

LCN®

# Fire and life safety series

Hold open solutions for fire rated doors





## Combining proven technology with high-quality standards

LCN was formed on the belief that quality sets us apart. Built from the inside out, the portfolio combines tougher, bolder construction with proven technology – setting the standards of reliability, longevity and value in high-use applications.

LCN fire and life safety series are heavy duty closers/holders with electrically controlled hold open functions to control fire and smoke barrier doors. These closers feature a wide portfolio with single point, multi-point and tri-volt magnet offerings still incorporating trusted LCN design elements like cast iron cylinders.

Allegion's LCN door control portfolio is at the top of its class because of its high-quality construction and reliable performance. Our Sales and Technical Services teams provide support throughout every step of our process, whether consulting on code, advising a door specification or answering installation questions. We are focused on making your LCN experience positive.

### **Fire/life safety Series features**

- Hold open solutions for fire rated doors
- Designed to integrate with existing fire and life safety systems
- Incorporates the same trusted LCN proven reliability as cast iron closers
- Features broad portfolio with single point, multi-point and tri-volt magnet offerings

### Information and customer care



[us.allegion.com](http://us.allegion.com)



US 877.671.7011  
Canada 800.900.4734



[support@allegion.com](mailto:support@allegion.com)  
[Closers\\_TechProdSupport@allegion.com](mailto:Closers_TechProdSupport@allegion.com)



[www.youtube.com/LCNHardware](http://www.youtube.com/LCNHardware)

---

### Ordering



[Allegion\\_Orders@allegion.com](mailto:Allegion_Orders@allegion.com)

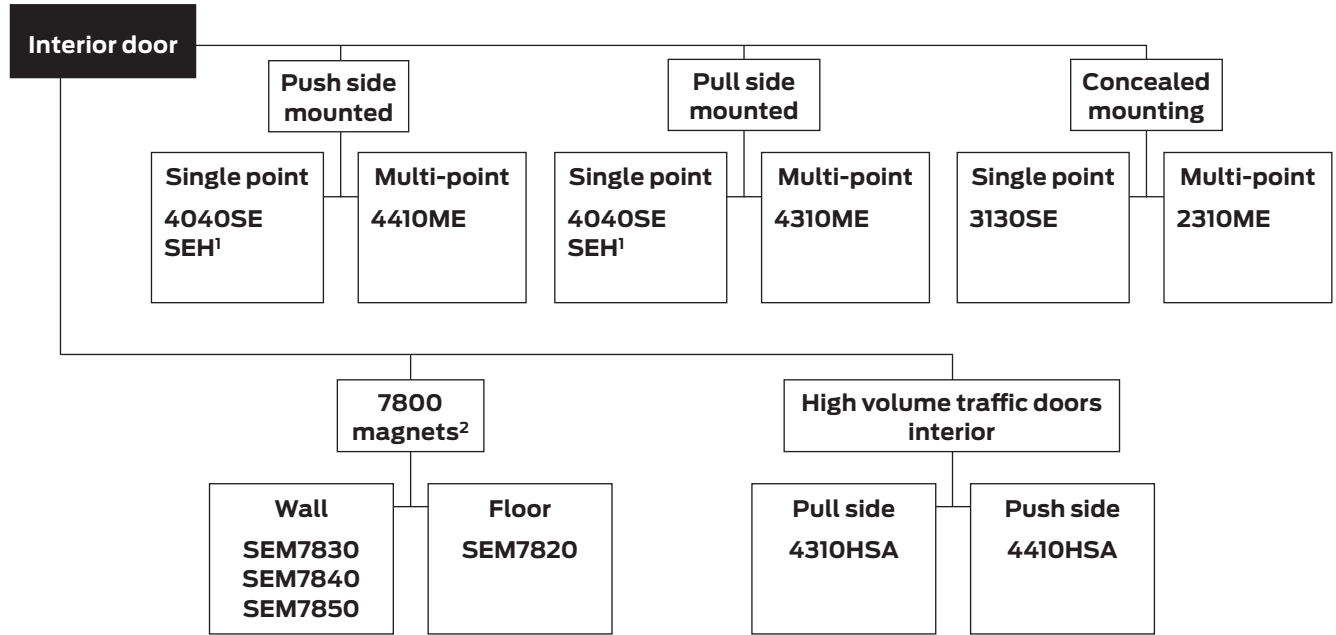


eFax: 1.800.248.1460

# Fire and Life Safety Series closers and holders

## Product selection guide

SENTRONIC® Series LCN closer/holders combine heavy duty closers with electrically controlled hold open functions to control fire and smoke barrier doors. This guide is based on the desired mounting of the unit.



1. See SEH section (cylinder not included).  
 2. SEM 7800 Series are die cast.

## Product comparison

This chart shows a basic comparison of Sentronic closer/holders. Refer to the specific product chapter for complete details.

	Mounting				Finish		Cover		Cylinder			Arm function*						
	Hinge (pull) side	Top jamb (push)	Stop face (push)	Concealed (frame)	Powder coat	Plated	Plastic	Metal	Handed	Non-sized	Sized	Single Point Hold Open	Multi-point Hold Open	Pass 80/140	Standard (single)	Regular (double)	Swing Free	Double Egress
3130SE	■	■	■	■	■	■	■	■	■	■	■	■	■	110°	■	■	■	
4040SE	■	■	■	■	■	■	■	■	■	■	■	■	■	110°	■	■	95°	
2310ME	■	■	■	■	■	■	■	■	■	■	■	■	■	160°	■	■	■	
4310ME	■	■	■	■	■	■	■	■	■	■	■	■	■	■	160°	95°		
4410ME	■	■	■	■	■	■	■	■	■	■	■	■	■	■	150°	■	■	
4310HSA	■	■	■	■	■	■	■	■	■	■	■	■	■	160°	■	■	95°	
4410HSA	■	■	■	■	■	■	■	■	■	■	■	■	■	■	150°	■	■	

■ Available      \* Maximum opening/hold open point with standard template. See individual closer series for degrees of opening per installation.  
 ■ Not available

### Sentronic closer/holders

Automatic detection and containment of fire and smoke are the best ways to minimize danger to life and property. Patented Sentronic door closer/holders are designed to hold swinging doors open in normal use and release and automatically close the doors under fire conditions. Conforms to major building codes, life safety codes (eg. NFPA 101) and ANSI A156.15.

### Single Point Hold Open (SE)

SE Series offers adjustable single point hold open function controlled by solenoid assembly located in the SE track.

### Multi-point Hold Open (ME)

ME Series offers adjustable, multi-point hold open function controlled by solenoid on the cylinder assembly.

### Holder Scanner Activated (HSA)

Electronically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors.

### Magnets (SEM) - Electromagnetic door holders

SEM Series magnets work with manual door closers to provide single point hold open. Now available in new tri-voltage with 35 lbs. of holding force.

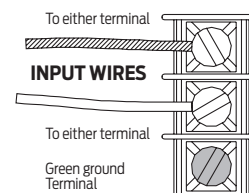
### Applications

- For fire and smoke barrier doors
- Integrated into larger system
- Surface and concealed mountings
- Remote control hold open function of executive and conference area doors
- Adapter plates and other installation accessories available for non-standard conditions

### General notes

1. For installations where 120V AC input voltage is supplied, 120V/24V transformer, 4040SE-3210, is required to reduce line voltage for 24V holding solenoid. Units are available in either 24V or 120V input, please specify.
2. Transformer 4040SE-3210 mounted on cover plate to fit 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others).

3. SE track quick-connector is required for 1/2" conduit.
4. SE test switch assembly includes fuse to protect solenoid. Works with ionization, photoelectric and heat sensing detectors (by others).



SE wiring diagram

### Features common to Fire and Life Safety closers

- 24V AC/DC or 120V AC input, please specify for SE or ME
- When current is interrupted, hold open releases and door closes
- Adjustable hydraulic back check cushions opening swing prior to 90°
- Separate regulation of general closing speed and latching speed
- Available in a wide range of powder coated finishes to blend with door and frame (SEM magnets available in Aluminum and Dark Bronze only)
- Circuit automatically handles AC or DC input
- Can be pushed safely and easily out of hold open
- Functions as a full rack and pinion door closer when hold open is not engaged or current is interrupted
- Works with ionization, photoelectric and heat sensing detectors (by others)

### Design assistance

LCN has been providing reliable solutions to unique door control problems since 1925. Contact LCN for assistance or technical information at 877-671-7011 or fax 800-248-1460 (Order Entry), Fax 815-879-1495 for Product Support.

### Warranty

2 year limited warranty. See General Information catalog for complete warranty details.

**Specifications**

Refer to specifications section for suggested architectural specifications.

**Materials**

- High strength cast iron cylinder
- Forged steel main arm
- One piece forged steel piston
- All weather fluid reduces seasonal adjustments
- High efficiency, full complement, low friction bearings
- Tamper resistant regulating screws
- Quiet, low friction track and roller combination for all single lever arm closers

**Finishes**

- Available in six standard or a wide selection of optional custom powder coat finishes to blend with door and frame
- LCN's powder coat finishes surpass 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance
- Plated finishes are available as an option to accent door and frame

**Listings and approvals**

Sentronic closer/holders are listed by Underwriters Laboratories, Inc. in the following product categories under Fire Doors (GSNV), Combination Door Closers and Holders (GTIS) file R7050. SEM 7800 Series magnets are listed under Door Holders (GTPR) file R8327.

Consult the factory for other listings, such as; cUL, Department of Labor and Industry of the Commonwealth of Pennsylvania, The Board of Standards and Appeals of the City of New York, Fire and Panic Safety Standards of the California State Fire Marshal.

**Holding solenoids current draw**

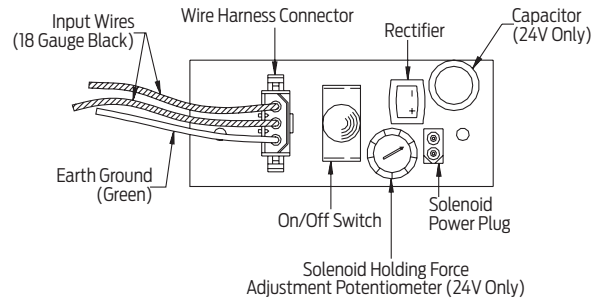
- **SE/ME**
  - 24V AC/DC (+10% -15%) @ 90 mA max
  - 120V AC/DC (+10% -15%) @ 30 mA max
- **SEM (tri-volt)**
  - 12V DC (+10% -15%) @ 30 mA max
  - 24V AC/DC (+10% -15%) @ 20 mA max
  - 120V AC (+10% -15%) @ 20 mA max
- **HSA**
  - 24V AC/DC (+10% -15%) @ 120 mA max

**Transformer data**

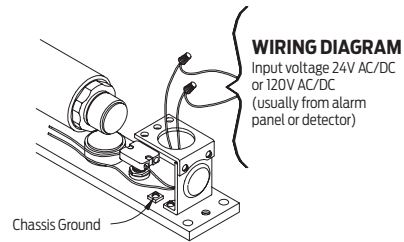
120V AC 50-60 Hz (primary); 24V AC @ 400 mA max (secondary). An LCN supplied transformer will power (recommended) 2 SE, 3 SE/ME and 15 SEM.

**ME wiring**

ME "ON/OFF" switch assembly includes trim pot to adjust pull out force and fuse to protect solenoid.



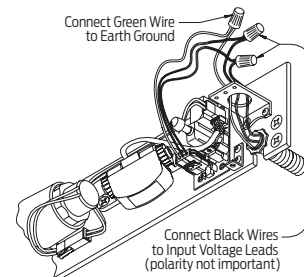
**ME (4310, 4410) wiring diagram (24V only)**



**ME (2310) wiring diagram**

**HSA wiring**

HSA "On/Off" switch assembly includes trim pot to adjust hold open time and fuse to protect solenoid.



**HSA wiring diagram**

**Maintenance**

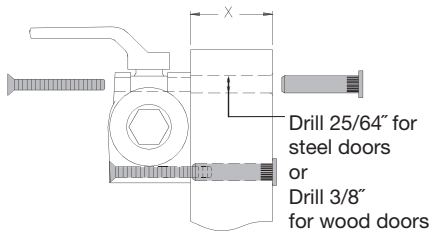
Closers mounted according to LCN installation instructions requires reduced periodic adjustments. Quarterly inspections are recommended. Refer to the installation instructions for complete, product specific details.

**Positive pressure** 🔥

LCN closers have been certified for three hours by UL to be in compliance with UL 10 C. Contact LCN for specific details on door closer fire ratings.

**Fasteners**

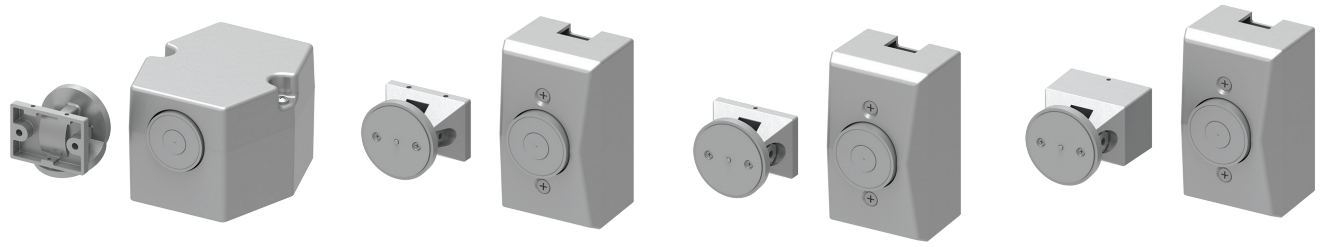
Standard Wood and Machine Screw (WMS) pack contains Phillips head wood and machine screws to install the closer. Through Bolts and/or Torx Machine Screws are available for most closers. LCN Through Bolts (TB) can be installed on 1 3/4" thick doors with either the 1/4"-20 machine screws or optional Torx screws supplied with the closer. Optional sizes are available for 1 5/8" or 1 3/8" door thicknesses, but this must be specified when ordering.



Notes:

- 1. For Through Bolts, specify door thickness if other than 1 3/4" (44mm), represented in diagram as dimension "X".
- 2. Phillips head, metric machine screws are available, please specify.
- 3. LCN recommends the use of wood screws for wood door applications.

