interface module.

Specifications (cont.)

Hardware Migration Kit (cont.)

This allows the user to configure a Cerberus PRO panel to communicate to older addressable devices, offering a seamless migration solution to the latest technology system.

Network Module

The C-WEB network module (Model FN2001-U1) is used to network up to 16 FACP, or one (1) fire terminal, via the C-NET system bus.

Model FN2001-U1 is plugged into the Operating Units (Models FCM2018-U3 /R3 and FCM2019-U3 /R3). Model FN2001-U1, which connects to a system input / output bus, has ground-fault monitoring, as well as an integrated degrade-mode feature. Redundant networking is done with one (1) network module per FACP [Simple-Loop Trouble]. There is electrical isolation between the system bus and FACP.

Remote Display Terminals

The Remote Display Terminals (Models FT2014-U3 /R3 and FT2015-U3 /R3) are remote annunciators that's how the existing status of Models FC922 / FC924. The remote display terminals (Models FT2014-U3/R3 and FT2015-U3/R3) are remote annunciators which can be configured as global displays, and indicate real-time system status.

Light-emitting diodes (LEDs) will illuminate for any given *Alarm, Supervisory and Trouble* Cerberus PRO-system event. The LCD screen will give details of the event in alphanumeric form. The display screen can be scrolled, via the four-way navigation button, to reveal additional events.

Model FT2014-U3 /R3 is a display-only remote annunciator that has one (1) button used to silence the local sounder. Model FT2015-U3 /R3 has three (3) control buttons for 'acknowledging' events, 'silencing' audible circuits and 'resetting' the system. Additionally, there are three (3) user-programmable buttons available. Model FT2015-U3 /R3 has an integral key switch that enables the control buttons to operate.

The remote display terminals are remotely connected to Models FC922 and FC924, via the RS-485 interface. Models FC922 and FC924 require the Model FCA2016-U1 RS-485 module to provide communication to the remote display terminals. Model FCA2016-U1 supports Style 4 or Style 6 wiring. Up to eight (8) modules can be supported on a RS-485 bus.

The remote display terminals require 24VDC [nominal] power, and the necessary power can be provided from this Cerberus PRO FACP or from another UL / ULC Listed, 24VDC power source.

Note: A Model FHD2012-U1 inner door can be optionally purchased in UL markets. The inner door mounts with the optional Model FT201x Series Remote Display terminals. Having a Model FHD2012-U1 inner door installed can assist in preventing unauthorized access to the RDT.

S-series License Keys

The S1 license key (Model FCA2033-A1) allows for virtual monitoring and control between a 252 / 504-point addressable fire-only panel and a personal computer.

The S2 license key (Model FCA2034-A1) is a BACnet output, and is used for monitoring-only purposes by a 3rd-party system for life-safety objects.

The S3 license key (Model FCA2035-A1) is a combination license key that allows for virtual monitoring and control, as well as for distribution of BACnet (monitoring-only).

S-series License Keys (cont.)

A four-digit personal identification number (PIN) must be used in order to prevent unauthorized access.

Tabular Announciators

Tabular annunciators allow system events sent from Cerberus PRO addressable panels to be displayed remotely in real-time.

The Model FT2008 series of tabular annunciators has 16 zones, and the Model FT2009 series uses 96 LEDs for 32 zones.

Up to two(2) light-emitting diodes (LEDs) can be used per zone. Tabular annunciators provide outputs for system and zone status, and are orderable in either black or red.

Remote Peripheral Module

The Remote Peripheral Module (Model FCA2018-U1) provides a means of connecting a Desigo FACP to a parallel printer (Model PAL-1) for creating hard copies of system-status and configuration reports.

Model FCA2018-U1 is a supervised, intelligent module that has built-intransient protection and plain-decimal addressing.

Model FCA2018-U1 is remotely connected to the Model FCA2016-U1 RS-485 communication bus from any Desigo Fire Safety system enclosure. Model FCA2018-U1 uses 'Class B' (Style 4) or 'Class A' (Style 6) wiring, and provides two (2) RS-232 serial ports and a one (1)parallel port, thus connecting to Model PAL-1.

LED Announcer Driver

The Model FT2007-U1 LED Announcer Driver provides custom graphic annunciators on addressable Cerberus PRO FACP. This optional system module provides 96highly programmable outputs to drive LED indicators. There are 16 inputs to accommodate user-system commands: *Silence, Unsilence, Reset, Acknowledge and Lamp Test*.

Model FT2007-U1 is supervised via aRS-485 interface. A maximum eight (8) modules are allowed on each RS-485 communication bus.

Graphics Input / Output Driver

The Graphics Input / Output (I/O) Driver (ModelFT2003-U1) is a fire-system accessory on the RS-485(Model FCA2016-U1) interface circuit. Model FT2003-U1, which serves as a combination standalone remote display / operating unit, provides the ability to build a graphic annunciator for the Desigo Fire Safety 252 /504-point addressable FACP.

Model FT2003-U1, which comes without an enclosure or display panel, consists of an indicator printed circuit board (PCB) and a driver PCB that are screwed together.

Each I/O driver has 32 outputs to drive highly programmable LEDs, and also contains 16 inputs to accommodate user-defined system commands, such as: *Acknowledge; Silence or Reset*.

NAC Expansion Module

The NAC expansion module (Model FCI2011-U1) provides either of the following additional NACs to a Cerberus PRO 252 / 504-point FACP:

- one (1)`Class A', or
- two (2)`Class B' NACs

Each NAC is rated at 3 Amps. Each NAC expansion module is monitored for open-line and short-circuit conditions.

Temperature and Humidity Range

Models FC922 and FC924 are UL 86410th Edition and ULC-S527 Listed for indoor dry locations within a temperature range of 120+/3°F (2°C) to 32+/3°F (0+/2°C) and a relative humidity of 93+/2% at a temperature of 90+/3°F (32+/2°C).

Details for Ordering

MODEL OR TYPE	PART NUMBER	PRODUCT
FCI2020-U1	S54400-A57-A1	Leased-Line / City -Tie Module
FCM2018-U3	S54400-C40-A2	Operating Interface Unit
FP2011-U1	500-450222	170-Watt Power Supply
FP2012-U1	S54400-Z60-A1	300-Watt Power Supply
FT2007-U1	S54400-A142-A1	LED Annunciator Driver
FT2008-U1	S54400-A143-A1	16-Zone Tabular Annunciator, Black
FT2008-R1	S54400-A144-A1	16-Zone Tabular Annunciator, Red
FT2009-U1	S54400-A145-A1	32-Zone Tabular Annunciator, Black
FT2009-R1	S54400-A146-A1	32-Zone Tabular Annunciator, Red
FT2014-U3	S54400-B80-A1	Remote Display Terminal, Black
FT2014-R3	S54400-B73-A1	Remote Display Terminal, Red
FT2015-U3	S54400-B88-A1	Remote Display Terminal, Black
FT2015-R3	S54400-B16-A1	Remote Display Terminal, Red
FTI2001-U1	S54400-A58-A1	Fire Terminal Board
FCA2015-U1	S54400-A63-A1	Digital Alarm Communication Transmitter
FN2001-U1	S54400-A60-A1	C-WEB Network Module
FCA2016-U1	S54400-A39-A1	RS—485 Interface
FCA2018-U1	S54400-A65-A1	Remote Peripheral Module
FCA2032-U1	S54400-B145-A1	Battery Disconnect Module
FCA2033-U1	S54400-P154-A1	License Key (S1) for remote access remote view remote operation
FCA2034-U1	S54400-P155-A1	License Key (S2) for BACnet output (monitoring only)
FCA2035-U1	S54400-P156-A1	License Key (S3) for remote access remote view remote operation BACnet output
FCI2011-U1	S54400-A54-A1	NAC Expansion Module
FCI2016-U1	S54400-A55-A1	252-Pt. Periphery Board
FCI2017-U1	S54400-A56-A1	504-Pt. Periphery Board
XCI2001-U1	S54400-A69-A1	Releasing Module
FCM2019-U3	S54400-C41-A2	Operating Interface Unit [with LED]
FCM2022-U3	S54400-C44-A2	Blank Option Module
FCM2023-U3	S54400-C45-A2	LED Option Module [Red / Yellow bi-color LED; one (1) Yellow LED]
FCM2034-U3	S54400-C138-A1	LED Option Module: [Red / Yellow bi-color LED; one (1) Yellow LED]

Details for Ordering (cont.)

MODEL OR TYPE	PART NUMBER	PRODUCT
FN2006-U1	S54400-A61-A1	Single-Mode Fiber-Optic Module
FN2007-U1	S54400-A62-A1	Multi-Mode Fiber-Optic Module
FHB2001-U1	S54400-B47-A1	One-Height-Unit Back Box, Black
FHB2001-R1	S54400-B47-A2	One-Height-Unit Back Box, Red
FHB2002-U1	S54400-B48-A1	Two-Height-Unit Back Box, Black
FHB2002-R1	S54400-B48-A2	Two-Height-Unit Back Box, Red
FHD2001-U3	S54400-B45-A1	One-Height-Unit Outer Door, Black
FHD2001-R3	S54400-B40-A1	One-Height-Unit Outer Door, Red
FHD2002-U3	S54400-B32-A1	Two-Height-Unit Outer Door [with one (1) window], Black
FHD2002-R3	S54400-C53-A1	Two-Height-Unit Outer Door [with one (1) window], Red
FHD2003-U3	S54400-C42-A1	Two-Height-Unit Outer Door [with two (2) windows], Black
FHD2003-R3	S54400-B46-A1	Two-Height-Unit Outer Door [with two (2) windows], Red
FHD2004-U1	S54400-B52-A1	Inner door, Black
FHD2005-U1	S54400-B53-A1	Inner door, Solid Black
FHD2006-U1	S54400-C46-A1	Clear-lens window
FHD2012-U1	S54400-C135-A1	Optional inner door [for housing a Model FT201-series display terminal], Black
FHA2056-U1	S54400-B18-A1	Cerberus PRO Hardware Migration Kit, Black
FHA2056-R1	S54400-B19-A1	Cerberus PRO Hardware Migration Kit, Red
FHAMIQKIT-04	S54400-C24-A1	MXL-IQ Mechanical Migration Kit, Black
FHAMIQKIT-05	S54400-C25-A1	MXL-IQ Mechanical Migration Kit, Red
FHAMIQKIT-03	S54400-K1-A1	One (1) PMI cable & One (1) Expansion Cable
FHAMIQKIT-01	S54400-A66-A1	One (1) FCL2004 Module with PMI Cable
FHAMIQKIT-02	S54400-A67-A1	One (1) FCL2004 Module with Expansion Cable
FCL-MXLPLATE	S54400-B153-A1	Mounting Bracket for FCL2004 (2HU/USCG)
FH2072-UA	S54433-A5- A1	Universal Battery Cabinet
FTH2073-UA	S54433-A6- A1	Universal Annunciator Cabinet
FH2072-UA	S54433-A5- A1	Universal Battery Cabinet
FTH2073-UA	S54433-A6- A1	Universal Annunciator Cabinet

Electronics Package		
MODEL OR TYPE	PART NUMBER	PRODUCT
FC922-US	S54400-C14-A1	<p>252-Point Fire System with 170 Watt Power Supply and standard operator interfaces.</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2011-U1 (1 Qty.) ▪ FCI2016-U1 (1 Qty.) ▪ FCM2018-U3 (1 Qty.)
FC924-US	S54400-C15-A1	<p>504-Point Fire System with 170 Watt Power Supply and standard operator interfaces.</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2011-U1 (1 Qty.) ▪ FCI2017-U1 (1 Qty.) ▪ FCM2018-U3 (1 Qty.)
FC922-UE	S54400-C16-A1	<p>252-Point Fire System with 170 Watt Power Supply and standard operator interfaces. (with 24-zone LEDs)</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2011-U1 (1 Qty.) ▪ FCI2016-U1 (1 Qty.) ▪ FCM2019-U3 (1 Qty.)
FC924-UE	S54400-C17-A1	<p>504-Point Fire System with 170 Watt Power Supply and standard operator interfaces. (with 24-zone LEDs)</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2011-U1 (1 Qty.) ▪ FCI2017-U1 (1 Qty.) ▪ FCM2019-U3 (1 Qty.)
FT924-US	S54400-C18-A1	<p>Network Terminal w/ standard operator interface</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FTI2001-U1 (1 Qty.) ▪ FCM2018-U3 (1 Qty.)
FT924-UE	S54400-C19-A1	<p>Network Terminal w/ standard operator interface (with 24-zone LEDs)</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FTI2001-U1 (1 Qty.) ▪ FCM2019-U3 (1 Qty.)
FC922-UT	S54400-C20-A1	<p>252-Point Fire System with 300 Watt Power Supply and standard operator interfaces</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2012-U1 (1 Qty.) ▪ FCI2016-U1 (1 Qty.) ▪ FCM2018-U3 (1 Qty.)
FC924-UT	S54400-C21-A1	<p>504-Point Fire System with 300 Watt Power Supply and standard operator interfaces</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2012-U1 (1 Qty.) ▪ FCI2017-U1 (1 Qty.) ▪ FCM2018-U3 (1 Qty.)

Electronics Package (Cont.)		
MODEL OR TYPE	PART NUMBER	PRODUCT
FC922-UF	S54400-C22-A1	<p>252-Point Fire System with 300 Watt Power Supply and standard operator interfaces (with 24-zone LEDs)</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2012-U1 (1 Qty.) ▪ FCI2016-U1 (1 Qty.) ▪ FCM2019-U3 (1 Qty.)
FC924-UF	S54400-C23-A1	<p>504-Point Fire System with 300 Watt Power Supply and standard operator interfaces (with 24-zone LEDs)</p> <p>Includes:</p> <ul style="list-style-type: none"> ▪ FP2012-U1 (1 Qty.) ▪ FCI2017-U1 (1 Qty.) ▪ FCM2019-U3 (1 Qty.)
Canadian-Specific Applications:		
FCM2035-U3	S54400-C140-A1	Enhanced Operating Unit (with LEDs)

Note: Refer to Data Sheet# 9800 for Canadian-Specific Electronics Package.

Related Documentation	
Product	Datasheet Number
Cerberus PRO Operating Interface Units	9801
Cerberus PRO System Periphery Boards	9802
Cerberus PRO Fire Terminal and Equipment	9803
Cerberus PRO Digital Alarm Communicator Transmitter (DACT)	9804
C-WEB Network Module	9805
170-Watt and 300-Watt Power Supplies	9806
Cerberus PRO Fire-Alarm Enclosures and Equipment	9807
NAC Expansion Module	9808
Releasing Module	9809
Leased-Line / City-Tie Module	9810
Cerberus PRO Remote Peripheral Module	9811
Cerberus PRO Remote Display Terminals	9812
Single / Multi-Mode Fiber-Optic Modules	9814
LED / Blank Option Modules	9816
Battery Disconnect Module	9819
S-series license keys	9820
Cerberus PRO Marine Fire and Detection Equipment	9822
Cerberus PRO LED Annunciator Driver	9824
Cerberus PRO 16 & 32 -Zone Tabular Annunciators	9825
Cerberus PRO Migration Hardware Kit	9826

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

Cerberus® PRO

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(Rev. 10)

Cerberus® PRO

Digital Alarm Communicator Transmitter

Model FCA2015-U1

Architect & Engineer Specifications

- Four (4) separate monitoring accounts available
- Sends serial data to a central monitoring station
- Two (2) phone lines available
- Reports in eight (8) standard-communication formats
- Automatic 24-hour test feature
- Connects to either a 252-point (Model FCI2016-U1), or 504-point (Model FCI2017-U1) periphery board, and mounts to any of the following:
 - up to 252-point addressable panel: FC922 (fire) or FV922 (voice)
 - up to 504-point addressable panel: FC924 (fire) or FV924 (voice)
 - Cerberus PRO fire terminal, Model FT924
- All programming is made as part of the Cerberus PRO control panel's set configuration
 - Compatible with built-in Erasable Programmable Read-Only Memory [EEPROM] system firmware
- UL Listed, ULC Listed
 - for central-station / remote-station monitoring
- UL 864 9th Edition Listed, ULC Listed
- FM, CSFM and NYC Fire Dept. Approved

Product Overview

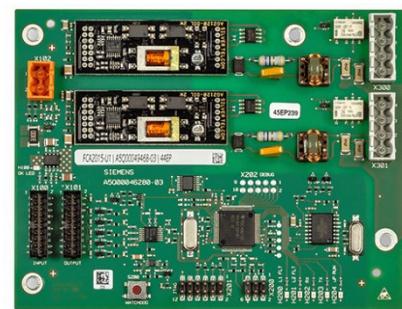
The Digital Alarm Communicator Transmitter (DACT) is used to provide communication between either a 252-point or 504-point addressable Cerberus PRO system; one (1) Fire Terminal (Model FT924), and with either a central or remote monitoring station.

The Model FCA2015-U1 DACT module mounts directly on the back enclosure and connects to the periphery boards. Each DACT enables remote transmission of alarms and events via a public telephone line. Additionally, Model FCA2015-U1 supports two (2) lines and four (4) accounts, and can transmit serial information (including the address of the event) to the monitoring station. Any of the accounts can send Alarm, Gas Alarm, Supervisory, Trouble, Reset, or Trouble-restore data (or any combination) as required.

Each DACT can perform the automatic 24-hour test required by NFPA, Chapter 4. Model FCA2015-U1 is FM (#3010); CSFM (#7165-0067:0259) and FDNY (#6104) Approved.

Available Communication Protocols include:

- SIA DCS 8
- SIA DCS 20
- Ademco Contact ID
- 3/1 1400 Hz
- 3/1 2300 Hz
- 4/2 1400 Hz
- 4/2 2300 Hz



Model
FCA2015-U1



Temperature and Humidity Range

The Digital Alarm Communication Transmitter and Dialer-Capture Module are each UL 864 9th Edition Listed for indoor dry locations within a temperature range of 120 $^{+/-}3^{\circ}\text{F}$ (49 $^{+/-}2^{\circ}\text{C}$) to 32 $^{+/-}3^{\circ}\text{F}$ (0 $^{+/-}2^{\circ}\text{C}$) and a relative humidity of 93 $^{+/-}2\%$ at a temperature of 90 $^{+/-}3^{\circ}\text{F}$ (32 $^{+/-}2^{\circ}\text{C}$).

Central Station Receiver Compatibility Table

The following table shows a list of central-station receivers that are compatible with Cerberus PRO Models FC922 [252-point] and FC924 [504-point] addressable systems – as well as with Siemens Models FV922 [252-point] and FV924 [504-point] fire-with-voice control panels:

Communication Protocol	Honeywell M8000	Silent Knight 9822	Bosch D6600	Bosch D6100
SIA DCS 8	✓		✓	✓
SIA DCS 20	✓		✓	✓
Ademco Contact ID	✓	✓	✓	✓
3/1 1400 Hz	✓	✓	✓	✓
3/1 2300 Hz	✓	✓	✓	✓
4/2 1400 Hz	✓	✓	✓	✓
4/2 2300 Hz	✓	✓	✓	✓

Notes: Multiple central-station receivers are compatible with the Cerberus PRO 252 / 504-point FACP, Models FC922 and FC924, respectively. These receivers also work with Cerberus Intelligent Voice Communication: Models FV922 and FV924.

