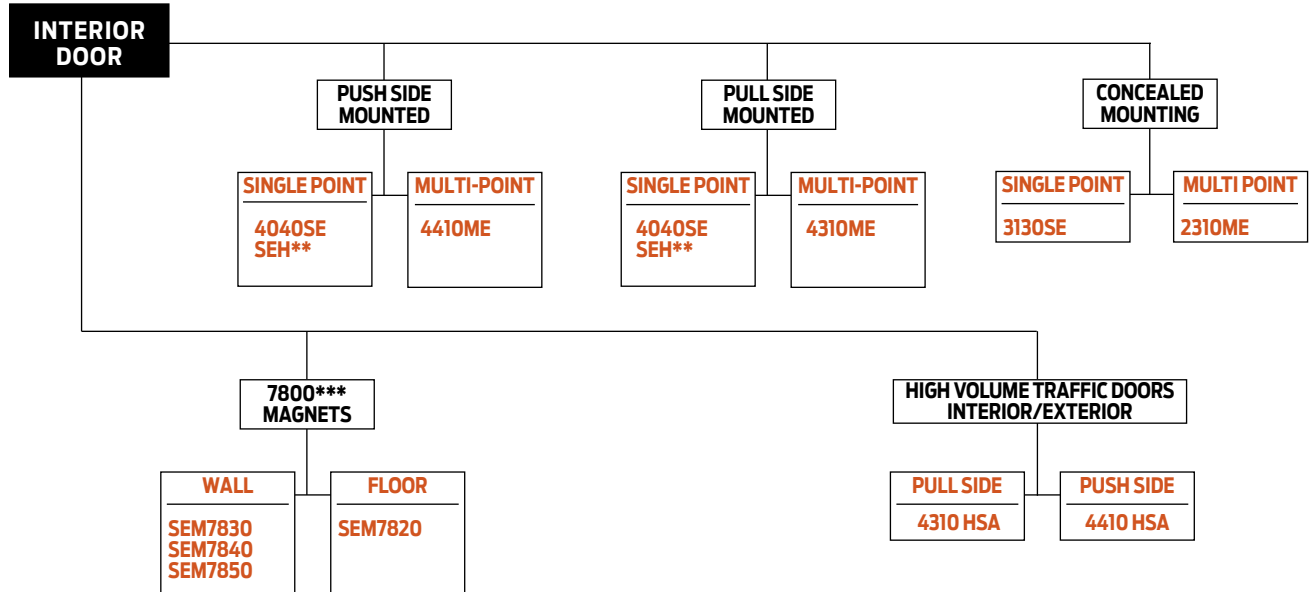


## Product selection guide

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.



\*\* See SEH section (cylinder not included).

\*\*\* 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..

CLOSER SERIES	MOUNTING					FINISH		COVER		CYLINDER			*ARM FUNCTION					
	HINGE (PULL SIDE)	TOP JAMB (PUSH)	STOP FACE (PUSH)	CONCEALED (FRAME)	CONCEALED (DOOR)	POWDER COAT	PLATED	PLASTIC	METAL	HANDED	NON-SIZED	SIZED	SINGLE-POINT/HOLD-OPEN	MULTI-POINT/HOLD-OPEN	BYPASS 80/140	STANDARD (SINGLE)	REGULAR (DOUBLE)	SWING FREE
3130SE	○	○	○	○	●	●	●	○	○	●	○	●	○	○	○	○	○	○
4040SE	●	○	●	○	○	●	●	●	●	○	○	○	○	○	○	○	○	○
2310ME	○	○	○	●	○	●	●	○	○	●	○	○	○	○	○	○	○	○
4310ME	●	○	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○
4410ME	○	●	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○
4310HSA	●	○	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○
4410HSA	○	●	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○

● AVAILABLE  
○ NOT AVAILABLE

\* Maximum hold-open with standard template. See individual closer series for degrees of opening and hold-open per installation.

### 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 infinitely 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. Best suited for high traffic emergency exit doors.

### MAGNETS (SEM) - ELECTROMAGNETIC DOOR HOLDERS

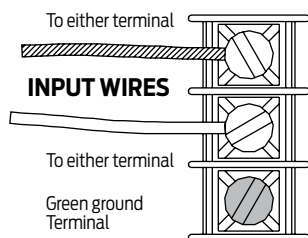
SEM Series magnets work with manual door closers to provide single point hold-open. Now available in new **tri-voltage** with 35 lbs. of holding force.