# SEM7800 Series



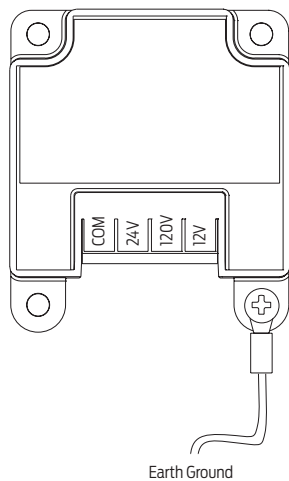
The Sentronic® SEM 7800 Series are heavy duty, electrically controlled door holding magnets. Magnets are fail safe and hold until the current is interrupted. A manual door closer is used to control and close the door. A choice of floor, recessed wall, or surface mounted wall magnets are available.

## Features

<b>Certifications</b>	Grade 1 - ANSI A156.15, UL 10C for metal smoke barrier or labeled door, Life Safety Code, NFPA 101, 100 Hour Salt Spray, Meets BAA - Buy American Act
<b>Voltage</b>	Tri-voltage design with 35 lbs. of holding force
<b>Housing</b>	Die cast
<b>Fasteners</b>	Wood and Machine Screws (WMS)
<b>Finishes/colors/powder coat</b>	<ul style="list-style-type: none"> <li>■ 689 Aluminum paint</li> <li>■ 695 Dark Bronze paint</li> </ul>
<b>Options</b>	Available with armature extensions (see <a href="#">page 10</a> )

## Electrical data

### Voltage input



### Electrical schematic

**Operation:**  
Electromagnets are typically used with fire alarm systems. Doors are held open in the non-alarm condition. When the fire alarm panel enters the alarm condition, power to the electromagnets is removed, the doors close under door closer control, and function as a manual door. When the fire alarm panel returns to the non-alarm condition, power is reapplied to the electromagnets and the doors can be held open again.

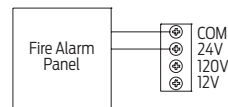


Fig. 1 24V AC/DC Wiring  
Polarity is inimportant

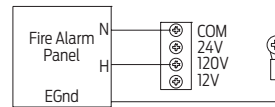


Fig. 2 120V AC Wiring

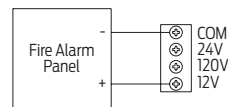


Fig. 3 12V DC Wiring  
Polarity as shown

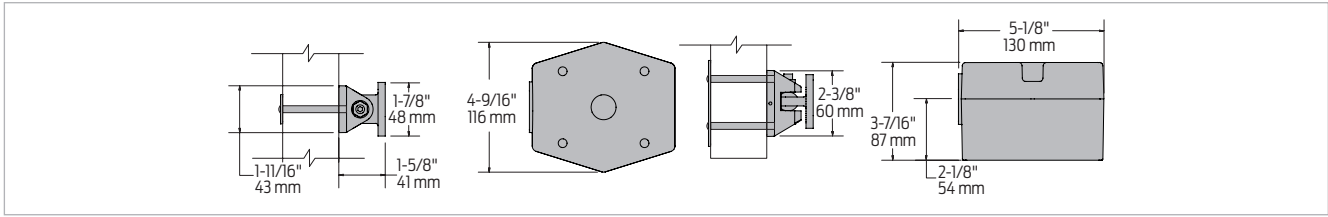
**Electrical Specifications**  
Max. Current Draw  
.030A @ 12VDC  
.020A @ 24VAC/DC  
.020A @ 120VAC

<b>Holding force</b>	35 lbs. @ nominal input voltage
<b>Maximum current draw</b>	<ul style="list-style-type: none"> <li>■ Standard profile recessed wall mount</li> <li>■ 2" (51 mm) x 4" (102 mm) x 1 1/2" (38 mm)</li> </ul>



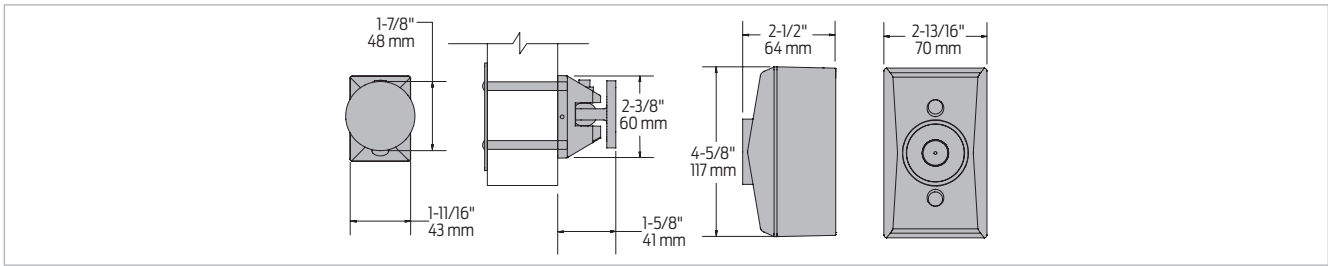
# Mounting details

## 7820



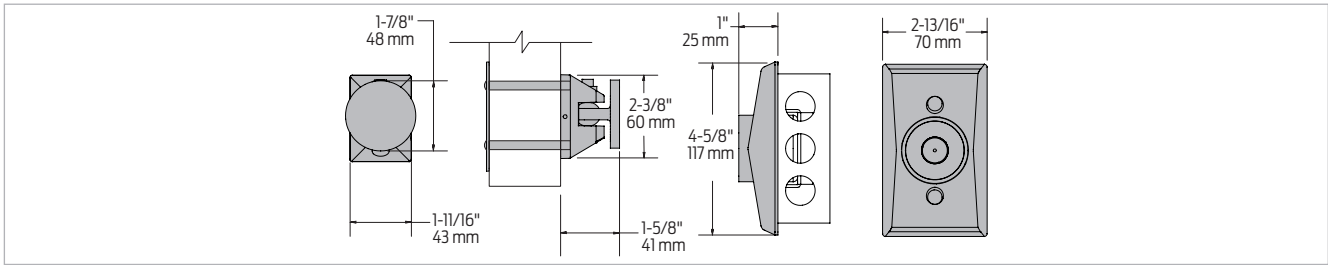
Mounting	Floor mounted
Total projection	6 3/4" (171 mm)

## 7830<sup>1</sup>



Mounting	Surface wall mounted
Total projection	4 1/8" (105 mm)

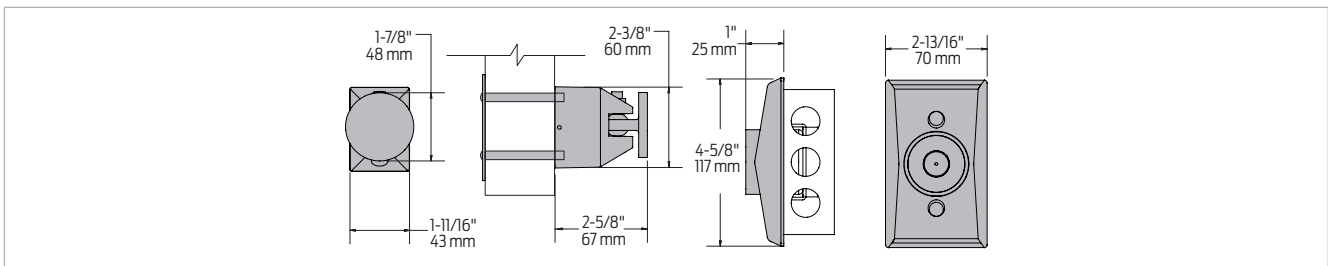
## 7840<sup>1</sup>



Mounting	<ul style="list-style-type: none"> <li>■ Low profile recessed wall mount</li> <li>■ 2" (51 mm) x 4" (102 mm) x 1 1/2" (38 mm)</li> </ul>
Total projection	2 5/8" (67 mm)

Note: Outlet box not included.

## 7850<sup>1</sup>



Mounting	<ul style="list-style-type: none"> <li>■ Standard profile recessed wall mount</li> <li>■ 2" (51 mm) x 4" (102 mm) x 1 1/2" (38 mm)</li> </ul>
Total projection	3 5/8" (92 mm)

Note: Outlet box not included.

1. Suitable for use in pocket door installations.

## Accessories

### Magnets



**SEM7820-516**  
Magnet core assembly

- Magnet coil
- Standard



**SEM7830(40)(50)-516**  
Magnet core assembly

- Magnet coil
- Standard

### Armatures



**SEM7820(30)(40)-825**  
Door armature

- Die cast low profile armature
- Standard



**SEM7850-828**  
Door armature

- Die cast armature
- Standard

Note: Fastener kits for mounting must be ordered separately using part numbers ending in-515.

### Fasteners

**SEM7820-515**  
Fastener kit

- Hex key wrench
- Armature thru hole plate and surface mount clip
- Cement anchor
- Wood and machine screws

**SEM7830-515**  
Fastener kit

- Hex key wrench
- Armature thru hole plate and surface mount clip
- Cement anchor
- Wood, machine and PHND screws

**SEM7840-515**  
Fastener kit

- Hex key wrench
- Armature thru hole plate and surface mount clip
- Cement anchor
- Wood, machine and PHND screws

**SEM7850-515**  
Fastener kit

- Hex key wrench
- Armature thru hole plate and surface mount clip
- Cement anchor
- Wood, machine and PHND screws

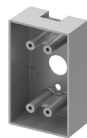
### Cover



**SEM7830(40)(50)-72**  
Standard cover

- Die cast cover
- Standard

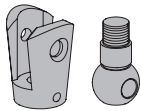
### Box



**SEM7830-268**  
Surface mount box

- Die cast surface wall mount box
- Standard

### Extensions



**SEM7810-514**  
Ball pivot/connection link

- Required for each door needing extension(s)
- Kit includes coupler link and ball pivot (alone serves as a 1 1/2" extension)



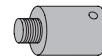
**SEM7810-E050**  
Magnet extension 1/2"

- Metal
- Standard



**SEM7810-E075**  
Magnet extension 3/4"

- Metal
- Standard



**SEM7810-E100**  
Magnet extension 1"

- Metal
- Standard



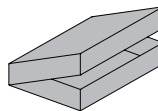
**SEM7810-E200**  
Magnet extension 2"

- Metal
- Standard



**Extension, SEM7810-E400**  
Magnet extension 4"

- Metal
- Standard



**SEM7810-517**  
Magnet SEM extension kit

- Extension kit includes:
  - 10 .....7810SEM-E100
  - 5 .....7810SEM-E200
  - 10 .....7810SEM-E050
  - 20 .....7810SEM-514

## Ordering information

### How-to-order SEM7800 Series magnets

**1. Select magnet series**

- SEM7820
- SEM7830
- SEM7840
- SEM7850

**2. Select finish**

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695)  
paint

### Magnets will be shipped with:

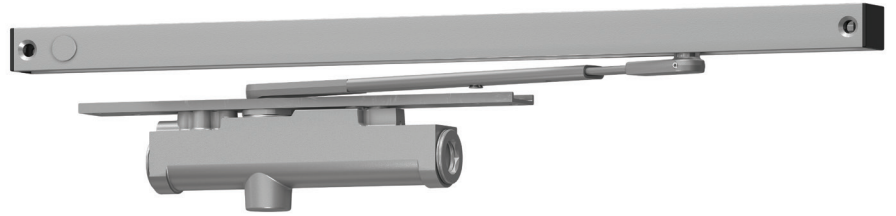
- Die cast housing
- Cover
- Armatures
- Wood and machine screws

### SEM 7810 extensions

#### Magnet series

- Ball Pivot/Connection Link (SEM7810-514) (qty.)
- Magnet Extension 1/2" (SEM7810-E050) (qty.)
- Magnet Extension 3/4" (SEM7810-E075) (qty.)
- Magnet Extension 1" (SEM7810-E100) (qty.)
- Magnet Extension 2" (SEM7810-E200) (qty.)
- Magnet Extension 4" (SEM7810-E400) (qty.)
- Magnet SEM Extension Kit (SEM7810-517) (qty.)

# 3130SE Series

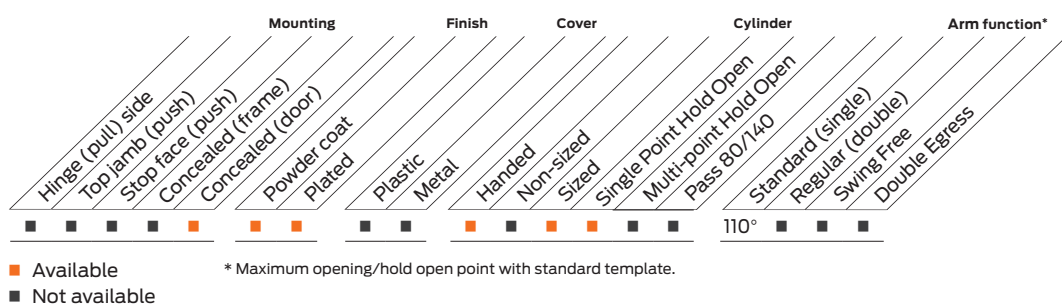


The 3130SE SENTRONIC® is a concealed in the door, closer/holder designed to provide single point hold open for fire and smoke barrier doors. Door is held open until current interruption releases the holding mechanism and the door closes.