Although the table above illustrates central-station receivers that have been verified by Siemens, additional receivers and formats can also be used with each addressable system.

After completing the installation, communication between the Digital Alarm Communication Transmitter (Model DACT) and Central Station Receiver must be tested and verified.

Table of Compatible Alarm Communicators

Each Model FCA2015-U1 dialer can utilize different communication technologies – including Internet Protocol (IP) and Global System Mobile (GSM) communication technologies on Siemens fire-alarm control panels – in order to connect to compatible central-station receivers for off-premises monitoring:

Communication Technology	Bosch C900V2	DSC 3G3070-CF	DSC TL300CF	Telguard TG7GFS04
IP	✓		✓	
GSM		✓		✓

Technical Data

Electrical Ratings @ 24VDC	Standby Current:		33.5mA
	Active Current:		43.5mA
Connections	System Bus	Design	14 – 22 AWG [American Wire Gauge]
	Admissible Cross-Section Cable		
Type		14-pin, ribbon-cable connection	

Physical Properties

DIMENSIONS: (W-x-H-x-D)	4" -x- 5" -x- 0.8" (10.2 cm. -x- 12.7 cm. -x- 2.0 cm.)
WEIGHT:	0.44 Lbs. (20g)

Related Documentation

Product	Data Sheet Number
Fire Terminal and Equipment	9803
Cerberus PRO 252-point system / 504-point system	9815
Cerberus PRO Intelligent Voice Communication	9821

Details for Ordering

Model or Type	Part Number	Product
FCA2015-U1	S54400-A63-A1	Cerberus PRO Digital Alarm Communicator Transmitter

Peripheral and Detection Devices

Initiating Devices

XMS-Series Manual Pull Stations

Models XMS-S | **XMS-D** | XMS-M

Architect & Engineer Specifications

- Built-in loop isolation:
 - Meets Class X (Style 7) survivability requirements
 - Supports up to 190 X-Series isolation peripherals per loop and 30 addressable devices
- Low current draw
- Polarity insensitive (in non-isolation mode) via SureWire technology
- Multi-color status LED
- T-45 reset key
- Reduced mounting depth for compatibility with single gang electrical boxes for retrofit applications
- Trouble indication during service and maintenance
- Single action, double action, and metal versions available
- Portuguese and Spanish versions available
- RoHS compliant
- UL38 Listed

Product Overview

The XMS-Series of manual pull stations are a complete addressable and conventional pull station portfolio that include single action, double action, and metal versions. The addressable versions feature built-in Class X (Style 7) isolation capability for increased system survivability. All models feature a T-45 reset key to match the fire alarm panel enclosure. Addressable models also feature a tri-color status LED to indicate normal, alarm, and trouble status. All modules utilize one address.

The manual stations can be commissioned non-isolation (polarity insensitive) or isolation "X-Series" modes of operation.

Specifications

Models XMS-S, XMS-D, and XMS-M are compatible with Siemens FACPs. The Model XMS-S is a single action pull station in a plastic housing that requires one action by the user to initiate the alarm. The Model XMS-D is a double action pull station in a plastic housing that requires two actions by the user to initiate an alarm. The Model XMS-M is a single action pull station in a metal housing that requires one action by the user to initiate the alarm. These models are field installed addressable devices containing advanced control panel communication technology.

The XMS-Series manual pull stations feature a "maintenance trouble" that places the fire alarm panel into a trouble condition if an XMS is accidentally left in an armed status when the cover is removed for maintenance work.

This technology provides two-direction communication with the control panel. To reset the stations, insert the Siemens T45 key provided into the key lock and turn the key 10-15 degrees counter-clockwise as the arrow shows. The cover will move upward to the normal position. Rotate the key clockwise and remove key from the lock. At Normal position the top of the Cover is flush with the top surface of the Base. Reset the Fire Alarm Control Panel to clear the alarm.



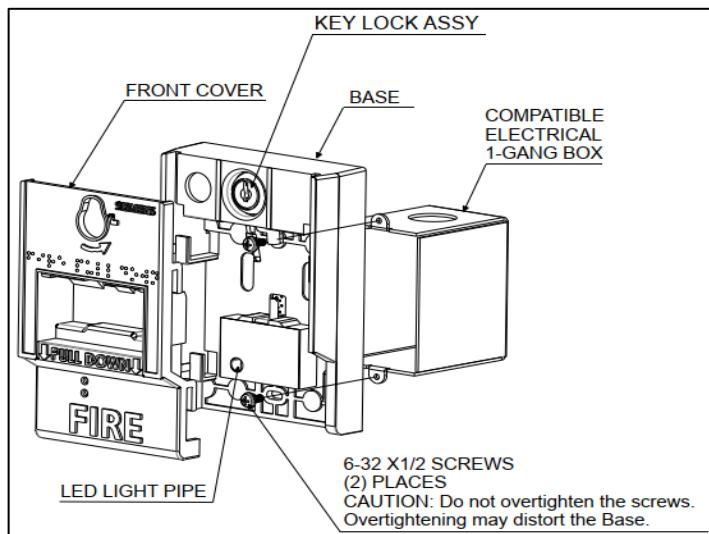
The XMS-S, XMS-D, and XMS-M manual stations operate with the Desigo Fire Safety Modular / Cerberus PRO Modular via the XDLC. These devices can be wired in either Isolation Mode or Polarity Insensitive Mode Wiring. The XMS-S/XMS-M manual station front cover has a recess pocket to pull down and locks in position after the alarm is initiated. The XMS-D manual station has an additional lever labeled "PUSH HERE THEN" to get access to the front cover pocket to initiate the alarm.



Siemens

Smart Infrastructure -Building Products

Mounting Diagram



Technical Data

Operating Voltage Range	13 - 32VDC
Max Average Operating Current @ 24v:	500µA
Operating Temperature Range	32° – 120°F (0° – 49°C)
Operating Humidity Range	0 – 95%, RH

Physical Properties

Construction:	High impact polycarbonate plastic
	Aluminum
Shipping weight:	1.0 lbs
Dimensions:	5.50" H x 4.0" W x 1.250" D
Compliance:	ADA
Compatible electrical boxes:	2-1/2" deep 1-gang box

Details for Ordering

Model or Type	Part Number	Description
XMS-S	S54321-F7-A1	Addressable Single Action Manual Pull Station with Isolation
XMS-D	S54321-F8-A1	Addressable Double Action Manual Pull Station with Isolation
XMS-M	S54321-F19-A1	Addressable Single Action Metal Pull Station with Isolation
XMS-SP	S54321-F9-A1	Addressable Single Action Manual Pull Station with Isolation - Portugese Text
XMS-DP	S54321-F10-A1	Addressable Double Action Manual Pull Station with Isolation - Portugese Text
XMS-SE	S54321-F11-A1	Addressable Single Action Manual Pull Station with Isolation - Spanish Text
XMS-DE	S54321-F12-A1	Addressable Double Action Manual Pull Station with Isolation - Spanish Text
XMH-501	S54321-F18-A1	Conventional Double Action Manual Pull Station for Agent Release
XMS-501	S54321-F16-A1	Conventional Double Action Manual Pull Station
XMS-51	S54321-F15-A1	Conventional Single Action Manual Station with Auxiliary Relay and Key Switch
SMBOX-XMP	S54321-F20-A1	Surface Mounting Backbox for X-Series Manual Stations
APLT-XMP	S54321-F21-A1	Adapter Plate for X-Series Manual Stations to Legacy Surface Backboxes
4DGBOX-XMP	S54321-F22-A1	Adapter Plate for X-Series Manual Stations to 4" and Double-Gang Backboxes

Cerberus® PRO

Detectors and Peripherals

Photoelectric Smoke Detector [with ISOtechnology™]

Model OP921

Architect & Engineer Specifications

- UL 268 7th Edition Listed
- Built-in ISOtechnology™
- 252 Isolation devices per SLC
- Each detector is self-testing:
 - Self-monitored for sensitivity with UL Listed limits
 - complete diagnostics performed every 10 seconds
- Compatible with Model 8720 | DPU (device programmer / loop tester)
- Polarity insensitive via SureWire™ technology
- Functions with Model DB-11-series mounting bases
- Tri-color detector-status light-emitting diode (LED) with 360 ° view
- Field-selectable application-sensitivity profiles
- Remote sensitivity-measurement capability
- Utilizes advanced, microprocessor-based signal processing
- Extended temperature-and-humidity operating range
- Automatic environment compensation
- Superior electromagnetic interference (EMI) and radio-frequency interference (RFI) immunity
- Restriction of Hazardous Substances (RoHS compliant)
- UL Listed | FM, CSFM Approved
 - UL 268: 'Open Area Smoke Detection'
 - UL 268A (Duct) - 'In-duct housing' use
 - UL 268A (Duct) - 'Direct-in-Duct' use
 - ULC-S531: 'Open Area Smoke Detection'
 - FM 3230 (Duct)
 - CSFM | File: 7272-0067:0258

Product Overview

The Photoelectric Smoke Detector (Model OP921) uses state-of-the-art microcontroller circuitry and surface-mount technology for maximum reliability. Model OP921 incorporates an optical sensor using a light-scattering detection principle. The device utilizes advanced software algorithms to analyze the signals providing highly stable and accurate smoke detection.

Model OP921 is UL 268 7th edition listed incorporating advanced built-in ISOtechnology™ - True Class-X SLC operation (use is optional) greatly improving system reliability and circuit integrity while providing advanced addressable fault finding.

Each detector fits into one (1) wall-or-ceiling footprint, and only occupies one (1) address on the signal-line circuit (SLC)

Model OP921 is a plug-in, two-wire, addressable photoelectric smoke detector whose value is increased with built-in ISOtechnology feature. Model OP921 is Underwriters' Laboratories Listed [UL268A Listed for direct in-air duct usage].

Each detector utilizes a dust-resistant photoelectric smoke chamber and microprocessor-based electronics with a low-profile plastic housing. Every Model OP921 fire detector is shipped with a protective dust cover.

Operation

Model OP921 is a wide-spectrum, photoelectric smoke detector that incorporates an infrared light-emitting diode (IRLED), as well as a light-sensing photodiode. Under normal conditions, light transmitted by the LED is directed away from the photodiode and scattered through the smoke chamber in a controlled pattern.

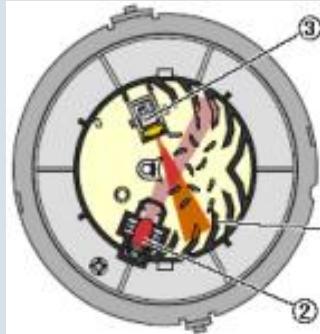
The smoke chamber is designed to manage light dissipation and extraneous reflections from dust particles or other non-smoke, airborne contaminants in such a way as to maintain stable, consistent detector operation. When smoke enters the detector chamber, light emitted from the IRLED is scattered by the smoke particles and is received by the photodiode (see: images on page 2).



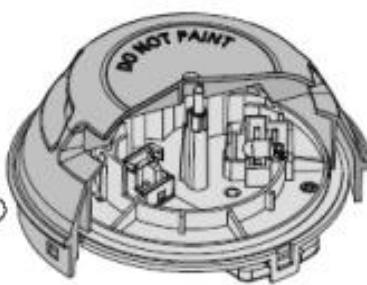
Model OP921
Photoelectric Smoke Detector



1. **Labyrinth**
2. **Optical transmitter**
3. **Optical receiver**



Model OP921



1. **Dust cover**
2. **Photoelectric smoke detector**



Sensitivity Settings

Application Parameter Sets

Model OP921 provides four (4) pre-programmed sensitivity parameter sets that can be selected by the Siemens fire-alarm control panel in order to match the expected application or environmental conditions:

- Sensitive
- Standard
- Robust
- Air-duct

Sensitive: This application parameter set is practically suitable for areas where few misleading sources of false alarm are present, and is appropriate where priority is given to detecting open fires as soon as possible (e.g. – typically a clean application with controlled environmental conditions).

Standard: This application parameter set, which is ideal for normal office | hotel-lobby-type applications, is the default setting.

Robust: This application parameter set offers improved resistance to false alarms in areas where misleading sources, such as cigarette smoke or exhaust fumes, may cause a nuisance alarm.

Air-Duct: This application parameter set is used when the detector is used a UL268A (DI) compliant, direct in-air duct application without a duct housing.

Model OP921 does not require a field sensitivity test. Model OP921 is UL Listed as a self-testing device and complies with NFPA 72 as a self-monitoring detector and control-panel arrangement.

This parameter set is also used when Model OP921 is used in air-duct housings (Models FDBZ492 and FDBZ492-HR).

A quick visual inspection is sufficient to indicate the condition of Model OP921 at any time. If more detailed information is required, a printed report can be provided from the compatible FACP, indicating the status and settings assigned to each individual detector. When Model OP921 moves to 'Alarm' mode, the detector will flash **RED** and continue flashing until the system is reset at the FACP. At that same time, any user-defined, system-alarm functions programmed into the system are activated.

Model OP921 contains a tri-color LED indicator, capable of flashing any one (1) of three (3) distinct colors: **GREEN** | **YELLOW** | **RED**.

During each flash interval, the microprocessor-based detector monitors the following scenarios:

- Smoke sensitivity is within the range indicated on the nameplate label
- Smoke in its sensing chamber
- Internal sensors and electronics are functional

Sensitivity Settings - (continued)

Based on the results of the monitoring, the LED indicator flashes the following:

FLASH COLOR	CONDITION	FLASH INTERVAL [in seconds]
GREEN*:	Normal supervisory operation. Smoke sensitivity is within rated limits.	10
YELLOW:	Detector is in trouble and needs replacement.	4
RED:	'Alarm' condition	1
NO FLASH:	Detector is not powered.	—

* denotes LED can be turned OFF

Please follow the corresponding description of the panel used.

A quick visual inspection is sufficient to indicate the condition of the detector at any time.

If more detailed information is required, a printed report can be provided from the respective Cerberus PRO

Modular | FireFinder XLS/V | FC/FV9-series FACP that indicates the status and settings assigned to each individual detector.

Installation

All Model OP921 intelligent, addressable detectors use a surface-mounting base (Model DB-11 or DB-11E), which mounts on a 4-inch (10.2 cm.) octagonal, square or single-gang electrical back box. The base utilizes screw-clamp contacts for electrical connections and self-wiping contacts for increased reliability.

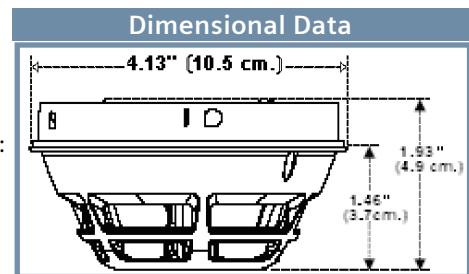
The Model DB-11 detector base can be used with the optional Siemens Model LK-11 detector locking kit, which contains 50 detector locks and an installation tool to prevent unauthorized removal of the detector head. Model DB-11 has aesthetically conducive plugs to cover the outer mounting-screw holes.

Model OP921 may be installed on the same initiating circuit with the Siemens Model 'H'-series detectors [when used with Cerberus PRO Modular | FireFinder XLS/V | FC/FV9-series FACP] –

- XTRI series interface modules
- HTRI series interface modules
- HMS & XMS series manual stations
- HFP-11, HFPT-11 detection devices
- HCP output-control module
- HZM conventional zone module

Each detector, which is shipped with a protective dust cover, consists of the following:

- Built-in **ISOtechnology** for True-Class-X SLC performance
- Dust-resistant photoelectric chamber
- Solid-state, non-mechanical thermal sensor
- Microprocessor-based electronics with a low-profile plastic housing



All Model OP921 intelligent, addressable detectors are approved for operation with the Underwriters' Laboratories-specified temperature range of 32° to 120° (0° to 49°C). (See: installation manual P/N – A6V10323928 for further details)

Application Data

Installation of Model OP921 smoke detectors require a two-wire circuit. In many retrofit cases, existing wiring may be used. 'T-tapping' is permitted only for Style 4 (Class B) wiring. Model OP921 is polarity insensitive, which can greatly reduce installation and debugging times. When operating in NFPA 72 Class-X applications SLC polarity must be maintained to support up to 252 isolation ready devices per loop. When used in mixed mode a maximum of 30 non-isolated devices between isolation devices (wired in polarity-insensitive mode). See control panel install document for further details.

Model OP921 detectors can be applied within the maximum 30-feet center spacing (900 sq. ft. areas) as referenced in NFPA 72. This application guideline is based on ideal conditions – specifically, smooth ceiling surfaces, minimal air movement, and no physical obstructions between potential fire sources and the actual detector. Do not mount detectors in close proximity to ventilation or heating and air conditioning outlets. Exposed joists or beamed ceilings may also affect safe spacing limitations for detectors.

Should questions arise regarding detector placement, observe NFPA 72 guidelines. Good fire-protection-system engineering and common sense dictate how and when fire detectors are installed and used. Contact your local Siemens – Fire Safety distributor or sales office whenever you need assistance applying Model OP921 in unusual applications. Be sure to follow NFPA guidelines and UL Listed / ULC Listed installation instructions – included with every Siemens – Fire Safety detector – and local codes as for all fire protection equipment.

Field-Device Programmer / Test Unit

Model OP921 is compatible with the Siemens field-device programmer / test unit (Model 8720 | DPU), which is a compact, portable menu-driven accessory for electronically programming and testing these addressable detectors promptly and reliably. For instance, the field technician selects the accessory's program mode, and enters the desired address.

Model DPU eliminates the need for cumbersome, unreliable mechanical programming methods (e.g. – dials and rotary switches), and reduces installation and service costs by electronically programming and testing the detector prior to installation. When set in 'test' mode, Model DPU will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the detector is operating properly.

Each field-device programmer / test unit operates on AC power or rechargeable batteries, providing flexibility and convenience in the programming / testing of fire-safety equipment from practically any location. Additionally, with the use of a Model DPU unit, there is no longer a cause for concern with any vibration, corrosion and other deteriorating conditions that can accompany the vitality of electro-mechanical-addressing mechanisms.

Each detector fits into one (1) wall-or-ceiling footprint, and only occupies one (1) address on the signal-line circuit (SLC).

Technical Data	
OPERATING TEMPERATURE:	+32° – +120°F (0° – +49°C)
RELATIVE HUMIDITY:	0 – 95% (non-condensing)
AIR PRESSURE:	No effect
AIR VELOCITY:	0 – 4,000 feet-per-minute (fpm) (0 – 20 meters-per-second)
INPUT VOLTAGE RANGE:	16VDC – 30VDC
'ALARM' CURRENT, MAX.:	410µA
'STANDBY' CURRENT, MAX.:	250µA
MAXIMUM SPACING:	30-ft. centers (900 sq. ft.), per NFPA 72
DETECTOR WEIGHT:	0.317 Lbs. (0.144 kg.)
MECHANICAL PROTECTION GUARD:	UL and ULC Listed (with STI Guard Model STI-9604)
SENSITIVITY RANGE:	1.41 - 3.76 % ft obs. (Nominal 2.0% / ft. obs.)