### 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 unusual conditions.

### GENERAL NOTES

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



**SE WIRING DIAGRAM**

### 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

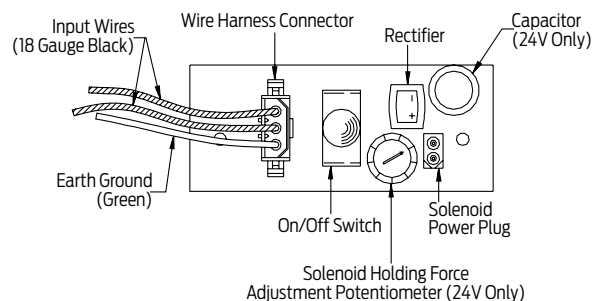
24V AC/DC (+10% -15%) @ 120 mA max.

### TRANSFORMER DATA

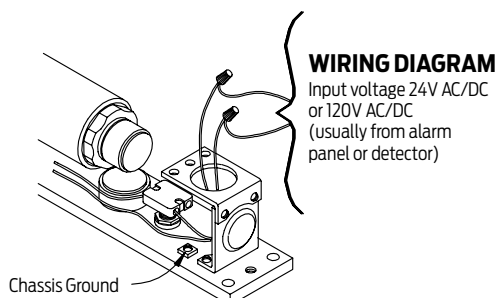
120V AC 50-60 Hz (primary); 24V AC @ 400 mA max. (secondary)  
An LCN supplied transformer will power (recommended) 2 SE, 3 SE/ME, and 15 SEM.

### ME WIRING

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



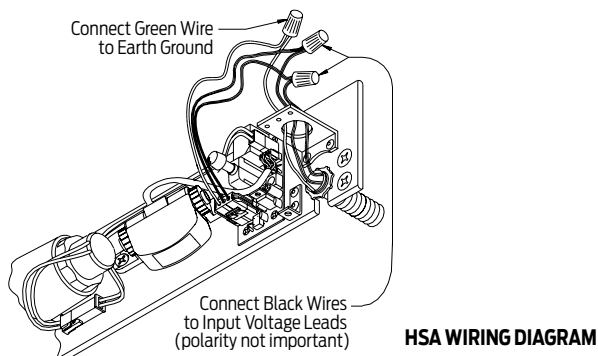
**ME (4310, 4410) WIRING DIAGRAM (24V only)**



**ME (2310) WIRING DIAGRAM**

## HSA WIRING

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



## FEATURES COMMON TO FIRE/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 backcheck 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).

## WARRANTY

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

## SPECIFICATIONS

Refer to "SPECIFICATIONS" section for suggested architectural specifications.

## DESIGN ASSISTANCE

LCN has been providing reliable solutions to unique door control problems since 1925.

## MATERIALS

- High strength **cast iron** cylinder.
- **Forged steel** main arm.
- One piece **forged steel** piston.
- **All weather fluid** eliminates 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.

## MAINTENANCE

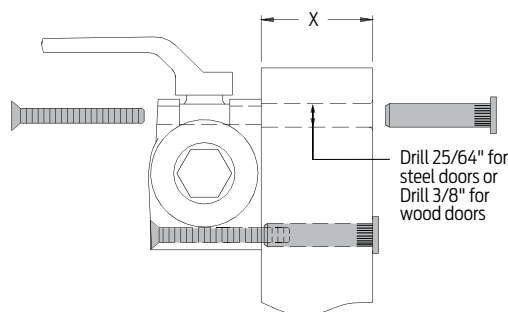
Closers mounted according to LCN installation instructions require no periodic adjustments. Quarterly inspections are recommended. Refer to the installation instructions for complete, product specific details.