## Features

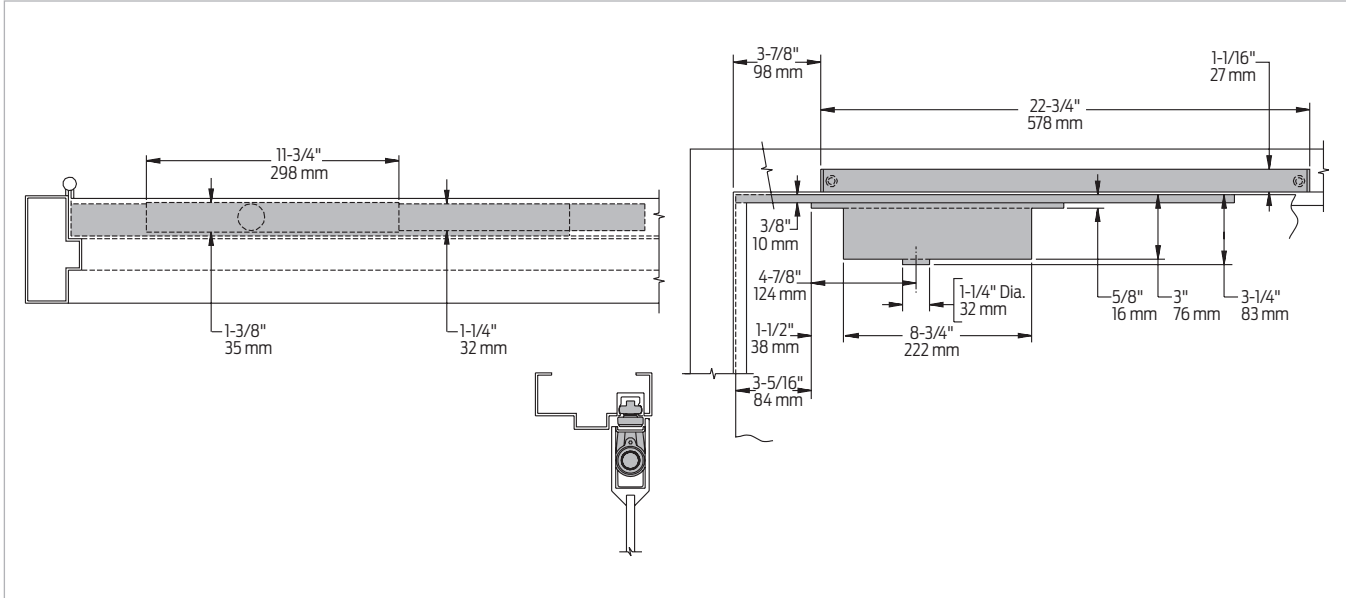
<b>Certifications</b>	Grade 1 - ANSI A156.15, UL/for metal smoke barrier or labeled door, Life Safety Code, NFPA 101, 100 Hour Salt Spray, meets BAA - Buy American Act	<b>Fasteners</b>	Wood and Machine Screws (WMS)
<b>Body construction</b>	<ul style="list-style-type: none"> <li>■ Cast iron body</li> <li>■ Full complement bearing</li> <li>■ 1 1/8" Diameter piston</li> <li>■ 9/16" diameter double heat treated pinion journal</li> </ul>	<b>Mounting</b>	Concealed (in door) for interior smoke barrier and labeled doors
<b>Handing</b>	Handed	<b>Arms</b>	Standard, handed arm and non-handed track
<b>Size</b>	Size 3 or 4, non-adjustable	<b>Finishes/colors/ powder coat</b>	<ul style="list-style-type: none"> <li>■ 689 Aluminum paint</li> <li>■ 690 Statuary Bronze paint</li> <li>■ 691 Light Bronze paint</li> <li>■ 693 Black paint</li> <li>■ 695 Dark Bronze paint</li> <li>■ 696 Brass paint</li> <li>■ Custom colors optional</li> </ul>
<b>Warranty</b>	2 years		<ul style="list-style-type: none"> <li>■ Optional SRI primer - powder coat only</li> <li>■ Optional plated finishes</li> </ul>

**Special templates** | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



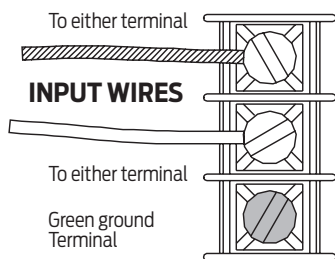
# Mounting details

## Concealed mounting



Butt hinges	<ul style="list-style-type: none"> <li>Should not exceed 5" (127 mm) in width</li> <li>Consult factory for pivot hung installations</li> </ul>
Auxiliary stop	Recommended at hold open point
Top rail	Minimum 4" (102 mm)
Door thickness	<ul style="list-style-type: none"> <li>1 3/4" (44 mm) minimum</li> <li>Please consult the door manufacturer to assure that the door integrity and warranty is maintained after installing the 3130SE Series door closer in 1 3/4" (44 mm) thickness wood doors</li> </ul>
Door width	<ul style="list-style-type: none"> <li>2'4" (711 mm) minimum for single door with SE</li> <li>2'8" (813 mm) minimum for door with SEL</li> </ul>
Maximum opening	<ul style="list-style-type: none"> <li>Templating allows 110°</li> <li>Hold open points between 85° and 110° in approximately 3° increments</li> <li>SEL arm and track locate hold open at 110°, 120° and 130°</li> </ul>
SE, SEL electrical options	<ul style="list-style-type: none"> <li>These track assemblies require a single power circuit for the holding solenoid</li> <li>SE or SEL holding solenoid is either 24V or 120V input, please specify</li> <li>An optional 4040SE-3210 or 8310-824 transformer reduces 120V AC line voltage to 24V AC</li> <li>Circuitry accepts either AC or DC input</li> </ul>
Options	<ul style="list-style-type: none"> <li>Long (SEL) Track and Arm</li> <li>24V or 120V input, please specify</li> </ul>

### SE wiring diagram



- For interior smoke barrier and labeled fire doors
- Functions as full rack and pinion door closer when hold open is not engaged or current is interrupted
- Interfaces with fire alarm system

## Accessories

### Cylinder



- 3130SE-3071**  
**Cast iron cylinder assembly (CYL)**
- Handed
  - Cast iron
  - Standard

### Arms

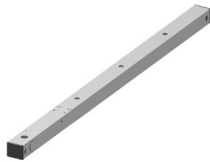


- 3130SE-3077T**  
**Standard Arm (STDTRKARM)**
- Handed
  - Adjustable to select hold open point
  - Standard



- 3130SEL-3077T**  
**Long Arm (LONG)**
- Handed
  - Provides hold open point from 110° to 130°, determined by track templating
  - Used with SEL TRACK 3130SEL-3038 only
  - Option

### Tracks

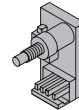


- 3130SE-3038**  
**Standard Track (STDTRK)**
- Non-handed
  - Circuitry accepts either AC or DC input
  - 24V holding solenoid (24) or 120V holding solenoid (120), please specify
  - Standard



- 3130SEL-3038**  
**Long Track (LONG)**
- Non-handed
  - Used with Long Arm, 3130SEL-3077T, only
  - Provides hold open point from 110° to 130°, determined by templating. Circuitry accepts either AC or DC input
  - 24V holding solenoid (24) or 120V holding solenoid (120), please specify
  - Optional

### Switch



- 3130SE-3436**  
**Test Switch**

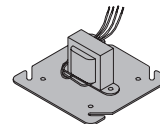
### Installation accessories



- 3130SE-81**  
**Conduit Quick-Connector**
- Two piece connector for use with 1/2" conduit



- 3130SE-3034SE**  
**Track Roller and Track Slider**
- Quiet, low friction roller assembly
  - Shoulder dimension "X" = 1/8" (3 mm)
  - Alloy metal slider for use in SE Series tracks only



- 4040SE-3210**  
**Transformer**
- Reduces line voltage from 120V to 24V AC
  - Mounted on plate for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others)

## Ordering information

### How-to-order 3130SE Series closers

**1. Select cylinder size**

- 3133SE
- 3134SE

**2. Select hand**

- Right Hand (RH)
- Left Hand (LH)

**3. Select voltage**

- 24V AC/DC
- 120V AC/DC

**4. Select finish**

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint.

**Closer will be shipped with:**

- Standard arm
  - Track roller and slider
  - Standard track
  - Wood and machine screws
- (unless options listed below are selected)

### Closer options

**Arm**

- Long Arm (LONG)\*

\* Use with SEL track only

**Finish**

- Custom Powder Coat (RAL) \_\_\_\_\_
- Plated finish \_\_\_\_\_

**Installation accessories**

- Transformer, 4040SE-3210

**Screw pack**

- Torx Machine Screws (TORX)

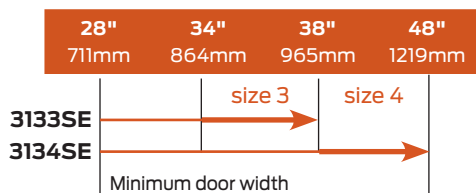
**Special template**

- ST- \_\_\_\_\_

### Table of sizes

- Select closer based on width of door
- Sized 3130SE Series cylinders available in size 3 or 4
- Closing power of all 3130SE Series closers is not adjustable

**Interior door width**



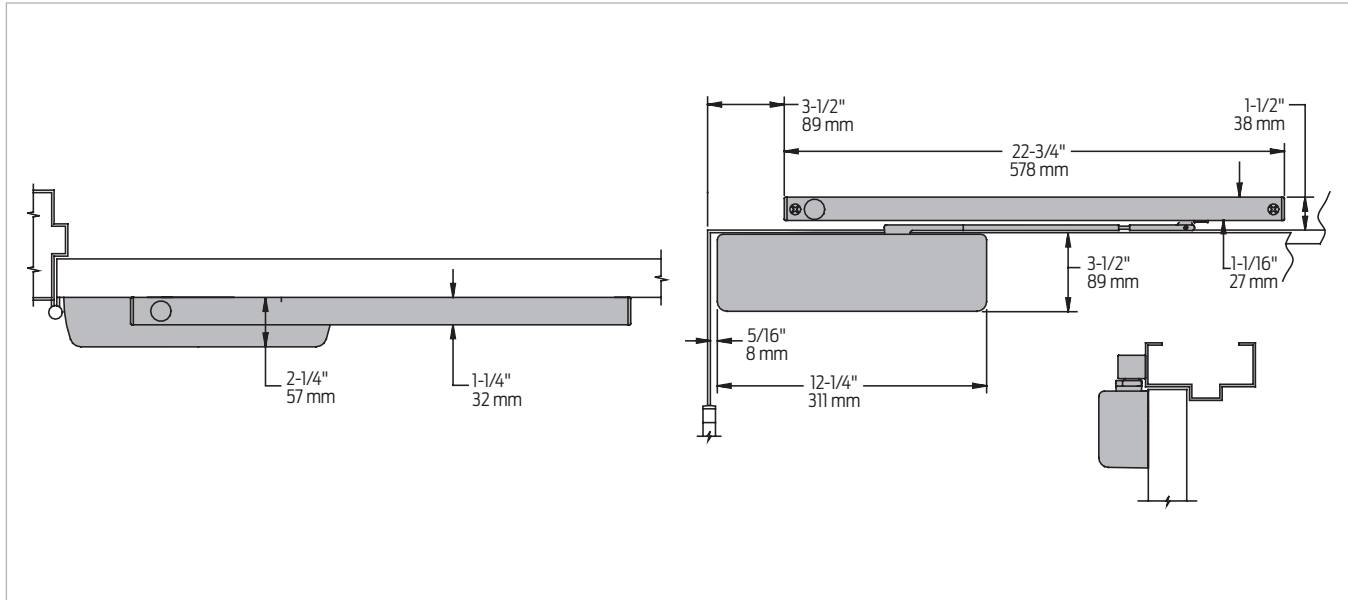
➔ Indicates recommended range of door width for closer size.  
Note: For SE, minimum door width 28" (711mm) For SEL, minimum door width 32" (813mm)





## Mounting details

### Hinge (pull side) mounting



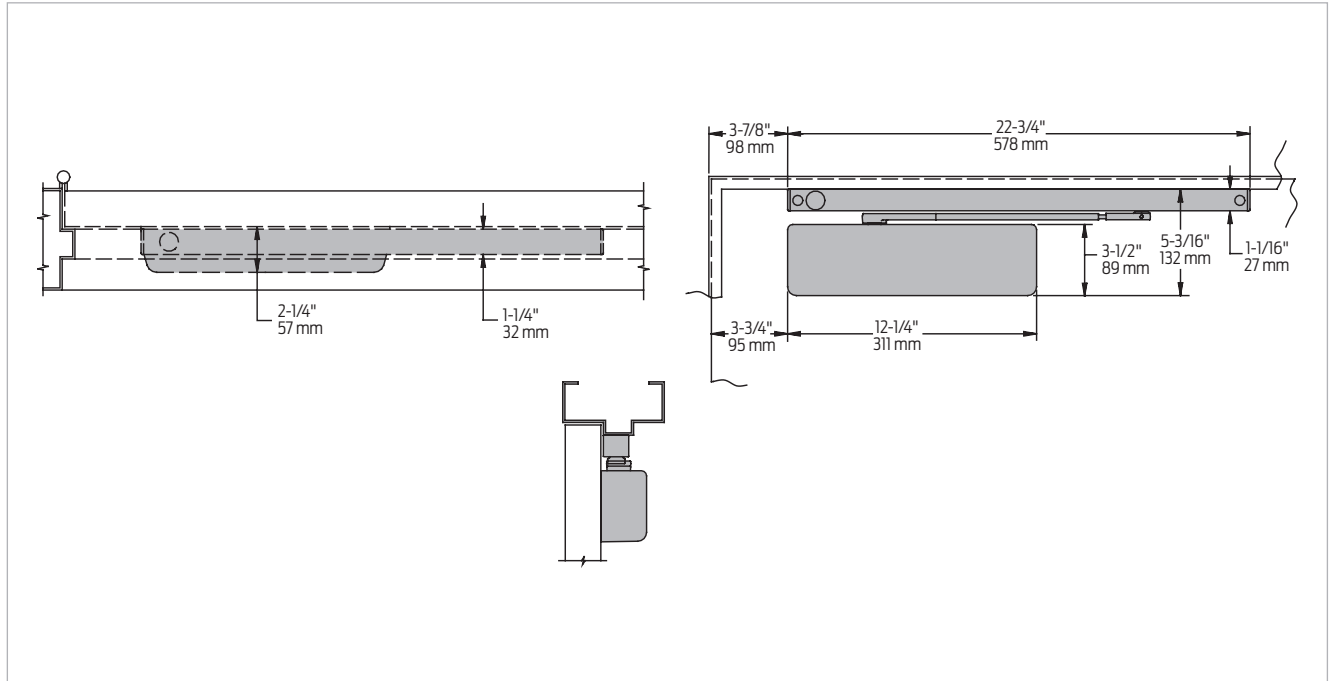
Butt hinges	Should not exceed 5" (127 mm) in width
Swing clear hinges	Consult factory
Auxiliary stop	Recommended at hold open point
Reveal	<ul style="list-style-type: none"> <li>Should not exceed 1/8" (3 mm) for Standard Arm</li> <li>Should not exceed 2 11/16" (68 mm) for Double Egress Arm</li> </ul>
Top rail	<ul style="list-style-type: none"> <li>Minimum 3 1/2" (89 mm)</li> <li>Installation with plate, 4040SE-18 requires special template and 1 3/4" (44 mm) minimum top rail</li> </ul>
Head frame	Requires 2" (51 mm) minimum
Flush ceiling	2" (51 mm) head frame does not require special templating
Door width	<ul style="list-style-type: none"> <li>2' 4" (711 mm) minimum for single door with SE</li> <li>4' 8" (1422 mm) minimum for paired doors with SE</li> </ul>
Clearance	2 3/8" (60 mm) behind door required for 90° installation
Maximum opening	<ul style="list-style-type: none"> <li>Templating allows 110°</li> <li>Hold open points between 85° and 110° in approximately 3° increments</li> <li>Pull side mounting on a Double Egress frame requires a handed Double Egress Arm</li> <li>Maximum Hold Open to 95°</li> <li>2 11/16" (67 mm) maximum reveal on pull side</li> <li>SEL track provides hold open points between 90° and 120°, in approximately 3° increments</li> </ul>
SE, SEL electrical options	<ul style="list-style-type: none"> <li>These track assemblies require a single power circuit for the holding solenoid</li> <li>SE or SEL holding solenoid is either 24V or 120V input, please specify</li> <li>An optional 4040SE-3210 or 8310-824 transformer reduces 120V AC line voltage to 24V AC</li> <li>Circuitry accepts either AC or DC input</li> </ul>
Options	<ul style="list-style-type: none"> <li>Long Track (SEL)</li> <li>Handed Double Egress Arm for reveal under 2 11/16" (67 mm)</li> </ul>
SE wiring diagram	See <a href="#">page 13</a> for typical wiring and electrical diagram