Panel Compatibilities		
MODEL OR TYPE	DATA SHEET	PANEL
XLS	6300	FireFinder® (fire)
XLSV	6340	FireFinder (fire w/ voice)
Cerberus PRO Modular	8300	System Overview
FC901	9813	Cerberus PRO 50-point addressable
FC922	9815	Cerberus PRO 252-pt. addressable (fire)
FC924		Cerberus PRO 504-pt. addressable (fire)
FV922	9821	Cerberus PRO 252-point addressable (fire w/ Intelligent Voice Communication [IVC])
FV924		504-pt. addressable (fire w/ Intelligent Voice Communication [IVC])

Details for Ordering		
MODEL OR TYPE	PART NUMBER	PRODUCT
OP921	S54320-F4-A2	Photoelectric Smoke Detector

Compatible Devices:		
MODEL OR TYPE	PART NUMBER	PRODUCT
DB-11	500-094151	Detector Mounting Base
DB-11E	500-094151E	Detector Base, small
DB2-HR	S54370-F12-A1	Detector Mounting Base with Relay
RL-HC	500-033230	Remote Alarm Indicator: 4" (10.2 cm) octagon.-box mount, red
RL-HW	500-033310	Remote Alarm Indicator: single-gang box mount, red
FDBZ492	S54319-B22-A1	Addressable Air-Duct Housing
FDBZ492-HR	S54319-B23-A1	Addressable Air-Duct Detector with Relay
LK-11	500-695350	Base Locking Kit

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice.

The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

Cerberus® PRO

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February - 2021
(Rev. 10)

Cerberus® PRO

Detectors and Peripherals

Thermal (Heat) Detector

Model HI921

Architect & Engineer Specifications

- Compatible with Siemens Model 'H'-series devices on the same loop (with Cerberus PRO Modular | FireFinder XLS/V | FC9-series fire-alarm control panels)
- Contains seven (7) field-selectable settings in a temperature range of 135°F – 174°F (57.2°C – 78.9°C)
- Provides a low-temperature warning of 40°F (4.4°C)
- Field programmable as rate-of-rise or fixed temperature
- Tri-color detector-status light-emitting diode (LED) with 360 ° view
- Compatible with Model 8720 | DPU (device programmer / loop tester)
- Utilizes advanced, microprocessor-based signal processing
- Each detector is self-testing:
 - complete diagnostics performed every 10 seconds
- Polarity insensitive via **SureWire™** technology
- Functions with Model DB-11-series mounting bases
- Superior electromagnetic interference (EMI) and radio-frequency interference (RFI) immunity
- Restriction of Hazardous Substances (RoHS compliant)
- UL 521 Listed, ULC Listed; FM (#3230, #3210), CSFM (#7272-0067:0258) Approved

Product Overview

The Intelligent Thermal (Heat) Detector (Model HI921) provides an advanced method of detection, address programming supervision – combined with sophisticated FACP communication. Model HI921 uses a state-of-the-art thermistor, microprocessor and advanced signal analysis, providing high reliability and accuracy.

Additionally, Model HI921 is a cost-effective, two-wire / addressable thermal detector that provides a distinctive, advanced feature: seven (7) field-selectable temperature settings specially tailored for application-specific detection needs.

The temperature-range settings for each Model HI921 detector is between 135°F (57°C) – 174°F (79°C) with fixed and rate-of-rise programmability. This variance provides the customer with maximum flexibility to program the temperature settings to suit multiple application needs and changing environmental conditions.

Model HI921 can be configured to provide a low-temperature warning signal at 40°F (4.4°C). This feature – along with a compatible FACP (Cerberus PRO Modular | FireFinder XLS/V or with Cerberus PRO FC/FV922 or FC/FV924 FACPs) – serves as prevention of water freezing in pipes for sprinkler systems, meeting NFPA 72

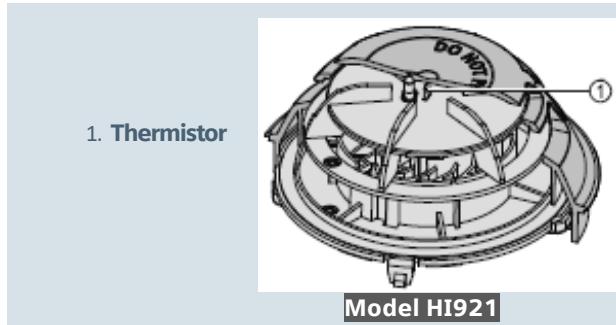
Operation

Model HI921 also utilizes a modern, accurate and shock-resistant thermistor to sense significant changes in temperature.

Each Model HI921 detector has seven (7) pre-programmed parameter sets that can be selected by the Siemens FACP.



Model HI921
Thermal (Heat) Detector



1. **Dust cover**
2. **Thermal (heat) detector**

NOTE: Each detector consists of a dust-resistant chamber, a solid state, functional internal sensor, and microprocessor-based electronics with a low-profile plastic housing. Every Model HI921 fire detector is shipped with a protective dust cover.



Detector Supervision and Testing

Model HI921 contains a tri-color LED indicator, capable of flashing any one (1) of three (3) distinct colors: **GREEN** | **YELLOW** | **RED**. During each flash interval, the microprocessor-based detector monitors the following fire-system conditions:

- Temperatures reaching programmed thresholds
- Internal sensors and electronics are functional

Based on the results of the monitoring, the LED indicator flashes the following:

FLASH COLOR	CONDITION	FLASH INTERVAL [in seconds]
GREEN* :	Normal supervisory operation. Temperature has not reached programmed alarm thresholds or set points.	10
YELLOW:	Detector is not operating at normal capacity and needs replacement.	4
RED:	‘Alarm’ condition	1
NO FLASH:	Detector is not powered.	–

* denotes LED can be turned OFF

Please follow the corresponding description of the panel used.

A quick visual inspection is sufficient to indicate the condition of the detector at any time.

If more detailed information is required, a printed report can be provided from the respective Cerberus PRO Modular | FireFinder XLS/V or Model FC9-series FACP's that indicates the status and settings assigned to each detector.

Installation

All Model HI921 detectors use a surface-mounting base, Model DB2-HR | DB-11 or Model DB-11E, which mounts on a 4-inch (10.2 cm.) octagonal, square or single-gang electrical box. The base utilizes screw-clamp contacts for electrical connections and self-wiping contacts for increased reliability.

The Model DB-11 detector base can be used with the optional Siemens Model LK-11 detector locking kit, which contains 50 detector locks and an installation tool to prevent unauthorized removal of the detector head. Model DB-11 has aesthetically conducive plugs to cover the outer mounting-screw holes.

Model HI921 may be installed on the same initiating circuit with the Siemens Model ‘H’-series detectors [when used with Cerberus PRO Modular | Model FC9-series | FireFinder XLS/V FACP's] –

- HFP-11, HFPT-11
- Model ‘XTRI’-series interfaces
- Model ‘HTRI’-series interfaces
- Model ‘HMS’-series manual stations
- Model HCP output-control detection devices
- Model ‘HZM’-series of addressable, conventional zone modules

Application Data

Installation of Model HI921 intelligent, addressable thermal detectors requires a two-wire circuit. In many retrofit cases, existing wiring may be used. 'T-tapping' is permitted only for Style 4 (Class B) wiring. Model HI921 is polarity insensitive, which can greatly reduce installation and debugging times.

Model HI921 can be applied within the maximum 50-feet (15.24 m.) center spacing (2,500 sq. ft. [232.3 sq. m.]) per Underwriters' Laboratories. This application guide is based on ideal conditions, specifically, smooth-ceiling surfaces, minimal air movement, and no physical obstructions between potential fire sources and the actual detector. Do not mount detectors in close proximity to heating | ventilation | air-conditioning (HVAC) outlets. Exposed joists or beamed ceilings may also affect safe spacing limitations for detectors.

Should questions arise regarding detector placement, observe NFPA 72 guidelines. Good fire-protection system engineering and common sense dictate how and when fire detectors are installed and used. Contact your local Siemens – Fire Safety distributor or sales office whenever you need assistance applying Model HI921 in unusual applications.

Be sure to follow NFPA guidelines and UL Listed / ULC Listed installation instructions – included with every Siemens – Fire Safety detector – and local codes for all fire-protection equipment.

Specifications

Model HI921 is a plug-in, (2) two-wire thermal (heat) detector, compatible with Cerberus PRO Modular | FireFinder XLS/V and Model FC9-series FACP's. Each Model HI921 detector has microcomputer-chip technology and highly stable, solid-state electronic circuitry. Model HI921 detectors utilize a modern, accurate and shock-resistant thermistor to sense temperature changes. This electronic-sensing method virtually eliminates thermal lag associated with mechanical temperature-sensing devices, and provides almost instantaneous temperature status to the FACP.

Model HI921 provides seven (7) field-selectable, pre-programmed temperature settings:

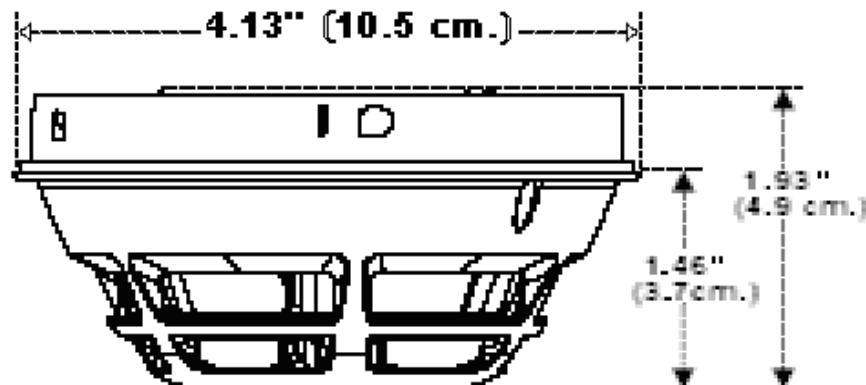
- Fixed 135°F (57°C)
- Fixed 145°F (63°C)
- Fixed 155°F (68°C)
- Fixed 165°F (74°C)
- Fixed 174°F (79°C)
- Rate-of-Rise: 15°F / min. (8.3°C) at fixed 135°F (57°C)
- Rate-of-Rise: 15°F / min. (8.3°C) at fixed 174°F (79°C)

Additionally, the Model HI921 detector has the following optional feature:

- Model HI921 provides indication of potential water freezing for sprinkler systems, via configuration for reporting a low-temperature warning of 40°F (4.4°C).

This feature is compatible with Cerberus PRO Modular systems, as well as with FireFinder XLS/V and Cerberus PRO FC/FV922 or FC/FV924 FACP's.

Dimensional Data



Field-Device Programmer / Test Unit

Model HI921 is compatible with the Siemens field-device programmer / test unit (Model 8720 | DPU), which is a compact, portable and menu-driven accessory for electronically programming and testing these addressable detectors promptly and reliably. For instance, the field technician selects the accessory's program mode, and enters the desired address.

Model DPU eliminates the need for cumbersome, unreliable mechanical programming methods (e.g. – dials and rotary switches), and reduces installation and service costs by electronically programming and testing the detector prior to installation. When set in 'test' mode, Model DPU will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the detector is operating properly.

Each field-device programmer / test unit operates on AC power or rechargeable batteries, providing flexibility and convenience in the programming / testing of fire-safety equipment from practically any location. Additionally, with the use of a Model DPU unit, there is no longer a cause for concern with any vibration, corrosion and other deteriorating conditions that can accompany the vitality of a mechanical-addressing mechanism.

The encompassing result is an intelligent detector that provides enhanced detection capability to a wide range of products of combustion – while offering unsurpassed rejection to nuisance-alarm sources, including: dust | steam | aerosols and other deceptive phenomena that could cause false alarms.

Technical Data			Panel Compatibilities			Details for Ordering		
OPERATING TEMPERATURE:	•32° – +120°F (0° – +49°C) [with 145°F (63°C) 155°F (68°C) 165°F (74°C) and 174°F (79°C) alarm-threshold settings] •32° – +100°F, (0° – +38°C) With 135°F (0° – +438°C) alarm threshold setting		MODEL OR TYPE	DATA SHEET	PANEL	MODEL OR TYPE	PART NUMBER	PRODUCT
THERMAL RATING:	Model HI921 provides seven (7) field-selectable, pre-programmed temperature settings: <ul style="list-style-type: none">• Fixed 135°F (57°C)• Fixed 145°F (63°C)• Fixed 155°F (68°C)• Fixed 165°F (74°C)• Fixed 174°F (79°C)• Rate-of-Rise: 15°F / min. (8.3°C) at fixed 135°F (57°C)• Rate-of-Rise: 15°F / min. (8.3°C) at fixed 174°F (79°C)	XLS	6300	FireFinder® (fire)		HI921	S54320-F5-A2	Thermal (Heat) Detector
RELATIVE HUMIDITY:	0 – 95% (non-condensing)	XLSV	6340	FireFinder (fire w/ voice)		Compatible Devices:		
AIR PRESSURE:	No effect	CERBERUS PRO MODULAR	8300	Cerberus PRO Modular (overview)		MODEL OR TYPE	PART NUMBER	PRODUCT
INPUT VOLTAGE RANGE:	16VDC – 30VDC	FC901	9813	Cerberus PRO 50-point addressable		ABHW-4B	S54320-F13-A1	Sounder base with Loop-Power Option
'ALARM' CURRENT, MAX.:	410µA	FC922	9815	Cerberus PRO 252-pt. addressable (fire)		ABHW-4S	S54320-F14-A1	Sounder base for Sleeping Areas
'STANDBY' CURRENT, MAX.:	250µA	FC924		Cerberus PRO 504-pt. addressable (fire)		ADB-BOX	500-698360	Surface Mount Adapter Box for Audible Base
MAXIMUM SPACING:	50-ft. (15.24 m.) centers (2500 sq. ft. 232.3 sq. m.), per NFPA 72 and ULC-S524	FV922	9821	Cerberus PRO 252-point addressable (fire w/ Intelligent Voice Communication [IVC])		DB2-HR	S54370-F12-A1	Relay base compatible with Siemens standard and advanced detectors
DETECTOR WEIGHT:	0.317 Lbs. (0.144 kg.)	FV924		504-pt. addressable (fire w/ Intelligent Voice Communication [IVC])		DB-11	500-094151	Detector Mounting Base

See: www.STI-USA.com for further details on ordering Model STI-9604

In Canada order:

MODEL OR TYPE	PART NUMBER	PRODUCT
DB-11C	500-095687	Detector Mounting Base, ULC Listed

Peripheral and Detection Devices Initiating Devices

Intelligent Device Interface Modules Model XTRI-D | XTRI-R | XTRI-S

SIEMENS
Ingenuity for life

Architect & Engineer Specifications

- Siemens ISOtechnology™
 - Provides "True Class - X" operation to NFPA 72 SLC field wiring requirements
 - Supports 252 ISOtechnology ready devices per loop, and in mixed mode up to 30 devices between isolated devices
- Dual input on Model XTRI-D, via a single address
- Integral single-pole, double-throw (SPDT) relay on Model XTRI-R:
 - Up to 4 Amps.
- Low current draw
- Polarity insensitive (in non-isolation mode) via SureWire™ technology:
 - Modern technology supports comprehensive system and interface communication
- Multi-color light-emitting diode (LED) indicates system status:
 - **GREEN** | **AMBER** | **RED**
- Mounts in a 4-inch (10.2 cm.) square, 2-1/4" (5.7 cm.) deep single-gang or double-gang back box
- Non-obstructive front-end access to programming port and wiring terminals
- Device Programmer | Test Unit programs and verifies address, as well as tests device functionality
- Restriction of Hazardous Substances (RoHS) compliant
- UL864 | UL2572 | UL2017 Listed; CAN/ULC-S527 & CAN/ULC-S576 Listed
 - File S24304, Vol. 3

Product Overview

The Siemens – Fire Safety XTRI-series Intelligent Interface Modules are designed to provide the means of interfacing direct shorting devices to the fire-alarm control panel (FACP) SLC. All modules take up one (1) address on the loop.

Each XTRI-series interface module provides the "built-in" ISOtechnology feature - intelligent dual isolation meeting NFPA 72 Class X (Style 7) wiring requirements. Up to 252 isolators per loop and up to 30 devices between isolators (wired in polarity-insensitive mode). Additionally, the devices between isolators can either be 'H'-series or the more contemporary 'X'-series detection devices.

Specifications

The Siemens – Fire Safety XTRI-series Intelligent Interface Modules are available in three (3) individual types:

- One (1) Dual-Input: XTRI-D
- Two (2) Single-Inputs: XTRI-R (with relay) | XTRI-S
 - The single-input versions are each designed to monitor a normally open (N.O) or (N.C) normally closed dry contact

XTRI-D | XTRI-R | XTRI-S incorporates ISOtechnology – the configurable, built-in dual isolator function. Additionally, an XTRI-series interface module supports NFPA 72 Class X (Style 7) survivability requirements for shorts while providing reliable alarm communication to the Siemens FACP. The isolation feature found on the XTRI-series Intelligent Interface Modules gives information as to the location of the fault. When a short occurs, the panel can identify the fault automatically, and the module recognizes the short location (in front of the device or behind the device).

Overall, the built-in isolators improve the diagnostics and location of the problem, including a short.

The modules are configurable by a Siemens compatible FACP (or panels) in an isolator (polarity sensitive) or non-isolator (polarity insensitive) mode. When a XTRI-series interface module is configured as an isolator, that module has the capacity of functioning as both an in/out device, as well as an isolator.

Advanced troubleshooting is provided by compatible panels by identifying when a XTRI-series interface module is configured as an isolator, but is wired incorrectly in a polarity-insensitive mode.

Each Model XTRI-series device has a multi-color LED that flashes when **GREEN** operating in Normal mode; **AMBER** if the unit is in a 'Trouble' condition, and **RED** to indicate a change of status.

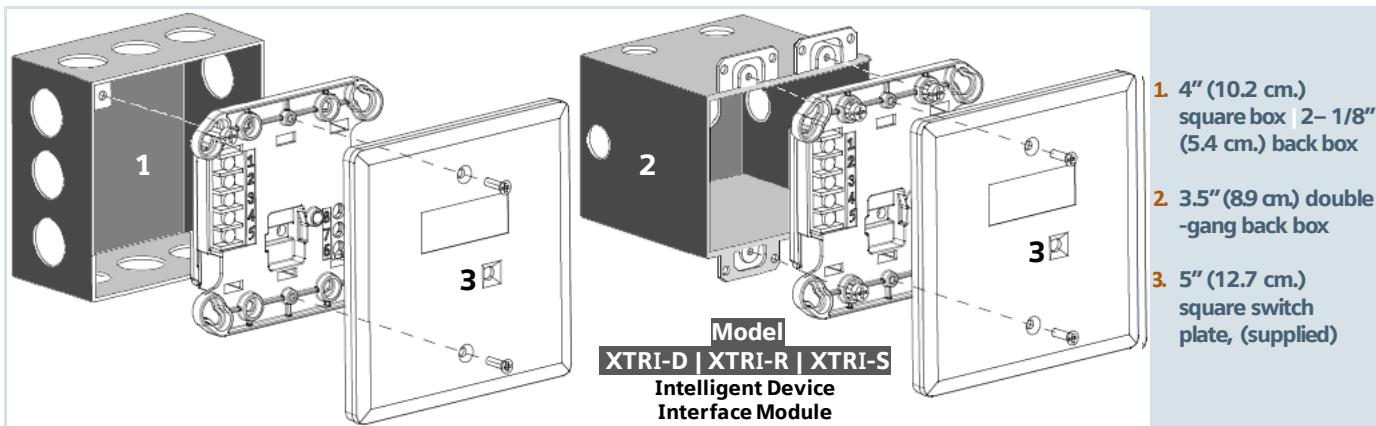
Model XTRI-S

This single-input interface module can only monitor and report the status of a N.O. or N.C. contact.