## 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.

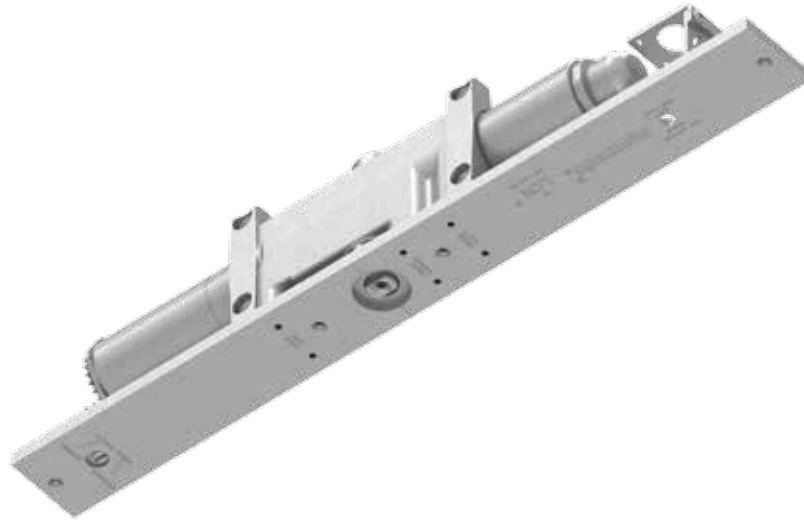
## FASTENERS

Standard WOOD and MACHINE SCREW (WMS) pack contains phillips head wood and machine screws to install the closer. Thru Bolts and/or TORX® machine screws are available for most closers. LCN thru 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.



NOTE 1: For Thru Bolts, specify door thickness if other than 1-3/4" (44 mm).

NOTE 2: Phillips head, metric machine screws are available on special order.

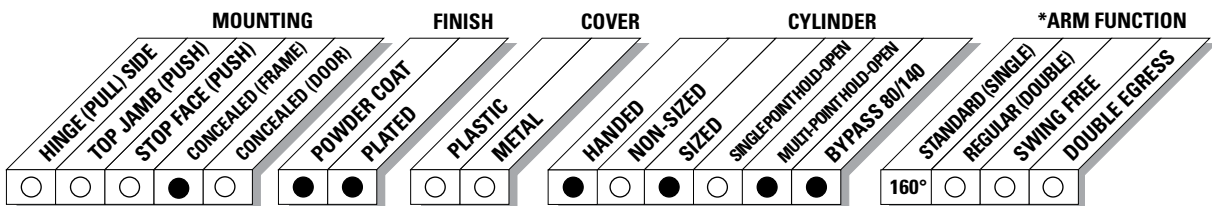


The 2310ME SENTRONIC® is a concealed heavy duty, electrically controlled closer/holder designed to provide infinitely adjustable hold-open for fire and smoke barrier doors. Door is held open until current interruption releases mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, cylinder functions, and installation accessories meet virtually all life safety requirements.

<b>Certifications</b>	Grade 1 - ANSI A156.15, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act, NFPA 101	<b>Fasteners</b>	Wood and machine screw pack
<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>Aluminum (689)</li> <li>Statuary Bronze (690)</li> <li>Light Bronze (691)</li> <li>Black (693)</li> <li>Dark Bronze (695)</li> <li>Brass (696)</li> <li>Custom colors optional</li> <li>Optional SRI primer - powder coat only</li> <li>Optional plated finishes</li> </ul>
<b>Size</b>	Sized, 4 only	<b>Wiring</b>	<ul style="list-style-type: none"> <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		