Notes:

- Information applies to 4040 SE unless otherwise specified
- Hold open force is adjustable
- Momentary on/off switch board assembly for testing door release also provides over-voltage protection (field replaceable)
- Functions as a full rack and pinion closer when hold open is not engaged or current is interrupted

# Mounting details

## Stop face (push side) mounting



<b>Butt hinges</b>	Should not exceed 5" (127 mm) in width
<b>Auxiliary stop</b>	Recommended at hold open point
<b>Top rail</b>	<ul style="list-style-type: none"> <li>Minimum 5 3/4" (146 mm)</li> <li>Installation with plate, 4040SE-18PA requires special template and 2" (51 mm) minimum top rail</li> </ul>
<b>Stop width</b>	1 1/4" (32 mm) minimum
<b>Door width</b>	<ul style="list-style-type: none"> <li>2'4" (711 mm) minimum for single door with SE</li> <li>4'8" (1422 mm) minimum for paired doors with SE</li> </ul>
<b>Maximum opening</b>	<ul style="list-style-type: none"> <li>Templating allows 110°</li> <li>Hold open points between 85° and 110° in approximately 3° increments</li> <li>SEL track provides hold open points between 90° and 120°, in approximately 3° increments</li> </ul>
<b>SE, SEL electrical options</b>	<ul style="list-style-type: none"> <li>These track assemblies require a single power circuit for the holding solenoid</li> <li>SE or SEL holding solenoid is either 24V or 120V input, please specify</li> <li>An optional 4040SE-3210 or 8310-824 transformer reduces 120V AC line voltage to 24V AC</li> <li>Circuitry accepts either AC or DC input</li> </ul>
<b>Options</b>	<ul style="list-style-type: none"> <li>Long Track (SEL)</li> </ul>
<b>SE wiring diagram</b>	See <a href="#">page 13</a> for typical wiring and electrical diagram

**Notes:**

- Information applies to 4040 SE closers unless otherwise specified
- Momentary on/off switch board assembly for testing door release also provides over-voltage protection (field replaceable)
- Functions as a full rack and pinion closer when hold open is not engaged or current is interrupted

## Accessories

### Cylinders



**4040SE-3071  
Cast iron cylinder  
assembly (CYL)**

- Non-handed
- Cast iron
- Standard

### Covers



**4040SE-72  
Plastic Cover (PC)**

- Non-handed
- Clip-on
- Standard



**4040SE-72MC  
Metal Cover (MC)**

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

### Arms



**4040SE-3077T  
Standard Arm (STDTRKARM)**

- Non-handed
- Adjustable to select hold open point



**4040SE-3077DE  
Double Egress Arm (DE)**

- Handed
- For pull side installations on double egress doors and frames
- Not required for push side mounting on double egress frames
- Optional

### Tracks



**4040SE-3038  
Standard Track (STDTRK)**

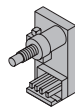
- Non-handed
- For SE closers. Mounts on either head frame or stop
- 24V or 120V AC/DC input for holding solenoid, please specify
- Includes test switch assembly with fuse
- Standard



**4040SEL-3038  
Long Track (LONG)**

- Non-handed
- Mounts on either head frame or stop
- 24V or 120V AC/DC input standard for holding solenoid, please specify
- Includes test switch assembly with fuse
- Optional

### Switch



**4040SE-3436  
Test Switch**

- Non-handed
- Standard

## Accessories

### Installation accessories



**4040SE-18  
Plate**

- Required where top rail is less than 3 1/2" (89 mm)
- Requires minimum 2" (51 mm) top rail
- Installations require a special template



**4040SE-18PA  
Plate**

- Required where top rail is less than 5 3/4" (146 mm)
- Requires minimum 2" (51 mm) top rail
- Installations require a special template



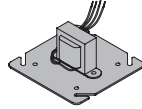
**4040SE-81  
Conduit Quick-Connector**

- Two piece connector for use with 1/2" conduit



**4040SE-3034SE  
Track Roller and Track Slider**

- Quiet, low friction roller assembly
- Shoulder dimension "X" = 1/8" (3 mm)
- Alloy metal slider for use in SE series tracks only



**4040SE-3210  
Transformer**

- Reduces line voltage from 120V to 24V AC
- Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others)

## Ordering information

### How-to-order 4040SE Series closers

#### 1. Select cylinder size

- SE
- SEL

#### 2. Select voltage

- 24V AC/DC
- 120V AC/DC

#### 3. Select finish

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint

### Closer will be shipped with:

- Standard cylinder
- Standard clip-on cover
- Standard arm
- Standard track
- Wood and machine screws  
(unless options listed below are selected)

### Closer options

#### Cover

- Metal Cover (MC) (please specify right or left hand)

#### Finish

- Custom Powder Coat (RAL) (handed metal cover required)
- Plated Finish, US \_\_\_\_\_ (handed metal cover required)

#### Arm

- Double Egress Arm (DE) (please specify right or left hand)

#### Screw pack

- Through Bolt\*, Wood and Machine Screws (TBWMS)
- Torx Machine Screws (TORX)
- Through Bolt\* and Torx Machine Screws (TBTRX)

\*Specify door thickness if other than 1 3/4".

#### Installation accessories

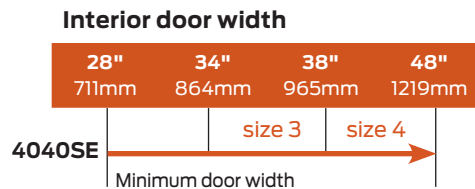
- Plate, 4040SE-18
- Plate, 4040SE-18PA
- Transformer, 4040SE-3210

#### Special template

- ST- \_\_\_\_\_

### Table of sizes

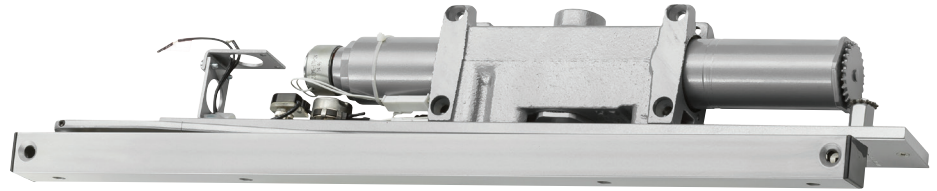
- 4040SE series cylinders accommodate interior doors up to 48" (1219 mm) wide
- Closing power of 4040SE Series closers is adjustable through a range of sizes up to size 4



➔ Indicates recommended range of door width for closer size.

Notes: For SE on paired door, minimum width 60" (1524 mm)  
For SE, minimum door width 28" (711 mm)  
For SEL, minimum door width 30" (762 mm)  
Details are listed on the MOUNTING DETAILS pages.

# 2310ME Series

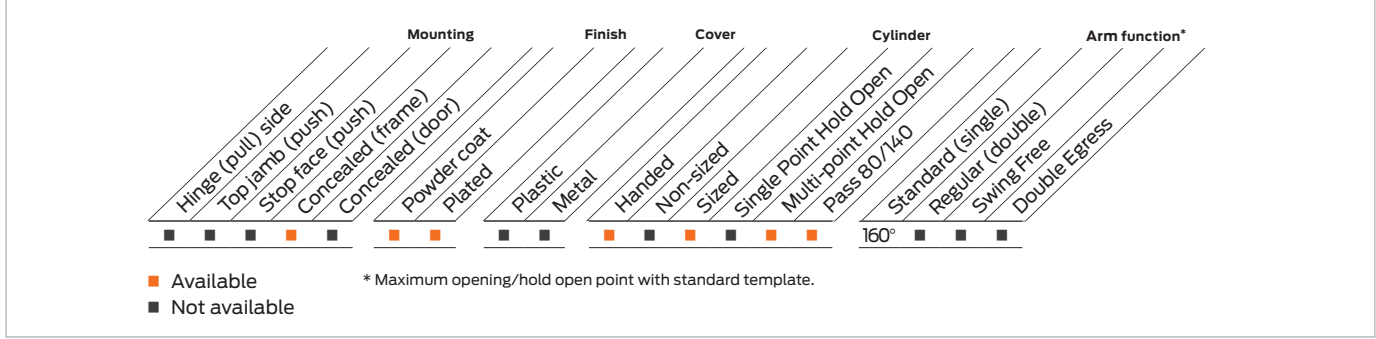


The 2310ME SENTRONIC® is a concealed heavy duty, electrically controlled closer/holder designed to provide infinitely adjustable hold open for fire and smoke barrier doors. Door is held open until current interruption releases mechanism and the door closes.

## Features

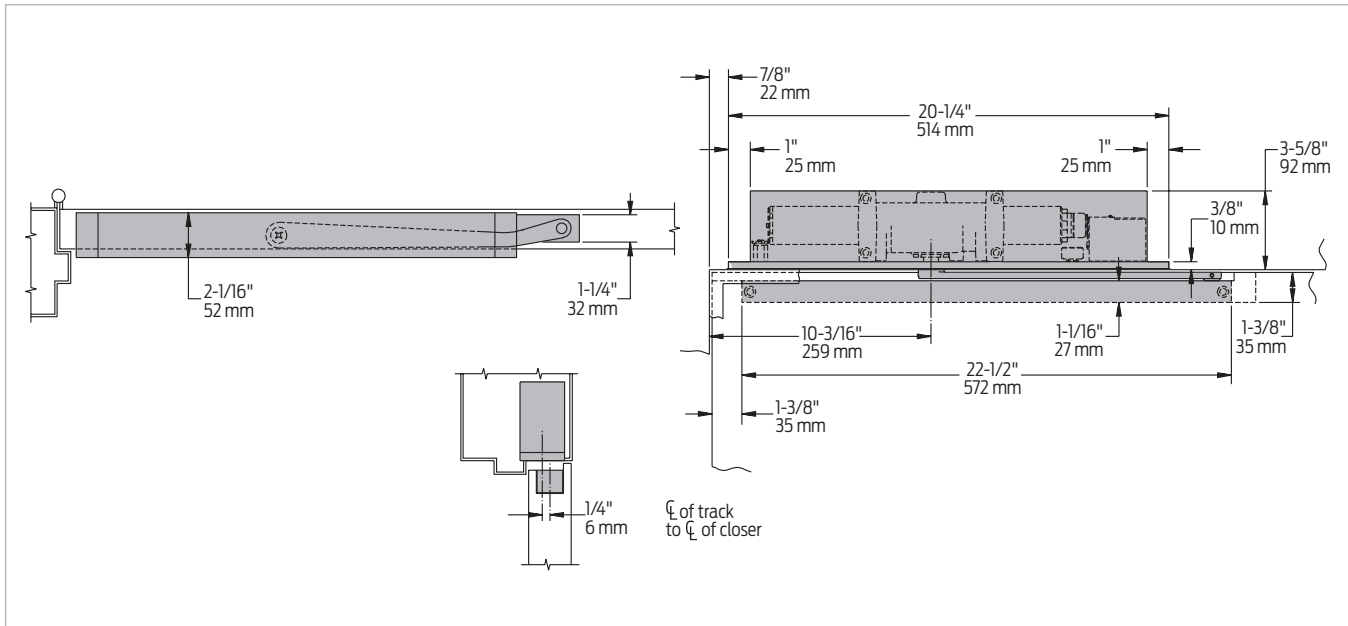
<b>Certifications</b>	Grade 1 - ANSI A156.15, UL 10C, 100 Hour Salt Spray, Meets BAA - Buy American Act, NFPA 101	<b>Fasteners</b>	Wood and Machine Screws (WMS)
<b>Body construction</b>	<ul style="list-style-type: none"> <li>Cast iron body</li> <li>Full complement bearing</li> <li>1 1/2" diameter piston</li> <li>11/16" diameter double heat treated pinion journal</li> </ul>	<b>Mounting</b>	Concealed (in frame)
<b>Fluid</b>	All weather fluid	<b>Arms</b>	Standard handed arm and non-handed track ( two piece metal finish plate)
<b>Handing</b>	Handed	<b>Finishes/ colors/ powder coat</b>	<ul style="list-style-type: none"> <li>689 Aluminum paint</li> <li>690 Statuary Bronze paint</li> <li>691 Light Bronze paint</li> <li>693 Black paint</li> <li>695 Dark Bronze paint</li> <li>696 Brass paint</li> <li>Custom colors optional</li> </ul>
<b>Size</b>	Sized, 4 only	<b>Wiring</b>	<ul style="list-style-type: none"> <li>Optional SRI primer - powder coat only</li> <li>Optional plated finishes</li> <li>Concealed or exposed</li> <li>Built in on/off switch controls hold open function</li> <li>Interfaces with fire alarm system</li> </ul>
<b>Warranty</b>	2 years		