Model
XTRI-D | XTRI-R | XTRI-S
Intelligent Device
Interface Module





Specifications – (continued)

Model XTRI-R

Through the use of an addressable 'Form C' relay, the Model XTRI-R relay and contact device input are controlled at the same address. The relay and input contact can be controlled as a separate function from a Siemens compatible FACP. The relay is typically used where control or shunting of external equipment is required.

Model XTRI-D

Model XTRI-D is a dual-input module that is designed to supervise and monitor two (2) sets of dry contacts. Model XTRI-D only requires one (1) address, but responds independently to each input. Model XTRI-D is ideal for monitoring a water-flow switch and its respective valve tamper switch.

Operation

Field-Device Programmer / Test Unit

Siemens – Fire Safety innovative technology allows Model XTRI-series intelligent interface modules to be programmed via the Siemens field-device programmer / test unit (Model DPU), which is a compact, portable and menu-driven accessory for electronically programming and testing Siemens peripheral modules and devices promptly and reliably. For instance, the field technician selects the accessory's program mode, and enters the desired address.

Model XTRI-series interface module is connected to Model DPU with the programming cable provided with the tester.

NOTE: Since the XTRI-series of interface modules are advanced initiating devices, the latest Model DPU firmware update is required.

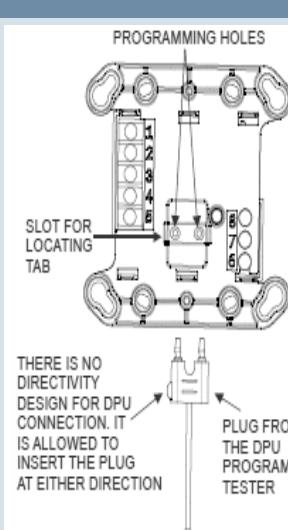
Model DPU eliminates the need for cumbersome, unreliable mechanical programming methods (e.g. – dials and rotary switches), and reduces installation and service costs by electronically programming and testing the module prior to installation. When set in 'test' mode, Model DPU will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the module is operating properly.

Each field-device programmer / test unit operates on AC power or rechargeable batteries, providing flexibility and convenience in the programming / testing of fire-safety equipment from practically any location. Additionally, with the use of a Model DPU unit, there is no longer a cause for concern with any vibration, corrosion and other deteriorating conditions that could negatively affect any electro-mechanical-addressing mechanism.

Compatibilities

Siemens 'X' modules may be used along with Model 'H'-series intelligent detectors; Model 'HMS'-series addressable manual stations, or any other 'H'-series addressable intelligent module (e.g. Model HZM or Model HCP). Additionally the X-series modules are compatible with all Desigo and Cerberus Pro detectors and peripherals of the same circuit.

Interspersing 'X' & 'H'-series devices on the same loop is mostly permitted, but there are exceptions: Models HLIM (isolation module) and SBGA-34 (audible base) cannot be used with 'X' devices on the same loop.



Mounting Data

NOTES: Each interface module mounts directly to a user-supplied switchbox. The electrical boxes, seen above, are supplied-by-others (BO).

Models XTRI-D, XTRI-R and XTRI-S mount directly onto a 4-inch (10.2 cm.) square, 2 1/4" (5.7 cm.)-deep box back box, or to a user-supplied double-gang 3 1/2" deep back box.

A 5" (12.7 cm.) square, off-white faceplate is included in each shipment of a Siemens Model XTRI-series module.

Temperature and Humidity Range

Models XTRI-D | XTRI-R | XTRI-S intelligent interface modules are UL Listed | ULC Listed. Environmental operating conditions for each interface module is 32°F (0°C) to 120°F (49°C) with a relative humidity of no greater than 95%, non-condensing.

LED Indicators

FLASH COLOR	CONDITION	FLASH INTERVALS [in seconds]
GREEN*:	Normal supervisory operation	10
YELLOW:	Device is in trouble and needs to be replaced	4
RED:	Locate `Alarm'	1
	Output Device (XTRI-R only)	10
NO FLASH:	Power is not being received / Replacement is needed	—

Electrical Ratings

OPERATING VOLTAGE RANGE:	13VDC – 32VDC	
RELATIVE HUMIDITY:	0 – 95% (non-condensing)	
‘ACTIVE’ OR ‘STANDBY’ CURRENT, MAX.:	500µA	
LINE SIZES AMERICAN WIRE GAUGE (AWG)	14 AWG, max. 18 AWG, min.	
CURRENT DRAW, MAX AVG.	XTRI-S	650µA
	XTRI-R	750µA
	XTRI-D	950µA
RELAY RATINGS: (for Model XTRI-R)		
RESISTIVE:	4 Amps 125 VAC	
	4 Amps 30 VDC	
INDUCTIVE:	3.5A, 120 VAC (0.6 pF)	
	3.0A, 30 VDC (0.6 pF)	
	2.0A, 120 VAC (0.4 pF)	
	2.0A, 120 VAC (0.35 pF)	
	2.0A, 30 VDC (0.35 pF)	

Details for Ordering

MODEL OR TYPE	PART NUMBER	PRODUCT
XTRI-S	S54370-B3-A1	Single Input Module
XTRI-R	S54370-B1-A1	Single Input Module (with relay)
XTRI-D	S54370-B2-A1	Dual Input Module
DPU	500-033260	Device Programmer / Test Unit

NOTE: Refer to installation manual: P/N – A6V101055479 to ensure Model XTRI-D | XTRI-R | XTRI-S compatibility with the Siemens FACP's intended for use in the given application.

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice.

The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

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Smart Infrastructure - Building Products
8 Fernwood Road • Florham Park, NJ 07932
Tel: (973) 593-2600

October - 2020
(Rev. 3)

Notification Appliances

'ACEND' Series – Horns | Strobes | Horn-Strobes

Applications: Indoor, **Wall-Only**

Architect & Engineer Specifications	Product Overview
<ul style="list-style-type: none"> □ Sophisticated series of notification appliances that meets fire-industry codes and regulations for commercial-building applications □ Compatible with the Siemens Cerberus PRO and Desigo Fire Alarm Control Panels (FACPs); Siemens current Power Supply □ Energy Efficient and Sustainable □ Siemens EcoTech Certification □ Cutting-edge LED technology <ul style="list-style-type: none"> ▪ Capability to have existing Xenon and LED strobes in the same field-of-view ▪ Fewer power supplies required, smaller wire gauge, reduced wire runs □ Straightforward installation coupled with compact, modern design <ul style="list-style-type: none"> - No visible mounting screws - Manual (index finger) slide-setting adjustor □ Six (6) field-selectable Candela settings: 15cd 30cd 75cd 110cd 135cd 185cd □ Faceplates ship in distinctive types: <ul style="list-style-type: none"> - 'FIRE' 'ALERT' 'AGENT' 'EMERGENCY' 'HOUSE ON FIRE' Icon □ High / Low Horn Sound Output □ 10 Horn Patterns (Field Selectable) □ UL1638 UL1971 UL464 Listed □ ULC-S525-16 ULC- S526-16 Listed 	<p>The 'ACEND'-series is Siemens new offering of horns, strobes, and horn-strobes with LED based strobes to its notification-appliances portfolio. With the 'ACEND'-series, Siemens offers a full of range of products with low and high candela settings that makes these sophisticated notification appliances ideal for new installs and retrofit applications. These appliances are compatible with Siemens Cerberus PRO and Desigo fire alarm control panels and with Siemens current power supply.</p> <p>The 'ACEND' Series notification appliances hold Siemens EcoTech Certification, an environmental self-declaration, based on sustainability evaluations.</p> <p>These notification appliances use recycled materials and sustainable packaging, minimizing waste throughout their lifecycle and reducing environmental impact.</p> <p>These notification appliances are designed for low power consumption and work at a range of 16 - 33VDC with significantly reduced current draw.</p> <p>The strobe portion of these appliances meets the 20-millisecond light-pulse-duration requirements of the 2022 edition of NFPA 72. This feature allows existing Xenon and the new LED devices to be used in the same field-of-view.</p> <p>In a single device, the 'ACEND'-series appliances can provide alarm-signaling tones for dual applications. All strobe models in the series feature multi-Candela settings (15cd 30cd 75cd 110cd 135cd 185cd) on a single appliance.</p> <p>Additionally, there are ten (10) modes of operation for the audible portion of these notification appliances:</p> <ul style="list-style-type: none"> • Continuous • Bell • March Time Horn • Code 3 Horn • Code 3 Tone • Code 4 Tone • Slow Whoop • Siren • HI/LO • Canadian March Time 30 <p>These high-quality energy-efficient devices have a sleek modern design and are consistent to the look of the interior composition of the building application.</p> <p>The 'ACEND'-series audible and/or visual notification appliances are apt for indoor, wall-mount applications.</p>



Model SC-HN-WR-N
Horn

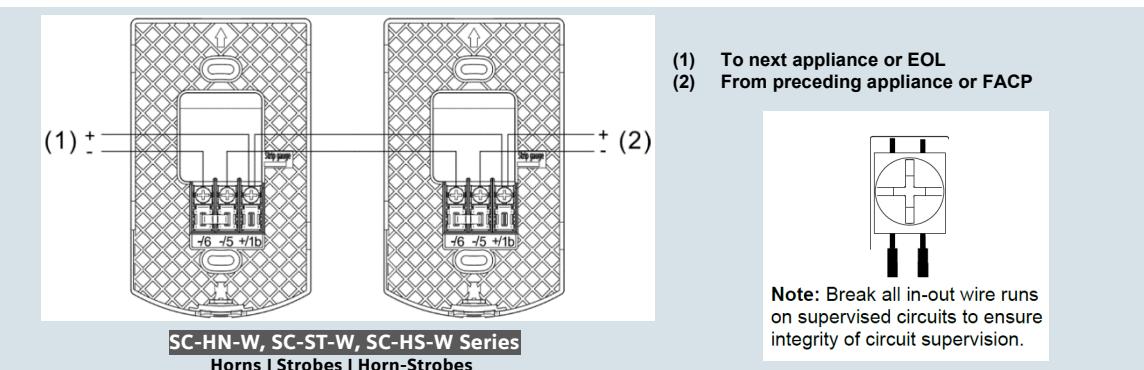


Model SC-ST-WW-F
Strobe



Model SC-HS-WR-F
Horn-Strobe

Wiring Diagrams



Specifications

In terms of composition and functionality, the ACEND series horns, strobes and horn-strobe appliances provide added value to the installer for these types of applications for operation:

- Compact | sleek | low-profile design
- Sustainable and Energy efficient
- Reduced power consumption
- Comprehensive feature list
- Convenient mounting options
- Easy-to-adjust selection-slider switch for Candela settings
 - No tools required for setting changes
 - Multi-level settings: 15cd | 30cd | 75cd | 110cd | 135cd | 185cd
- High and Low audible outputs
- Cutting-edge LED technology

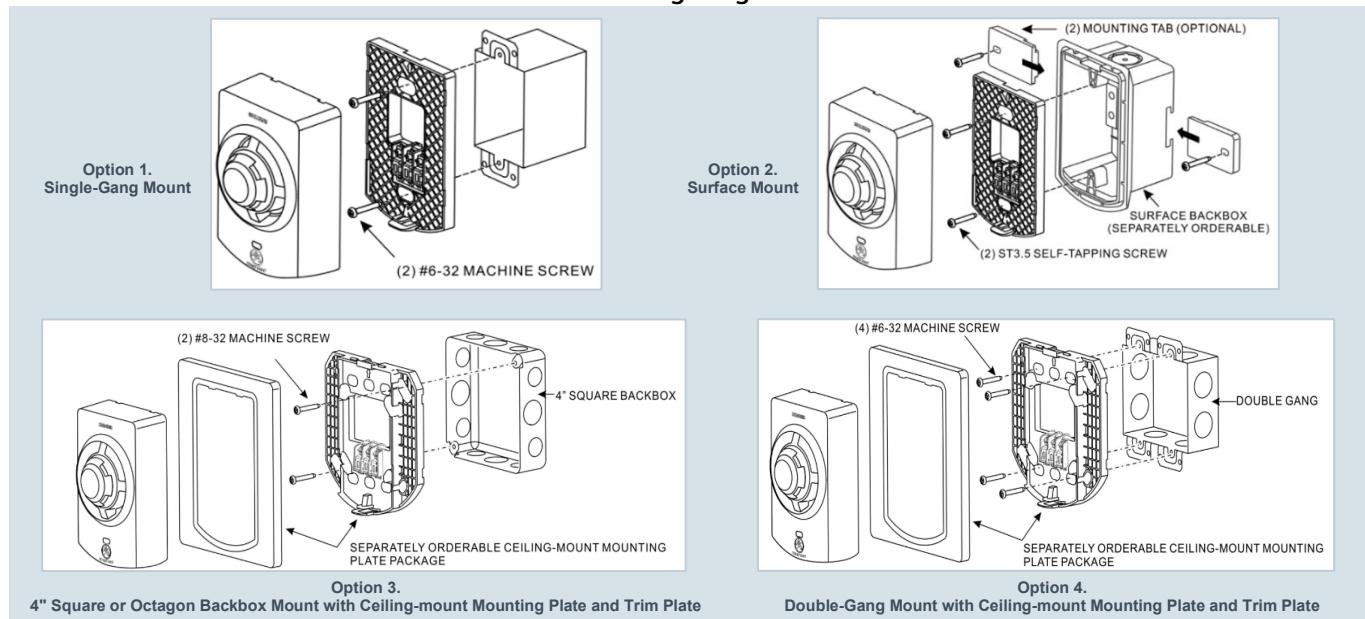
The LED portions of the SC-ST Strobes and SC-HS Horn-Strobes meet the 20 millisecond light-pulse-duration requirements of the 2022 edition of NFPA 72. By meeting this latest requirement, existing Xenon as well as the new LED-technology devices can now be in the same field-of-view.

The 'ACEND'-series notification appliances have received UL / ULC Listed status by attaining compatible testing standards with PAD-4 series of NAC extenders that have been determined to be aligned with existing Siemens strobe-based appliances.

All types of the ACEND Series horns, strobes and horn-strobe appliances are UL / ULC Listed for indoor use.

Horn: UL464, ULC-S525-16 | Strobe: UL1638, UL1971, CAN/ULC-S526-16

Mounting Diagrams



Technical Data

Horn-Strobes | Output Current Draw

Current Draw (mA) @ 16 - 33VDC								
Setting	Volume	15cd	30cd	75cd	110cd	135cd	185cd	
Continuous	High	36	38	50	77	112	188	
	Low	27	29	41	69	103	179	
Bell	High	34	36	48	75	110	183	
	Low	31	33	45	72	107	180	
March Time Horn	High	45	47	59	86	121	170	
	Low	43	45	57	84	119	168	
Code 3 Horn	High	37	39	51	78	113	172	
	Low	33	35	47	74	109	168	
Code 3 Tone	High	39	41	53	80	115	167	
	Low	38	40	52	79	114	166	
Code 4 Tone	High	42	44	56	83	118	157	
	Low	35	37	49	76	111	150	
Slow Whoop	High	28	30	42	70	104	146	
	Low	27	29	41	69	103	145	
Siren	High	35	37	49	76	111	163	
	Low	34	36	48	75	110	162	
HI/LO	High	35	37	49	76	111	150	
	Low	34	36	48	75	110	149	
Canadian March Time 30	High	44	46	58	85	120	155	
	Low	33	35	47	74	109	144	

Horn-Only | Output Current Draw

Current Draw (mA) @ 16 - 33VDC		
Setting	Volume	Current Draw (mA)
Continuous	High	29
	Low	20
Bell	High	27
	Low	24
March Time Horn	High	38
	Low	36
Code 3 Horn	High	30
	Low	26
Code 3 Tone	High	32
	Low	31
Code 4 Tone	High	35
	Low	28
Slow Whoop	High	21
	Low	20
Siren	High	28
	Low	27
HI/LO	High	28
	Low	27
Canadian March Time 30	High	37
	Low	26

Horn | Output Ratings (UL)

Models: SC-HN-WR-N SC-HN-WW-N	UL Sound Output Ratings (dBA) Reverberant per UL464 @ 16 to 33VDC		
	Horn Pattern	16V	24V
Continuous I Code 3 Horn I Code 4 Tone	High dBA	High dBA	High dBA
	82	87	89
	Low dBA	Low dBA	Low dBA
	79	83	86

Horn | Output Ratings (ULC)

Models: SC-HN-WR-N SC-HN-WW-N	ULC Sound Output Ratings (dBA) Anechoic per ULCS525-16 @ 16 to 33VDC		
	Horn Pattern	16V	24V
Continuous I Code 3 Horn I Code 4 Tone	High dBA	High dBA	High dBA
	92	96	96
	Low dBA	Low dBA	Low dBA
	88	92	95

Strobe | Output Current Draw

Models: SC-ST-WR-F SC-ST-WW-F	Current Draw (mA) @ 16 - 33VDC					
	Candela Settings					
15cd	30cd	75cd	110cd	135cd	185cd	
24	27	39	68	93	143	

GENERAL NOTES:

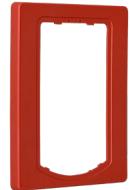
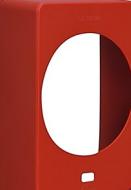
1. Strobes are designed to flash at 1-flash-per-second minimum over their "Regulated Voltage Range."
2. NFPA-72 specifies a flash rate of 1-to-2 flashes-per-second.
3. All Candela ratings represent minimum effective Strobe intensity based on UL 1971.