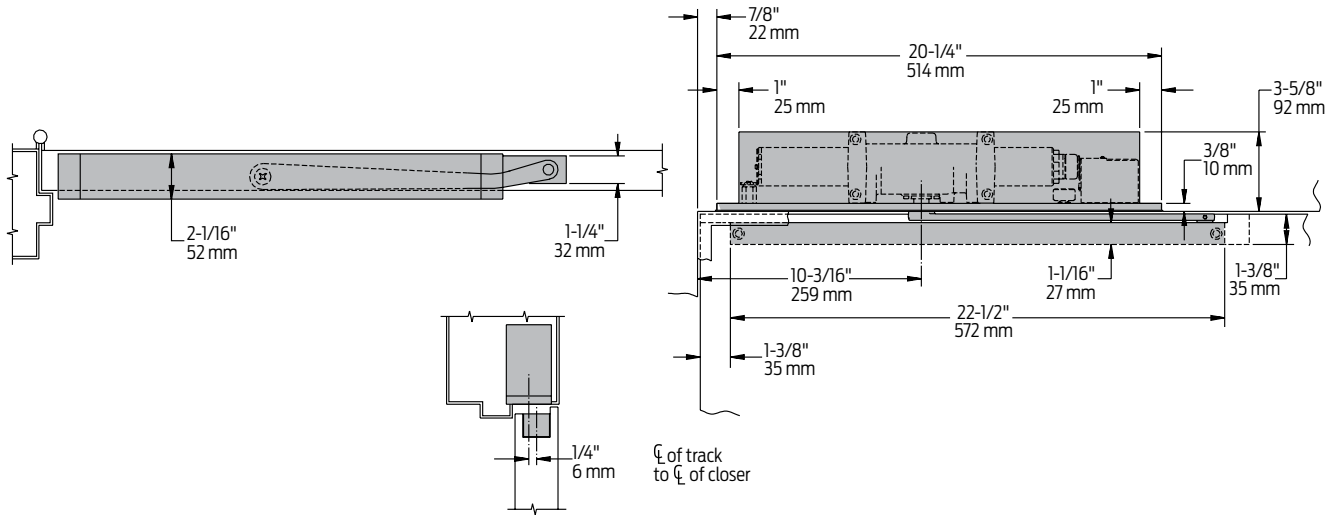
**Special Templates**

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



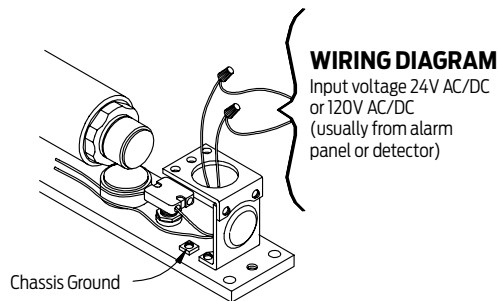
● AVAILABLE  
○ NOT AVAILABLE

\* Maximum opening/hold-open point with standard template. See individual closer series for degrees of opening per installation.



<b>Butt Hinges</b>	Should not exceed 5" (127 mm) in width
<b>Top Rail</b>	<ul style="list-style-type: none"> <li>1-3/8" (35 mm) mortise required</li> <li>5/16" (8 mm) cutout required at top of door, stop face only</li> </ul>
<b>Door Thickness</b>	1-3/4" (44 mm) minimum
<b>Door Width</b>	2' 4" (711 mm) minimum
<b>Hollow Metal Frame</b>	<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>
<b>Bypass</b>	<ul style="list-style-type: none"> <li>(suffix "B80" or "B140") eliminates hold-open function up to a specified point of door swing</li> <li>B80 cylinder from 0° to 80°</li> <li>B140 cylinder from 0° to 140°</li> </ul>
<b>Maximum Opening</b>	Templating allows 180° with hold-open points up to 160°
<b>Options</b>	<ul style="list-style-type: none"> <li>Hold-open bypass</li> <li>24V or 120 volt input, please specify</li> </ul>

#### Me (2310) Wiring Diagram



#### Notes

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

### Cylinders



**2310ME-3971**  
ME Cylinder Assembly

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



**2310ME-3071**  
ME Cylinder/Plate Assembly

- 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

- Handed

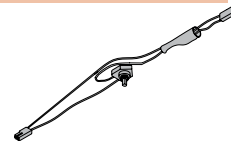
### Track



**2310ME-3038**  
Standard Track

- Non-handed
- Standard

### Switch



**2310ME-3351**  
Switch

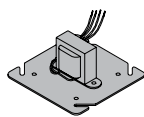
- "On/Off" switch assembly provides continuous hold-open function
- 24V or 120V, please specify

### 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)

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

#### Select hand

- RH
- LH

#### Voltage

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

#### Specify finish

- Standard Powder Coat \_\_\_\_\_  
Aluminum, Dark Bronze, Statuary, Light Bronze, Black, Brass.

#### Closer will be shipped with:

- Finish plates
- Standard arm
- Standard track
- Track roller
- Wood & machine screw pack  
unless options listed below are selected.

## Closer options

#### Cylinder function

- Bypass 80° (B80)
- Bypass 140° (B140)

#### Finishes

- Custom Powder Coat (RAL) \_\_\_\_\_
- Plated Finish, US \_\_\_\_\_

#### Screw pack

- TORX Machine Screw (TORX)

#### Installation accessories

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

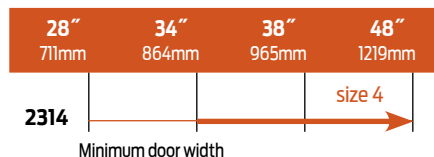
#### Special template

- 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.

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