**Special templates** | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



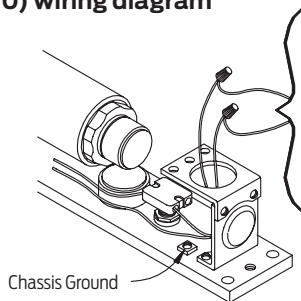
# Mounting details

## Concealed mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Top rail	<ul style="list-style-type: none"> <li>1 3/4" (35 mm) mortise required</li> <li>5/16" (8 mm) cutout required at top of door, stop face only</li> </ul>
Door thickness	1 3/4" (44 mm) minimum
Door width	2' 4" (711 mm) minimum
Hollow metal frame	<ul style="list-style-type: none"> <li>Requires minimum 4" (102 mm) x 4" frame</li> <li>Consult factory or template for preparation details</li> </ul>
Bypass	<ul style="list-style-type: none"> <li>CYLB80 or CYLB140 - eliminates hold open function up to a specified point of door swing</li> <li>CYLB80 cylinder from 0° to 80°</li> <li>CYLB140 cylinder from 0° to 140°</li> </ul>
Maximum opening	Templating allows 180° with hold open points up to 160°
Options	<ul style="list-style-type: none"> <li>Hold open bypass</li> <li>24V or 120V input, please specify</li> </ul>

### ME (2310) wiring diagram



#### WIRING DIAGRAM

Input voltage 24V AC/DC or 120V AC/DC (usually from alarm panel or detector)

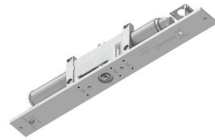
- For interior smoke barrier and labeled fire doors
- Functions as full rack and pinion door closer when hold open is not engaged or current is interrupted

## Accessories

### Cylinders



- 2310ME-3971**  
**Cast iron cylinder assembly (CYL)**
- Handed
  - Cast iron



- 2310ME-3071**  
**Cast iron cylinder assembly (CYL)**
- Handed
  - "On/Off" switch assembly controls the hold open function.
  - Circuitry accepts either AC or DC input. Specify 24V or 120V
  - Standard

### Arm



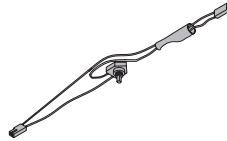
- 2310ME-3077T**  
**Standard Arm (STDTRKARM)**
- Handed

### Track



- 2310ME-3038**  
**Standard Track (STDTRK)**
- Non-handed
  - Standard

### Switch

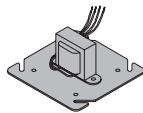


- 2310ME-3351**  
**Switch**
- "On/Off" switch assembly provides continuous hold open function
  - 24V or 120V, please specify

### Installation accessories



- 2310ME-420**  
**Fire Shield**
- 22 gauge steel liner mounts in the track mortise of the door's top rail for 20 minute labeled wood doors with hollow metal frames



- 2310ME-3210**  
**Transformer**
- Reduces line voltage from 120V to 24V AC
  - Mounted on plate for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others)



- 2310ME-3034**  
**Track Roller**
- Quiet, low friction roller assembly
  - Shoulder dimension "X" = 1/16" (2 mm)



## Ordering information

### How-to-order 2310ME Series closers

#### 1. Select hand

- Right Hand (RH)
- Left Hand (LH)

#### 2. Select voltage

- 24V AC/DC
- 120V AC/DC

#### 3. Select finish

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint

### Closer will be shipped with:

- Finish plates
- Standard arm
- Standard track
- Track roller
- Wood and machine screws  
(unless options listed below are selected)

## Closer options

### Cylinder function

- Bypass hold open up to 80° (CYLB80)
- Bypass hold open up to 140° (CYLB140)

### Finish

- Custom powder coat (RAL) \_\_\_\_\_
- Plated finish \_\_\_\_\_

### Screw pack

- Torx Machine Screws (TORX)

### Installation accessories

- Fire shield, 2310ME-420
- Transformer, 2310ME-3210

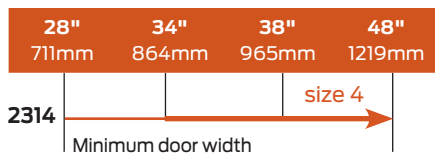
### Special template

- ST- \_\_\_\_\_

## Table of sizes

- Closing power of 2314ME Series closers may be increased 15%

### Interior door width



Indicates recommended range of door width for closer size.

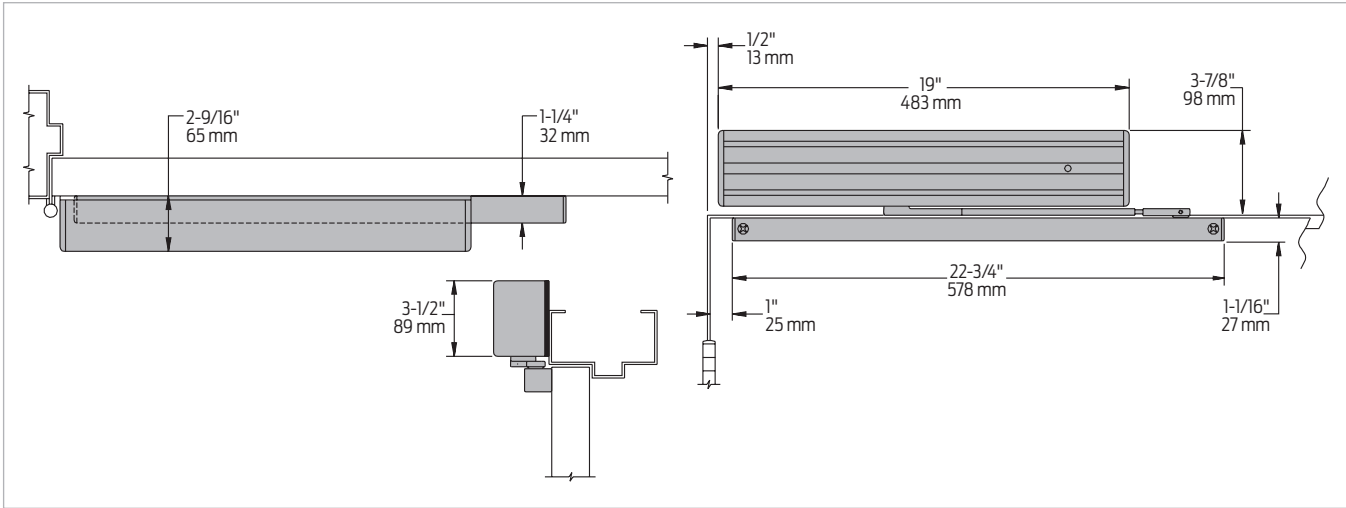
#### Notes:

- For SE, minimum door width 28" (711mm)
- For SEL, minimum door width 32" (813mm)

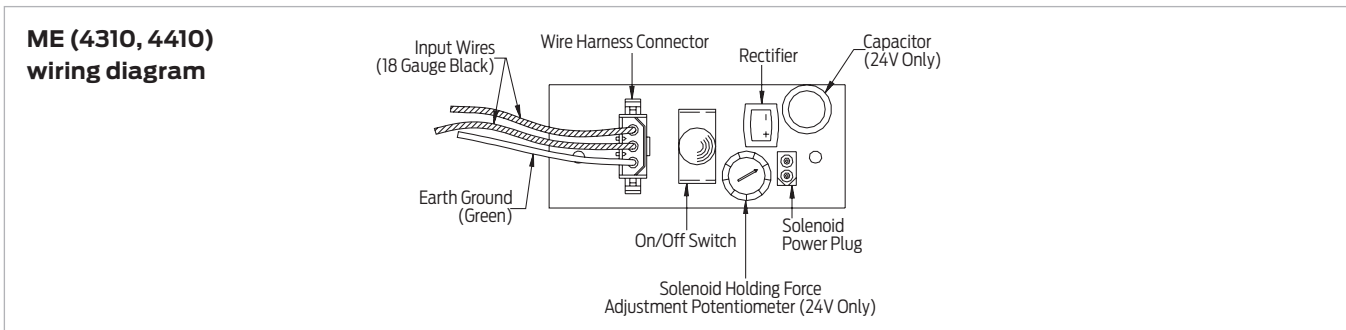


# Mounting details

## Hinge (pull side) mounting



Butt hinges	Should not exceed 4 1/2" (114 mm) in width
Top Rail	1 1/16" (27 mm) minimum
Reveal	<ul style="list-style-type: none"> <li>Should not exceed 1/8" (3 mm) for Swing Free Arm</li> <li>Should not exceed 2 11/16" (68 mm) for Double Egress Arm</li> </ul>
Head frame	Requires 2" (51 mm) minimum
Clearance	1 1/4" (32 mm) behind door required for installation
Bypass	<ul style="list-style-type: none"> <li>CYLB80 or CYLB140 - eliminates hold open function up to a specified point of the doors swing</li> <li>CYLB80 cylinder from 0° to 80°</li> <li>CYLB140 cylinder from 0° to 140°</li> </ul>
Maximum opening	<ul style="list-style-type: none"> <li>Templating allows 180° with hold open points up to 160°</li> <li>Optional Double Egress Arm limited to 95°</li> <li>Please note that many track style door closers are capable of allowing 180° of door swing</li> <li>Be aware that the majority of track style closers are at their weakest closing force in the 180° – 130° range</li> <li>Consult factory for applications where exterior or large/heavy door must swing 180°</li> </ul>
ME electrical options	<ul style="list-style-type: none"> <li>These assemblies have a single electrical circuit with a choice of voltages</li> <li>A separate transformer, 4040SE-3210, can be used to reduce line voltage to 24V AC</li> <li>Circuitry accepts either AC or DC input</li> <li>Please specify 24V or 120V</li> </ul>
Options	<ul style="list-style-type: none"> <li>Hold open bypass</li> <li>24V or 120V volt input, please specify</li> </ul>



**Notes:**

- Information applies to ME closer
- Functions as full rack and pinion door closer when hold open is not engaged or when current is interrupted with Swing Free Arm engaged
- Swing Free Arm allows door to be moved without door closer resistance

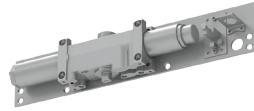
## Accessories

### Cylinder



**4310ME-3971**  
Cast iron cylinder assembly (CYL)

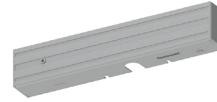
- Handed
- Cast iron
- Specify 24V or 120V
- Standard



**4310ME-3071**  
Cast iron cylinder assembly (CYL)

- Handed
- "On/Off" switch assembly controls hold open function
- Circuitry accepts either AC or DC input
- 24V or 120V, please specify
- Standard

### Cover



**4310ME-72MC**  
Metal Cover (MC)

- Handed
- Standard

### Arms



**4310ME-3077SF**  
Swing Free Arm (SF)

- Handed
- After door is placed in hold open, secondary pivot point allows up to 160° swing without door closer resistance



**4310ME-3077DE**  
Double Egress Arm (DE)

- Handed
- For double egress doors and frames
- 2 1/16" (68 mm) maximum reveal
- Optional

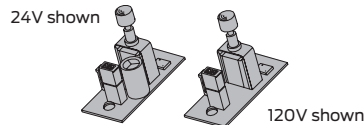
### Track



**4310ME-3038**  
Standard Track (STDTRK)

- Non-handed
- Standard

### Switch



**4310ME-3351**  
Switch Assembly

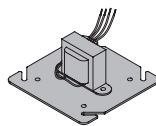
- Provides continuous hold open function
- 24V or 120V, please specify

### Installation accessories



**4310ME-3034**  
Track Roller

- Quiet, low friction roller assembly
- Shoulder dimension "X" = 1/8" (3mm)



**4310-3210**  
Transformer

- Reduces line voltage from 120V to 24V AC
- Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54mm) junction box (by others)



**4310ME-3354**  
ME Wiring Harness

- Three wire harness with 6" (152 mm) leads for field wiring connections

## Ordering information

### How-to-order 4310ME Series closers

#### 1. Select hand

- Right Hand (RH)
- Left Hand (LH)

#### 2. Select voltage

- 24V AC/DC
- 120V AC/DC

#### 3. Select finish

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint.

### Closer will be shipped with:

- Standard cover
- Swing Free Arm
- Standard track
- Track roller
- Wood and machine screws  
(unless options listed below are selected)

### Closer options

#### Cylinder function

- Bypass hold open up to 80° (CYLB80)
- Bypass hold open up to 140° (CYLB140)

#### Arm

- Double Egress Arm (DE)

#### Finish

- Custom powder coat (RAL) \_\_\_\_\_
- Plated finish \_\_\_\_\_

#### Screw pack

- Through Bolt<sup>1</sup>, Wood and Machine Screws (TBWMS)
- Torx Machine Screws (TORX)
- Through Bolt<sup>1</sup> and Torx Machine Screws (TBTRX)

<sup>1</sup>Specify door thickness if other than 1 3/4".

#### Installation accessories

- Transformer, 4310ME-3210

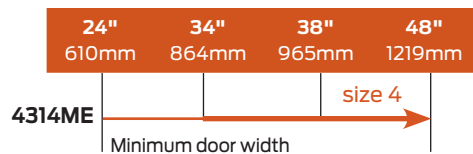
#### Special template

- ST- \_\_\_\_\_

### Table of sizes

- Closing power of 4314ME Series closers may be increased 15%

#### Interior door width



Indicates recommended range of door width for closer size.