Technical Data

General Properties		Physical Properties	
'ACEND' Series Horns / Horn-Strobes		'ACEND' Series Horns / Horn-Strobes	
OPERATING TEMPERATURE:	<ul style="list-style-type: none"> - 32°F (0°C) to 120°F (49°C) - for indoor use only 	MATERIAL:	All appliances are made from environmentally friendly recyclable plastics.
RELATIVE HUMIDITY:	93% ($\pm 2\%$)	WEIGHT:	<ul style="list-style-type: none"> Horns: 204 gm (0.44lb) Strobes: 225 gm (0.49lb) Horn-Strobes: 250 gm (0.55lb)
OPERATING VOLTAGE RANGES:	16 to 33VDC	LENS TYPE:	LED strobe situated in a rugged Lexan lens
STROBE OUTPUT RATING:	<ul style="list-style-type: none"> - UL 1638, 1971 ULC-S526-16 - Field-selectable 15cd 30cd 75cd 110cd 135cd 185cd Candela outputs 	DIMENSIONS:	<ul style="list-style-type: none"> Horns: 5.31" (13.5 cm.) x 3.28" (8.3 cm.) x 1.85" (4.7cm.) Horn-Strobes: 5.31" (13.5 cm.) x 3.28" (8.3 cm.) x 2.42" (6.1cm.)
STROBE FLASH RATE:	Strobes are designed with a flash rate of 1-to-2 flashes-per-second	Mounting and Wiring Properties	
STROBE SYNCHRONIZATION:	<ul style="list-style-type: none"> - Siemens Cerberus PRO and Designo FACP's (following Siemens Sync Protocol) - Siemens Power Supply 	'ACEND' Series Horns / Horn-Strobes	
TEMPORAL SETTING:	<ul style="list-style-type: none"> - Ten (10) field-selectable Horn Patterns (See List of Horn Settings in Horn/Strobe Output Current Draw Tables on Page 3) 	INDOOR MOUNTING:	<ul style="list-style-type: none"> - Wall-mount applications - Single-Gang, Double-Gang, Octagon backboxes or 4" (10.2 cm.) Square Box
		WIRING TYPE:	#12 – #18, American Wire Gauge (AWG)

Details for Ordering						
MODEL	PART NUMBER	APPLIANCE TYPE	MOUNTING TYPE	STROBE TYPE	FACEPLATE COLOR	FACEPLATE LETTERING
SC-HN-WR-N	S54361-F14-A1	Horn	WALL	– None –	RED	– No Lettering –
SC-HN-WW-N	S54361-F14-A2	Horn	WALL	– None –	WHITE	– No Lettering –
SC-HS-WR-F	S54361-F9-A1	Horn-Strobe	WALL	Clear	RED	FIRE
SC-HS-WW-F	S54361-F9-A2	Horn-Strobe	WALL	Clear	WHITE	FIRE
SC-ST-WR-F	S54361-F6-A1	Strobe	WALL	Clear	RED	FIRE
SC-ST-WW-F	S54361-F6-A2	Strobe	WALL	Clear	WHITE	FIRE
SMB-HS-WR	S54370-F15-A1	Surface Mount Backbox	WALL	– None –	RED	– No Lettering –
SMB-HS-WW	S54370-F15-A2	Surface Mount Backbox	WALL	– None –	WHITE	– No Lettering –

Related Hardware

Model	Part Number	Description	Image
STP-HS-WR	S54370-F38-A1	Red plastic trim plate for wall mounted horns and horn/strobes	 
STP-HS-WW	S54370-F1-A2	White plastic trim plate for wall mounted horns and horn/strobes	 
SCVR-HS-WR-EMG	S54370-F30-A1	Red plastic cover for wall mounted horns and horn/strobes with alternate white "EMERGENCY" text	 
SCVR-HS-WW-EMG	S54370-F30-A2	White plastic cover for wall mounted horns and horn/strobes with alternate red "EMERGENCY" text	 
SCVR-HS-WR-ALR	S54370-F32-A1	Red plastic cover for wall mounted horns and horn/strobes with alternate white "ALERT" text	 
SCVR-HS-WW-ALR	S54370-F32-A2	White plastic cover for wall mounted horns and horn/strobes with alternate red "ALERT" text	 
SCVR-HS-WR-AGT	S54370-F34-A1	Red plastic cover for wall mounted horns and horn/strobes with alternate white "AGENT" text	 
SCVR-HS-WW-AGT	S54370-F34-A2	White plastic cover for wall mounted horns and horn/strobes with alternate red "AGENT" text	 
SCVR-HS-WR-HOF	S54370-F36-A1	Red plastic cover for wall mounted horns and horn/strobes with alternate white "HOUSE ON FIRE" logo	 
SCVR-HS-WW-HOF	S54370-F36-A2	White plastic cover for wall mounted horns and horn/strobes with alternate red "HOUSE ON FIRE" logo	 
SCVR-HS-WR-BNK	S54370-F19-A1	Red plastic cover for wall mounted horns and horn/strobes with no text	 
SCVR-HS-WW-BNK	S54370-F19-A2	White plastic cover for wall mounted horns and horn/strobes with no text	 

Related Hardware (Continued)

Model	Part Number	Description	Image
STLENS-R	S54370-F17-A1	Red plastic translucent lens for fire alarm strobes	
STLENS-A	S54370-F17-A2	Amber plastic translucent lens for fire alarm strobes	
STLENS-B	S54370-F18-A1	Blue plastic translucent lens for fire alarm strobes	
STLENS-G	S54370-F18-A2	Green plastic translucent lens for fire alarm strobes	

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Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product. All are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

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October - 2024
(NEW)

Notification Appliances

'ACEND' Series – Horns | Strobes | Horn-Strobes

Applications: Indoor | Ceiling-Only

Architect & Engineer Specifications

- Sophisticated series of notification appliances that meets fire-industry codes and regulations for commercial-building applications
- Compatible with the Siemens Cerberus PRO and Desigo Fire Alarm Control Panels (FACPs); Siemens current Power Supply
- Energy Efficient and Sustainable
- Siemens EcoTech Certification
- Cutting-edge LED technology
 - Capability to have existing Xenon and LED strobes in the same field-of-view
 - Fewer power supplies required, smaller wire gauge, reduced wire runs
- Straightforward installation coupled with compact, modern design
 - No visible mounting screws
 - Manual (index finger) slide-setting adjustor
- Six (6) field-selectable Candela settings: 15cd | 30cd | 75cd | 110cd | 135cd | 185cd
- Faceplates ship in distinctive types:
 - 'FIRE' | 'ALERT' | 'AGENT' | 'EMERGENCY' | 'HOUSE ON FIRE' Icon 
- High / Low Horn Sound Output
- 10 Horn Patterns (Field Selectable)
- UL1638 | UL1971 | UL464 Listed
- ULC-S525-16 | ULC- S526-16 Listed

Product Overview

The 'ACEND'-series is Siemens new offering of horns, strobes, and horn-strobes with LED based strobes to its notification-appliances portfolio. With the 'ACEND'-series, Siemens offers a full range of products with low and high candela settings that makes these sophisticated notification appliances ideal for new installs and retrofit applications. These appliances are compatible with Siemens Cerberus PRO and Desigo fire alarm control panels and with Siemens current power supply.

The 'ACEND' Series notification appliances hold Siemens **EcoTech** Certification, an environmental self-declaration, based on sustainability evaluations.

The notification appliances use recycled materials and sustainable packaging, minimizing waste throughout their lifecycle and reducing environmental impact.

The 'ACEND'-series notification appliances are designed for low power consumption and work at a range of 16 - 33VDC with significantly reduced current draw.

The strobe portion of these appliances meets the 20-millisecond light-pulse-duration requirements of the 2022 edition of NFPA 72. This feature allows existing Xenon and the new LED devices to be used in the same field-of-view.

In a single device, the 'ACEND'-series appliances can provide alarm-signaling tones for dual applications. All strobe models in the series feature multi-Candela settings (15cd | 30cd | 75cd | 110cd | 135cd | 185cd) on a single appliance.

Additionally, there are ten (10) modes of operation for the audible portion of these notification appliances:

- Continuous
- Bell
- March Time Horn
- Code 3 Horn
- Code 3 Tone
- Code 4 Tone
- Slow Whoop
- Siren
- HI/LO
- Canadian March Time 30

These high-quality energy-efficient devices have a sleek modern design and are consistent to the look of the interior composition of the building application.

The 'ACEND'-series audible and/or visual notification appliances are apt for indoor, ceiling-mount applications.



Model SC-HN-CW-N
Horn

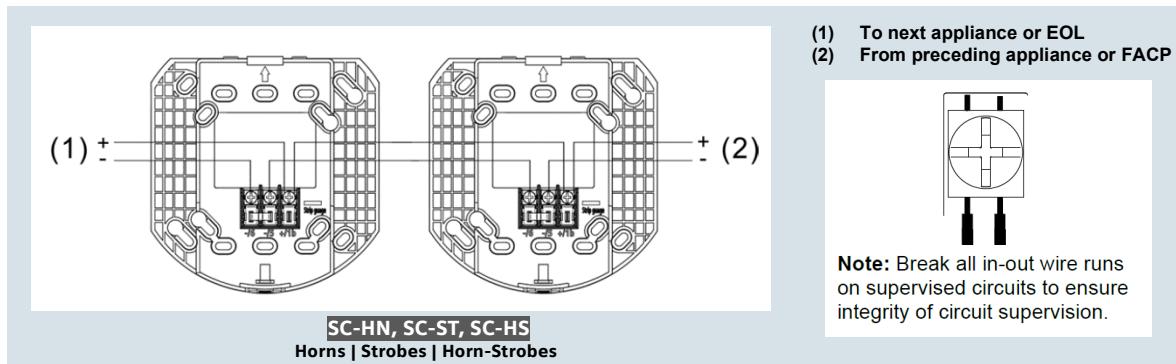


Model SC-ST-CW-F
Strobe



Model SC-HS-CW-F
Horn-Strobe

Wiring Diagrams



Specifications

In terms of composition and functionality, the 'ACEND' -series horns, strobes and horn-strobe appliances provide added value to the installer for these types of applications for operation:

- Compact | sleek | low-profile design
- Sustainable and Energy efficient
- Reduced power consumption
- Comprehensive feature list
- Convenient mounting options
- Easy-to-adjust selection-slider switch for Candela settings
 - No tools required for setting changes
 - Multi-level settings: 15cd | 30cd | 75cd | 110cd | 135cd | 185cd
- High and Low audible outputs
- Cutting-edge LED technology

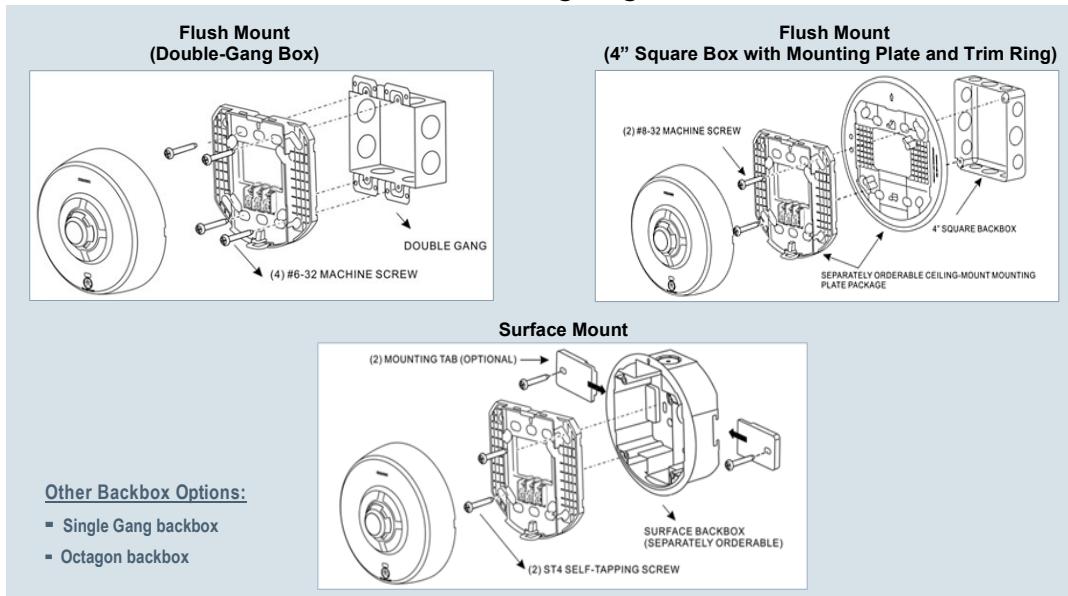
The LED portions of the SC-ST Strobes and SC-HS Horn-Strobes meet the 20 millisecond light-pulse-duration requirements of the 2022 edition of NFPA 72. By meeting this latest requirement, existing Xenon as well as the new LED-technology devices can now be in the same field-of-view.

The 'ACEND'-series notification appliances have received UL / ULC Listed status by attaining compatible testing standards with PAD-4 series of NAC extenders that have been determined to be aligned with existing Siemens strobe-based appliances.

All types of the 'ACEND'-series horns, strobes and horn-strobe appliances are UL / ULC Listed for indoor use.

Horn: UL464, ULC-S525-16 | Strobe: UL1638, UL1971, CAN/ULC-S526-16

Mounting Diagrams



Technical Data

Horn-Strobes | Output Current Draw

Current Draw (mA) @ 16 - 33VDC							
Setting	Volume	15cd	30cd	75cd	110cd	135cd	185cd
Continuous	High	36	38	50	77	112	188
	Low	27	29	41	69	103	179
Bell	High	34	36	48	75	110	183
	Low	31	33	45	72	107	180
March Time Horn	High	45	47	59	86	121	170
	Low	43	45	57	84	119	168
Code 3 Horn	High	37	39	51	78	113	172
	Low	33	35	47	74	109	168
Code 3 Tone	High	39	41	53	80	115	167
	Low	38	40	52	79	114	166
Code 4 Tone	High	42	44	56	83	118	157
	Low	35	37	49	76	111	150
Slow Whoop	High	28	30	42	70	104	146
	Low	27	29	41	69	103	145
Siren	High	35	37	49	76	111	163
	Low	34	36	48	75	110	162
HI/LO	High	35	37	49	76	111	150
	Low	34	36	48	75	110	149
Canadian March Time 30	High	44	46	58	85	120	155
	Low	33	35	47	74	109	144

Horn-Only | Output Current Draw

Current Draw (mA) @ 16 - 33VDC		
Setting	Volume	Current Draw (mA)
Continuous	High	29
	Low	20
Bell	High	27
	Low	24
March Time Horn	High	38
	Low	36
Code 3 Horn	High	30
	Low	26
Code 3 Tone	High	32
	Low	31
Code 4 Tone	High	35
	Low	28
Slow Whoop	High	21
	Low	20
Siren	High	28
	Low	27
HI/LO	High	28
	Low	27
Canadian March Time 30	High	37
	Low	26

Horn | Output Ratings (UL)

Models: SC-HN-CR-N SC-HN-CW-N	UL Sound Output Ratings (dBA) Reverberant per UL464 @ 16 to 33VDC			
	Horn Pattern	16V	24V	33V
	Continuous I Code 3 Horn I Code 4 Tone	High dBA 83 Low dBA 80	High dBA 86 Low dBA 84	High dBA 89 Low dBA 86

Horn | Output Ratings (ULC)

Models: SC-HN-CR-N SC-HN-CW-N	ULC Sound Output Ratings (dBA) Anechoic per ULCS525-16 @ 16 to 33VDC			
	Horn Pattern	16V	24V	33V
	Continuous I Code 3 Horn I Code 4 Tone	High dBA 90 Low dBA 86	High dBA 94 Low dBA 90	High dBA 96 Low dBA 93

Strobe | Output Current Draw

Models: SC-ST-CR-F SC-ST-CW-F	Current Draw (mA) @ 16 - 33VDC					
	Candela Settings					
	15cd	30cd	75cd	110cd	135cd	185cd
	24	27	39	68	93	143

GENERAL NOTES:

1. Strobes are designed to flash at 1-flash-per-second minimum over their "Regulated Voltage Range."
2. NFPA-72 specifies a flash rate of 1-to-2 flashes-per-second.
3. All Candela ratings represent minimum effective Strobe intensity based on UL 1971.

Technical Data

General Properties		Physical Properties	
'ACEND' Series Horns / Horn-Strobes		'ACEND' Series Horns / Horn-Strobes	
OPERATING TEMPERATURE:	-32°F (0°C) to 120°F (49°C) - for indoor use only	MATERIAL:	All appliances are made from environmentally friendly recyclable plastics.
RELATIVE HUMIDITY:	93% (±2%)	WEIGHT:	Horns: 295 gm (0.65lb) Strobes: 319 gm (0.7lb) Horn-Strobes: 342 gm (0.75lb)
OPERATING VOLTAGE RANGES:	16 to 33VDC	LENS TYPE:	LED strobe situated in a rugged Lexan lens
STROBE OUTPUT RATING:	- UL 1638, 1971 ULC-S526-16 - Field-selectable 15cd 30cd 75cd 110cd 135cd 185cd Candela outputs	DIMENSIONS:	Horns: 6.1" (15.4 cm.) x 1.87" (4.75 cm.) Horn-Strobes: 6.1" (15.4 cm.) x 2.44" (6.2 cm.)
STROBE FLASH RATE:	Strobes are designed to flash at one-flash-per-second		
STROBE SYNCHRONIZATION:	- Siemens Cerberus PRO and Desigo FACP (following Siemens Sync Protocol) - Siemens Power Supply		
TEMPORAL SETTING:	- Ten (10) field-selectable Horn Patterns (See List of Horn Settings in Horn/Strobe Output Current Draw Tables on Page 3)		

Mounting and Wiring Properties

'ACEND' Series Horns / Horn-Strobes	
INDOOR MOUNTING:	- Ceiling-mount applications - Single-Gang, Double-Gang, Octagon backboxes or 4" (10.2 cm.) Square Box
WIRING TYPE:	#12 – #18, American Wire Gauge (AWG)

Details for Ordering

MODEL	PART NUMBER	APPLIANCE TYPE	MOUNTING TYPE	STROBE TYPE	FACEPLATE COLOR	FACEPLATE LETTERING
SC-HN-CR-N	S54361-F15-A1	Horn	CEILING	– None –	RED	– No Lettering –
SC-HN-CW-N	S54361-F15-A2	Horn	CEILING	– None –	WHITE	– No Lettering –
SC-HS-CR-F	S54361-F10-A1	Horn-Strobe	CEILING	Clear	RED	FIRE
SC-HS-CW-F	S54361-F10-A2	Horn-Strobe	CEILING	Clear	WHITE	FIRE
SC-ST-CR-F	S54361-F7-A1	Strobe	CEILING	Clear	RED	FIRE
SC-ST-CW-F	S54361-F7-A2	Strobe	CEILING	Clear	WHITE	FIRE
SMB-HS-CR	S54370-F16-A1	Surface Mount Backbox	CEILING	– None –	RED	– No Lettering –
SMB-HSCW	S54370-F16-A2	Surface Mount Backbox	CEILING	– None –	WHITE	– No Lettering –

Related Hardware

Model	Part Number	Description	Image
SCVR-HS-CR-EMG	S54370-F31-A1	Red plastic cover for ceiling mounted horns and horn/strobes with alternate white "EMERGENCY" text	 
SCVR-HS-CW-EMG	S54370-F31-A2	White plastic cover for ceiling mounted horns and horn/strobes with alternate red "EMERGENCY" text	
SCVR-HS-CR-ALR	S54370-F33-A1	Red plastic cover for ceiling mounted horns and horn/strobes with alternate white "ALERT" text	 
SCVR-HS-CW-ALR	S54370-F33-A2	White plastic cover for ceiling mounted horns and horn/strobes with alternate red "ALERT" text	
SCVR-HS-CR-AGT	S54370-F35-A1	Red plastic cover for ceiling mounted horns and horn/strobes with alternate white "AGENT" text	 
SCVR-HS-CW-AGT	S54370-F35-A2	White plastic cover for ceiling mounted horns and horn/strobes with alternate red "AGENT" text	
SCVR-HS-CR-HOF	S54370-F37-A1	Red plastic cover for ceiling mounted horns and horn/strobes with alternate white "HOUSE ON FIRE" logo	 
SCVR-HS-CW-HOF	S54370-F37-A2	White plastic cover for ceiling mounted horns and horn/strobes with alternate red "HOUSE ON FIRE" logo	
SCVR-HS-CR-BNK	S54370-F14-A1	Red plastic cover for ceiling mounted horns and horn/strobes with no text	 
SCVR-HS-CW-BNK	S54370-F14-A2	White plastic cover for ceiling mounted horns and horn/strobes with no text	
STLENS-R	S54370-F17-A1	Red plastic translucent lens for fire alarm strobes	
STLENS-A	S54370-F17-A2	Amber plastic translucent lens for fire alarm strobes	
STLENS-B	S54370-F18-A1	Blue plastic translucent lens for fire alarm strobes	
STLENS-G	S54370-F18-A2	Green plastic translucent lens for fire alarm strobes	

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SIEMENS

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October - 2024
(NEW)

Notification Appliances

SL2 Weatherproof Series

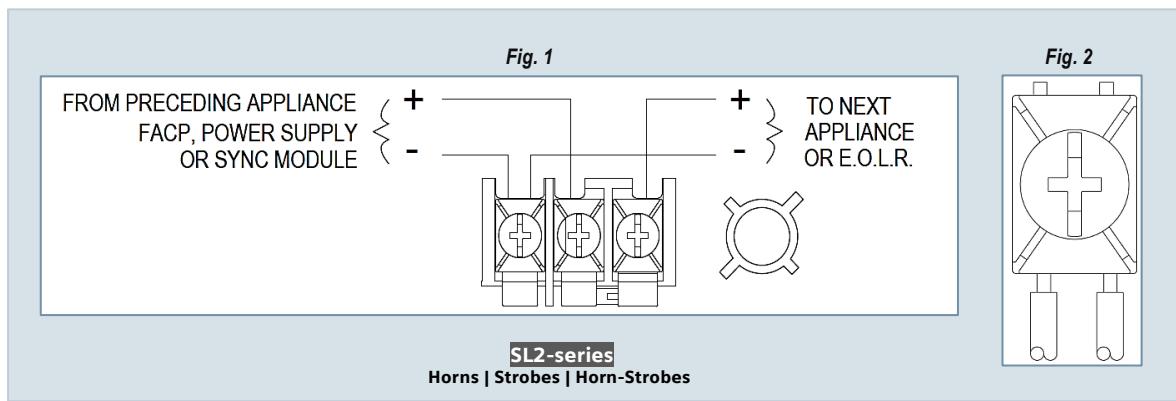
Horns | Strobes | **Horn-Strobes**

Applications : Indoor / Outdoor, Ceiling and Wall

Architect & Engineer Specifications	Product Overview
<ul style="list-style-type: none"> <input type="checkbox"/> Weatherproof notification appliances that meet fire-industry codes and regulations for Indoor and Outdoor use <input type="checkbox"/> Compatible with Siemens fire alarm control panels (FACPs), Siemens dual-sync control (DSC) modules and Siemens Power Supplies (PAD-3I-4I-5) <input type="checkbox"/> Wall or Ceiling mount applications <input type="checkbox"/> Field-selectable multiple Candela settings on a single device: <ul style="list-style-type: none"> - 5cd 30cd 75cd 110cd 150cd 185cd (Clear Lens Strobe) - 5cd 30cd 75cd 95cd 150cd 177cd (Amber Lens Strobe) <input type="checkbox"/> Three (3) field selectable Horn Settings: <ul style="list-style-type: none"> - Continuous, T3 - T3 (Code 3) - T3/T4 <input type="checkbox"/> High or Low audible outputs <input type="checkbox"/> Easy Installation with pre-wire capable Back Box or a Mounting Plate <input type="checkbox"/> NEMA 3R and 4X Rated Devices <input type="checkbox"/> UL1638 UL1971 UL464 Listed <input type="checkbox"/> ULC525 ULC526 Listed <input type="checkbox"/> FCC Part 15 Compliant 	<p>Siemens is now offering the SL2-series weatherproof appliances in the notification product portfolio. These NEMA 3R and 4X rated horn, strobe, and horn-strobe appliances are designed for both indoor and outdoor applications and are operational at a temperature range of -40° C to 66° C (-40° F to 150° F).</p> <p>These weatherproof appliances are compatible with Siemens fire-alarm control panels (FACPs), Siemens dual-sync control (DSC) modules and with Siemens power supplies (PAD-3I-4I-5).</p> <p>The strobe and horn-strobe devices are designed for operation at regulated 24V DC/FWR input voltage. The horns can work with either 12V or 24V DC/FWR regulated voltage.</p> <p>The strobe portion of these appliances meets the 20-millisecond light-pulse-duration code requirements of NFPA 72 (2016 edition).</p> <p>The strobe appliances feature six (6) candela settings in a single device with low current draws across the full candela range:</p> <p>'CLEAR' Lens Strobes: 5cd 30cd 75cd 110cd 150cd 185cd</p> <p>'AMBER' Lens Strobes: 5cd 30cd 75cd 95cd 150cd 177cd</p> <p>The multi-candela strobe can operate as a synchronized strobe appliance when used in conjunction with an FACP following the Siemens sync protocol or when used with a sync module (DSC) or with Siemens power supplies (PAD-3I-4I-5).</p> <p>Additionally, there are three (3) modes of operation for the audible portion of these notification appliances:</p> <ul style="list-style-type: none"> • Continuous, T3 (Non-Sync) • T3 (Code 3) (Siemens Sync Protocol) • T3/T4 (DSC) <p>The horns, strobes and horn-strobe appliances are apt for wall or ceiling mount applications and can be easily installed with a pre-wire capable back box (SL24XBB) or a mounting plate (SL23R). All NEMA 3R devices are flush mounted and have an IP54 rating (they come with the required mounting plate). The 4X devices must be surface mounted (utilizing a surface mount box which is included with each 4X device) and are IP66 rated.</p> <p>All SL2-series weatherproof notification appliances are UL464, UL1638, UL1971, and ULC525, ULC526 approved.</p>



Wiring Diagrams



Specifications

The SL2 weatherproof notification appliances are designed to operate at a regulated 24V DC/FWR or 12V DC/FWR (horns only) input voltage:

- Voltage Range: 16V - 33V (24V) (applicable for all SL2-series horn/ strobe/horn-strobe models)
- Voltage Range: 8V - 17.5V (12V) (applicable for SL2-series horn models only)

All horn/ horn-strobe models have three (3) temporal pattern settings available for sync or non-sync operations:

- Non-Sync: *Continuous*, *T3* (field selectable)
- Siemens Sync Protocol: *T3* (Code 3)
- *T3/T4* Sync Selectable (w/DSC)

The strobe appliances meet the 20-millisecond light-pulse-duration code requirements of NFPA 72 (2016 edition).

All SL2-series strobe appliances feature field-selectable multi candela settings:

- 'Clear' Lens strobe : 5cd | 30cd | 75cd | 110cd | 150cd | 185cd (Models SL24XST, SL23RST)
- 'AMBER' Lens strobe: 5cd | 30cd | 75cd | 95cd | 150cd | 177cd (Models SL24XST-A, SL23RST-A)

('AMBER' lens is certified as an Emergency Warning Visual Signal)

Along with **Amber**, the strobes are also available with **Blue**, **Green**, or **Red** Lens options. Colored lens strobe appliances are used for visual '**Private Mode**' alarm notification. The field selectable candela settings for the other colors are as follows:

- 15 | 30 | 75 | 95 | 135 | 150cd (Models SL24XST-B, SL23RST-B)
- 15cd | 30cd | 60 | 75 | 115 | 125cd (Models SL24XST-G, SL23RST-G)
- 10cd | 20cd | 40cd | 50cd | 75cd | 80cd (Models SL24XST-R, SL23RST-R)

(Refer to *Installation Instruction P85827-004A* for additional information on **Blue**, **Green** and **Red** strobes.)

The SL2-series horns and horn-strobe appliances may be installed in the same notification zone and field of view with any Siemens strobe products using the Siemens sync protocol. The maximum number of notification appliances per NAC is 105. (For more information, see *Installation Instruction P85827-001A*)

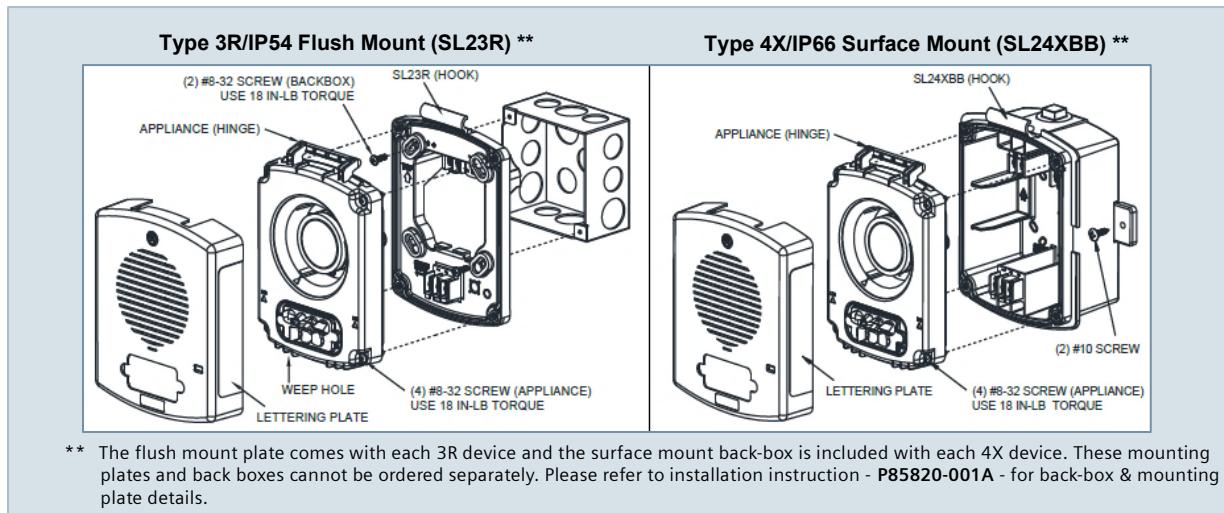
All models are UL/ULC listed as compatible with Siemens Fire Alarm Control Panels (FACP) and accessories that have been determined to be compatible with Siemens strobe sync protocol including the ST, SE, SEH, SET, S-HQ, STH, AS, CH, HS, and MTH series models.

The SL2-series horns, strobes and horn-strobe appliances are UL / ULC listed for both indoor and outdoor operations. They operate at a temperature range of -40° C to 66° C (-40° F to 150° F) with a maximum relative humidity of 95%.

These appliances can be easily installed with a pre-wire capable back box (SL24XBB) or a mounting plate (SL23R). All inputs employ IN / OUT wiring terminals using #12 to #18 AWG wiring.

The SL2-series horns and horn-strobe appliances have UL464 and ULC525 listings for horns and UL1638 /1971 and ULC 526 listings for strobes. These are also compliant with applicable clauses of FCC Part 15.

Mounting Options



Technical Data

Horn-Strobes | Current Ratings 24V (Amps)

Input Voltage	Horn Setting	Candela Settings					
		15cd	30cd	75cd	95cd / 110cd	150cd	177cd / 185cd
DC	CONT, T3, T3/T4 (High)	0.063	0.083	0.105	0.127	0.193	0.230
	CONT, T3, T3/T4 (Low)	0.045	0.066	0.085	0.107	0.175	0.215
FWR	CONT, T3, T3/T4 (High)	0.095	0.119	0.162	0.197	0.291	0.339
	CONT, T3, T3/T4 (Low)	0.076	0.096	0.136	0.169	0.267	0.321

Horn | Current Ratings (Amps)

Horn Setting	Input Voltage	Regulated Voltage Range	
		12V (8.0 – 17.5V)	24V (16.0 – 33.0V)
CONT, T3, T3/T4 (High)	DC	0.054	0.052
		0.034	0.038
CONT, T3, T3/T4 (Low)	FWR	0.102	0.102
		0.075	0.075

Horn Sound Pressure Level Ratings (SPL)

Reverberant dBA @ 10Ft per UL464 / ULC525		
Horn Setting	SPL at 12V (HN Models Only)	SPL at 24V (HN and HS Models)
CONT, T3, T3/T4 (High)	83	90
CONT, T3, T3/T4 (Low)	74	86

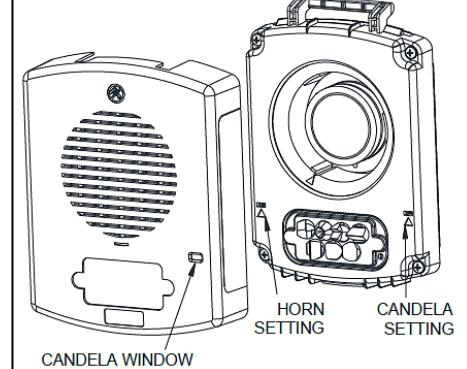
Strobe | Current Ratings (Amps)

Models: SL24XST SL23RST	Input Voltage	Candela Settings					
		15cd	30cd	75cd	110cd	150cd	185cd
DC	0.026	0.038	0.070	0.097	0.179	0.206	
FWR	0.034	0.053	0.098	0.137	0.235	0.308	
Models: SL24XST-A SL23RST-A							
Input Voltage	Candela Settings						
	15cd	30cd	75cd	95cd	150cd	177cd	
DC	0.026	0.038	0.070	0.097	0.179	0.206	
FWR	0.034	0.053	0.098	0.137	0.235	0.308	

GENERAL NOTES:

1. Strobes are designed to flash at 1-flash-per-second minimum over their "Regulated Voltage Range."
2. NFPA-72 specifies a flash rate of 1-to-2 flashes-per-second.
3. All candela ratings represent minimum effective strobe intensity based on UL 1971.

Horn and Candela Settings



NOTE: The default horn setting is T3 and candela setting is 15cd.

Technical Data

General Properties		Physical Properties	
SL2 Weatherproof Horns Strobes Horn-strobes		SL2 Weatherproof Horns Strobes Horn-strobes	
OPERATING TEMPERATURE:	-40° C to 66° C (-40° F to 150° F). Indoor and Outdoor Use	MATERIAL:	Red or white textured UV stabilized, colored engineered plastic.
RELATIVE HUMIDITY:	95%	LENS:	Light Emitting Diode (LED) in a rugged Lexan lens
OPERATING VOLTAGE RANGES:	12 VDC / VFWR - 8.0V - 17.5V (horn models only) 24 VDC / VFWR - 16.0V – 33.0V (all models)	WEIGHT:	Horns: 1.21 lbs.(3R devices) / 1.78 lbs.(4X devices) Strobes: 0.67 lbs. Horn-Strobes: 1.26 lbs.(3R devices) / 1.84 lbs.(4X devices)
STROBE OUTPUT RATING:	Field-selectable candela outputs: Clear Lens strobe: 5cd 30cd 75cd 110cd 150cd 185cd Amber Lens strobe: 5cd 30cd 75cd 95cd 150cd 177cd	DIMENSIONS:	Horns: 7.75" L x 5.75" W x 2.3" H Strobes: 7.75" L x 5.75" W x 1.8" H Horn-Strobes: 7.75" L x 5.75" W x 4.3" H (4X devices) 7.75" L x 5.75" W x 2.6" H (3R devices)
STROBE FLASH RATE:	Strobes are designed to flash at one-flash-per-second	Mounting and Wiring Properties	
STROBE SYNCHRONIZATION:	Compatible with Siemens fire alarm control panels (FACPs), Siemens dual-sync control (DSC) module, Siemens Power Supplies (Pad-3/-4/-5)	SL2 Weatherproof Horns Strobes Horn-strobes	
*TEMPORAL PATTERN:	Continuous T3 (Code 3) T3/T4 (Code 4)	MOUNTING:	- Wall & Ceiling-mount applications - SL24XBB Surface Box and SL23R Mounting Plate
<p>*NOTE: The Code 3 temporal pattern (1/2 second on, 1/2 second off, 1/2 second on, 1/2 second off, 1/2 second on, 1-1/2 off and repeat) is specified by ANSI and NFPA 72 for standard emergency evacuation signaling. (Available with sync or non-sync operation)</p> <p>*NOTE: The Code 4 temporal pattern (100 ms on, followed by 100 ms off, for 4 cycles, followed by 5 seconds of silence and repeat), is specified by ANSI and NFPA 72 for carbon monoxide emergency signaling. (Available with sync operation only)</p>		WIRING TYPE:	#12 – #18, American Wire Gauge (AWG)

Details for Ordering

MODEL	PART NUMBER	NEMA RATING	APPLIANCE TYPE	MOUNTING TYPE	STROBE TYPE	FACEPLATE COLOR	FACEPLATE LETTERING
SL23RHN-NR	S54329-F295-A1	3R	Horn	WALL / CEILING	None	RED	NO LETTERING
SL23RHN-NW	S54329-F254-A1				None	WHITE	NO LETTERING
SL24XHN-NR	S54329-F328-A1				None	RED	NO LETTERING
SL24XHN-NW	S54329-F260-A1				None	WHITE	NO LETTERING
SL23RHS-FR	S54329-F255-A1	3R	Horn-Strobe	WALL / CEILING	Clear	RED	FIRE
SL23RHS-FW	S54329-F296-A1				Clear	WHITE	FIRE
SL24XHS-FR	S54329-F261-A1				Clear	RED	FIRE
SL24XHS-FW	S54329-F329-A1				Clear	WHITE	FIRE
SL23RST-FR	S54329-F265-A1	3R	Strobe	WALL / CEILING	Clear	RED	FIRE
SL23RST-FW	S54329-F306-A1				Clear	WHITE	FIRE
SI 24XST-FR	S54329-F258-A1				Clear	RED	FIRE
SL24XST-FW	S54329-F339-A1				Clear	WHITE	FIRE
SL23RSTAM-NR	S54329-F280-A1	3R	Strobe	WALL / CEILING	Amber	RED	NO LETTERING
SL23RSTAM-NW	S54329-F279-A1				Amber	WHITE	NO LETTERING
SL24XSTAM-NR	S54329-F294-A1				Amber	RED	NO LETTERING
SL24XSTAM-NW	S54329-F293-A1				Amber	WHITE	NO LETTERING
SL23RSTB-NW	S54329-F307-A1	3R	Strobe	WALL / CEILING	Blue	WHITE	NO LETTERING
SL23RSTB-NR	S54329-F308-A1				Blue	RED	NO LETTERING
SL23RSTG-NW	S54329-F309-A1				Green	WHITE	NO LETTERING
SL23RSTG-NR	S54329-F310-A1				Green	RED	NO LETTERING
SL23RSTR-NW	S54329-F311-A1				Red	WHITE	NO LETTERING
SL23RSTR-NR	S54329-F312-A1				Red	RED	NO LETTERING

Details for Ordering

MODEL	PART NUMBER	NEMA RATING	APPLIANCE TYPE	MOUNTING TYPE	STROBE TYPE	FACEPLATE COLOR	FACEPLATE LETTERING
SL24XSTB-NW	S54329-F340-A1	4X	Strobe	WALL / CEILING	Blue	WHITE	NO LETTERING
SL24XSTB-NR	S54329-F341-A1				Blue	RED	NO LETTERING
SL24XSTG-NW	S54329-F342-A1				Green	WHITE	NO LETTERING
SL24XSTG-NR	S54329-F343-A1				Green	RED	NO LETTERING
SL24XSTR-NW	S54329-F344-A1				Red	WHITE	NO LETTERING
SL24XSTR-NR	S54329-F345-A1				Red	RED	NO LETTERING

Related Hardware

Model	Part Number	Description
SL2LP-ALR	S54329-F313-A1	“ALERT” Letter Plate Red
SL2LP-ALW	S54329-F314-A1	“ALERT” Letter Plate White
SL2LP-AR	S54329-F315-A1	“AGENT” Letter Plate Red
SL2LP-AW	S54329-F316-A1	“AGENT” Letter Plate White
SL2LP-COR	S54329-F317-A1	“CO” Letter Plate Red
SL2LP-COW	S54329-F318-A1	“CO” Letter Plate White
SL2LP-EVR	S54329-F319-A1	“EVACUATION” Letter Plate Red
SL2LP-EVW	S54329-F320-A1	“EVACUATION” Letter Plate White
SL2LP-FBR	S54329-F321-A1	“FIRE” PICTOGRAM Letter Plate Red
SL2LP-FBW	S54329-F322-A1	“FIRE” PICTOGRAM Letter Plate White
SL2LP-FR	S54329-F259-A1	“FIRE” Letter Plate Red
SL2LP-FW	S54329-F323-A1	“FIRE” Letter Plate White
SL2LP-MR	S54329-F324-A1	“EMERGENCY” Letter Plate Red
SL2LP-MW	S54329-F325-A1	“EMERGENCY” Letter Plate White
SL2LP-NR	S54329-F326-A1	“NO TEXT” Letter Plate Red
SL2LP-NW	S54329-F327-A1	“NO TEXT” Letter Plate White

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product. All are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

Siemens Industry, Inc.
Smart Infrastructure – Building Products
2 Gatehall Drive • Parsippany, NJ 07054
Tel: (973) 593-2600

February – 2025
New Issue



General Purpose Emergency Lighting Medical Fire & Security

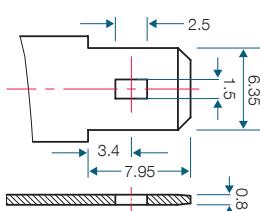
PS-12180

12V 18.0 AH @ 20-hr.
12V 17.1 AH @ 10-hr.