# 4410ME Series

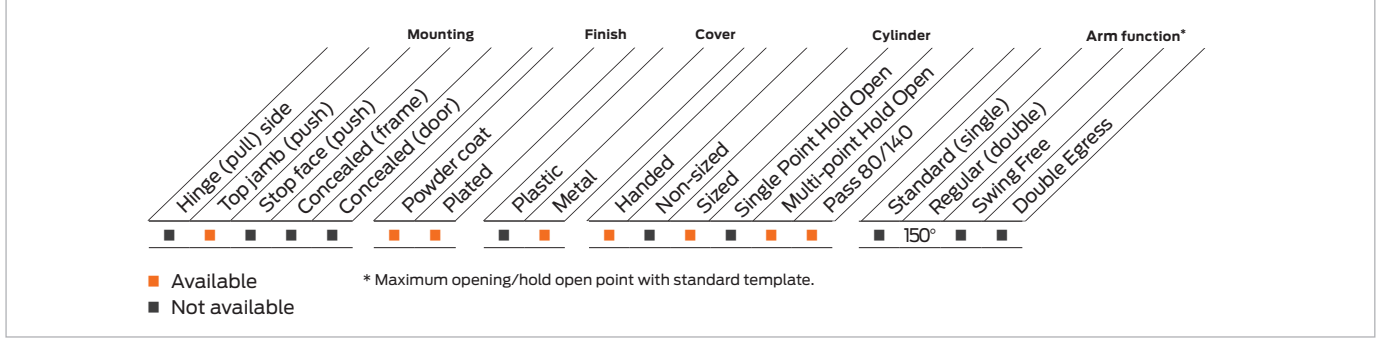


The 4410ME SENTRONIC® is a heavy duty, electrically controlled closer/holder designed to provide infinitely adjustable hold open for fire and smoke barrier doors. Double lever arm closer is specifically designed for interior doors.

## Features

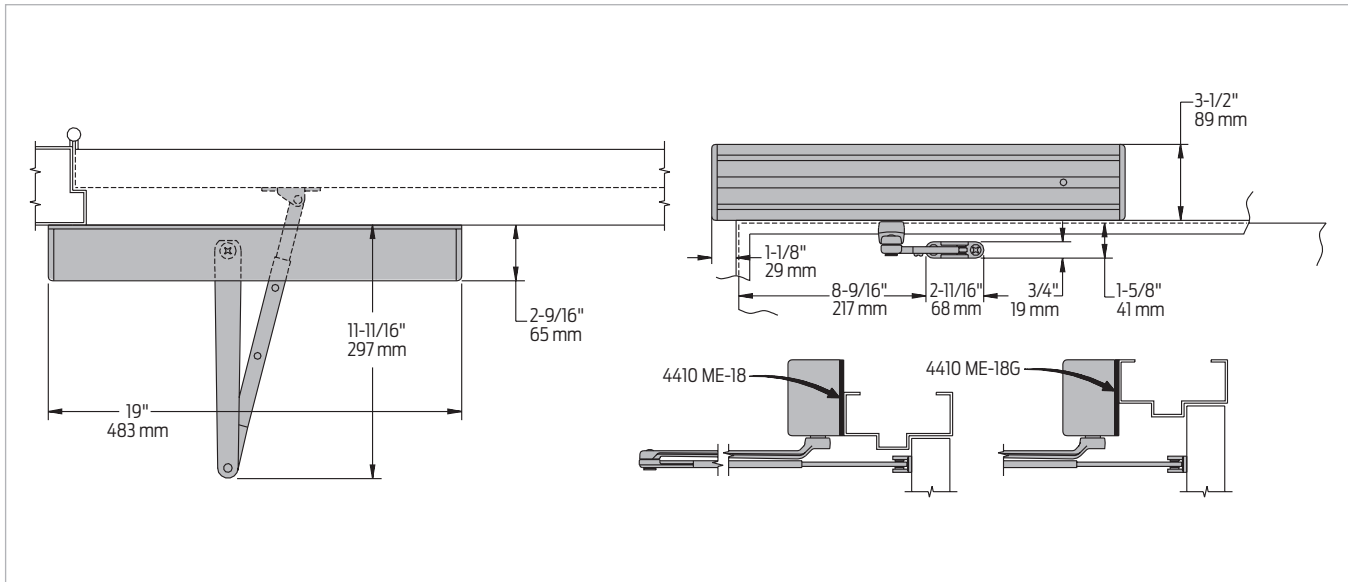
<b>Certifications</b>	Grade 1 - ANSI A156.15, UL 10C, 100 Hour Salt Spray, Meets BAA - Buy American Act, NFPA 101	<b>Cover</b>	Metal, standard
<b>Body construction</b>	<ul style="list-style-type: none"> <li>■ Cast iron body</li> <li>■ Full complement bearing</li> <li>■ 1 1/2" diameter piston</li> <li>■ 11/16" diameter double heat treated pinion journal</li> </ul>	<b>Fasteners</b>	Wood and Machine Screws (WMS)
<b>Fluid</b>	All weather fluid	<b>Mounting</b>	Top jamb (push side)
<b>Handing</b>	Handed	<b>Arms</b>	Regular Arm
<b>Size</b>	Sized, 4 only	<b>Finishes/colors/ powder coat</b>	<ul style="list-style-type: none"> <li>■ 689 Aluminum paint</li> <li>■ 690 Statuary Bronze paint</li> <li>■ 691 Light Bronze paint</li> <li>■ 693 Black paint</li> <li>■ 695 Dark Bronze paint</li> <li>■ 696 Brass paint</li> <li>■ Custom colors optional</li> <li>■ Optional SRI primer - powder coat only</li> <li>■ Optional plated finishes</li> </ul>
<b>Warranty</b>	2 years	<b>Wiring</b>	<ul style="list-style-type: none"> <li>■ Concealed or surface wiring</li> <li>■ Interfaces with fire alarm system</li> </ul>

**Special templates** | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



## Mounting details

### Top jamb (push side) mounting



Butt hinges	Should not exceed 4 1/2" (114 mm) in width
Top rail	<ul style="list-style-type: none"> <li>1 3/4" (44 mm) minimum</li> <li>3 3/4" (95mm) minimum with flush ceiling</li> </ul>
Reveal	<ul style="list-style-type: none"> <li>3 7/8" (98 mm) maximum Regular or Long Arm</li> <li>For reveals greater than 3 7/8" consult factory</li> </ul>
Head frame	<ul style="list-style-type: none"> <li>Requires 1 1/2" (38 mm) minimum</li> <li>2" (51 mm) minimum with flush ceiling</li> </ul>
Flush ceiling	Requires plate, 4410ME-18G substituted for standard mounting plate
Bypass	<ul style="list-style-type: none"> <li>(Suffix "CYLB80" or "CYLB140") eliminates hold open function up to a specified point of door swing</li> <li>CYLB80 cylinder from 0° to 80°</li> <li>CYLB140 cylinder from 0° to 140°</li> </ul>
Maximum opening	<ul style="list-style-type: none"> <li>Templating allows 160°, with hold open points up to 150°</li> <li>Optional Long Arm allows 180°, hold open points up to 170°</li> </ul>
ME electrical options	<ul style="list-style-type: none"> <li>These assemblies have a single electrical circuit with a choice of voltages</li> <li>A separate transformer, 4040SE-3210, can be used to reduce line voltage to 24V AC</li> <li>Circuitry accepts either AC or DC input</li> <li>Please specify 24V or 120V</li> </ul>
Options	<ul style="list-style-type: none"> <li>Hold open bypass</li> <li>Optional Long Arm allows 180° with hold open points up to 170°</li> <li>Optional -18G plate accommodates flush ceiling conditions</li> <li>24V or 120V volt input, please specify</li> </ul>
ME wiring diagram	See <a href="#">page 27</a> for typical wiring and electrical diagram

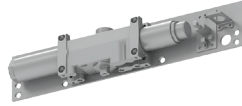
## Accessories

### Cylinders



**4414ME-3971  
Cast iron cylinder  
assembly (CYL)**

- Handed
- Cast iron
- Specify 24V or 120V
- Standard



**4414ME-3071  
Cast iron cylinder assembly (CYL)**

- Handed
- "On/Off" switch assembly controls hold open function
- Circuitry accepts either AC or DC input
- Please specify 24V or 120V
- Standard

### Cover



**4410ME-72MC  
Metal Cover (MC)**

- Handed

### Arms



**4410ME-3077  
Regular Arm (REGARM)**

- Non-handed
- 3 7/8" (98 mm) maximum reveal

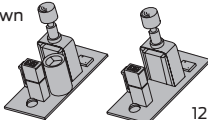


**4410ME-3077L  
Long Arm (LONG)**

- For increasing opening to 180°
- 3 7/8" (98 mm) maximum reveal
- Optional

### Switch

24V shown



120V shown

**4410ME-3351  
ME Switch Assembly**

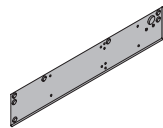
- Provides continuous hold open function
- Available as 24V or 120V, please specify

### Installation accessories



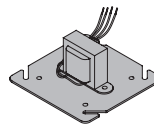
**4410ME-18  
Mounting Plate**

- Standard



**4410ME-18G  
Mounting Plate**

- Substituted for standard plate on flush ceiling installations
- Optional



**4410ME - 3210  
Transformer**

- Reduces line voltage from 120V to 24V AC
- Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others)



**4410ME-3354  
ME Wiring Harness**

- Three wire harness with 6" (152 mm) leads for field wiring connections



## 4410ME Series

## Ordering information

## How-to-order 4410ME Series closers

## 1. Select hand

- Right Hand (RH)
- Left Hand (LH)

## 2. Select voltage

- 24V AC/DC
- 120V AC/DC

## 3. Select finish

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint.

## Closer will be shipped with:

- Standard cover
- Regular arm
- Wood and machine screws  
(unless options listed below are selected)

## Closer options

## Cylinder function

- Bypass hold open up to 80° (CYLB80)
- Bypass hold open up to 140°v (CYLB140)

## Arm

- Long Arm (LONG)

## Finish

- Custom powder coat (RAL) \_\_\_\_\_
- Plated finish \_\_\_\_\_

## Screw pack

- Through Bolt<sup>1</sup>, Wood and Machine Screws (TBWMS)
- Torx Machine Screws (TORX)
- Through Bolt<sup>1</sup> and Torx Machine Screws (TBTRX)

<sup>1</sup>Specify door thickness if other than 1-3/4"

## Installation accessories

- Plate, 4410ME-18G  
(substituted for standard mounting plate)
- Transformer, 4410ME-3210

## Special template

- ST- \_\_\_\_\_

## Table of sizes

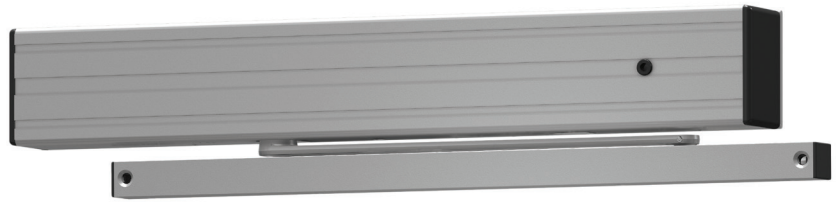
- Closing power of 4414ME Series closers may be increased 15%

## Interior door width



→ Indicates recommended range of door width for closer size.

# 4310HSA Series

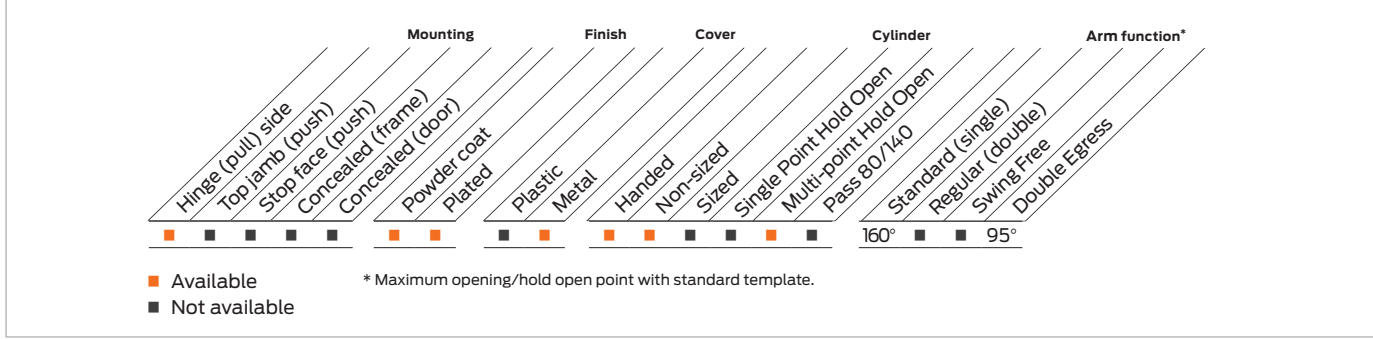


The 4310HSA SENTRONIC® is an electrically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors. Pedestrians, moving through the doorway, trigger the built-in scanner. When the door is opened to 80° or more, the door is electrically held open to minimize wear and tear on applied door hardware. After the last pedestrian in a group passes through the doorway, the system timer releases the hold open, closing the door.