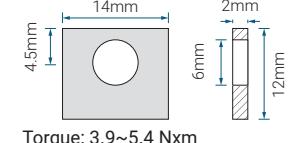
Rechargeable Sealed Lead Acid Battery
PS – General Purpose Series

TERMINALS: (mm)

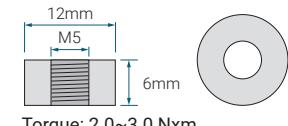
F2: Quick disconnect tabs, 0.250" x 0.032" – Mate with AMP. INC FASTON "250" series



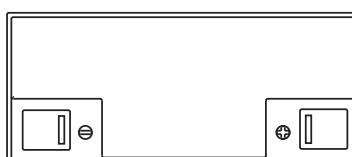
NB2: Tin plated brass post with 'Nut & Bolt' fasteners



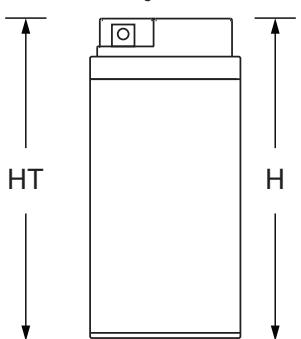
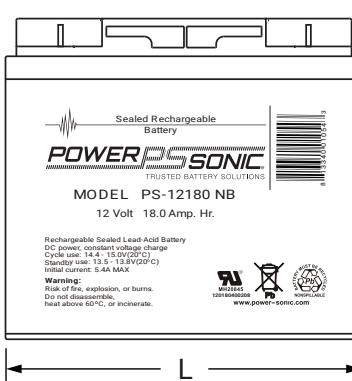
T12: Threaded insert with 5mm stud fastener



DIMENSIONS: inch (mm)



L: 7.13 (181)
W: 3.00 (76)
H: 6.59 (167)
HT: 6.59 (167)
Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.



GLOBAL HEADQUARTERS (USA AND INTERNATIONAL EXCLUDING EMEA)

Power-Sonic Corporation
365 Cabela Dr Suite 300,
Reno, Nevada 89523
USA
T: +1 619 661 2020
E: customer-service@power-sonic.com

POWER-SONIC EMEA (EMEA – EUROPE, MIDDLE EAST AND AFRICA)

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T UK: +44 1268 560 686
T FR: +33 344 32 18 17
E: salesEMEA@power-sonic.com

To ensure safe and efficient operation always refer to the latest edition of our Technical Manual, as published on our website.
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All data subject to change without notice. E&O.E



FEATURES

- 5 year design life
- Absorbent Glass Mat (AGM) technology for superior performance
- Valve regulated, maintenance free spill proof construction
- Power/volume ratio yielding excellent energy density
- Rugged vibration and impact resistant ABS case and cover
- Gas recombination technology

APPROVALS

- Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified
- U.L. recognized
- ISO9001:2015 – Quality management systems

PERFORMANCE SPECIFICATIONS

Nominal Voltage 12 volts (6 cells)

Nominal Capacity

20-hr. (900mA to 10.50 volts)	18.00 AH
10-hr. (1.71A to 10.50 volts)	17.10 AH
5-hr. (3.06A to 10.20 volts)	15.30 AH
1-hr. (11.5A to 9.60 volts)	11.50 AH

Approximate Weight

12.32 lbs. (5.6 kg)

Internal Resistance (approx.)

10.5 milliohms

Max Short-Duration Discharge Current (5 Sec.)

270.0 amperes

Shelf Life (% of nominal capacity at 68°F (20°C))

1 Month	92%
3 Month	90%
6 Month	80%

Operating Temperature Range

Charge	5°F (-15°C) to 122°F (50°C)
Discharge	5°F (-15°C) to 104°F (40°C)

Case

ABS Plastic

Power Sonic Chargers

PSC-122000-A-C

PSC-122000-PC

PSC-124000-PC

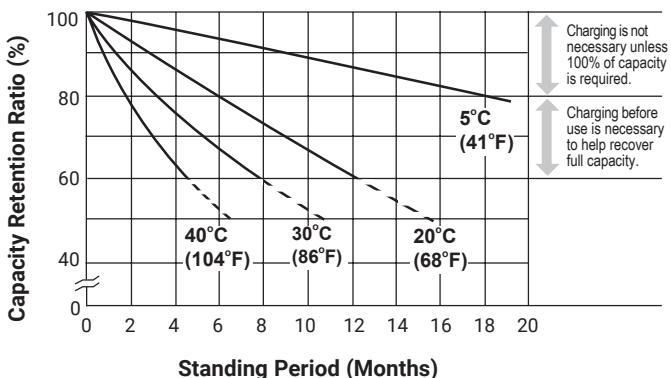
PSC-124000-A-C

PS-12180

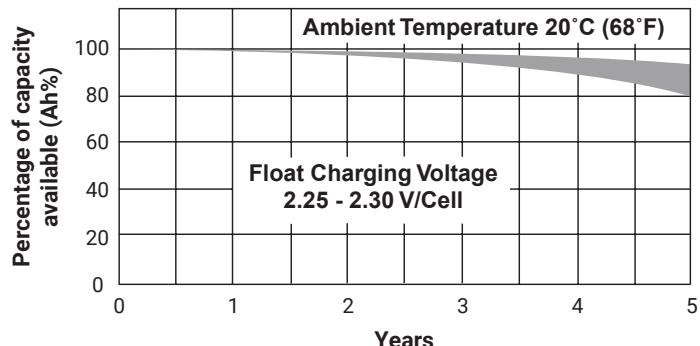
12V 18.0 AH @ 20-hr.
12V 17.1 AH @ 10-hr.

Rechargeable Sealed Lead Acid Battery
PS – General Purpose Series

SHELF LIFE & STORAGE



LIFE CHARACTERISTICS IN STAND-BY USE



CHARGING

Cycle Applications: Apply constant voltage charge at 2.35v/c – 2.45v/c (14.1 – 14.7v for 12v Monobloc) at 20°C. Initial charging current should be set at less than 0.25C Amps. Switch to float charge to avoid overcharging.

“Float” or “Stand-By” Service: Apply constant voltage charge of 2.25v/c – 2.30v/c (13.5 to 13.8 volts for 12v Monobloc at 20°C. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

Temperature Compensation: Charging Voltage for both Cyclic and Standby applications should be regulated in relation to ambient temperature. As temperature rises charging voltage should be reduced to prevent overcharge and increased as temperature falls to avoid undercharge.

For further charging information including temperature compensation factors, see Power Sonic Technical Manual/ Power Sonic Charger specifications.

APPLICATIONS

- General purpose
- Medical
- Emergency lighting
- Fire and security

GLOBAL HEADQUARTERS (USA AND INTERNATIONAL EXCLUDING EMEA)

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365 Cabela Dr Suite 300,
Reno, Nevada 89523
USA
T: +1 619 661 2020
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T NL: +31 33 7410 700
T UK: +44 1268 560 686
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E: salesEMEA@power-sonic.com





DTK-2MHLPB Series Modular Low Voltage Surge Protectors

DITEK's DTK-2MHLPB Series of low voltage surge protectors provide robust protection in a compact package. This series was designed for ease of installation, with convenient field-replaceable modules and a Snap-Track base system, allowing the installer to protect multiple circuits while utilizing a common ground point.



DTK-2MHLPB24B



DTK-2MHLPB24BWB

Product Features

- Protects (2) low voltage circuit pairs per module
- Hybrid design utilizing SAD and GDT technologies
- Shorts to ground when compromised
- Field-replaceable modular design with single point ground for fast and easy installation
- Six voltage configurations available to protect various types of circuits
- Hardwired multi-base mounting system allows protection for up to (10) pairs with a common ground
- Suitable for use on both AC and DC low voltage circuits

Applications

- Fire Alarm Panel NAC, SLC, PIV and IDC Circuits
- Burglar Alarm Panel NAC and IDC Circuits
- Telco Dialer Circuits
- 70V Speakers and Audio Equipment
- Low-Voltage Landscaping Lighting and Lighting Control Circuits
- 4-20mA Current Loops

Accessories

- To order module with base, add "WB" to end of part number
- Test Module Kit, p/n DTK-2MHLPTM

Technical Specifications

DTK-2MHLPB	5B	12B	24B	36B	48B	75B	130B
Service Voltage:	5V	12V	24V	36V	48V	75V	130V
MCOV:	6V	18V	33V	48V	64V	90V	140V
Clamping Voltage:	8V	21.6V	39V	57V	76V	108V	155V
Protection Modes:	Differential Mode (L-L) Common Mode (L-G)						
Surge Current Rating:	20,000A						
Maximum Continuous Current:	5 Amps						
Failure Mode:	Short to Ground						

Mechanical Specifications

Base Connection Method:	Hardwired terminals, 30-12 AWG	
Module Connection Method:	Edge card into mounting base	
Housing:	ABS	
Operating Temperature:	-40°F - 158°F (-40°C - 70°C)	
Maximum Humidity:	95% non-condensing	
Dimensions:	Module 2.1" L x 1.4" W x 1.9" H (53 mm x 36 mm x 48 mm)	Module with Base 3.25" L x 1.5" W x 2.6" H (83 mm x 38 mm x 66 mm)
Weight:	1.2 oz (34 g)	2.8 oz (79 g)

Quality Standards & Approvals

Certifications:	UL497B
Warranty:	10 Year Limited Warranty





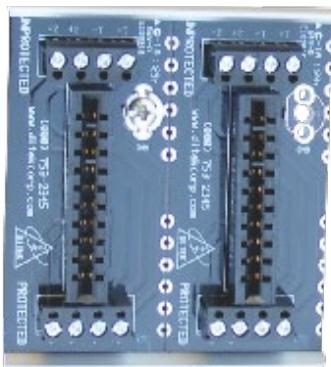
DTK-2MHLPB Series Modular Low Voltage Surge Protectors

Base Part Numbers and Dimensions

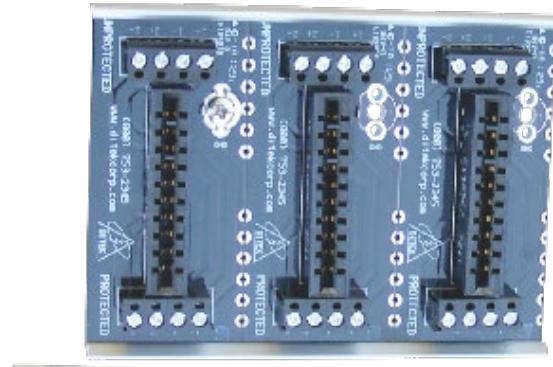
Part Number	# Pairs Protected	Dimensions
DTK-MB10	2	3.25" H x 1.50" W (82.5 mm x 38.1 mm)
DTK-2MB	4	3.25" H x 3.00" W (82.5 mm x 76.2 mm)
DTK-3MB	6	3.25" H x 4.50" W (82.5 mm x 114.3 mm)
DTK-4MB	8	3.25" H x 6.00" W (82.5 mm x 152.4 mm)
DTK-5MB	10	3.25" H x 7.50" W (82.5 mm x 190.5 mm)



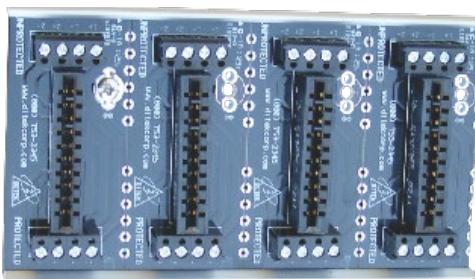
DTK-MB10



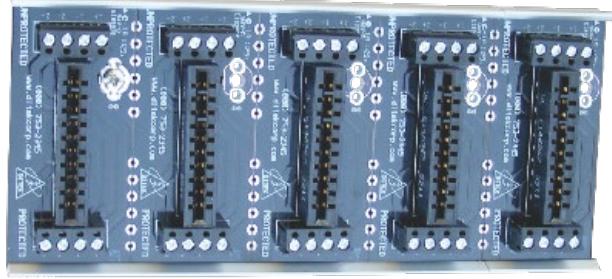
DTK-2MB



DTK-3MB



DTK-4MB



DTK-5MB

TEMP°ALERT®



Mechanical Temperature Monitor with Single Output

- Connects to new and existing alarm systems.
- No power required to operate.
- Sleek, low-profile styling.
- Normally open (N.O.)
- • Do not put console in freezer/cooler. Use an EnviroAlert with a wired sensor.

Specifications

Power Requirements	No power required to operate
Low Limit Adjust Range	-30° to 120° F (-34° to 49° C) Non-condensing environment.
High Limit Adjust Range	-20° to 130° F (-29° to 54° C) Non-condensing environment.
Minimum Temp Span	10° Recommended distance between high and low set points.
Temp Accuracy	±3° F (±1.7° C)
Temp Response Time	TC = 14 minutes
Outputs	Gold plated N.O. dry contacts. Not for high voltage use.
Contact Output Rating	12VDC @ 50mA
Weight	6 oz (0.17 kg)
Dimensions	6.25 x 3.75 x 2" (15.9 x 9.5 x 5.1 cm)
Mounting	Key Slot



Visit www.winland.com, call 800.635.4269 or email info@winland.com to learn more.



SmartRescue Base Station

2500-205FM



Part #: 2500-205FM

Specifications:

Dimensions: Face: 16.11" H x 14" W x 3" D Back Box: 15.62" H x 12" W x 3" D

Mounting: Flush

Design: Powder Coated Steel Enclosure, Coil Cord, Twist Lock Closure with Fireman's Lock (not provided)

Warranty: 2 Years

ADDITIONAL FEATURES:

- Use with up to 5 Call Boxes on the same telephone line
- Easy to use push buttons
- Passively monitor communications between Call Boxes and the outside world via the LEDs: Solid lit LED indicates there is an emergency call in progress, slow blinking LED indicates there is a call on hold
- Audible alert when Call Box initiates a call, silenced when call is joined from Base Station
- Includes relay contact that trips if any SmartPhone has been activated
- The SmartRescue is able to:
 1. Call into all or individual Call Boxes as needed
 2. Join existing conversations between Call Boxes and outside world
 3. Hang up and original conversation will continue
 4. Terminate outside world so it is only talking to the Call Boxes or terminate the call with all parties entirely
- Built-in battery backup recharges from 120vac power (allows for a minimum of 4 hours talk time upon loss of power)
- 16.8V 1400mAH battery (part # RP7300109A)

CODE COMPLIANCE:

- International Building Code (IBC)
- National Fire Protection Association (NFPA)
- Americans Disabilities Act (ADA)
- Complies with Section 6.4 of UL 60950-1
- Conforms to UL Standard 2017 for Attendant Monitored Signaling Devices
- ETL Listing Number: 5013373
- Volume control handset meets ADA requirements

POWER REQUIREMENTS:

- Requires a single analog (POTS, PBX, or central office phone line) or digital phone line. If used on an IP or cellular network, you must purchase an additional interface device from RATH®.
- Designed for either 120vac power or 24vdc power

WIRING REQUIREMENTS:

- Run twisted, shielded 4 wire set from each Call Box to SmartRescue and one standard phone line to outside world

PHONE CAPABILITIES:

- Telephone Line Voltage: 24V-48V

SmartRescue Base Station

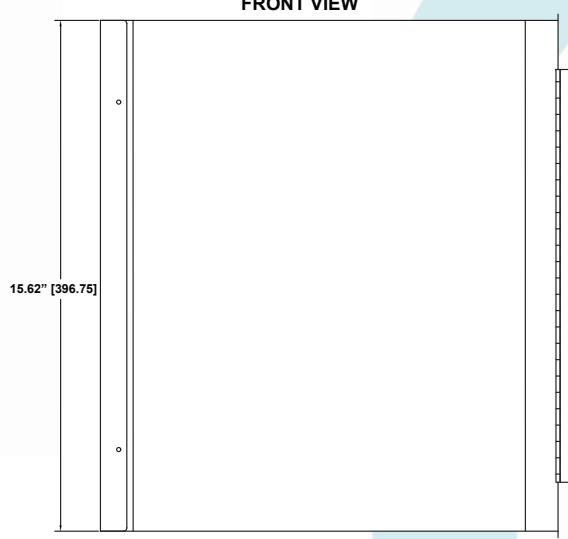
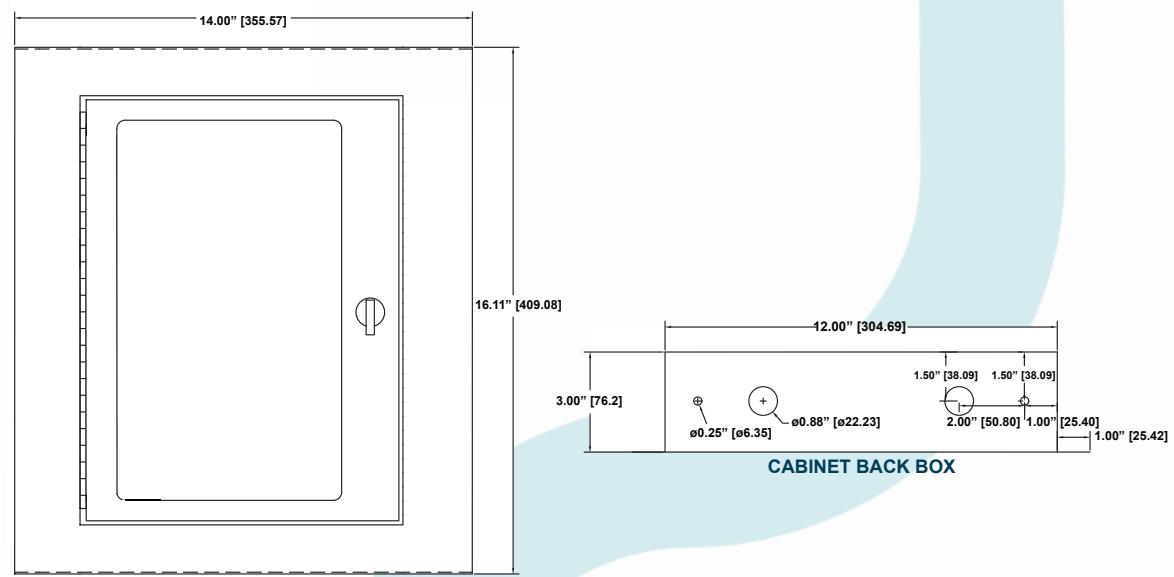
2500-205FM