## Features

<b>Certifications</b>	Grade 1 - ANSI A156.15, NFPA 101, UL 10C, 100 Hour Salt Spray, Meets BAA - Buy American Act	<b>Cover</b>	Metal, Standard
<b>Body construction</b>	<ul style="list-style-type: none"> <li>Cast iron body</li> <li>Full complement bearing</li> <li>1 1/2" diameter piston</li> <li>1 1/16" diameter double heat treated pinion journal</li> </ul>	<b>Arms</b>	<ul style="list-style-type: none"> <li>Standard Arm (with track)</li> <li>Double Egress Arm, optional</li> </ul>
<b>Fluid</b>	All weather fluid	<b>Finishes/colors/ powder coat</b>	<ul style="list-style-type: none"> <li>689 Aluminum paint</li> <li>690 Statuary Bronze paint</li> <li>691 Light Bronze paint</li> <li>693 Black paint</li> <li>695 Dark Bronze paint</li> <li>696 Brass paint</li> <li>Custom colors optional</li> </ul>
<b>Handing</b>	Handed		<ul style="list-style-type: none"> <li>Optional SRI primer - powder coat only</li> <li>Optional plated finishes</li> </ul>
<b>Size</b>	Field adjustable, shipped at size 3	<b>Wiring</b>	<ul style="list-style-type: none"> <li>Concealed or surface wiring</li> <li>24V AC/DC input only</li> <li>120V requires 4310HSA-3210 transformer</li> <li>HSA features a scanner activated hold open function, fixed 15 seconds or 30 seconds</li> </ul>
<b>Warranty</b>	2 years		
<b>Fasteners</b>	Wood and Machine Screws (WMS)		
<b>Mounting</b>	Hinge (pull side), interior doors		

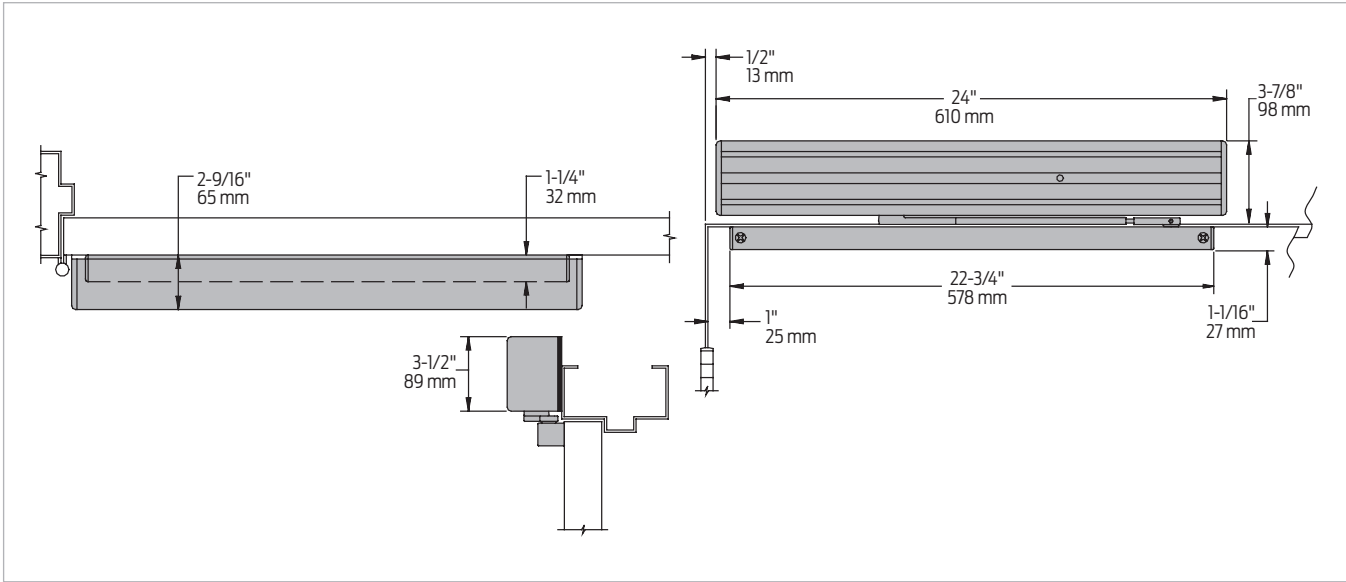
**Special templates** | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.



Introduction  
Product selection guide  
SEM Series  
3130SE Series  
4040SE Series  
2310ME Series  
4310ME Series  
4410ME Series  
4310HSA Series  
4410HSA Series  
SEH Series

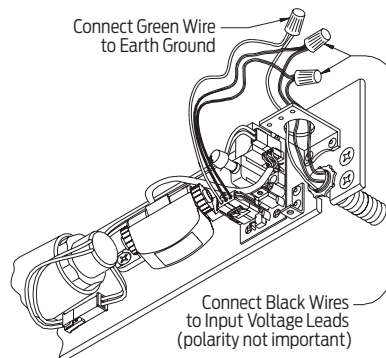
## Mounting details

### Hinge (pull side) mounting



Butt hinges	Should not exceed $4\frac{1}{2}$ " (114 mm) in width
Reveal	<ul style="list-style-type: none"> <li>Should not exceed <math>\frac{1}{8}</math>" (3 mm) for Standard Arm</li> <li>Should not exceed <math>2\frac{1}{16}</math>" (68 mm) for Double Egress Arm</li> </ul>
Top rail	$1\frac{1}{16}$ " (27 mm) minimum
Head frame	Requires 2" (51 mm) minimum
Clearance	$1\frac{1}{4}$ " (32 mm) minimum
Maximum opening	<ul style="list-style-type: none"> <li>Templating allows 180°</li> <li>Optional Double Egress Arm limited to 95°</li> <li>Infinite hold open points from 80° up to 160°</li> </ul>
Options	120 volt input requires 4310HSA-3210 transformer to change 120V AC to 24V AC

### HSA wiring diagram



Note: If used on fire door, must be wired into fire alarm system.

#### Notes:

- Functions as full rack and pinion door closer when current is interrupted or continuous hold open is not engaged
- Built-in "On/Off" switch provides continuous hold open function

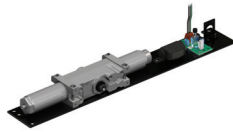
## Accessories

### Cylinders



**4311HSA-3971**  
Cast iron cylinder assembly (CYL)

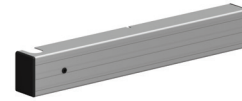
- Handed
- Cast iron
- 24V AC/DC input only for holding solenoid
- Standard



**4311HSA-3071**  
Cast iron cylinder assembly (CYL)

- Handed
- Includes scanner module and system timer module
- "On/Off" switch assembly provides continuous hold open function
- 24V AC/DC input only for holding solenoid and electronics modules
- Standard

### Cover



**4310HSA-72MC**  
Metal Cover (MC)

- Handed
- Standard

### Arms



**4310HSA-3077T**  
Standard Arm (STDTRKARM)

- Handed



**4310HSA-3077DE**  
Double Egress Arm (DE)

- Handed
- For double egress doors and frames
- 2 11/16" (67 mm) maximum reveal
- Optional

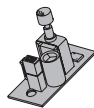
### Track



**4310HSA-3038**  
Track

- Non-handed
- Standard

### Switch



**4310HSA-3448**  
Switch Assembly

- Provides continuous hold open function
- Available in 24V only

### Scanner



**4310HSA-3428**  
Scanner Module

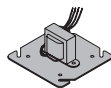
- Includes wire harness to connect scanner module to the switch assembly

### Installation accessories



**4310HSA-3034**  
Track Roller

- Quiet, low friction roller assembly
- Shoulder dimension "X" = 1/8" (3 mm)



**4310HSA-3210**  
Transformer

- Reduces line voltage from 120V to 24V AC
- Mounted on plate for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others)

## Ordering information

### How-to-order 4310HSA Series closers

#### 1. Select hand

- Right Hand (RH)
- Left Hand (LH)

#### 2. Select voltage

- 24V AC/DC

#### 3. Select finish

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint

### Closer will be shipped with:

- 24 AC/DC HSA cylinders
- Metal cover
- Standard arm
- Standard track
- Track roller
- Wood and machine screws  
(unless options listed below are selected)

### Closer options

#### Arm

- Double Egress Arm (DE)

#### Finish

- Custom powder coat (RAL) \_\_\_\_\_
- Plated finish \_\_\_\_\_

#### Screw packs

- Through Bolt<sup>1</sup>, Wood and Machine Screws (TBWMS)
- Torx Machine Screws (TORX)
- Through Bolt\* and Torx Machine Screws (TBTRX)

\*Specify door thickness if other than 1 3/4".

#### Installation accessories

- Transformer, 4310HSA-3210

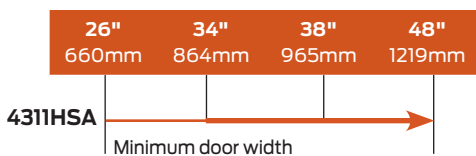
#### Special template

- ST- \_\_\_\_\_

### Table of sizes

- Closing power of 4310HSA Series closers is field adjustable, shipped at size 3

#### Interior door width



➔ Indicates recommended range of door width for closer size.

# 4410HSA Series



The 4410HSA SENTRONIC® is an electrically controlled closer/holder designed to provide easy passage for groups of pedestrians through high traffic doors. Pedestrians, moving through the doorway, trigger the built-in scanner. Double lever arm closer is specifically designed for push side mounting. Choice of finishes and accessories meet virtually all high traffic installation requirements.

## Features

<b>Certifications</b>	Grade 1 - ANSI 156.15, NFPA 101, UL 10C, 100 Hour Salt Spray, Meets BAA - Buy American Act	<b>Arms</b>	<ul style="list-style-type: none"> <li>Regular Arm</li> <li>Long Arm, optional</li> </ul>
<b>Body construction</b>	<ul style="list-style-type: none"> <li>Cast iron body</li> <li>Full complement bearing</li> <li>1 1/2" diameter piston</li> <li>1/16" diameter double heat treated pinion journal</li> </ul>	<b>Finishes/ colors/ powder coat</b>	<ul style="list-style-type: none"> <li>689 Aluminum paint</li> <li>690 Statuary Bronze paint</li> <li>691 Light Bronze paint</li> <li>693 Black paint</li> <li>695 Dark Bronze paint</li> <li>696 Brass paint</li> <li>Custom colors optional</li> <li>Optional SRI primer - powder coat only</li> <li>Optional plated finishes</li> </ul>
<b>Fluid</b>	All weather fluid	<b>Wiring</b>	<ul style="list-style-type: none"> <li>Concealed or surface wiring</li> <li>24V AC/DC input only</li> <li>120V AC input requires 4410HSA-3210 transformer</li> <li>HSA features a scanner activated hold open function, adjustable 15 or 30 seconds</li> <li>Built-in "On/Off" switch provides continuous hold open feature</li> </ul>
<b>Handing</b>	Handed		
<b>Size</b>	Field adjustable, shipped at size 3		
<b>Warranty</b>	2 years		
<b>Fasteners</b>	Wood and Machine Screws (WMS)		
<b>Mounting</b>	Top jamb (push side)		
<b>Cover</b>	Metal, Standard		

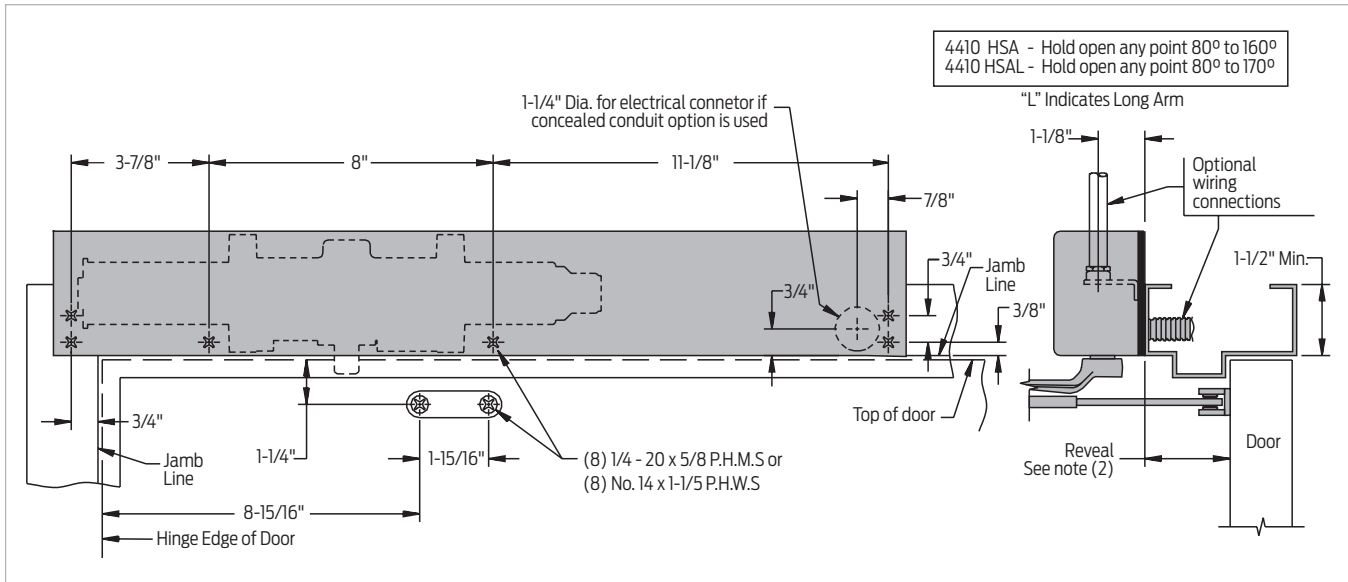
**Special templates** | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

<b>Mounting</b>	<b>Finish</b>	<b>Cover</b>	<b>Cylinder</b>	<b>Arm function*</b>
<ul style="list-style-type: none"> <li>Hinge (pull) side</li> <li>Top jamb (push)</li> <li>Stop face (push)</li> <li>Concealed (frame)</li> <li>Concealed (door)</li> <li>Powder coat</li> <li>Plated</li> </ul>	<ul style="list-style-type: none"> <li>Plastic</li> <li>Metal</li> </ul>	<ul style="list-style-type: none"> <li>Handed</li> <li>Non-sized</li> <li>Sized</li> </ul>	<ul style="list-style-type: none"> <li>Single Point Hold Open</li> <li>Multi-point Hold Open</li> <li>Pass 80/140</li> </ul>	<ul style="list-style-type: none"> <li>Standard (single)</li> <li>Regular (double)</li> <li>Swing Free</li> <li>Double Egress</li> </ul>
<ul style="list-style-type: none"> <li>Available</li> <li>Not available</li> </ul>	* Maximum opening/hold open point with standard template.			