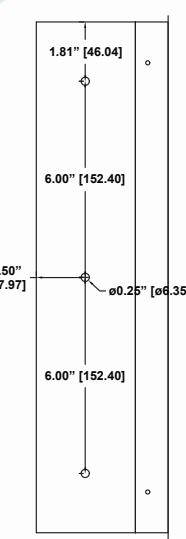
Back View

Side View

Top View



INSIDE VIEW WITH FRONT PANEL OPENED



SIDE VIEW



RATH
by AVIRE

N56 W24720 N. Corporate Circle · Sussex, WI 53089 | 800-451-1460
www.avire-global.com/en-us/



Area of Refuge Power Supply

2500-PWR24



- Size: 9.275" H x 8.125" W x 3.75" D
- Shipping Weight: 11 lbs.
- 24vdc, 9 Outputs
- Install up to (3) phones per output
- 4 Amp (100VA) Supply Current
- Integral Surge Protection
- Underwriters Laboratory (UL) recognized
- Individual LED power indication





2100-958NSR

Call Box



Face Plate Size: 9-1/2" H x 7-1/2" W

Back Box Size: 8" H x 6" W x 3" D

Style: Brushed Stainless Steel, Flush Mount

Options: Strobe Interface & Relay, Mushroom Push Button

Features:

- Meets all IBC, ADAAG, and NFPA Code requirements
- Requires analog telephone line (POTS, PBX, or central office line)
- Power Requirements: 24vdc from model 2500-PWR24
- Built-in battery backup recharges from 24vdc power (allows for a minimum of 4 hours of talk time upon power loss)
- Built-in 10 phone consolidator feature allows you to install 10 Call Boxes and 1 Base Station on a single telephone line
- Programmable with up to 5 emergency numbers
- On-site programming
- Remote or on-site diagnostic test
- Recordable location message (18 seconds)
- Phone checks every 24 hours for an active phone line, if one is not detected, phone will provide a relay trip
- Compatible with SmartRescue Base Station or Command Center for in-building rescue coordination
- Automatic dialer (31 digit programmable memory)
- Automatic answer feature with audible ring
- Touch Tone operation only (Touch Tone is an AT&T registered trademark)
- 3 year warranty

N56W24720 N. Corporate Circle • Sussex, WI 53089

800-451-1460 • 262-246-4828 (fax) • www.area-of-refuge.com



Made in the USA
3 Year Warranty

Area of Refuge Signage



Photo Luminescent Wall Sign

Model Number: 7041

Size: 8" x 8"



Skid Resistant Floor Decal

Model Number: 7045

Size: 17" D



Raised Letter/Braille Entry Way Sign

Model Numbers:

7043 - Black/White Size: 6" x 9"

7044 - Blue/White Size: 6" x 9"



Braille Photo Luminescent Wall Sign

Model Number: 7046

Size: 8"x 8"

PUSH FOR HELP

FIRE & FLOOD

LOCATION FLOOR

Persons able to use the exit stairway do so as soon as possible, unless they are assisting others.

After activating the two-way emergency communication system, wait here for assistance.

EXTERIOR AREA FOR ASSISTED RESCUE

Exterior Rescue Assistance Wall Sign

Model Number: 7086

Size: 8"x 8"

"Directions for Call Boxes" Wall Sign (With Braille)

Model Number: 7049

Size: 6"x 8"



Two-Way Emergency Communication

Model Number: 7087

Size: 8" x 8"



Directional Sign

Model Numbers:

7047L (Left Arrow)

7047R (Right Arrow)

Size: 15" x 5"



120/277vac Lighted Wall Sign

Model Numbers:

7050 (Single Sided) or

7050D (Double Sided)

Size: 10.5" H x 14" W x 3" D

Features:

- Power: 120/277vac (4w, 350mA)
- 90 Minutes of Battery Back-up
- LED Lights
- Constant Uniform Illumination
- UL Listed to meet UL 924, NEC, OSHA, NFPA & Life Safety Code Illumination requirements
- White Aluminum Housing With Acrylic Surface
- Voltage Surge and Short Circuit Protection
- Directional Arrows Available Upon Request



120/277vac Lighted Wall Sign

Model Number: 7050E

Size: 10.5" H x 14" W x 3" D

Features:

- Power: 120/277vac(4w, 350mA)
- Battery Back-up
- Red LED Lights
- Constant Uniform Illumination
- UL Listed to meet UL 924, NEC, OSHA, NFPA and Life Safety Code Illumination requirements
- Sign should be mounted above 60" but below 80" from the finish floor to top of the sign
- White Aluminum housing with Acrylic surface
- Voltage Surge and Short Circuit protection
- Directional Arrows Included (Set of 3)



Made in the USA
3 Year Warranty

N56 W24720 N. Corporate Circle • Sussex, WI 53089

800-451-1460 • 262-246-4828 (fax) • www.area-of-refuge.com

FIRE ALARM SYSTEM CALCULATIONS

**TOWN OF ANGIER POLICE
HEADQUARTERS BUILDING**

**29 MCIVER STREET
ANGIER, NORTH CAROLINA**

Electrical Contractor: Allen R. Wood & Co.
86 Allen Wood Lane
Benson, NC 27504

Fire Alarm Contractor: BFPE International
115 Bestwood Drive
Clayton, NC 27520
NC Firm License # D-0205

Project No.: RA-A7854-A-25

Date: November 17, 2025

Siemens Circuit Information v1.0.4

All Circuits

Job Name: Town of Angier Police Headquaters

Job Number: RA-A7854-A-25

Panel Name:

Circuit #	Circuit Name	Zone #	Description		Total Standby	Total Alarm Current
					Current	
1	P1N1		Notification Circuit			0.759
2	P1N2		Notification Circuit			0.426
3			Notification Circuit			
4			Notification Circuit			

Siemens Voltage Drop Calculations v1.0.4							
Job Name:	Town of Angier Police Headquaters			12 Gauge = 1.98 ohms/1000 ft. /pr			
Job Number:	RA-A7854-A-25			14 Gauge = 3.14 ohms/1000 ft. /pr			
Floor Number				16 Gauge = 4.99 ohms /1000 ft. /pr			
Supply Voltage	24	VDC		Ohms / 1000' / pr:	3.14		
Wire Gauge	14	AWG		Quantity Of Devices:			
Circuit #	P1N1			Total Current:	0.759		
Zone #				Total Ohms:	4.48		
Device Number	Device Model	Device Candela	Device Current	Segment Distance	Segment Current	Segment Ohms	Voltage Drop
1	SL24XHS-FR	75	0.056	25	1.500	0.079	0.118
2	SC-ST-WR-F	15	0.037	24	1.444	0.075	0.109
3	SC-HS-WR-F	15	0.037	28	1.407	0.088	0.124
4	SC-HS-WR-F	15	0.037	21	1.370	0.066	0.090
5	SC-ST-CR-F	15	0.037	37	1.333	0.115	0.153
6	SC-HS-WR-F	15	0.037	21	1.296	0.066	0.086
7	SC-HS-WR-F	15	0.037	16	1.259	0.050	0.062
8	SC-HS-WR-F	15	0.037	26	1.222	0.081	0.099
9	SC-HS-WR-F	15	0.037	27	1.185	0.084	0.099
10	SC-ST-WR-F	15	0.037	29	1.148	0.090	0.103
11	SC-ST-WR-F	15	0.037	16	1.111	0.049	0.054
12	SC-ST-WR-F	15	0.037	16	1.074	0.049	0.053
13	SC-HS-WR-F	15	0.037	13	1.037	0.041	0.043
14	SC-ST-WR-F	15	0.037	17	1.000	0.054	0.054
15	SC-HS-WR-F	15	0.037	22	0.963	0.070	0.068
16	SC-HS-WR-F	15	0.037	16	0.926	0.051	0.047
17	SC-ST-WR-F	15	0.037	18	0.889	0.056	0.049
18	SC-ST-WR-F	15	0.037	17	0.852	0.054	0.046
19	SC-HS-WR-F	15	0.037	44	0.815	0.137	0.112
20	SC-HS-WR-F	15	0.037	16	0.778	0.051	0.039
21							
22							
Totals			0.759	448		1.405	2.13
					Voltage Drop %:	8.89	
					Voltage At Last Device:	21.87	

Siemens Voltage Drop Calculations v1.0.4							
Job Name:	Town of Angier Police Headquaters			12 Gauge = 1.98 ohms/1000 ft. /pr			
Job Number:	RA-A7854-A-25			14 Gauge = 3.14 ohms/1000 ft. /pr			
Floor Number				16 Gauge = 4.99 ohms /1000 ft. /pr			
Supply Voltage	24	VDC		Ohms / 1000' / pr:	3.14		
Wire Gauge	14	AWG		Quantity Of Devices:			
Circuit #	P1N2			Total Current:	0.426		
Zone #				Total Ohms:	7.98		
Device Number	Device Model	Device Candela	Device Current	Segment Distance	Segment Current	Ohms	Voltage Drop
1	SC-ST-WR-F	15	0.037	60	1.500	0.188	0.28
2	SC-HS-WR-F	15	0.037	23	1.463	0.072	0.11
3	SC-HS-WR-F	15	0.037	33	1.426	0.104	0.15
4	SC-HS-WR-F	15	0.037	35	1.389	0.110	0.15
5	SC-ST-WR-F	15	0.037	32	1.352	0.100	0.14
6	SC-HS-WR-F	15	0.037	24	1.315	0.075	0.10
7	SC-HS-WR-F	15	0.037	35	1.278	0.110	0.14
8	SC-ST-WR-F	15	0.037	31	1.241	0.097	0.12
9	SC-HS-CR-F	75	0.056	27	1.204	0.085	0.10
10	SC-ST-WR-F	15	0.037	23	1.148	0.072	0.08
11	SC-ST-WR-F	15	0.037	24	1.111	0.075	0.08
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
Totals			0.43	347		1.090	0.93
					Voltage Drop %:	3.87	
					Voltage At Last Device:	23.07	

Ref. No.	RA-A7854-A-25	Enter value
Submitted By:	BPPE INTERNATIONAL	Select choice
Project Name:	Town of Anger Police Headquarters	Fixed
Project Location:		Calculated
Panel Location:	Riser Room 104	
Node No:		

P1 Date: November 17, 2025

Module	Description	Module Feature	Qty	Standby Current (Amps)	Alarm Current (Amps)	External Power Source
FCM2018-U3	Standard Operating Unit		1	0.130	0.170	
FCM2019-U3/FCM2035-U3	Enhanced Operating Unit With LED zones	LED zones		0.000	0.000	
FCM2043-U3	Enhanced Operating Unit With LED Switch Module	LED zones		0.000	0.000	
FCI2016-U1	252 pt Periphery Board	SLC load	1	0.130	0.136	
		NAC Quantity				
		Aux power load				
		Bell follower	No	0.000	0.000	
FCI2017-U1	504 pt Periphery Board	SLC load				
		NAC Quantity				
		Aux power load				
		Bell follower	No	0.000	0.000	
	Periphery Board	NAC 1 Load				
		NAC 2 Load				
FCI2011-U1	NAC expander	NAC load	1	0.000	0.000	
		NAC load				
XCJ2001-U1	Releasing module	No	0	0.000	0.000	
	Releasing load					
FCI2020-U1	City Tel/Leased Line module	Not Installed		0.000	0.000	
	SafeLink Network module					
FCI2021-U1	RS232 Serial port	1	0.000	0.195		
FCI2004-U1	MXL Device Link Card		1	0.000	0.000	
EN2006-U1	Single-mode fiber module			0.000	0.000	
EN2007-U1	Multi-mode fiber module			0.000	0.000	
FT2014-xx	Remote annunciator - display	1	0.034	0.055	No	
FT2015-xx	Remote annunciator - control			0.000	0.000	No
FT2001-A1	Network terminal board			0.000	0.000	No
FCM2033-U3	LED expansion module			0.000	0.000	
	LED zones			0.000	0.000	
FC42015-U1	DACT	1	0.034	0.044		
FT2003-U1	LED Driver			0.000	0.000	No
FT2008 / FT2018	Tabular Annunciator-16 zone			0.000	0.000	No
FT2009 / FT2019	Tabular Annunciator-32 zone			0.000	0.000	No
FT2012-U1	LED Driver			0.000	0.000	No
EC42018-U1	Remote printer module			0.000	0.000	
PCA2032-U1	Battery Disconnect Module			0.000	0.000	
Connect X300	Cloud Gateway			0.000	0.000	No
FTG2023-U3	LED Switch Module			0.000	0.000	
	Switch Zones			0.000	0.000	

Voice Modules & FV-Net

VCA2002-A1	Card Cage	0	0.000	0.000		
VCC-2001-A1	Voice Control Card	0	0.000	0.000		
VCC-2002-A1	Voice Control - Input/Output Card	0	0.000	0.000		
VCI2001-U1	Amplifier Card - Amp #1	Not Installed	0	0.000	0.000	
	Amplifier Card - Amp #2	Not Installed	0	0.000	0.000	
	Amplifier Card - Amp #3	Not Installed	0	0.000	0.000	
	Amplifier Card - Amp #4	Not Installed	0	0.000	0.000	
VTG2004-U3	Microphone		0.000	0.000		
VTG2001-U3	Switch Module		0.000	0.000		
	Switch Zones		0.000	0.000		
EC42031-A1	Modem Module		0.000	0.000		
EN2012-A1	Ethernet Switch		0.000	0.000		
VC12003-A1	VoIP Module		0.000	0.000		
VN2001-A1	Ethernet Module - CAT5 #1	Not Used	0	0.000	0.000	
	Ethernet Module - CAT5 #2	Not Used	0	0.000	0.000	
VN2002-A1	Ethernet Module - Multi Mode #1	Not Used	0	0.000	0.000	
	Ethernet Module - Multi Mode #2	Not Used	0	0.000	0.000	
VN2003-A1	Ethernet Module - Single Mode #1	Not Used	0	0.000	0.000	
	Ethernet Module - Single Mode #2	Not Used	0	0.000	0.000	

Devices

Devices	Description	Qty	Standby	Alarm		
HFP-11 / 8713	Photo-thermal detector		0.00000	0.00000		
HFP-11 / 8710	Photo detector		0.00000	0.00000		
HFP-11 / 8712	Thermal detector		0.00000	0.00000		
DOHC941	Dual optical/thermal/CO detector		0.00000	0.00000		
DOH941	Dual optical/thermal detector		0.00000	0.00000		
OH921	Photo-thermal detector		0.00000	0.00000		
OP921	Photo detector	5	0.00012	0.00005		
OP922	Thermal detector	2	0.00000	0.00082		
FDQ10422	4-input/4-output		0.00000	0.00000		
HMS / 8700-S-D-M	Manual station		0.00000	0.00000		
HTR-SIM / 8701	Single input module-mini		0.00000	0.00000		
HTR-SIM / 8702	Single input module-mini		0.00000	0.00000		
HTR-S / 8703	Dual input module		0.00000	0.00000		
HTR-R / 8704	Single input/double relay module		0.00000	0.00000		
HZM / 8705	Conventional zone module		0.00000	0.00000	No	
HCP / 8706	Addressable control point		0.00000	0.00000	No	
LLD-1029	Intelligent LED		0.00000	0.00000		
SEFP-11	Photo-thermal detector		0.00000	0.00000		
SEFP-11	Photo detector		0.00000	0.00000		
SEFP-11	Thermal detector		0.00000	0.00000		
SMS-S-D-M	Manual station		0.00000	0.00000		
STR-D	Single input module-mini		0.00000	0.00000		
STR-D	Dual input module		0.00000	0.00000		
STR-R	Single input/double relay module		0.00000	0.00000		
SZM	Conventional zone module		0.00000	0.00000	No	
SCM	Addressable control point		0.00000	0.00000	No	
ABHW-4B (low dBs)	Loop-powered audible base		0.00000	0.00000	No	
ABHW-4S (high dBs)	Loop-powered audible base		0.00000	0.00000	No	
ABHW-4S (high dBs)	Audible Base-520Hz (low)		0.00000	0.00000	No	
ABHW-4S (high dBs)	Audible Base-520Hz (high)		0.00000	0.00000	No	
XTR-SIM	Single Input Module-Isolator	1	0.00005	0.00065		
XTR-R	Digital Module-Isolator	2	0.00000	0.00100		
XTR-R	Input Module w/Relay-Isolator	5	0.02500	0.00375		
TSM-1X	Defector Test Module-Isolator		0.00000	0.00000		
ILED-X/C/XW	Intelligent LED-Isolator		0.00000	0.00000		
XMS-S, D, M, 2S, DA	Intelligent Station-Isolator	2	0.00100	0.00100		
PAD-5	Power Expander Main Board		0.00000	0.00000		
PAD-5-CDC	Conventional Detector Expansion Board		0.00000	0.00000		
PAD-5-CLSA	Class A/B Expansion Board w/Releasing		0.00000	0.00000		
Total Addressable Devices		17	0.007	0.010	System OK	

Total Current (Internal)		0.529	1.736	Uses 176W Power Supply		
Total Current (External)		0.000	0.000			
Standby Time (hrs)		24	12.70			
Alarm Time (min)		5	0.14			
AH required (no reserve)		125%	12.85			
AH Required (with reserve)		18	16.06	System OK	Battery Size Sufficient	

Rev notes:

2.2.3: update X-Series device current draw to be added to total current calculation

2.2.4: update HFP-11 to correct standby and alarm current.

2.2.5: updated to include 60 min alarm, 5 Series devices

2.2.10: add 72 hours standby

3.0.1: Add FCI2004-U1, Add XMS (April 2020)

3.0.2: Auto add 300W power supply for all voice applications (May 2020)

3.0.3: Auto add 10 I/O and Voice CPU (May 2020)

3.0.4: Add 100 min alarm count

3.0.6: Update value for OP921

3.0.7: Update LED module, NAC module, and releasing module (Oct 2020)

3.1.0: Updated with PAD-5-CLSA and XMS modules (October 2020)

3.1.1: Updated with XMS (Sept 2021)

3.1.2: Updated values for FCM2018 and FCM2019 (August 2021)

3.1.3: Added external power source option (January 2022)

3.1.4: Updated values for OH, OP, and HI devices (March 2022)

3.1.5: Updated calculations for voice amplifier cards (May 2022)

3.1.6: Updated logic for sounder base (June 2022)

3.1.7: Added SLC output max current logic, updated total device calculation, updated sounder base calculations (July 2022)

3.1.8: Updated logic for power supply

4.0.1: Added MP4 devices, Battery Disconnect Module, XMS-2S, XMS-DA, updated Dact Values, added battery size check, RS-485 logic and Announcer limits, etc.