Introduction  
Product selection guide  
SEM Series  
3130SE Series  
4040SE Series  
2310ME Series  
4310ME Series  
4410HSA Series  
4410HSA Series  
SEH Series

## Mounting details

### Top jamb (push side) mounting



Butt hinges	Should not exceed 4 1/2" (114 mm) in width
Top rail	<ul style="list-style-type: none"> <li>1 3/4" (44 mm) minimum</li> <li>3 3/4" (95 mm) minimum with flush ceiling</li> </ul>
Head frame	<ul style="list-style-type: none"> <li>Requires 1 1/2" (38mm) minimum</li> <li>2" (51 mm) minimum with flush ceiling</li> </ul>
Reveal	<ul style="list-style-type: none"> <li>3 7/8" (98 mm) maximum for Regular or Long Arm</li> <li>For reveals greater than 3 7/8" consult factory</li> </ul>
Maximum opening	<ul style="list-style-type: none"> <li>Templating allows 160°</li> <li>Infinite hold open points from 80° up to 150°</li> <li>Optional Long Arm allows 180°, hold open points up to 170°</li> </ul>
Options	<ul style="list-style-type: none"> <li>Optional Long Arm allows 180° with hold open points up to 170°</li> <li>Optional-18G plate accommodates flush ceiling conditions</li> <li>120 volt input requires 4410HSA-3210 transformer to change 120V AC to 24V AC</li> </ul>

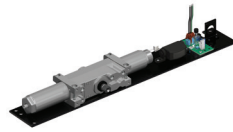
#### HSA wiring diagram

## Accessories

### Cylinders

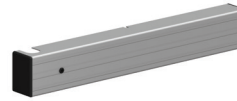


- 4412HSA-3971**  
**Cast iron cylinder assembly (CYL)**
- Handed
  - Cast iron
  - 24V AC/DC input only for holding solenoid
  - Standard



- 4412HSA-3071**  
**Cast iron cylinder assembly (CYL)**
- Handed
  - Includes scanner module and system timer module
  - "On/Off" switch assembly provides continuous hold open function
  - 24V AC/DC input only for holding solenoid and electronics modules
  - Standard

### Cover



- 4410HSA-72MC**  
**Metal Cover (MC)**
- Handed
  - Standard

### Arms

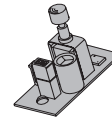


- 4410HSA-3077**  
**Regular Arm (REGARM)**
- Non-handed
  - 3 7/8" (98 mm) maximum reveal



- 4410HSA-3077L**  
**Long Arm (LONG)**
- For increased opening
  - 3 7/8" (98 mm) maximum reveal
  - Optional

### Switch



- 4410HSA-3448**  
**Switch Assembly**
- Provides continuous hold open function
  - Available in 24V only

### Scanner

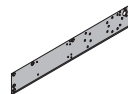


- 4410HSA-3428**  
**Scanner Module**
- Includes wire harness to connect scanner module to the switch assembly

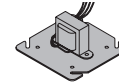
### Installation accessories



- 4410HSA-18**  
**Mounting Plate**
- Standard



- 4410HSA-18G Transformer**  
**Mounting Plate**
- Substituted on flush ceiling installations
  - Optional



- 4410HSA-3210**  
**Transformer**
- Reduces line voltage from 120V to 24V AC
  - Mounted on plate for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others)



## Ordering information

### How-to-order 4410HSA Series closers

#### 1. Select hand

- Right Hand (RH)
- Left Hand (LH)

#### 2. Select voltage

- 24V AC/DC

#### 3. Select finish

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint

### Closer will be shipped with:

- 24 AC/DC HSA cylinders
- Metal cover
- Regular arm
- Wood and machine screws  
(unless options listed below are selected)

### Closer options

#### Arm

- Long Arm (LONG)

#### Finishes

- Custom powder coat (RAL) \_\_\_\_\_
- Plated finish \_\_\_\_\_

#### Screw pack

- Through Bolt<sup>1</sup>, Wood and Machine Screws (TBWMS)
- Torx Machine Screws (TORX)
- Through Bolt\* and Torx Machine Screws (TBTRX)

\*Specify door thickness if other than 1 3/4".

#### Installation accessories

- Plate, 4410HSA-18
- Plate, 4410HSA-18G  
(substituted for standard mounting plate)
- Transformer, 4410HSA-3210

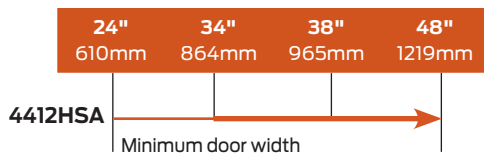
#### Special template

- ST- \_\_\_\_\_ (if required)

### Table of sizes

- Closing power of 4410HSA Series closers is field adjustable, shipped at size 3

#### Interior door width



➔ Indicates recommended range of door width for closer size.

# SEH Series



The SEH SENTRONIC® is a holder designed to provide single point hold open for fire and smoke barrier doors that must be used with an opposite side mounted UL listed door closer. The door is held open until current interruption releases the holding mechanism and the door closes. Single lever (track) arm is specifically designed for interior doors.

## Features

<b>Certifications</b>	Grade 1 - ANSI A156.15, UL 10C, 100 Hour Salt Spray, Meets BAA - Buy American Act, NFPA 101	<b>Finishes/ colors/ powder coat</b>	<ul style="list-style-type: none"> <li>689 Aluminum paint</li> <li>690 Statuary Bronze paint</li> <li>691 Light Bronze paint</li> <li>693 Black paint</li> <li>695 Dark Bronze paint</li> <li>696 Brass paint</li> <li>Custom colors optional</li> <li>Optional SRI primer - powder coat only</li> <li>Optional plated finishes</li> </ul>
<b>Handing</b>	Non-handed	<b>Wiring</b>	<ul style="list-style-type: none"> <li>Concealed or surface wiring</li> <li>24V or 120V, please specify n Interfaces with alarm system, please consult with factory for full details</li> </ul>
<b>Templating</b>	22 3/4" x 1 1/4"		
<b>Warranty</b>	2 years		
<b>Fasteners</b>	Wood and Machine Screws (WMS)		
<b>Mounting</b>	Hinge (pull side)		
<b>Arms</b>	<ul style="list-style-type: none"> <li>Standard, non-handed arm for any 4040SE Series</li> <li>Standard, non-handed track for SEH</li> <li>Specify 24V or 120V AC/DC input for holding solenoid</li> <li>Includes test switch assembly with fuse</li> </ul>		

**Special templates** | Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

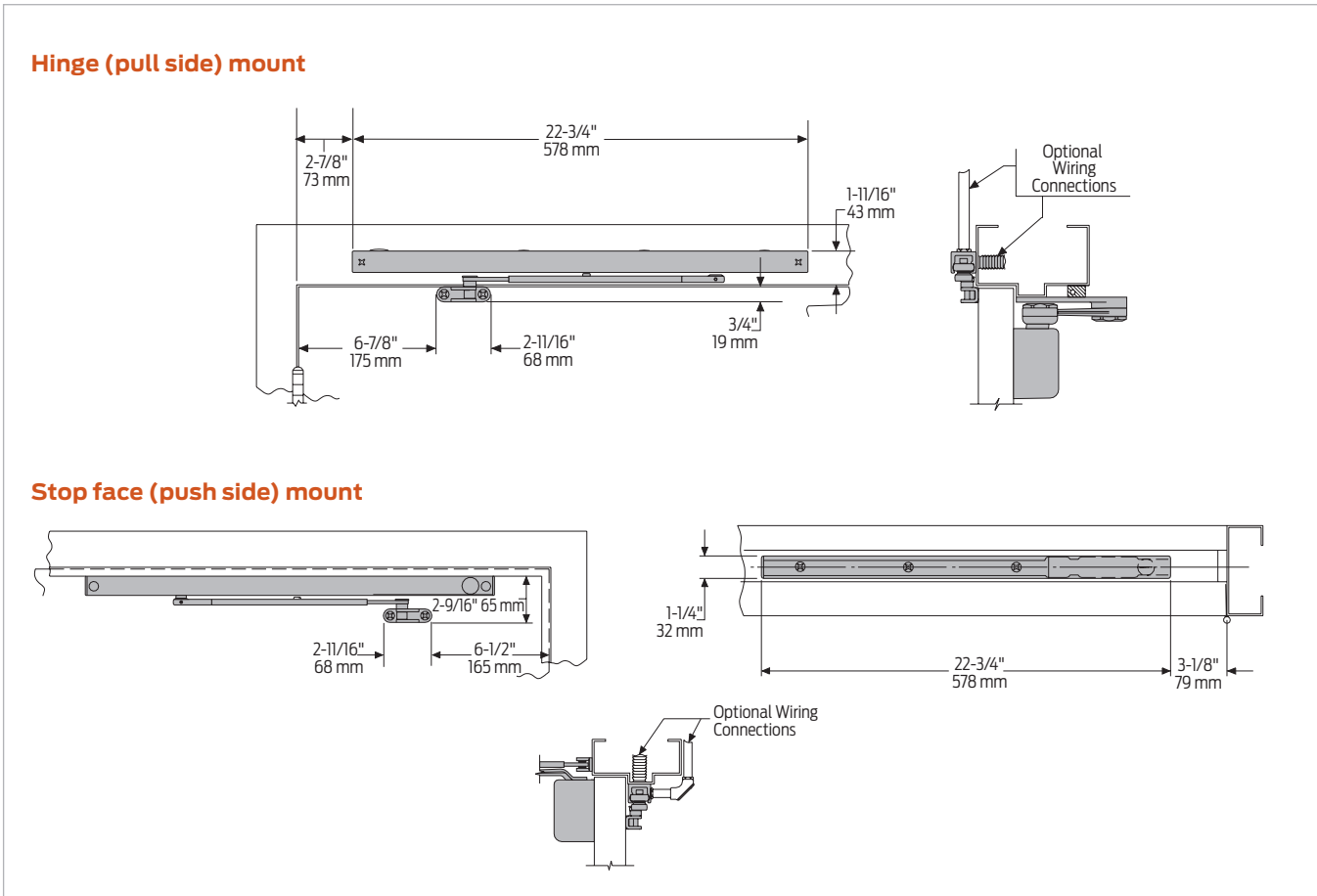
Mounting	Finish	Cover	Cylinder**	Arm function*
<ul style="list-style-type: none"> <li>Hinge (pull) side</li> <li>Top jamb (push)</li> <li>Stop face (push)</li> <li>Concealed (frame)</li> <li>Concealed (door)</li> </ul>	<ul style="list-style-type: none"> <li>Powder coat</li> <li>Plated</li> <li>Plastic</li> <li>Metal</li> </ul>	<ul style="list-style-type: none"> <li>Handed</li> <li>Non-Sized</li> <li>Sized</li> </ul>	<ul style="list-style-type: none"> <li>Single Point Hold Open</li> <li>Multi-point Hold Open</li> <li>Pass 80/140</li> </ul>	<ul style="list-style-type: none"> <li>Standard (single)</li> <li>Regular (double)</li> <li>Swing Free</li> <li>Double Egress</li> </ul>

■ Available      \* Maximum opening/hold open point with standard template.  
■ Not available      \*\* Cylinder sold separately.

Introduction  
Product selection guide  
SEM Series  
3130SE Series  
4040SE Series  
2310ME Series  
4310ME Series  
4410ME Series  
4310HSA Series  
4410HSA Series  
SEH Series

# Mounting details

## Hinge (pull side) and stop face (push side) mounting



Butt hinges	Should not exceed 5" (127 mm) in width
Swing clear hinges	Consult factory
Auxiliary stop	Recommended at hold open point
Reveal	Should not exceed 1/8" (3 mm) for Standard Arm
Head frame	Should not exceed 5" (127 mm) in width
Stop width	1 1/4" (32 mm) minimum
Flush ceiling	2" (51 mm) head frame does not require special templating
Door width	<ul style="list-style-type: none"> <li>■ 2'4" (711 mm) minimum for single door with SEH</li> <li>■ 4'8" (1422 mm) minimum for paired doors with SEH</li> </ul>
Maximum opening	<ul style="list-style-type: none"> <li>■ Templating allows 100°</li> <li>■ Hold open points between 80° and 100° in approximately 3° increments</li> </ul>
SEH electrical options	<ul style="list-style-type: none"> <li>■ These track assemblies require a single power circuit for the holding solenoid</li> <li>■ SEH holding solenoid is either 24V or 120V input, please specify</li> <li>■ An optional 4040SE-3210 transformer or 8310-824 reduces 120V AC line voltage to 24V AC</li> <li>■ Circuitry accepts either AC or DC input</li> </ul>
Options	24V or 120V volt input for SEH, please specify
Wiring diagram	See <a href="#">page 13</a> for typical wiring and electrical diagram

- Notes:
- Information applies to SEH unless otherwise specified
  - Standard SEH Series is a door holder that must be installed in conjunction with an opposite side mounted, UL listed door closer
  - Hold open force is adjustable
  - Momentary on/off switch board assembly for testing door release also provides over-voltage protection (field replaceable)
  - All SEH type holders require a separate closer for fire or smoke barrier door applications

## Accessories

### Arm



**SEH-3077T  
Standard Arm (STDTRKARM)**

- Non-handed
- Can be combined with any 4040SE Series track to provide an electrically controlled hold open function on either side of the door
- All SEH type holders require a separate closer for fire or smoke barrier door applications

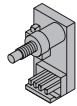
### Track



**SEH-3038  
Standard Track (STDTRK)**

- Non-handed
- Mounts on either head frame or stop
- 24V or 120V AC/DC input for holding solenoid, please specify
- Includes test switch assembly with fuse
- Standard

### Switch



**SEH-3436  
Test Switch**

### Installation accessories



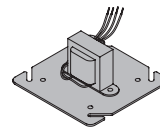
**SEH-81  
Conduit Quick-Connector**

- Two piece connector for use with 1/2" conduit



**SEH-3034SE  
Track Roller and Track Slider**

- Quiet, low friction roller assembly
- Shoulder dimension
- "X" = 1/4" (6 mm)
- Alloy metal slider for use in SE series tracks only



**4040SEH-3210  
Transformer**

- Reduces line voltage from 120V to 24V AC
- Mounted on cover for 4" (102 mm) x 4" x 2 1/8" (54 mm) junction box (by others)

## Ordering information

### How-to-order SEH Series closers

#### 1. Select voltage

- 24V AC/DC
- 120V AC/DC

#### 2. Select finish

- Standard powder coat \_\_\_\_\_  
Aluminum (689), Dark Bronze (695),  
Statuary Bronze (690), Light Bronze  
(691), Black (693), Brass (696) paint.

### Closer will be shipped with:

- Standard arm- Standard track
- Regular arm
- Wood and machine screws  
(unless options listed below are selected)

### Closer options

#### Finish

- Custom powder coat (RAL) \_\_\_\_\_

#### Screw pack

- Through Bolt<sup>1</sup>, Wood and Machine Screws (TBWMS)
- Torx Machine Screws (TORX)
- Through Bolt\* and Torx Machine Screws (TBTRX)

\*Specify door thickness if other than 1 3/4".

#### Installation accessories

- Transformer, 4040SE-3210

#### Special template

- ST- \_\_\_\_\_ (if required)

# Notes

---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions. Allegion had \$2.7 billion in revenue in 2020, and its security products are sold around the world.

For more, visit [www.allegion.com](http://www.allegion.com)

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN