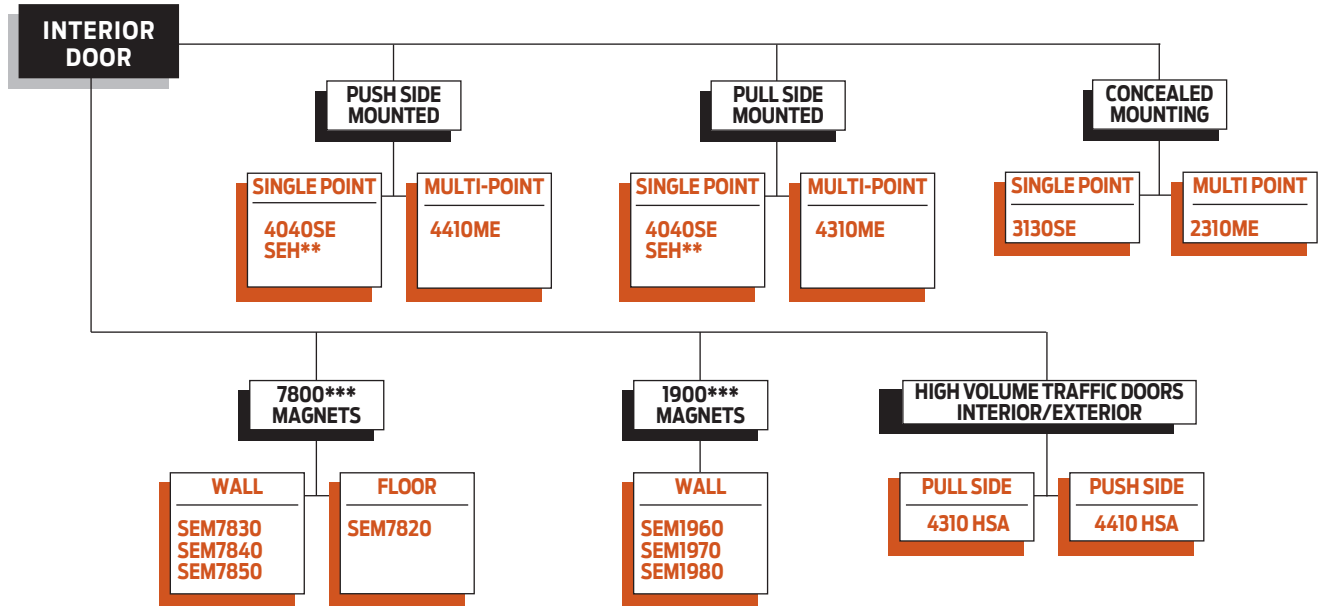


# FIRE/LIFE SAFETY CLOSERS/HOLDERS SERIES

## 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 and SEM 1900 Series are plastic.

## 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	DOUBLE EGRESS		
3130SE	○	○	○	○	●	●	●	○	○	●	○	●	○	○	○	○	○	○	110°	○	○
4040SE	●	○	●	○	○	●	●	●	●	○	○	○	○	○	○	○	○	○	110°	○	○
2310ME	○	○	○	●	○	●	●	○	○	●	○	○	○	○	○	○	○	○	160°	○	○
4310ME	●	○	○	○	○	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
4410ME	○	●	○	○	○	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
4310HSA	●	○	○	○	○	●	●	○	○	○	○	○	○	○	○	○	○	○	160°	○	○
4410HSA	○	●	○	○	○	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○

● AVAILABLE  
○ NOT AVAILABLE

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

# FIRE/LIFE SAFETY CLOSERS/HOLDERS SERIES

## 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.

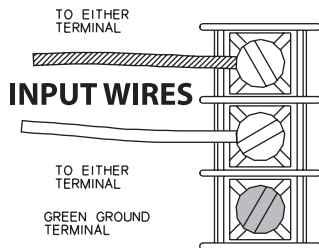
## GENERAL NOTES

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

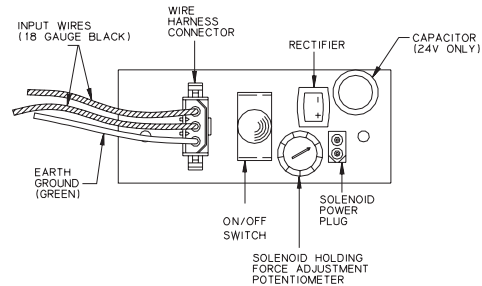
24V AC/DC (+10% -15%) @ 120 mA max.

## TRANSFORMER DATA

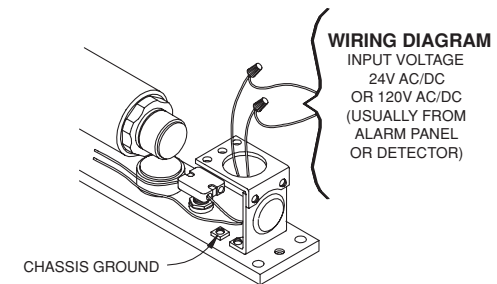
120V AC 50-60 Hz (primary); 24V AC @ 400 mA max. (secondary)  
An LCN supplied transformer will power (recommended) two SE, ME or SEM and one HSA.

## 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



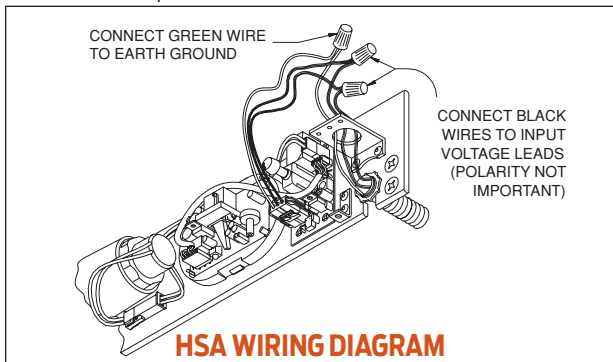
ME (2310) WIRING DIAGRAM

PHONE 877-671-7011  
FAX 800-248-1460  
www.allegion.com/us  
2/14

# FIRE/LIFE SAFETY CLOSERS/HOLDERS SERIES

## 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 for over 85 years.

Contact LCN for assistance or technical information at **877-671-7011** or FAX **800-248-1460 (order entry)**, Fax **815-879-1495** for Application Engineering.

## 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

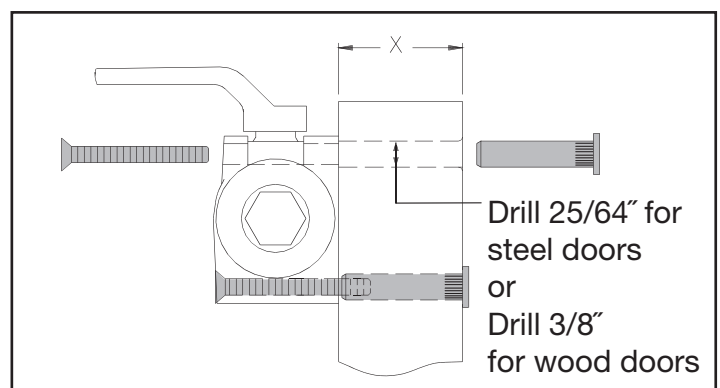
Closers mounted according to LCN installation instructions require no periodic adjustments. Quarterly inspections are recommended. Refer to the installation instructions for complete, product specific details.

## POSITIVE PRESSURE

LCN closers have been certified for three hours by UL to be in compliance with UBC 7.2 (1997) and 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).

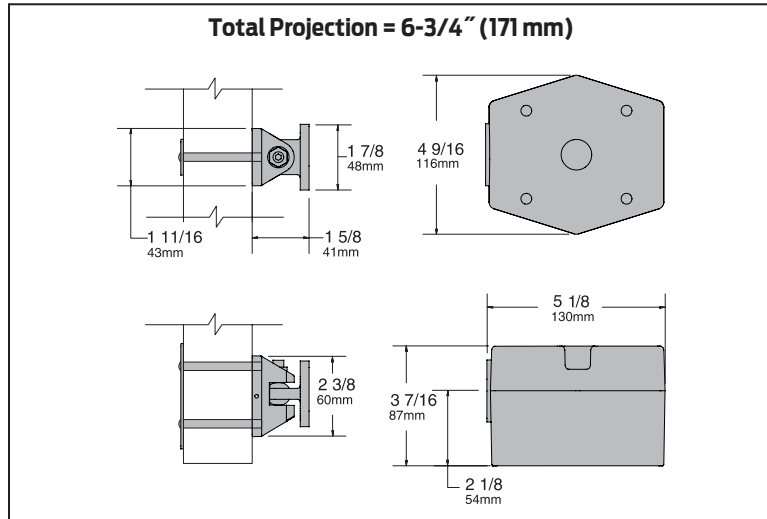
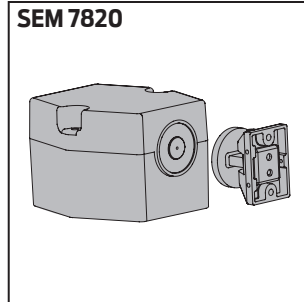
NOTE 2: Phillips head, metric machine screws are available on special order.



# SEM SERIES

## SEM 7820 MAGNET

Die Cast, Floor mounted.



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.

All SEM Series magnets are UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15.

## SEM FEATURES

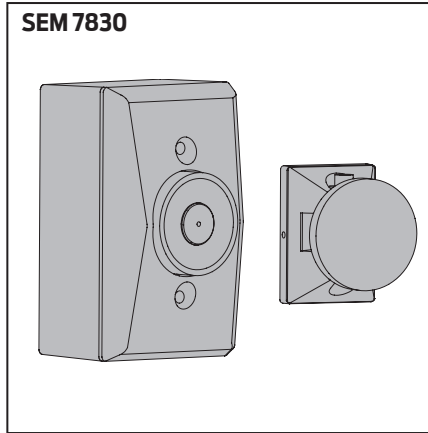
- Tri-voltage design with 35 lbs. of holding force.
- Now available armature extensions from LCN (see page 11).
- SEM 7820 magnets are shipped with die cast housing, cover, armature(s) and WMS screw pack.
- Available in Aluminum and Dark Bronze finishes only.
- UL listed for smoke barrier or labeled fire doors.

# SEM SERIES

## FEATURES

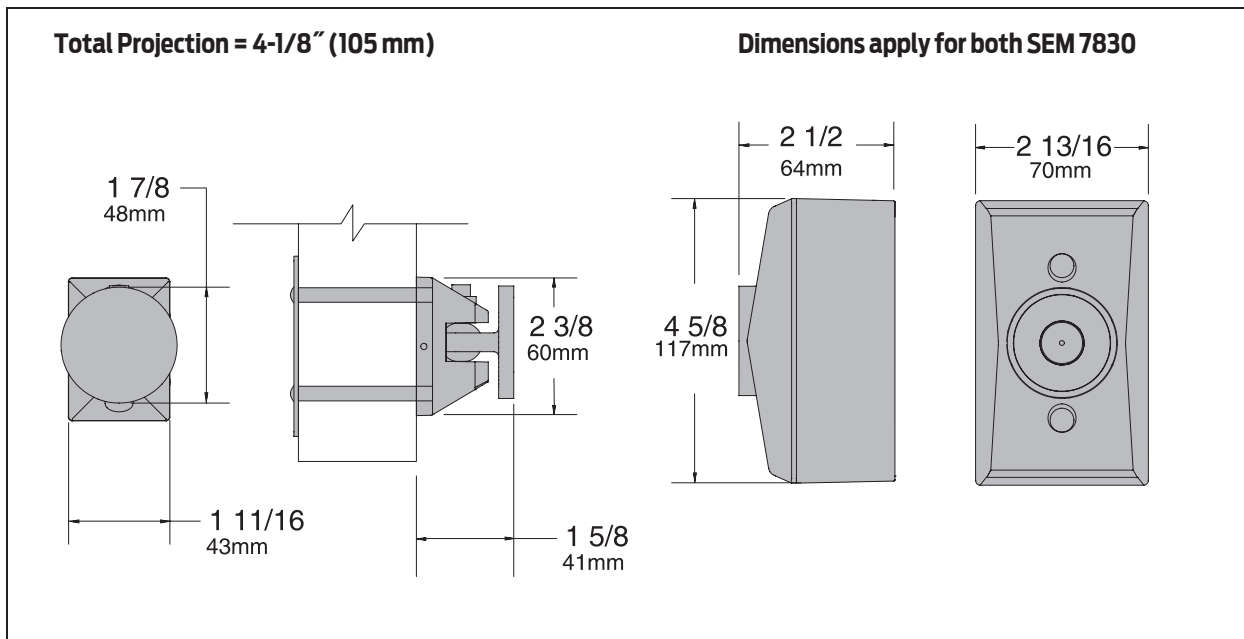
### SEM 7830 MAGNET

Die cast housing,  
Surface wall mounted.



### SEM FEATURES

- Tri-voltage design with 35 lbs. of holding force.
- Now available armature extensions from LCN (see page 11).
- SEM 7830 magnets are shipped with die cast housing, cover, armature and WMS screw pack.
- SEM 7830 available in Aluminum and Dark Bronze finishes only.
- Suitable for use in pocket door installations.
- UL listed for smoke barrier or labeled fire doors.



# SEM SERIES

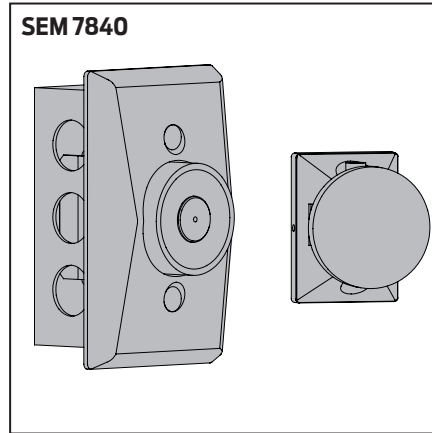
## FEATURES

### SEM 7840 MAGNET

Die cast housing, low profile recessed wall mount.

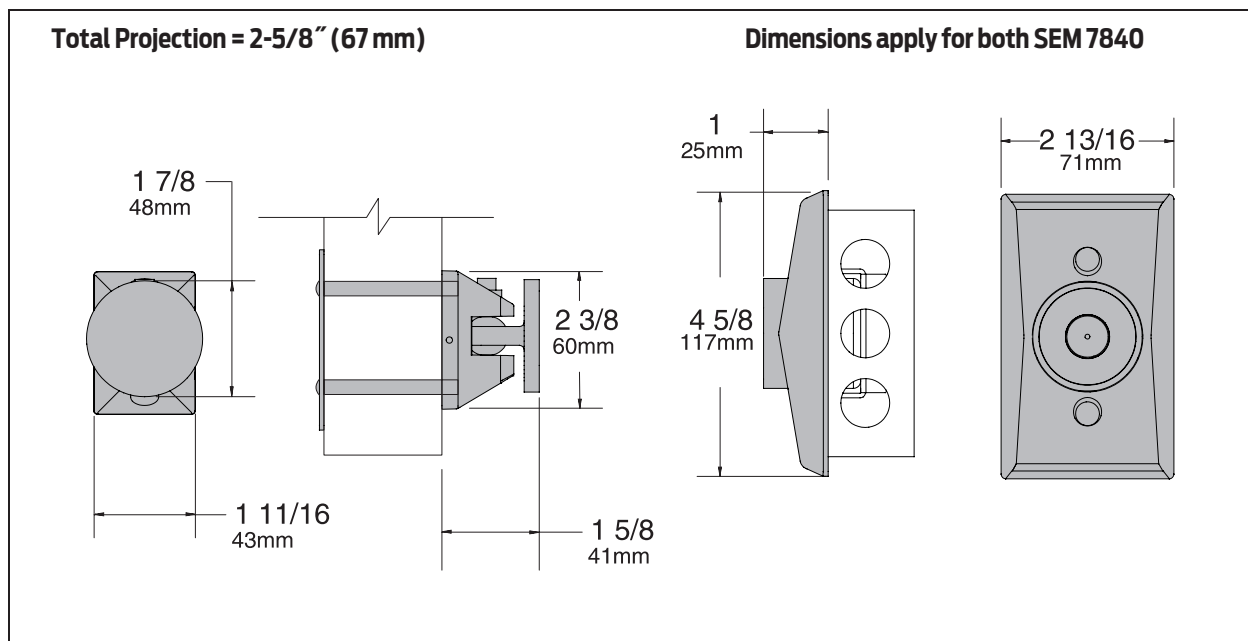
2" (51 mm) x 4" (102 mm) x 1-1/2" (38 mm).

NOTE: Outlet box not included.



### SEM FEATURES

- Tri-voltage design with 35 lbs. of holding force.
- Now available armature extensions from LCN (see page 11).
- SEM 7840 magnets are shipped with die cast housing, cover, armature and WMS screw pack.
- SEM 7840 available in Aluminum and Dark Bronze finishes only.
- Suitable for use in pocket door installations.
- UL listed for smoke barrier or labeled fire doors.



# SEM SERIES

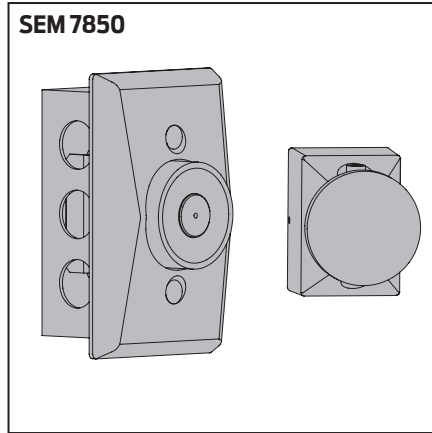
## FEATURES

### SEM 7850 MAGNET

Die cast housing, standard  
profile recessed wall mount.

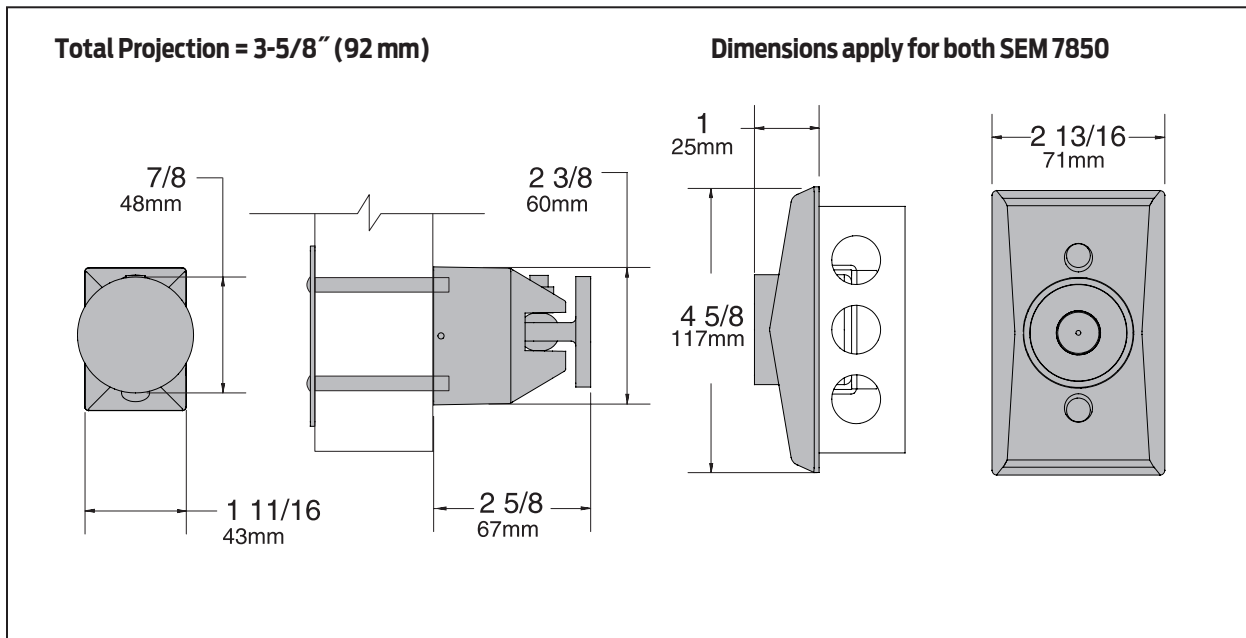
2" (51 mm) x 4" (102 mm)  
x 1-1/2" (38 mm)

NOTE: Outlet box not included.



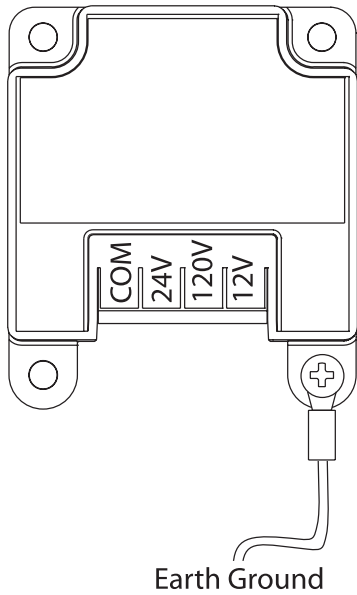
### SEM FEATURES

- Tri-voltage design with 35 lbs. of holding force.
- Now available armature extensions from LCN (see page 11).
- SEM 7850 available in standard powder coat finishes.
- SEM 7850 available in Aluminum and Dark Bronze finishes only.
- Suitable for use in pocket door installations.
- UL listed for smoke barrier or labeled fire doors.





## VOLTAGE INPUT



## ELECTRICAL DATA

Holding Force: 35 lbs. @ Nominal Input Voltage.  
 Maximum Current Draw: .020A @ 24VAC/DC, 120VAC  
 .030A @ 12VDC

## 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.

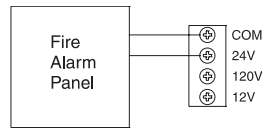


Fig. 1 24VAC/DC Wiring  
 Polarity is unimportant

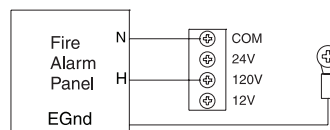


Fig. 2 120VAC Wiring

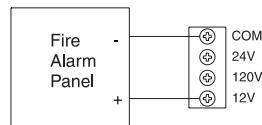


Fig. 3 12VDC Wiring  
 Polarity as shown

# SEM SERIES

## MAGNETS

### FLOOR MAGNET, SEM7820-516

Standard magnet coil.

### WALL MAGNET, SEM7830-516, SEM7840-516, SEM7850-516, SEM1960-516, SEM1970-516, SEM1980-516

Standard magnet coil.

## ARMATURES

### DOOR ARMATURE, SEM7820-825, SEM7830-825, SEM7840-825

Standard, die cast low profile armature.

### DOOR ARMATURE, SEM7850-828

Standard, die cast armature.

### DOOR ARMATURE, SEM1960-825, SEM1970-825

Standard, plastic low profile armature.

### DOOR ARMATURE, SEM1980-828

Standard, plastic armature.

## COVER

### STANDARD COVER, SEM7830-72, SEM7840-72, SEM7850-72

Standard, die cast cover.

### STANDARD COVER, SEM1960-72, SEM1970-72, SEM1980-72

Standard, plastic cover.

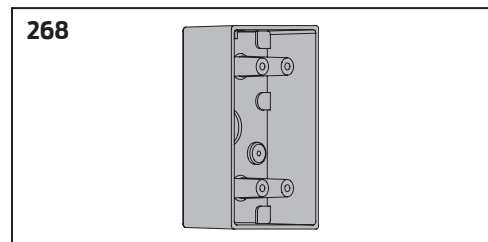
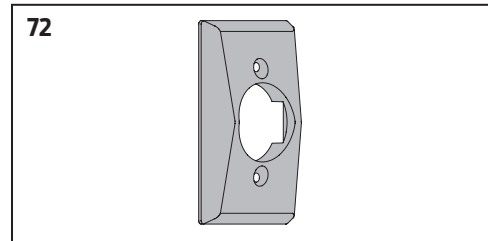
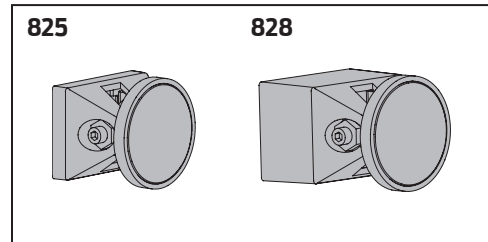
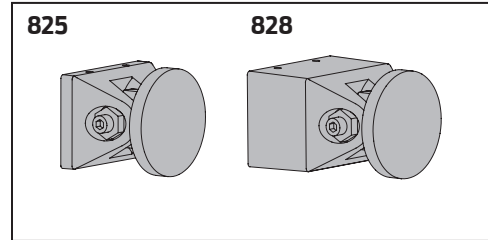
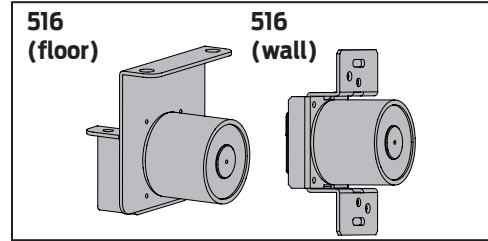
## BOX

### WALL BOX, SEM7830-268

Standard, die cast surface wall mount box.

### WALL BOX, SEM1960-268

Standard, plastic surface wall mount box.



# SEM SERIES

## ACCESSORIES

### EXTENSIONS

#### COUPLER ASSEMBLY KIT, SEM7810-514

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

#### Extension, SEM7810-E050

Standard metal 1/2" extension.

#### Extension, SEM7810-E075

Standard metal 3/4" extension.

#### Extension, SEM7810-E100

Standard metal 1" extension.

#### Extension, SEM7810-E200

Standard metal 2" extension.

#### Extension, SEM7810-E400

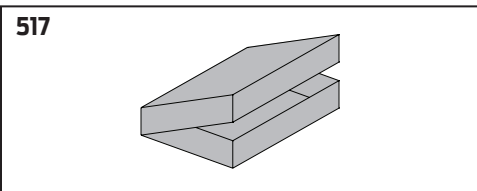
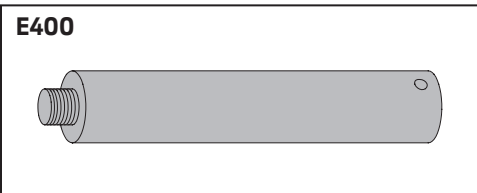
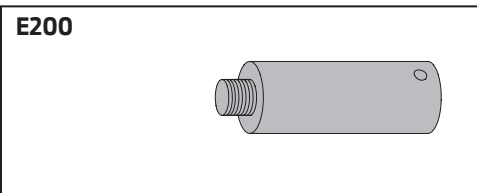
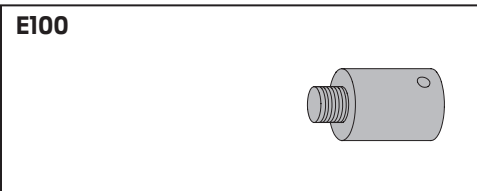
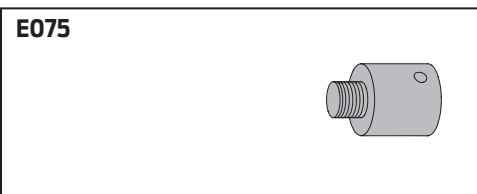
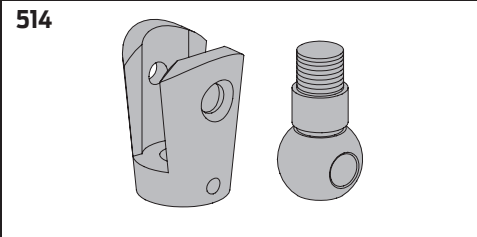
Standard metal 4" extension.

#### EXTENSION KIT, SEM7810-517

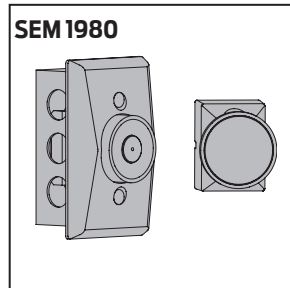
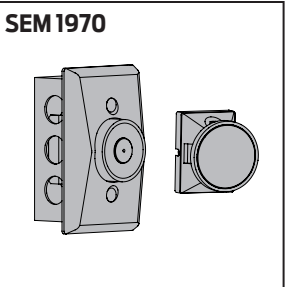
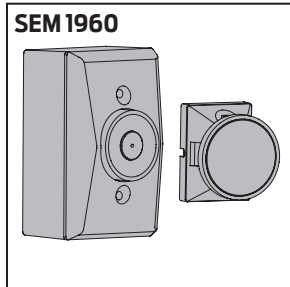
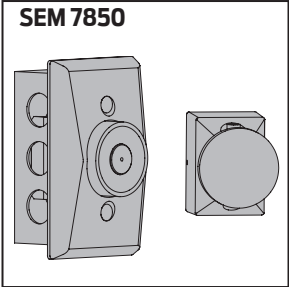
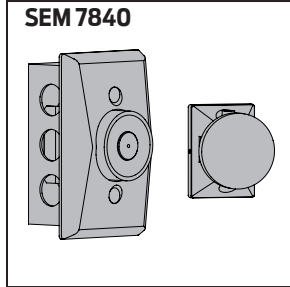
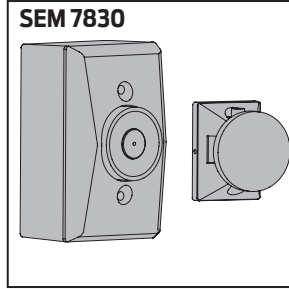
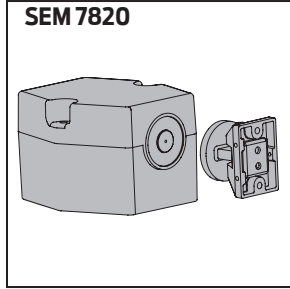
Extension kit includes:

- 10.....7810SEM-E050
- 10.....7810SEM-E075
- 10.....7810SEM-E100
- 5.....7810SEM-E200
- 20.....7810SEM-514

*NOTE: Using just the Coupler Assembly Kit (SEM7810-514) will create a 1-1/2" link. Extension Links are available in different lengths and can be combined together to achieve the desired length. Max. recommended length = 12"*



# SEM SERIES



## HOW-TO-ORDER SEM 7800 SERIES MAGNETS

### 1. SELECT MAGNET SERIES

- SEM7820
- SEM7830
- SEM7840
- SEM7850

### 2. SPECIFY FINISH

- Standard Powder Coat \_\_\_\_\_  
Aluminum, Dark Bronze.

## HOW-TO-ORDER SEM 1900 SERIES MAGNETS

### 1. SELECT MAGNET SERIES

- SEM1960
- SEM1970
- SEM1980

### 2. SPECIFY FINISH

- Standard Finish \_\_\_\_\_  
Aluminum or Dark Bronze.

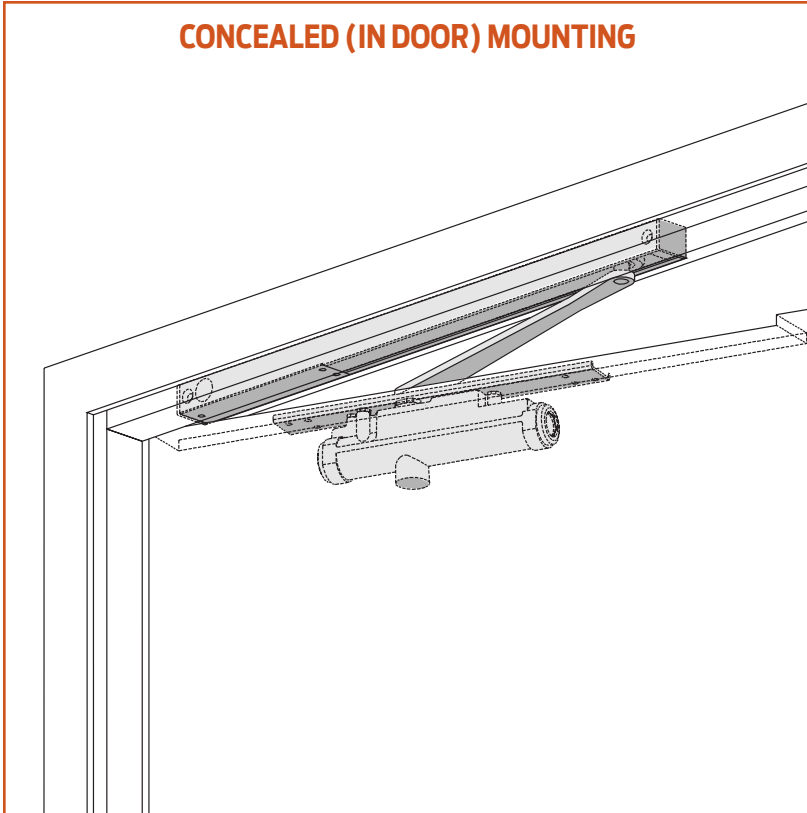
## HOW-TO-ORDER SEM 7810 EXTENSIONS

### 1. SELECT EXTENSIONS

- SEM7810-514 (qty.) \_\_\_\_\_
- SEM7810-E050 (qty.) \_\_\_\_\_
- SEM7810-E075 (qty.) \_\_\_\_\_
- SEM7810-E100 (qty.) \_\_\_\_\_
- SEM7810-E200 (qty.) \_\_\_\_\_
- SEM7810-E400 (qty.) \_\_\_\_\_
- SEM7810-517 (qty.) \_\_\_\_\_

# 3130SE SERIES

## CONCEALED (IN DOOR) MOUNTING

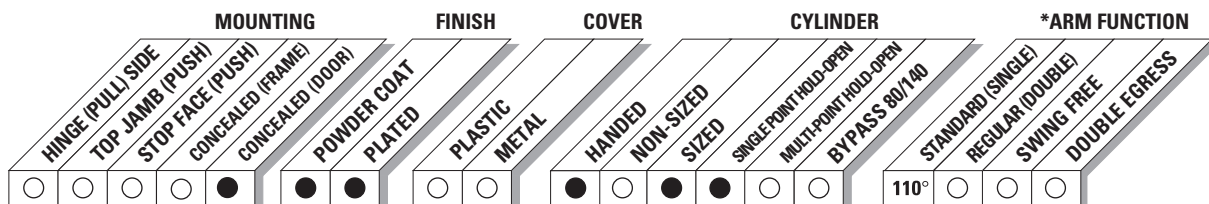


The 3130SE SENTRONIC® is a concealed in the door, closer/holder designed to provide single point hold-open for fire and smoke barrier doors. Door is held open until current interruption releases the holding mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior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

The 3130SE and SEL Series is UL listed for metal smoke barrier or labeled fire doors.

Door and frame manufacturer must have preparation included in their UL procedures. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

- Standard 3130SE Series closer shipped with a standard arm, 24V or 120V SE track (please specify), track roller, and wood and machine screw pack. See 3130SE Series page 15 for options.
- Sized cylinders for interior doors to 4' 0".
- Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted.
- Handed for right or left swinging door.
- Interfaces with fire alarm systems.
- Standard or optional custom powder coated finish.
- Optional plated finish on arm and fasteners.



● AVAILABLE  
○ NOT AVAILABLE

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

# 3130SE SERIES

## CONCEALED MOUNTING

For interior smoke barrier and labeled fire doors.

## MAXIMUM OPENING

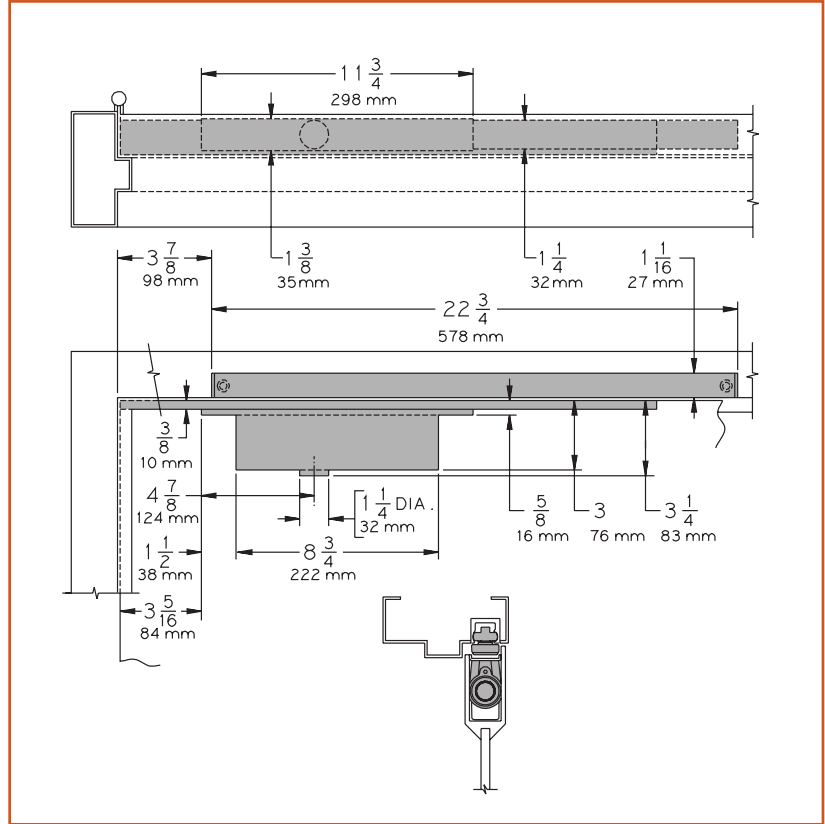
Templating allows 110°.

Hold-open points between 85° and 110° in approximately 3° increments.

SEL arm and track locate hold-open at 110°, 120° and 130°.

## SE, SEL ELECTRICAL OPTIONS

These track assemblies require a single power circuit for the holding solenoid. SE or SEL holding solenoid is either 24V or 120V input, please specify. An optional 4040SE-3210 TRANSFORMER reduces 120V AC line voltage to 24V AC. Circuitry accepts either AC or DC input.



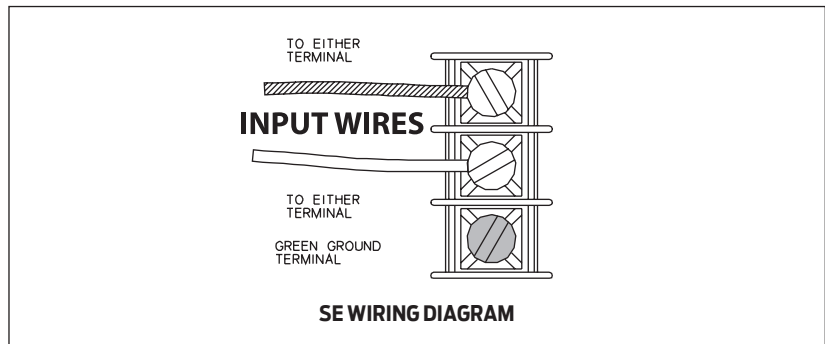
- **Butt Hinges** should not exceed 5" (127 mm) in width. Consult factory for pivot hung installations.
- **Auxiliary Stop** is recommended at hold-open point.
- **Top Rail** minimum 4" (102 mm).
- **Door Thickness** 1-3/4" (44 mm) minimum. Please consult the door manufacturer to assure that the door integrity and warranty is maintained after installing the 3130SE Series door closer in 1-3/4" (44 mm) thickness wood doors.
- **Door Width** 2' 4" (711 mm) minimum for single door with SE. 2' 8" (813 mm) minimum for door with SEL.
- **Wiring Diagram**

### Options

- Long (SEL) track and arm.
- 24V or 120V input, please specify.

### Special Templates

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



# 3130SE SERIES

## CYLINDER

### SE CYLINDER, 3130SE-3071

Standard, handed cast iron cylinder assembly.  
For various applications see "Table of Sizes" on 3130SE Series page 16.

## ARM

### STANDARD ARM, 3130SE-3077T

Handed arm. Arm adjustable to select hold-open point.

### LONG ARM, 3130SEL-3077T

Optional, handed, solid arm provides hold-open point from 110° to 130°, determined by track templating.  
Used with SEL TRACK 3130SEL-3038 only.

## TRACKS

### SE TRACK, 3130SE-3038

Standard, non-handed track.  
Circuitry accepts either AC or DC input.  
24V holding solenoid (**24**) or  
120V holding solenoid (**120**), please specify.

### SEL TRACK, 3130SEL-3038

Optional, long non-handed track.  
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.

## SWITCH

### TEST SWITCH, 3130SE-3436

## INSTALLATION ACCESSORIES

### CONDUIT QUICK-CONNECTOR, 3130SE-81

Two piece connector for use with 1/2" conduit.  
See page 21 for illustration.

### TRACK ROLLER, 3130SE-3034

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

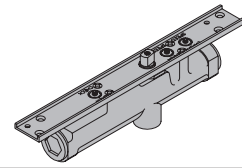
### TRACK SLIDER, 3130SE-168

Alloy metal slider for use in SE series tracks only.

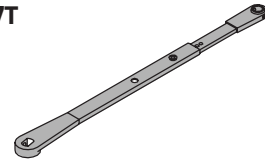
### TRANSFORMER, 4040SE-3210

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).

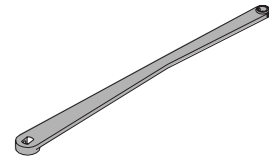
3071



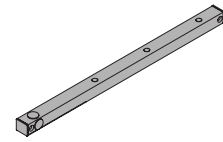
SE-3077T



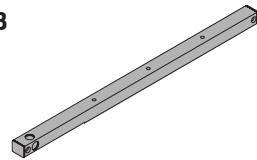
SEL-3077T



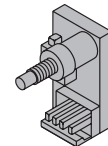
SE-3038



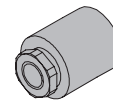
SEL-3038



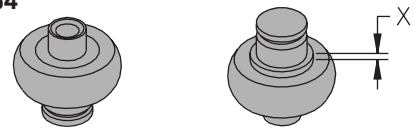
SE-3436



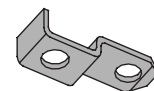
81



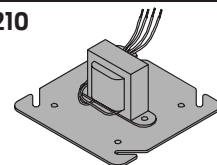
3034



168



4040SE-3210



# 3130SE SERIES

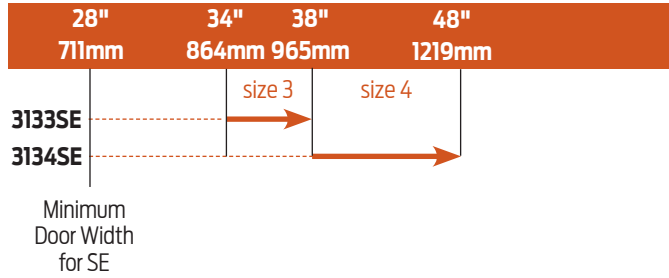
## TABLE OF SIZES

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).

## HOW-TO-ORDER 3130SE SERIES CLOSERS

### 1. SELECT CYLINDER SIZE

- 3133SE
- 3134SE

### 2. SPECIFY HAND

- RH
- LH

### 3. SELECT TRACK

- SE
- SEL (requires long arm)

### 4. VOLTAGE

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

### 5. SPECIFY FINISH

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

#### Closer will be shipped with:

- STANDARD ARM,
- TRACK ROLLER,
- STANDARD TRACK,
- WOOD & MACHINE SCREW PACK,  
*unless options listed below are selected.*

## CLOSER OPTIONS

### ARM

- Long Arm\* (LONG)  
\* use with SEL track only

### FINISH

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

### SCREW PACK

- TORX Machine Screw (TORX)

### INSTALLATION ACCESSORIES

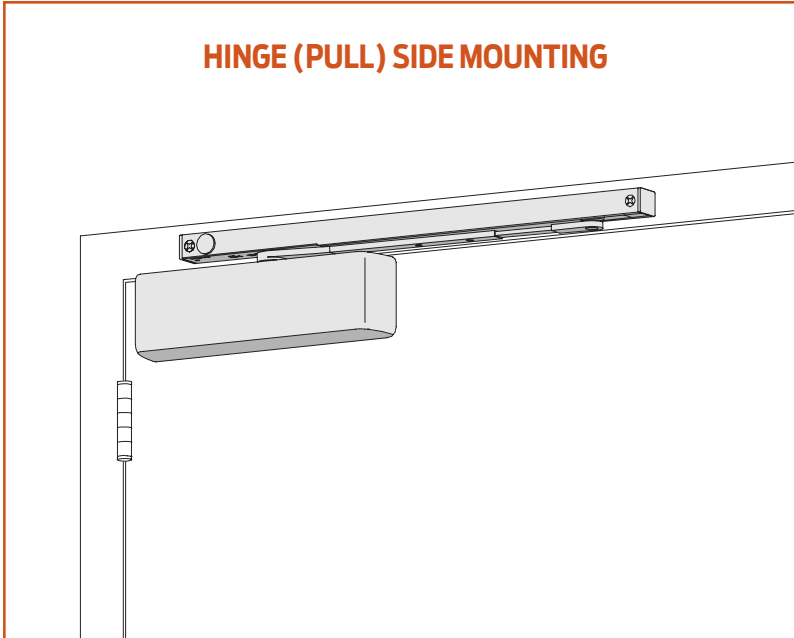
- Transformer, 4040SE-3210

### SPECIAL TEMPLATE

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



# 4040SE SERIES



The 4040SE SENTRONIC® is a heavy duty, non-handed, non-sized closer/holder designed to provide single point hold-open for fire and smoke barrier doors. The door is held open until current interruption releases the holding mechanism and the door closes. Single lever (track) arm closer is specifically designed for interior doors. Choice of finishes, track functions, and installation accessories meet virtually all life safety requirements.

*The 4040SE and SEL Series is UL listed for smoke barrier or labeled fire doors. cUL listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.*

- Standard 4040SE Series closer shipped with a standard arm, 24V or 120V (please specify) SE track, standard plastic clip-on cover, and wood and machine screw pack. SEL tracks are optional, see 4040SE Series pages 20 & 21 for options.
- Non-sized cylinders for interior doors to 4'0".
- 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.
- Closer mounts on either push or pull side of the door.
- Non-handed for mounting on either right or left hand door.
- Concealed or surface wiring.
- Interfaces with alarm systems.
- Standard or optional custom powder coated finishes on cover and arm.
- Optional plated finishes.

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	DOUBLE EGRESS
●	○	●	○	○	●	●	●	●	○	●	○	○	○	○	○	○	○	○
															110°	○	○	95°

● AVAILABLE  
○ NOT AVAILABLE

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

# 4040SE SERIES

## HINGE (PULL) SIDE MOUNTING

Information applies to 4040 SE unless otherwise specified.

### MAXIMUM OPENING

Templating allows 110°.

Hold-open points between 85° and 110° in approximately 3° increments.

Pull side mounting on a double egress frame requires a handed double egress arm.

Maximum hold-open to 95°.

2-11/16" (67 mm) maximum reveal on pull side.

SEL track provides hold-open points between 90° and 120°, in approximately 3° increments.

### SE, SEL ELECTRICAL OPTIONS

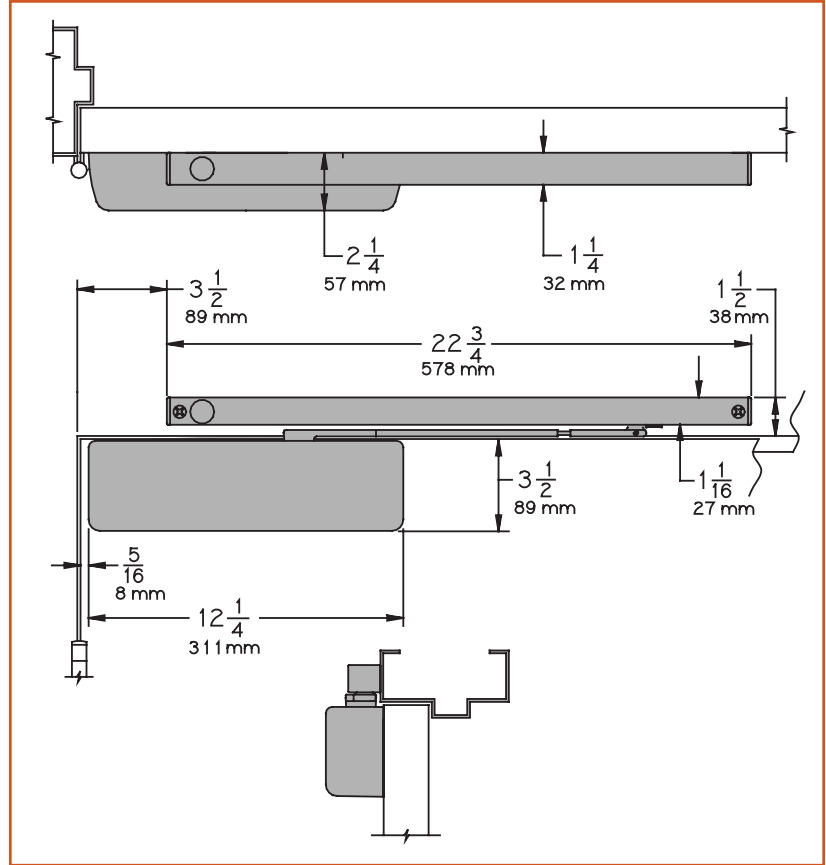
These track assemblies require a single power circuit for the holding solenoid.

SE or SEL holding solenoid is either 24V or 120V input, please specify.

An optional 4040SE-3210

TRANSFORMER reduces 120V AC line voltage to 24V AC.

Circuitry accepts either AC or DC input.



- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Swing Clear Hinges** consult factory.
- **Auxiliary Stop** is recommended at hold-open point.
- **Reveal** should not exceed 1/8" (3 mm) for standard arm. Should not exceed 2-11/16" (68 mm) for double egress arm.
- **Top Rail** minimum 3-1/2" (89 mm).  
Installation with PLATE, 4040SE-18 requires SPECIAL TEMPLATE and 1-3/4" (44 mm) minimum top rail.
- **Head Frame** requires 2" (51 mm) minimum.
- **Flush Ceiling** with 2" (51 mm) head frame does not require special templating.
- **Door Width** 2' 4" (711 mm) minimum for single door with SE.  
4' 8" (1422 mm) minimum for paired doors with SE.
- **Clearance** of 2-3/8" (60 mm) behind door required for 90° installation.
- **Wiring Diagram** See "FIRE/LIFE SAFETY" section page 19 for typical wiring and electrical diagram.

### Options

- Long (SEL) track.
- Handed double egress arm for reveal under 2-11/16" (67 mm).
- Metal cover.
- 24V or 120V input for SE or SEL, please specify.

### Special Templates

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

# 4040SE SERIES

## STOP FACE (PUSH SIDE) MOUNTING

Information applies to 4040 SE closers unless otherwise specified.

## MAXIMUM OPENING

Templating allows 110°.

Hold-open points between 85° and 110° in approximately 3° increments.

SEL track provides hold-open points between 90° and 120°, in approximately 3° increments.

SEL track provides hold-open points between 90° and 120°, in approximately 3° increments.

## SE, SEL ELECTRICAL OPTIONS

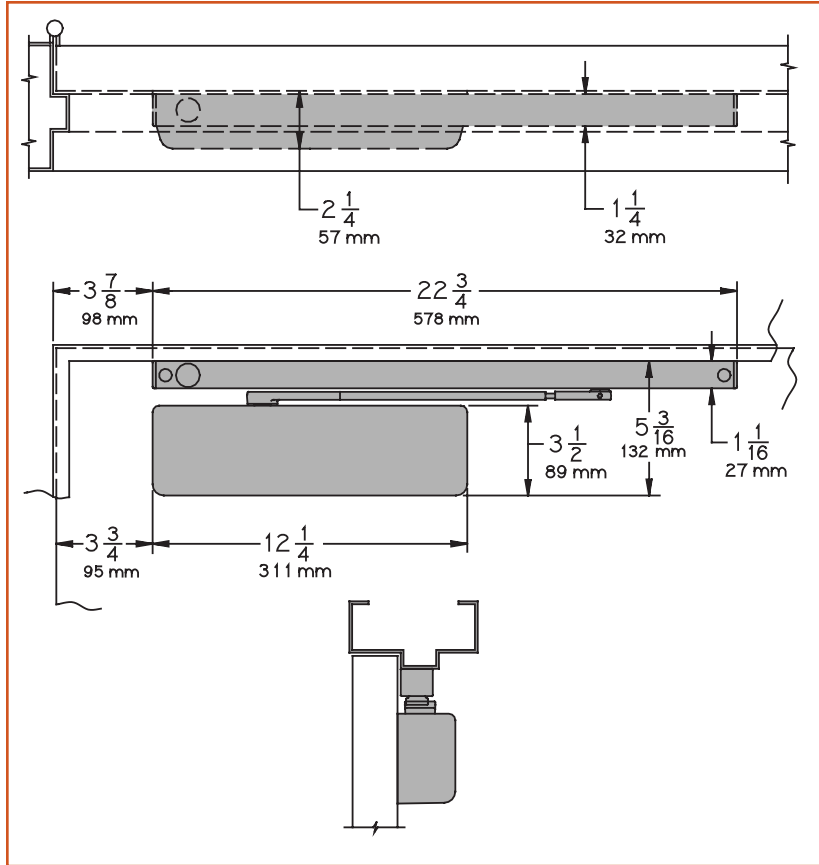
These track assemblies require a single power circuit for the holding solenoid.

SE or SEL holding solenoid is either 24V or 120V input, please specify.

An optional 4040SE-3210

TRANSFORMER reduces 120V AC line voltage to 24V AC.

Circuitry accepts either AC or DC input.



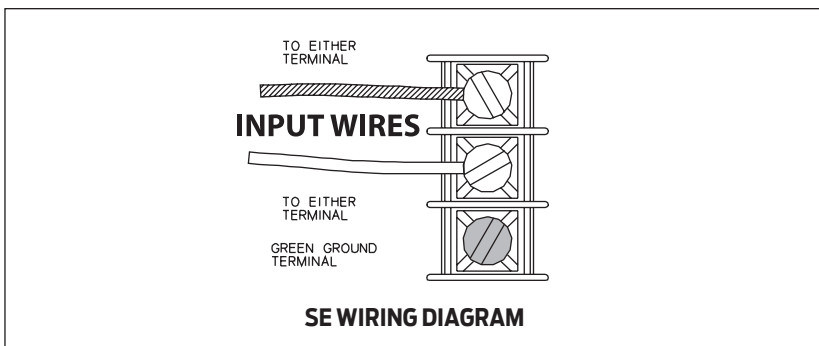
- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point.
- **Top Rail** minimum 5-3/4" (146 mm).  
Installation with PLATE, 4040SE-18PA requires SPECIAL TEMPLATE and 2" (51 mm) minimum top rail.
- **Stop Width** 1-1/4" (32 mm) minimum.
- **Door Width** 2' 4" (711 mm) minimum for single door with SE.  
4' 8" (1422 mm) minimum for paired doors with SE.
- **Wiring Diagram**

### Options

- Long (SEL) track.
- Metal cover.
- 24V or 120V input for SE or SEL, please specify.

### Special Templates

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

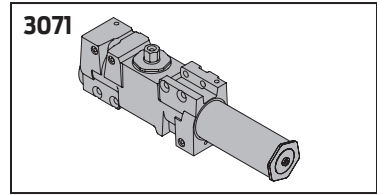


# 4040SE SERIES

## CYLINDER

### CYLINDER, 4040SE-3071

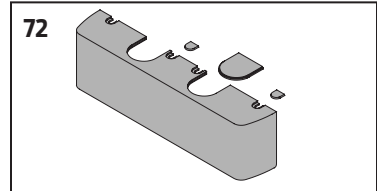
Standard, non-handed cast iron cylinder assembly.



## COVERS

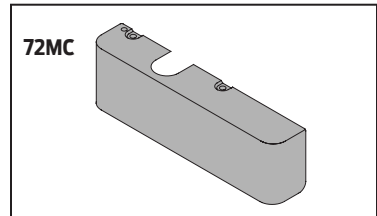
### COVER, 4040SE-72

Standard, non-handed plastic clip-on cover.



### METAL COVER, 4040SE-72MC

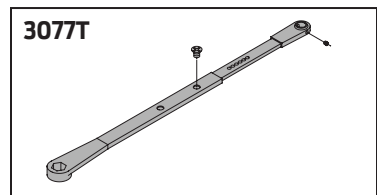
Optional, handed cover. Required for plated finishes and custom powder coat finishes.



## ARMS

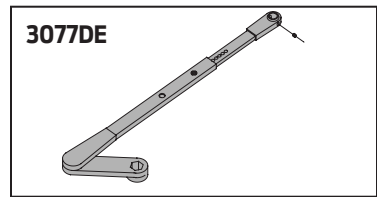
### STANDARD ARM, 4040SE-3077T

Non-handed arm, adjustable to select hold-open point.



### DOUBLE EGRESS ARM, 4040SE-3077DE

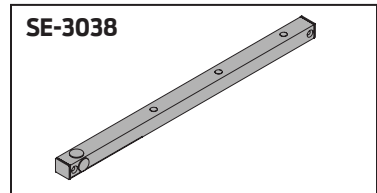
Optional, handed arm for pull side installations on double egress doors and frames. Not required for push side mounting on double egress frames.



## TRACKS

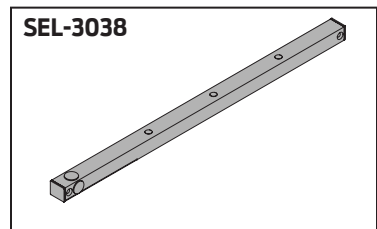
### SE TRACK, 4040SE-3038

Standard, non-handed track 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.



### SEL TRACK, 4040SEL-3038

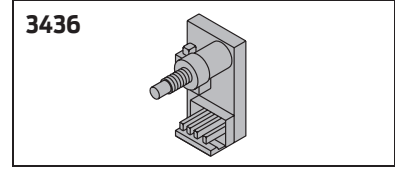
Optional, non-handed long track mounts on either head frame or stop. 24V or 120V AC/DC input standard for holding solenoid, please specify. Includes test switch assembly with fuse.



# 4040SE SERIES

## SWITCH

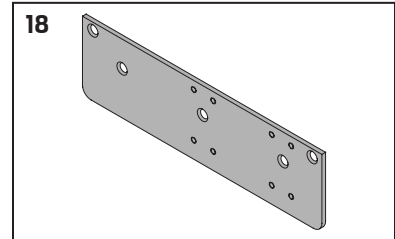
TEST SWITCH, 4040SE-3436



## INSTALLATION ACCESSORIES

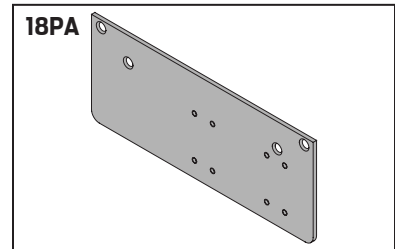
### PLATE, 4040SE-18

Required where top rail is less than 3-1/2" (89 mm).  
Plate requires minimum 2" (51 mm) top rail.  
Plate installations require a SPECIAL TEMPLATE.



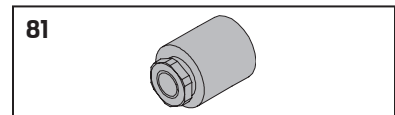
### PLATE, 4040SE-18PA

Required where top rail is less than 5-3/4" (146 mm).  
Plate requires minimum 2" (51 mm) top rail.  
Plate installations require a SPECIAL TEMPLATE.



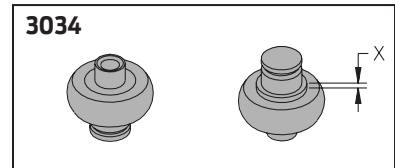
### CONDUIT QUICK-CONNECTOR, 4040SE-81

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



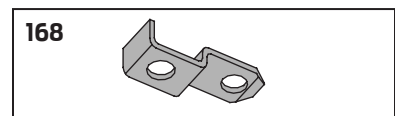
### TRACK ROLLER, 4040SE-3034

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



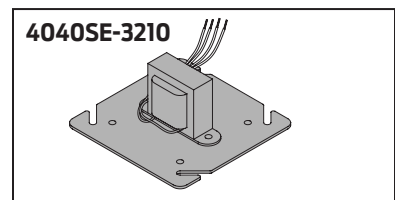
### TRACK SLIDER, 4040SE-168

Alloy metal slider for use in SE series tracks only.



### TRANSFORMER, 4040SE-3210

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).



# 4040SE SERIES

## 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.

Minimum door widths:

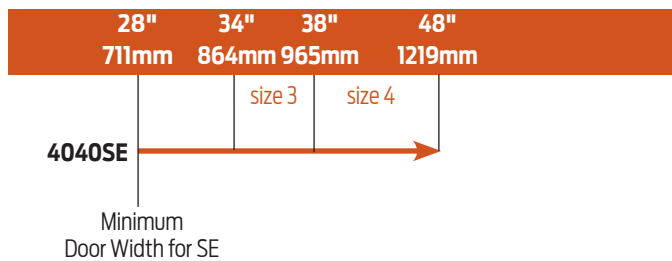
for SE on paired door, min. width 60" (1524 mm).

for SE, minimum door width 28" (711 mm).

for SEL, minimum door width 30" (762 mm).

Details are listed on the MOUNTING DETAILS pages.

### INTERIOR DOOR WIDTH



## HOW-TO-ORDER 4040SE SERIES CLOSERS

### 1. SELECT TRACK

- SE
- SEL

### 2. VOLTAGE

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

### 3. SPECIFY FINISH

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

#### Closer will be shipped with:

- STANDARD CYLINDER,
- STANDARD CLIP-ON COVER,
- STANDARD ARM,
- STANDARD TRACK,
- WOOD & MACHINE SCREW PACK,  
*unless options listed below are selected.*

## CLOSER OPTIONS

### COVER

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

### FINISHES

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

### ARM

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

### SCREW PACK

- TB\*; Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB\* & TORX Machine Screw (TBTRX)  
\* Specify door thickness if other than 1-3/4".

### INSTALLATION ACCESSORIES

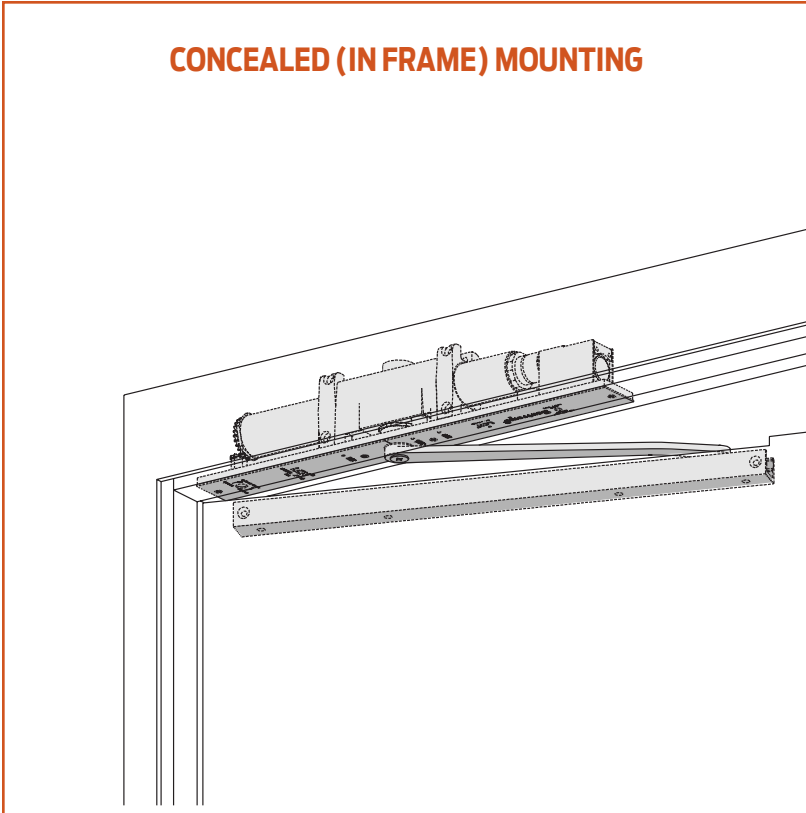
- Plate, 4040SE-18
- Plate, 4040SE-18PA
- Transformer, 4040SE-3210

### SPECIAL TEMPLATE

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

# 2310ME SERIES

## CONCEALED (IN FRAME) MOUNTING



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.

The 2310ME Series is UL & cUL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

- Standard 2310ME Series closer shipped with either 24V or 120V cylinder (please specify), two piece metal finish plate, standard arm, track, and wood and machine screw pack. See 2310ME Series page 25 for options.
- Sized cylinders for interior doors to 4' 0".
- Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted.
- Handed for right or left swinging door.
- Built-in "On/Off" switch controls hold-open function.
- Interfaces with fire alarm systems.
- Standard or optional custom powder coated finish.
- Optional plated finish on arm, fasteners and finish plate.

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	160°	STANDARD (SINGLE)	REGULAR (DOUBLE)	SWING FREE	DOUBLE EGRESS
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

● AVAILABLE  
○ NOT AVAILABLE

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

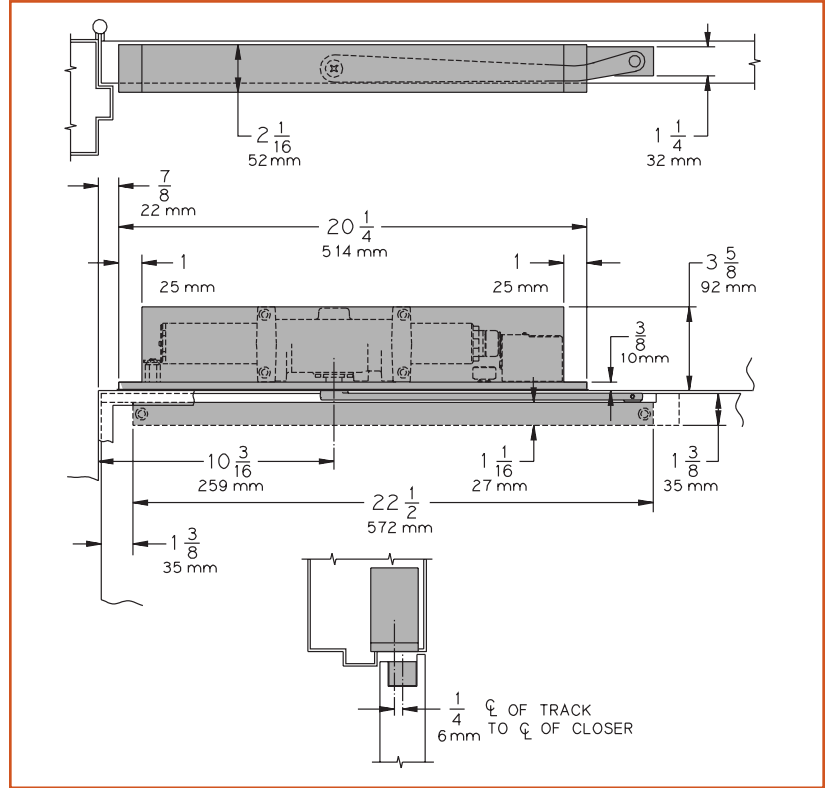
# 2310ME SERIES

## CONCEALED MOUNTING

For interior smoke barrier and labeled fire doors.

## MAXIMUM OPENING

Templating allows 180° with hold-open points up to 160°.



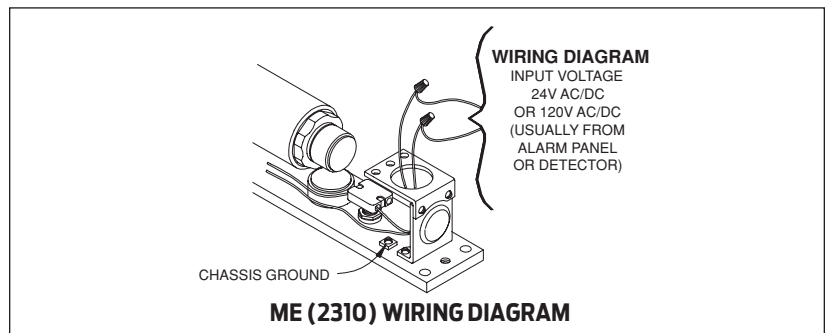
- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Top Rail** 1-3/8" (35 mm) mortise required.  
5/16" (8 mm) cutout required at top of door, stop face only.
- **Door Thickness** 1-3/4" (44 mm) minimum.
- **Door Width** 2' 4" (711 mm) minimum.
- **Hollow Metal Frame** Requires minimum 4" (102 mm) x 4" frame.  
Consult factory or template for preparation details.
- **Bypass** (suffix "B80" or "B140") eliminates hold-open function up to a specified point of door swing.  
B80 cylinder from 0° to 80°.  
B140 cylinder from 0° to 140°.
- **Wiring Diagram**

### Options

- Hold-open bypass.
- 24V or 120 volt input, please specify.

### Special Templates

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





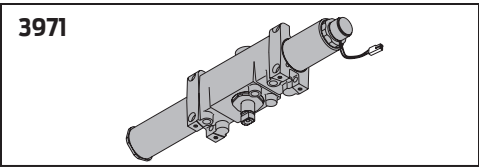
# 2310ME SERIES

## ACCESSORIES

### CYLINDER

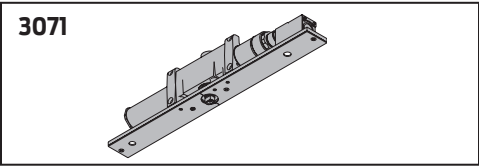
#### ME CYLINDER, 2310ME-3971

Standard, handed cast iron cylinder assembly. Specify 24V or 120V.



#### ME CYLINDER, 2310ME-3071

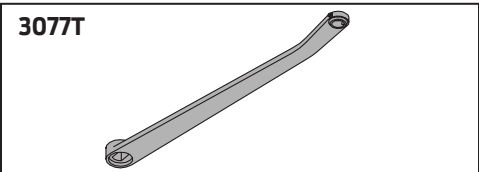
Standard, handed cylinder and mounting plate assembly. "On/Off" switch assembly controls the hold-open function. Circuitry accepts either AC or DC input. Specify 24V or 120V.



### ARM

#### STANDARD ARM, 2310ME-3077T

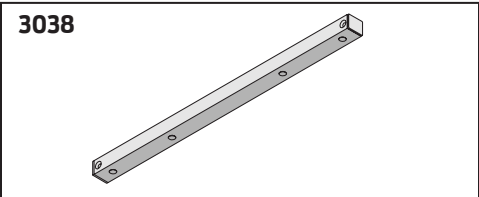
Handed arm.



### TRACK

#### STANDARD TRACK, 2310ME-3038

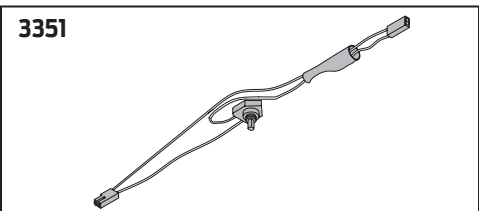
Standard, non-handed track.



### SWITCH

#### SWITCH, 2310ME-3351

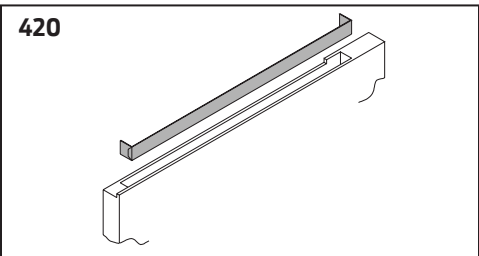
"On/Off" switch assembly provides continuous hold-open function. Available as 24V or 120V, please specify.



### INSTALLATION ACCESSORIES

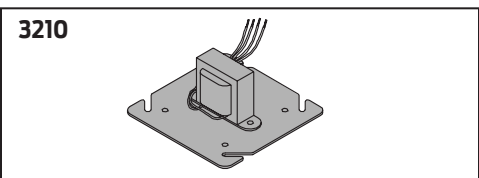
#### FIRE SHIELD, 2310ME-420

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.



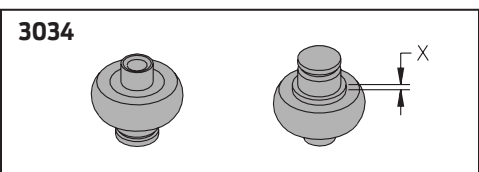
#### TRANSFORMER, 2310ME-3210

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).



#### TRACK ROLLER, 2310ME-3034

Quiet, low friction roller assembly. Shoulder dimension "X" = 1/16" (2 mm).

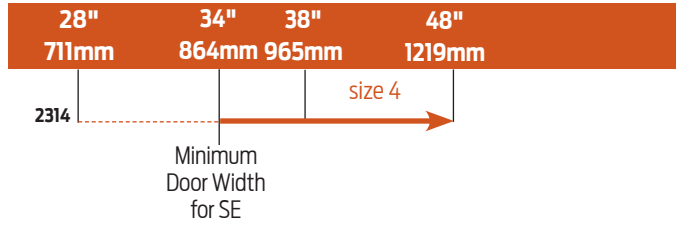


# 2310ME SERIES

## 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.

## HOW-TO-ORDER 2310ME SERIES CLOSERS

### 1. SPECIFY HAND

- RH
- LH

### 2. VOLTAGE

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

### 3. 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)

### FINISH

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

### SCREW PACK

- TORX Machine Screw (TORX)

### INSTALLATION ACCESSORIES

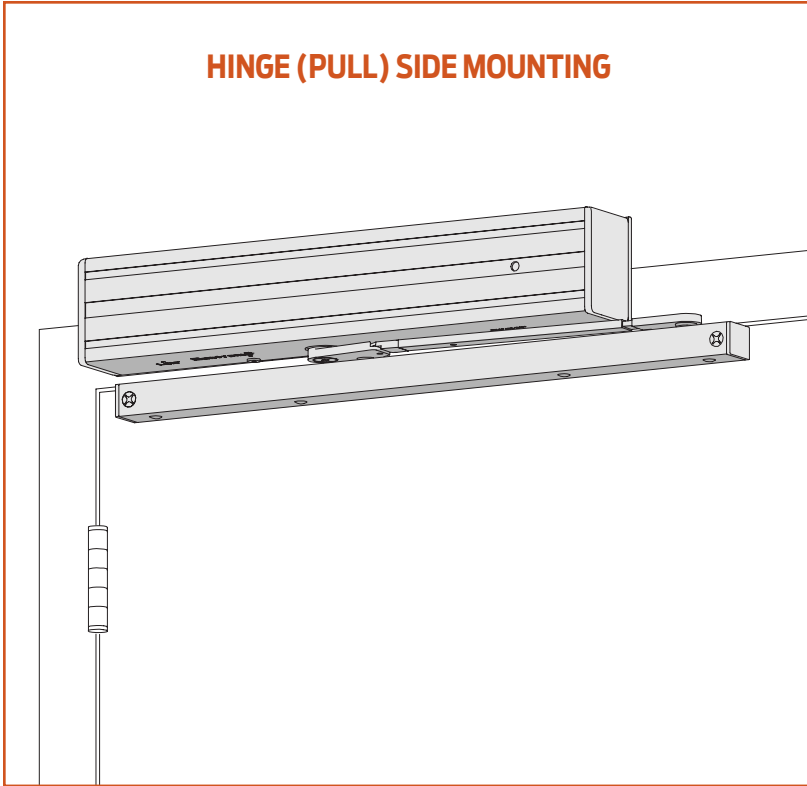
- Fire Shield, 2310ME-420
- Transformer, 2310ME-3210

### SPECIAL TEMPLATE

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

# 4310ME SERIES

## HINGE (PULL) SIDE MOUNTING



The 4310ME SENTRONIC® is a 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.

The 4310ME is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101. An ME provides only the closer/holder function.

- Standard 4310ME Series closer shipped with a 24V or 120V cylinder (please specify) on a mounting plate, metal cover, Swing-Free arm, track, track roller, and wood and machine screw pack. See 4310ME Series pages 29 & 30 for options.
- Sized cylinders for interior doors to 4'0".
- Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted with Swing-Free arm engaged.
- Handed for right or left swinging door.
- Concealed or exposed electrical connections.
- Built-in "On/Off" switch controls hold-open function.
- Swing-Free arm allows door to be moved without door closer resistance.
- Interfaces with fire alarm systems.
- Standard or optional custom powder coated finish.
- Optional plated finish on cover, arm, and fasteners.

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
●	○	○	○	○	●	●	○	●	●	○	○	●	●	○
														160° 95°

● AVAILABLE  
○ NOT AVAILABLE

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

# 4310ME SERIES

## HINGE (PULL) SIDE MOUNTING

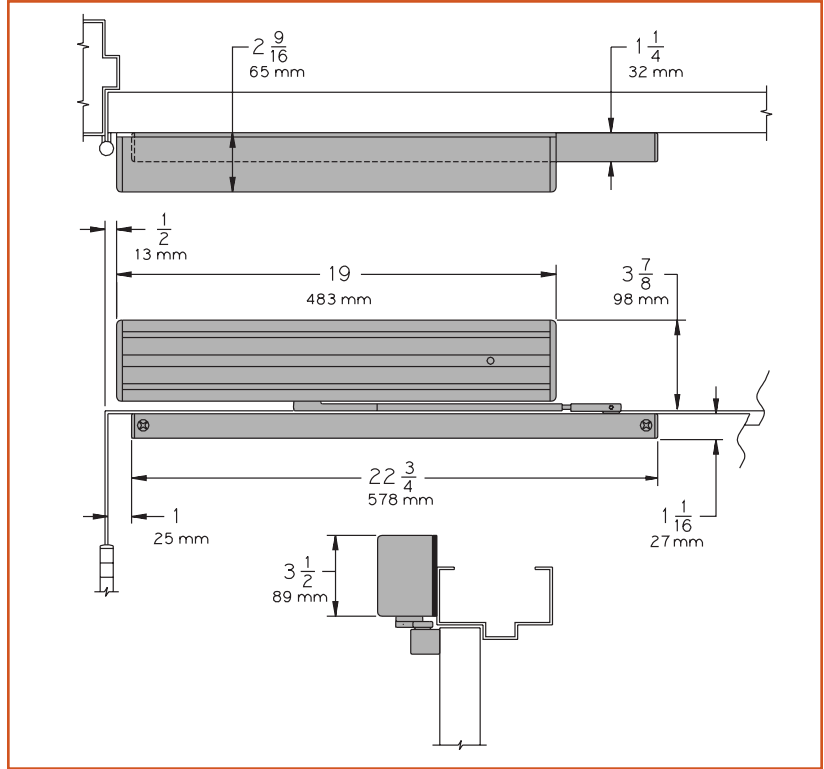
Information applies to ME closer.

## MAXIMUM OPENING

Templating allows 180° with hold-open points up to 160°. Optional double egress arm limited to 95°. Please note that many track style door closers are capable of allowing 180° of door swing. Be aware that the majority of track style closers are at their weakest closing force in the 180° – 130° range. Consult factory for applications where exterior or large/heavy door must swing 180°.

## ME ELECTRICAL OPTIONS

These assemblies have a single electrical circuit with a choice of voltages. A separate TRANSFORMER, 4040SE-3210, can be used to reduce line voltage to 24V AC. Circuitry accepts either AC or DC input. Please specify 24V or 120V.



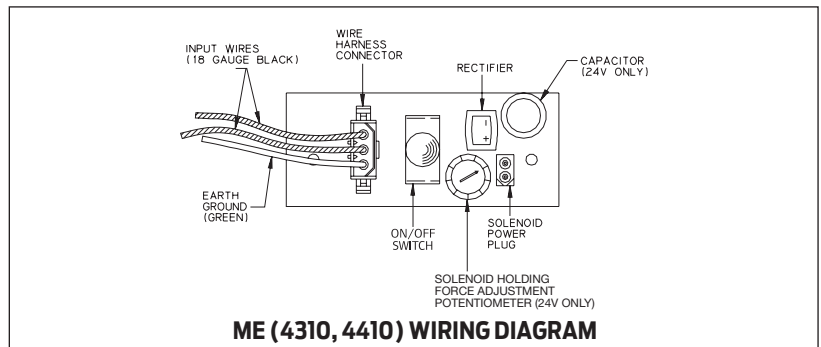
- **Butt Hinges** should not exceed 4-1/2" (114 mm) in width.
- **Top Rail** 1-1/16" (27 mm) minimum.
- **Reveal** should not exceed 1/8" (3 mm) for Swing-Free arm. Should not exceed 2-11/16" (68 mm) for double egress arm.
- **Head Frame** requires 2" (51 mm) minimum.
- **Clearance** of 1-1/4" (32 mm) behind door required for installation.
- **Bypass** (suffix "B80 or B140") eliminates hold-open function up to a specified point of the doors swing. B80 cylinder from 0° to 80°. B140 cylinder from 0° to 140°.
- **Wiring Diagram**

### Options

- Hold-open bypass.
- Double egress arm.
- 24V or 120 volt input, please specify.

### Special Templates

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



# 4310ME SERIES

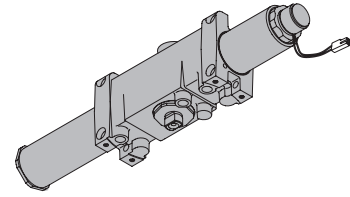
## ACCESSORIES

### CYLINDER

#### ME CYLINDER, 4310ME-3971

Standard, handed cast iron cylinder assembly. Please specify 24V or 120V.

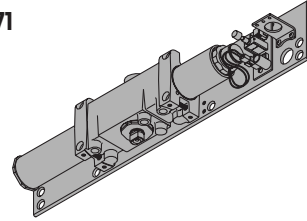
3971



#### ME CYLINDER, 4310ME-3071

Standard, handed cylinder and mounting plate assembly. "On/Off" switch assembly controls hold-open function. Circuitry accepts either AC or DC input. Please specify 24V or 120V.

3071

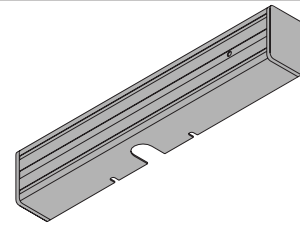


### COVERS

#### COVER, 4310ME-72MC

Handed, metal cover.

72MC



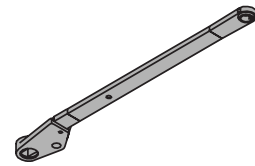
### ARMS

#### SWING-FREE ARM, 4310ME-3077SF

Handed arm.

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

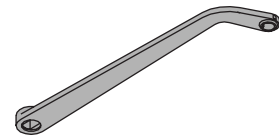
3077SF



#### DOUBLE EGRESS ARM, 4310ME-3077DE

Optional, handed arm for double egress doors and frames. 2-11/16" (68 mm) maximum reveal.

3077DE

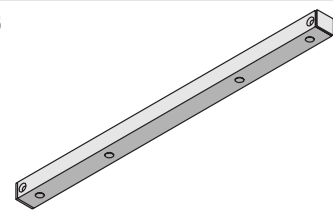


### TRACK

#### TRACK, 4310ME-3038

Standard, non-handed track.

3038

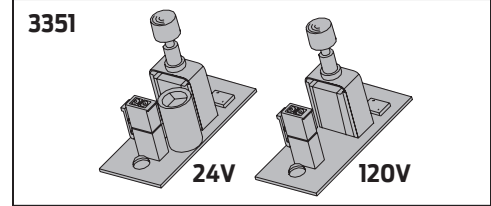


# 4310ME SERIES

## SWITCH

### SWITCH, 4310ME-3351

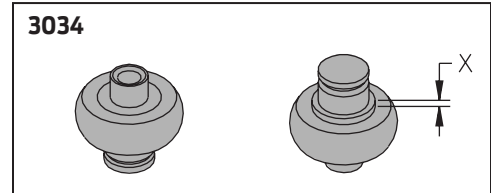
"On/Off" switch assembly provides continuous hold-open function.  
Available as 24V or 120V, please specify.



## INSTALLATION ACCESSORIES

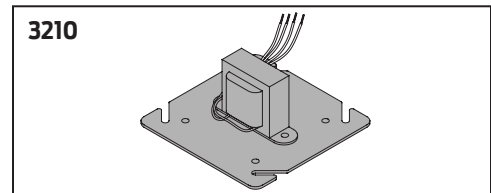
### TRACK ROLLER, 4310ME-3034

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



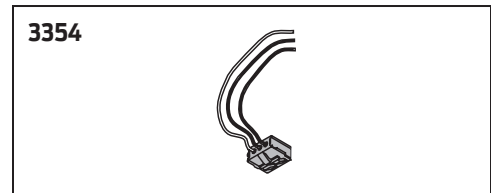
### TRANSFORMER, 4310-3210

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).



### ME WIRING HARNESS, 4310ME-3354

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

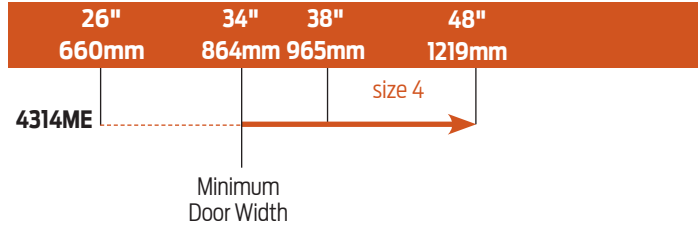


# 4310ME SERIES

## 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.

## HOW-TO-ORDER 4310ME SERIES CLOSERS

### 1. SPECIFY HAND

- RH
- LH

### 2. VOLTAGE

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

### 3. SPECIFY FINISH

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

#### Closer will be shipped with:

- STANDARD COVER,
- SWING-FREE (SF) 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)

### ARM

- Double Egress (DE)

### FINISHES

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

### SCREW PACK

- TB\*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB\* & TORX Machine Screw (TBTRX)
- \*Specify door thickness if other than 1-3/4".

### INSTALLATION ACCESSORIES

- Transformer, 4310ME-3210

### SPECIAL TEMPLATE

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

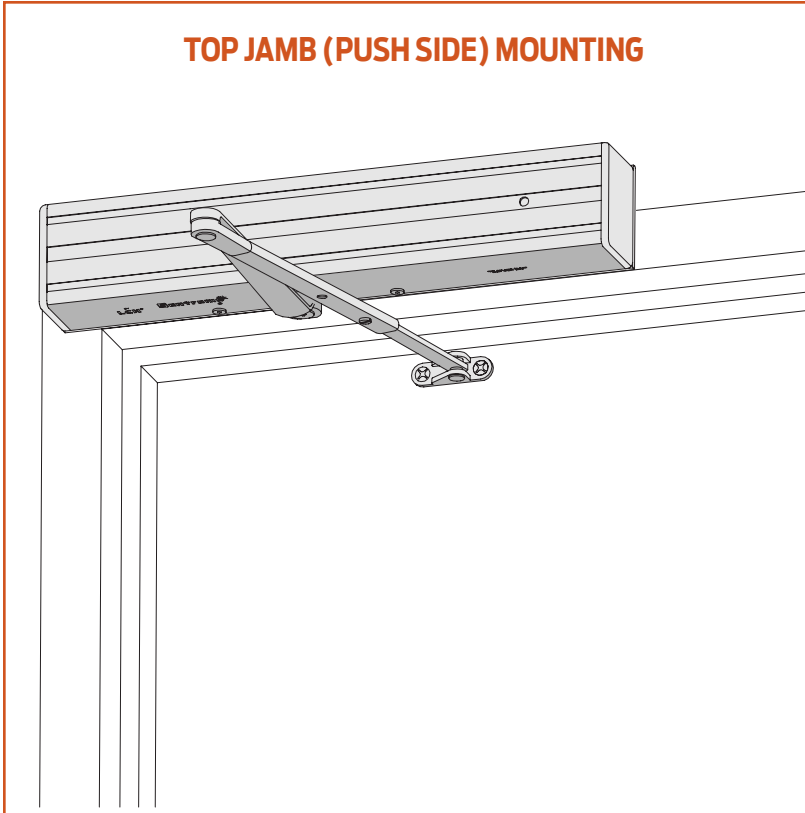
ORDERING INFORMATION





# 4410ME SERIES

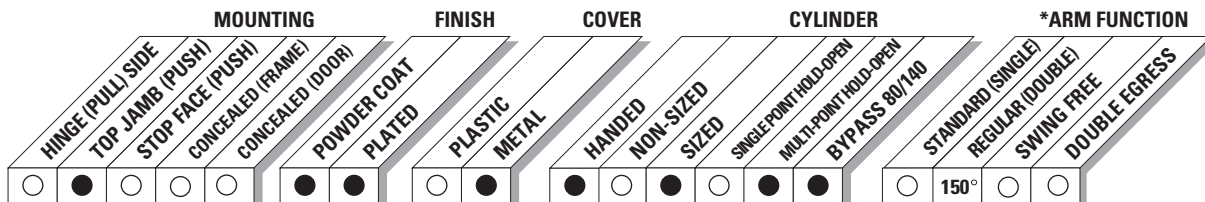
## TOP JAMB (PUSH SIDE) MOUNTING



The 4410ME SENTRONIC® is a 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. Double lever arm closer is specifically designed for interior doors. Choice of finishes, cylinder functions, and installation accessories meet virtually all life safety requirements.

The 4410ME Series is UL listed for smoke barrier or labeled fire doors. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101. An ME provides only the closer/holder function.

- Standard 4410ME Series closer shipped with a 24V or 120V cylinder (please specify) on a mounting plate, metal cover, regular arm, and wood and machine screw pack. See 4410ME Series pages 35 & 36 for options.
- Sized cylinder for interior doors to 4' 0".
- Functions as full rack and pinion door closer when hold-open is not engaged or current is interrupted.
- Handed for right or left swinging door.
- Concealed or surface wiring.
- Built-in "On/Off" switch controls hold-open function.
- Interfaces with fire alarm systems.
- Standard or optional custom powder coat finish.
- Optional plated finish on cover, arm, and fasteners.



● AVAILABLE  
○ NOT AVAILABLE

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

# 4410ME SERIES

## TOP JAMB (PUSH SIDE) MOUNTING

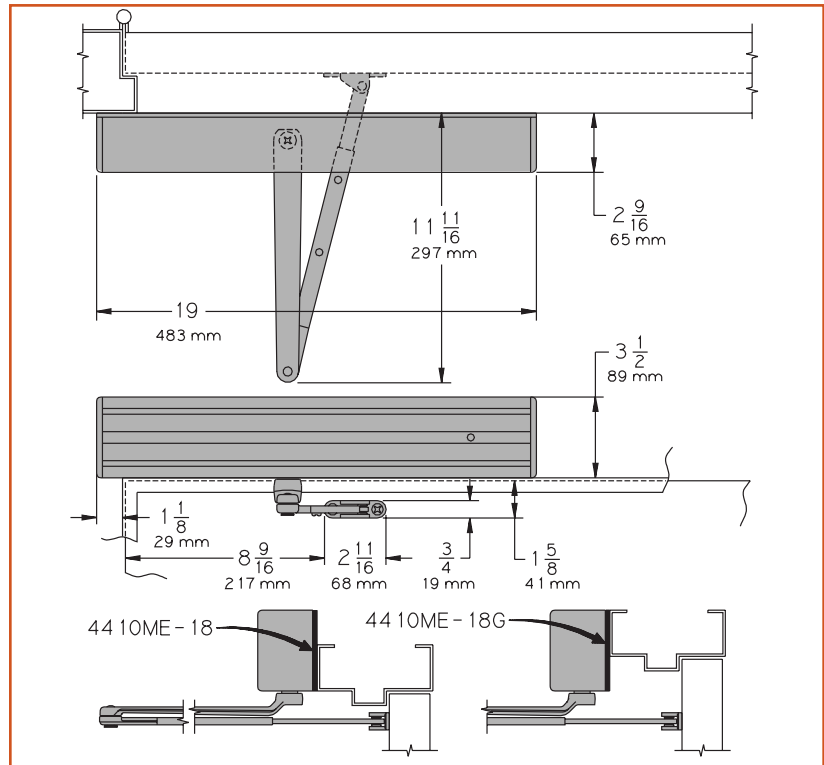
### MAXIMUM OPENING

Templating allows 160°, with hold-open points up to 150°.

Optional long arm allows 180°, hold-open points up to 170°.

### ME ELECTRICAL OPTIONS

These assemblies have a single electrical circuit with a choice of voltages. A separate TRANSFORMER, 4040SE-3210, can be used to reduce line voltage to 24V AC. Circuitry accepts either AC or DC input. Please specify 24V or 120V.



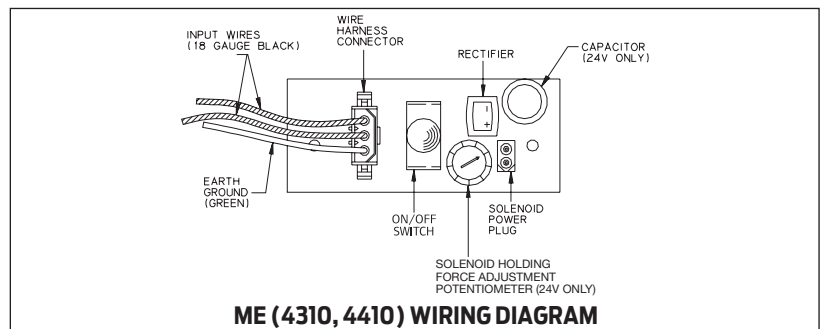
- **Butt Hinges** should not exceed 4-1/2" (114 mm) in width.
- **Top Rail** 1-3/4" (44 mm) minimum. 3-3/4" (95mm) minimum with flush ceiling.
- **Reveal** 3-7/8" (98 mm) maximum regular or long arm. For reveals greater than 3-7/8" consult factory.
- **Head Frame** requires 1-1/2" (38 mm) minimum. 2" (51 mm) minimum with flush ceiling.
- **Flush Ceiling** requires PLATE, 4410ME-18G substituted for standard mounting plate.
- **Bypass** (suffix "B80" or "B140") eliminates hold-open function up to a specified point of door swing. B80 cylinder from 0° to 80°. B140 cylinder from 0° to 140°.
- **Wiring Diagram**

### Options

- Hold-open bypass. Optional long arm allows 180° with hold-open points up to 170°.
- Optional -18G plate accommodates flush ceiling conditions.
- 24V or 120V volt input, please specify.

### Special Templates

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



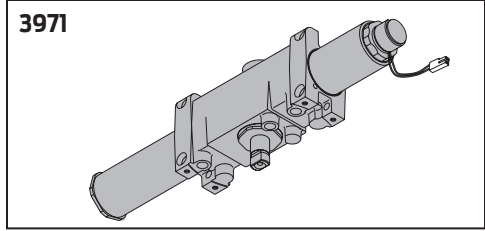
ME (4310, 4410) WIRING DIAGRAM

# 4410ME SERIES

## CYLINDER

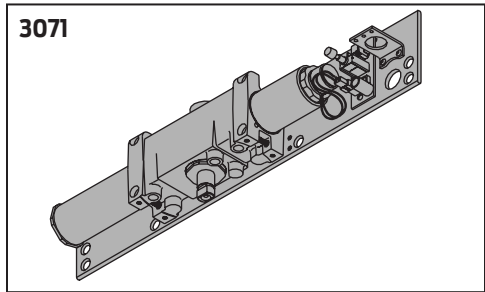
### ME CYLINDER, 4414ME-3971

Standard, handed cast iron cylinder assembly.  
Please specify 24V or 120V.



### ME CYLINDER, 4414ME-3071

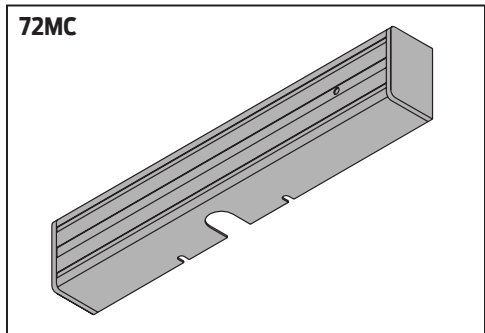
Standard, handed cylinder and mounting plate assembly.  
"On/Off" switch assembly controls hold-open function.  
Circuitry accepts either AC or DC input.  
Please specify 24V or 120V.



## COVERS

### COVER, 4410ME-72MC

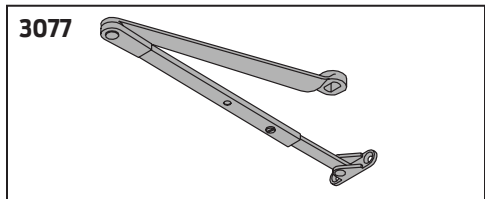
Handed, metal cover.



## ARMS

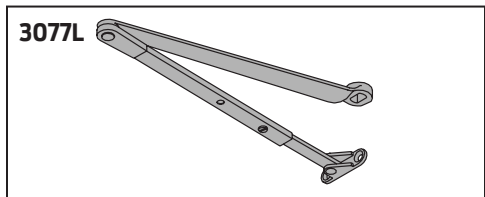
### REGULAR ARM, 4410ME-3077

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



### LONG ARM, 4410ME-3077L

Optional long ARM for increasing opening to 180°.  
3-7/8" (98 mm) maximum reveal.

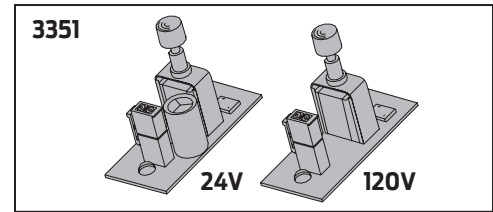


# 4410ME SERIES

## SWITCH

### SWITCH, 4410ME-3351

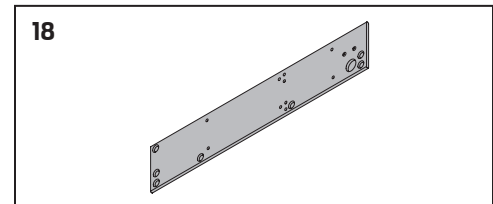
"On/Off" switch assembly provides continuous hold-open function. Available as 24V or 120V, please specify.



## INSTALLATION ACCESSORIES

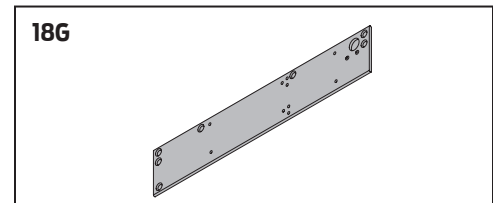
### MOUNTING PLATE, 4410ME-18

Standard mounting plate.



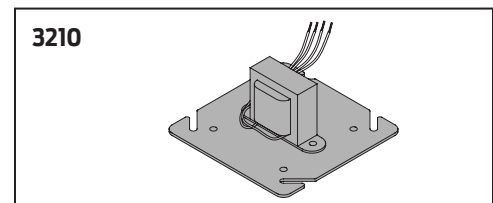
### MOUNTING PLATE, 4410ME-18G

Optional mounting plate substituted for standard plate on flush ceiling installations.



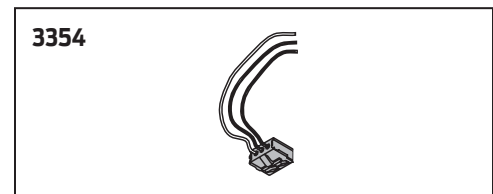
### TRANSFORMER, 4410ME - 3210

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).



### ME WIRING HARNESS, 4410ME-3354

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

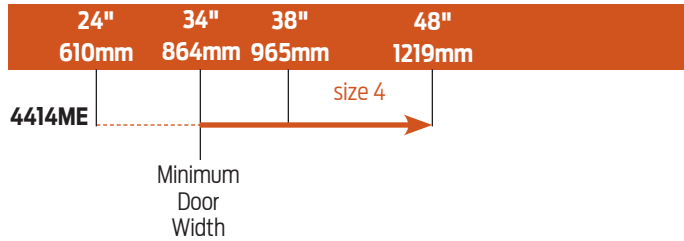


# 4410ME SERIES

## 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.

## HOW-TO-ORDER 4410ME SERIES CLOSERS

### 1. SPECIFY HAND

- RH
- LH

### 2. VOLTAGE

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

### 3. SPECIFY FINISH

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

#### Closer will be shipped with:

- STANDARD COVER,
- REGULAR ARM,
- WOOD & MACHINE SCREW PACK,  
*unless options listed below are selected.*

## CLOSER OPTIONS

### CYLINDER FUNCTION

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

### ARM

- Long (LONG)

### FINISHES

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

### SCREW PACK

- TB\*, Wood & Machine Screw (TBWMS)
  - TORX Machine Screw (TORX)
  - TB\* & TORX Machine Screw (TBTRX)
- \*Specify door thickness if other than 1-3/4".

### INSTALLATION ACCESSORIES

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

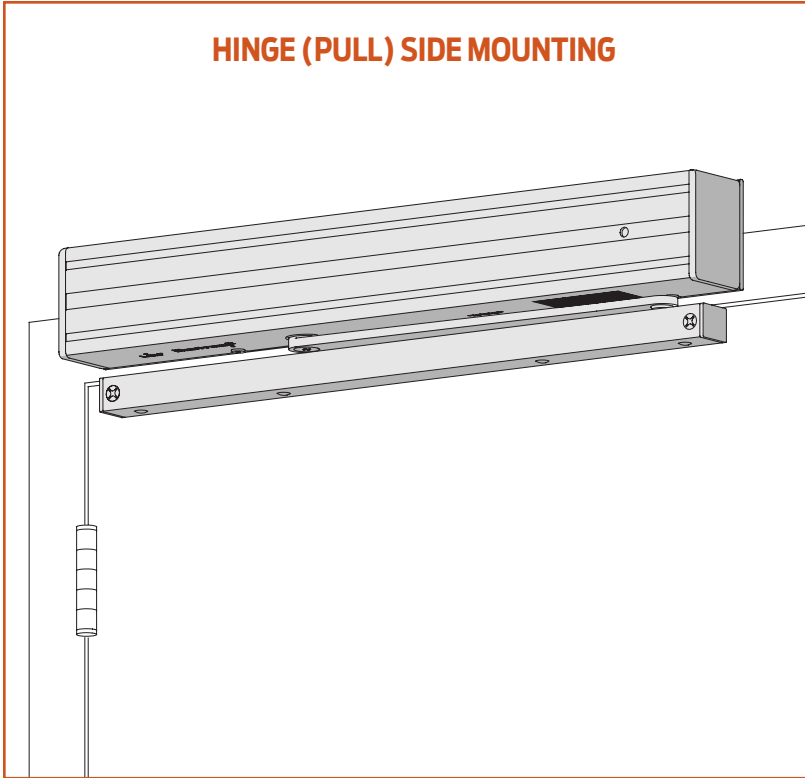
### SPECIAL TEMPLATE

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



# 4310 HSA SERIES

## FEATURES



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 under control of the heavy duty closer. Single lever (track) arm closer is specifically designed for pull side mounting. Choice of finishes and accessories meet virtually all high traffic installation requirements.

*Tested and certified under ANSI Standard A156.4 and A156.15. Conforms to life safety code, NFPA 101.*

- Standard 4310HSA series closer shipped with a 24V cylinder, standard cover, standard arm, non-handed track and wood & machine screw pack. See 4310HSA Series page 41 for options.
- HSA features a scanner activated hold-open function.
- Hold-open period is adjustable up to 30 seconds.
- Sized cylinders for interior doors to 4' 0".
- Functions as full rack and pinion door closer when current is interrupted or continuous hold-open is not engaged.
- Handed for right or left swinging door.
- Concealed or surface wiring. 24V AC/DC input only. 120V AC input requires 4310HSA-3210 transformer.
- Built-in "On/Off" switch provides continuous hold-open function.
- Standard or optional custom powder coated finish.
- Optional plated finish on cover, arm and fasteners. (Available with powder coat finishes only).

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	160Y	STANDARD (SINGLE)	REGULAR (DOUBLE)	SWING FREE	DOUBLE EGRESS	95Y
●	○	○	○	○	●	●	○	●	●	○	○	●	○		○	○	○	○	○	○

● AVAILABLE  
○ NOT AVAILABLE

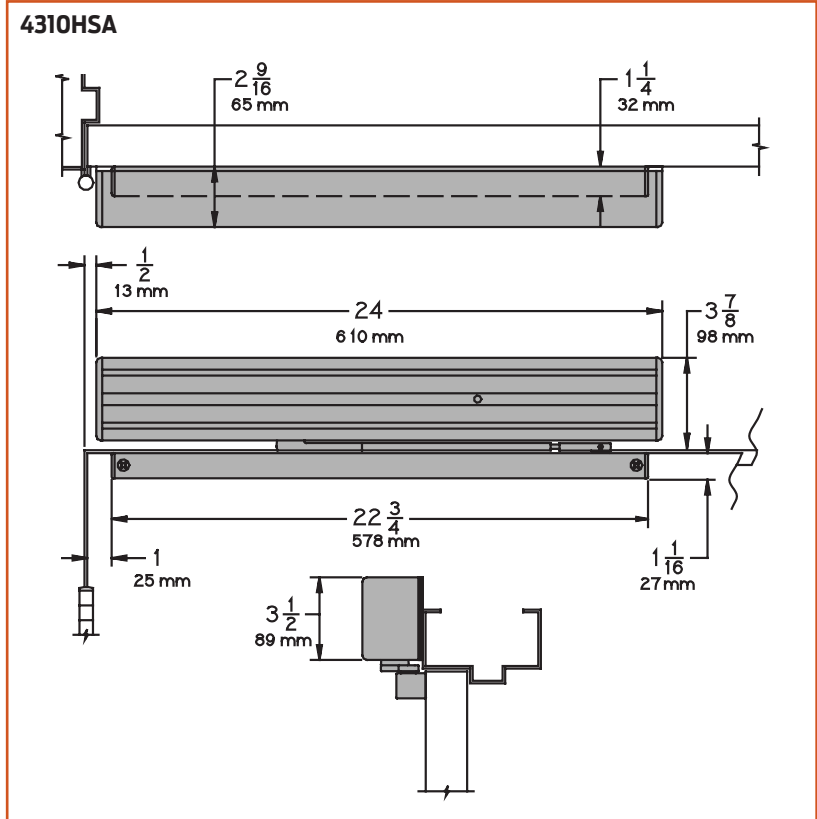
\* Maximum hold-open point with standard template. See individual closer series for degrees of opening and hold-open per installation.

# 4310 HSA SERIES

## HINGE (PULL) SIDE MOUNTING

### MAXIMUM OPENING

Templating allows 180°.  
 Optional double egress arm limited to 95°.  
 Infinite hold-open points from 80° up to 160°.



- **Butt Hinges** should not exceed 4-1/2" (114 mm) in width.
- **Top Rail** 1-1/16" (27 mm) minimum.
- **Reveal** should not exceed 1/8" (3 mm) for standard arm. Should not exceed 2-11/16" (68 mm) for double egress arm.
- **Head Frame** requires 2" (51 mm) minimum.
- **Clearance** 1-1/4" (32 mm) minimum.
- **Wiring Diagram**

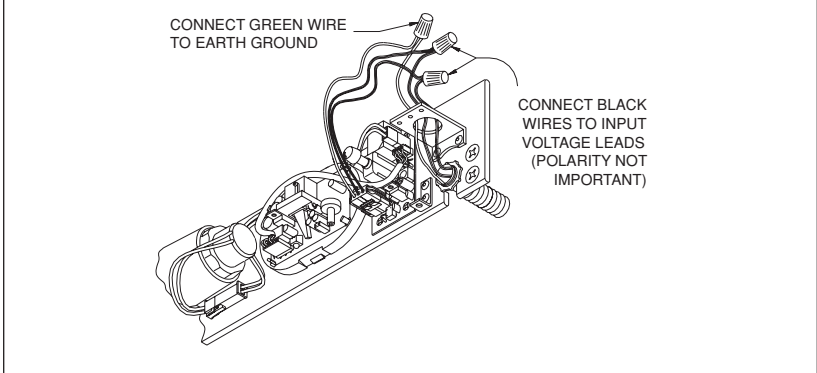
### Options

- Double egress arm.
- 120 volt input requires 4310HSA-3210 transformer to change 120V AC to 24V AC.

### Special Templates

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

### HSA WIRING DIAGRAM





# 4310 HSA SERIES

## CYLINDER

### HSA CYLINDER, 4311HSA-3971

Standard, handed cast iron cylinder assembly. 24V AC/DC input only for holding solenoid.

### HSA CYLINDER, 4311HSA-3071

Standard, handed cylinder and mounting plate assembly. 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.

## COVERS

### METAL COVER, 4310HSA-72MC

Handed, metal cover.

## ARM

### STANDARD ARM, 4310HSA--3077T

Handed arm.

### DOUBLE EGRESS ARM, 4310HSA--3077DE

Optional, handed arm for double egress doors and frames. 2 11/16" (67 mm) maximum reveal.

## TRACK

### TRACK, 4310HSA-3038

Standard, non-handed track.

## SWITCH

### SWITCH, 4310HSA-3448

"On/Off" switch assembly provides continuous hold-open function.

## SCANNER

### SCANNER MODULE, 4310HSA-3428

## INSTALLATION ACCESSORIES

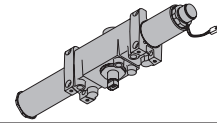
### TRACK ROLLER, 4310HSA-3034

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

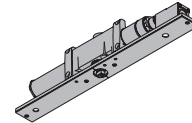
### TRANSFORMER, 4310HSA-3210

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).

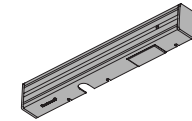
3971



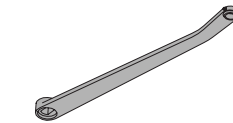
3071



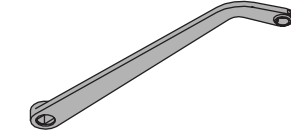
72MC



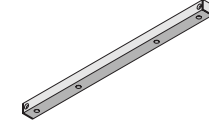
3077T



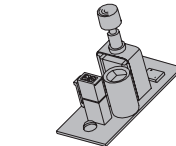
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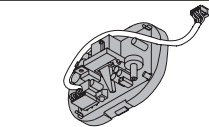
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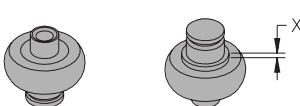
3448



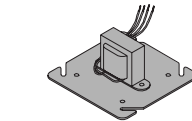
3428



3034



3210

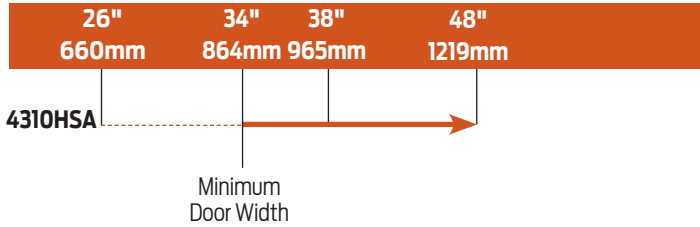


# 4310 HSA SERIES

## TABLE OF SIZES

Closing power of 4310HSA Series closers may be increased 15%.

### INTERIOR DOOR WIDTH



→ Indicates recommended range of door width for closer size.

## HOW-TO-ORDER 4310 HSA SERIES CLOSERS

### 1. SPECIFY HAND

- RH
- LH

### 2. VOLTAGE

- 24V AC/DC

### 3. SPECIFY FINISH

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

### Closer will be shipped with:

- 24 AC/DC HSA CYLINDERS,
- METAL COVER,
- STANDARD ARM,
- STANDARD TRACK,
- TRACK ROLLER,
- WOOD & MACHINE SCREW PACK,  
*unless options listed below are selected.*

## CLOSER OPTIONS

### ARM

- Double Egress (DE)

### FINISH

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

### SCREW PACK

- TB\*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB\* & TORX Machine Screw (TBTRX)
- \* Specify door thickness if other than 1-3/4".

### INSTALLATION ACCESSORIES

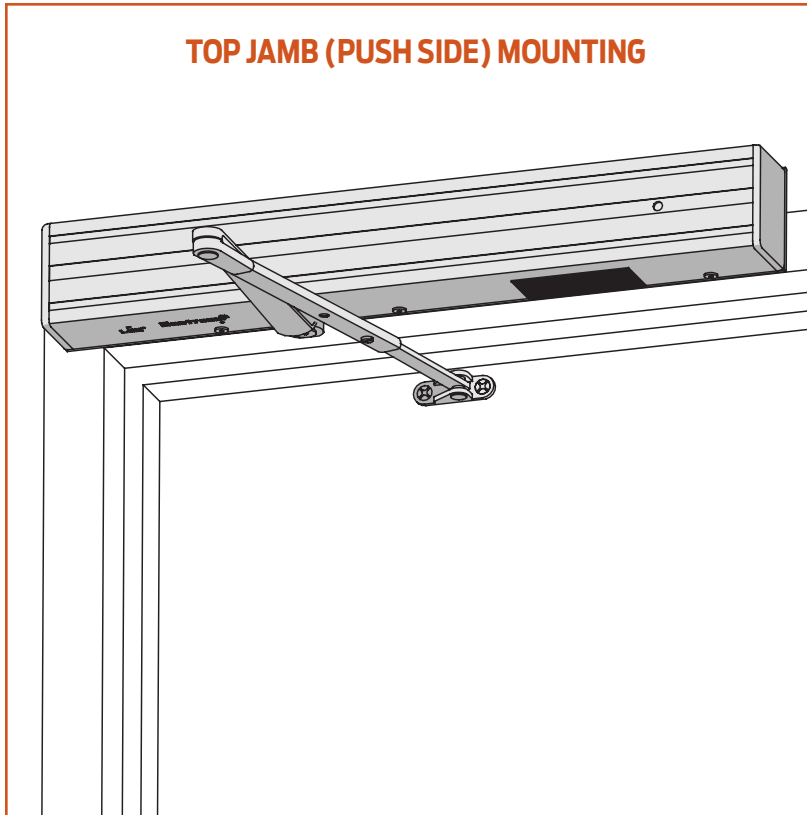
- Transformer, 4310HSA-3210

### SPECIAL TEMPLATE

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

# 4410 HSA SERIES

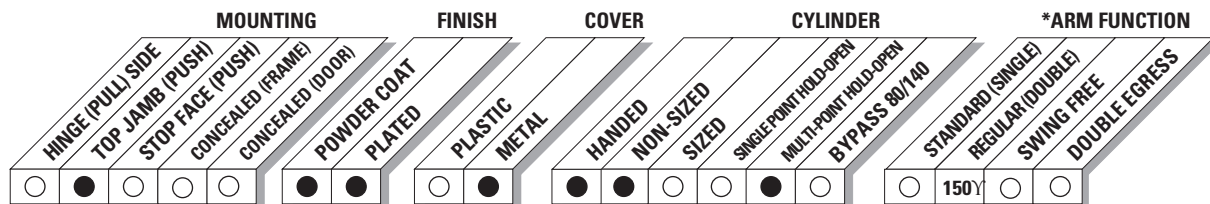
## FEATURES



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. 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 under control of the heavy duty closer. Double lever arm closer is specifically designed for push side mounting. Choice of finishes and accessories meet virtually all high traffic installation requirements.

- Standard 4410HSA Series closer shipped with a 24V cylinder, standard cover, regular arm and wood & machine screw pack. See 4410HSA Series page 45 for options.
- HSA features a scanner activated hold-open function.
- Hold-open period is adjustable up to 30 seconds.
- Sized cylinders for interior doors to 4' 6".
- Functions as full rack and pinion door closer when current is interrupted or continuous hold-open is not engaged.
- Handed for right or left swinging door.
- Concealed or surface wiring. 24V AC/DC input only. 120V AC input requires 4410HSA-3210 transformer.
- Built-in "On/Off" switch provides continuous hold-open function.
- Standard or optional custom powder coated finish.
- Optional plated finish on cover, arm and fasteners.

*Tested and certified under ANSI Standard A156.4 and A156.15. Conforms to life safety code, NFPA 101.*



- AVAILABLE
- NOT AVAILABLE

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

# 4410 HSA SERIES

## TOP JAMB (PUSH) SIDE MOUNTING

### MAXIMUM OPENING

Templating allows 160°.  
 Infinite hold-open points from 80° up to 150°.  
 Optional long arm allows 180°, hold-open points up to 170°.

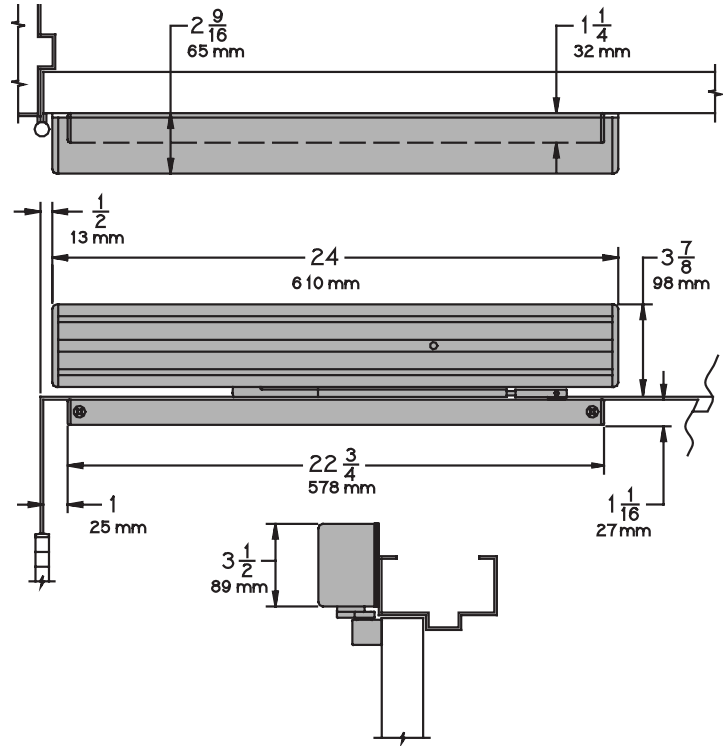
### Options

- Optional long arm allows 180° with hold-open points up to 170°.
- Optional -18G plate accommodates flush ceiling conditions.
- 120 volt input requires 4410HSA-3210 transformer to change 120V AC to 24V AC.

### Special Templates

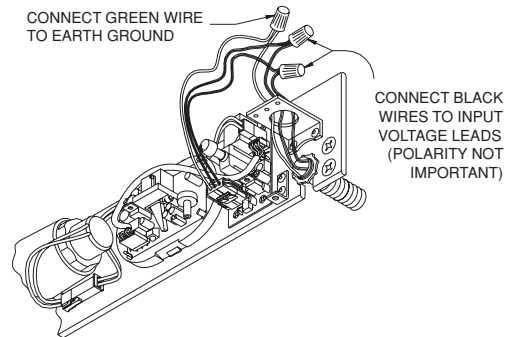
Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.

4310HSA



- **Butt Hinges** should not exceed 4-1/2" (114 mm) in width.
- **Top Rail** 1-3/4" (44 mm) minimum.  
3-3/4" (95 mm) minimum with flush ceiling.
- **Head Frame** requires 1-1/2" (38mm) minimum.  
2" (51 mm) minimum with flush ceiling.
- **Reveal** 3-7/8" (98 mm) maximum for regular or long arm. For reveals greater than 3-7/8" consult factory.
- **Wiring Diagram**

HSA WIRING DIAGRAM



# 4410 HSA SERIES

## CYLINDER

### HSA CYLINDER, 4312HSA-3971

Standard, handed cast iron cylinder assembly. 24V AC/DC input only for holding solenoid.

### HSA CYLINDER, 4312HSA-3071

Standard, handed cylinder and mounting plate assembly. 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.

## COVERS

### METAL COVER, 4410HSA-72MC

Handed, metal cover.

## ARM

### REGULAR ARM, 4410HSA-3077

Non-Handed Arm.  
3-7/8" (98 mm) maximum reveal.

### LONG ARM, 4410HSA-3077L

Optional arm for increased opening.  
3-7/8" (98 mm) maximum reveal.

## SWITCH

### SWITCH, 4410HSA-3448

"On/Off" switch assembly provides continuous hold-open function.

## SCANNER

### SCANNER MODULE, 4410HSA-3428

## INSTALLATION ACCESSORIES

### MOUNTING PLATE, 4410HSA-18

Standard mounting plate.

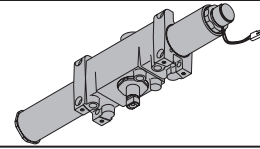
### MOUNTING PLATE, 4410HSA-18G

Optional mounting plate substituted on flush ceiling installations.

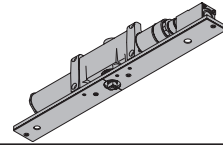
### TRANSFORMER, 4410HSA-3210

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).

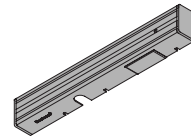
3971



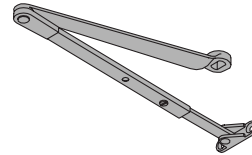
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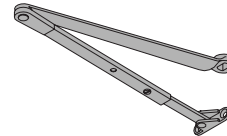
72MC



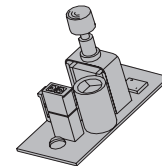
3077



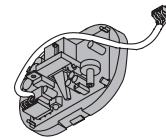
3077L



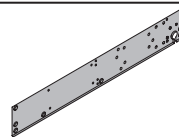
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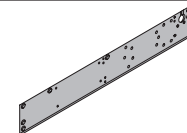
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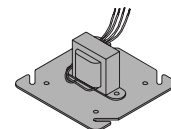
18



18G



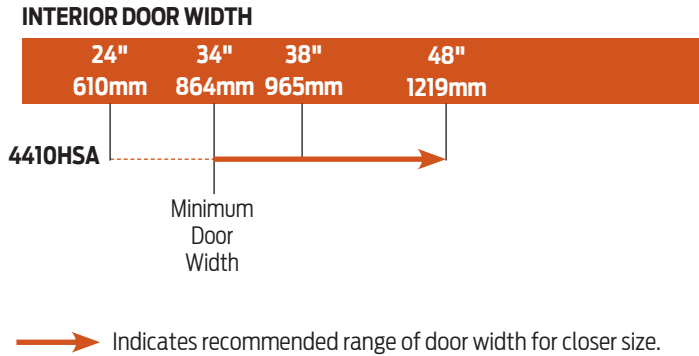
3210



# 4410 HSA SERIES

## TABLE OF SIZES

Closing power of 4410HSA Series closers may be increased 15%.



## HOW-TO-ORDER 4410 HSA SERIES CLOSERS

### 1. SPECIFY HAND

- RH
- LH

### 2. VOLTAGE

- 24V AC/DC

### 3. SPECIFY FINISH

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

#### Closer will be shipped with:

- 24 AC/DC HSA CYLINDERS,
- METAL COVER,
- REGULAR ARM,
- WOOD & MACHINE SCREW PACK,  
*unless options listed below are selected.*

## CLOSER OPTIONS

### ARM

- Long Arm (LONG)

### FINISH

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

### SCREW PACK

- TB\*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB\* & TORX Machine Screw (TBTRX)
- \* Specify door thickness if other than 1-3/4".

### INSTALLATION ACCESSORIES

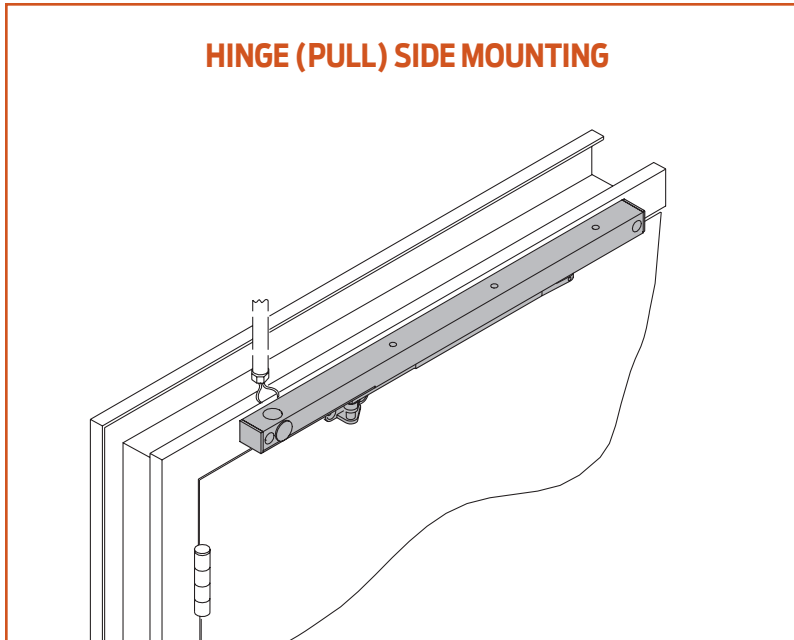
- Plate, 4410HSA-18
- Plate, 4410HSA-18G  
(substituted for standard mounting plate)
- Transformer, 4410HSA-3210

### SPECIAL TEMPLATE

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

# SEH SERIES

## FEATURES



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. Choice of finishes, track functions, and installation accessories meet virtually all life safety requirements.

- Standard SEH Series is a door holder that must be installed in conjunction with an opposite side mounted, UL listed door closer.
- Standard SEH series holder shipped with a standard arm, 24V or 120V (please specify) SEH track and wood and machine screw pack.
- Hold-open force is adjustable.
- Momentary on/off switch board assembly for testing door release also provides over-voltage protection. Field replaceable.
- Non-handed for mounting on either right or left hand door.
- Concealed or surface wiring.
- Interfaces with alarm systems. Consult factory for full details.
- Standard or optional custom powder coated finishes on track and arm.

The SEH Series is UL listed for smoke barrier or labeled fire doors.

cUL listed for self-closing doors

without hold-open. Tested and certified under ANSI Standard A156.15. Conforms to life safety code, NFPA 101.

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°	100°	STANDARD (SINGLE)	REGULAR (DOUBLE)	SWING FREE	DOUBLE EGRESS
●	○	●	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○

● AVAILABLE  
○ NOT AVAILABLE

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

\*\* Cylinder sold separately.

# SEH SERIES

## HINGE (PULL) SIDE & STOP FACE (PUSH SIDE) MOUNTINGS

Information applies to SEH unless otherwise specified.

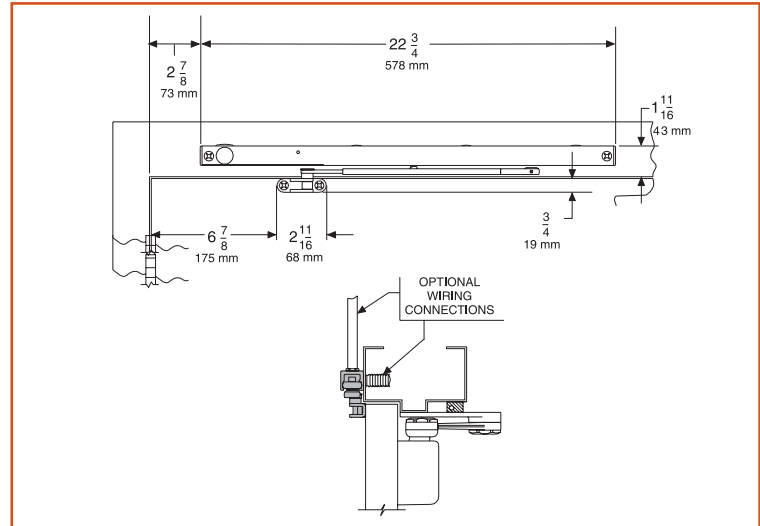
### MAXIMUM OPENING

Templating allows 100°. Hold-open points between 80° and 100° in approximately 3° increments.

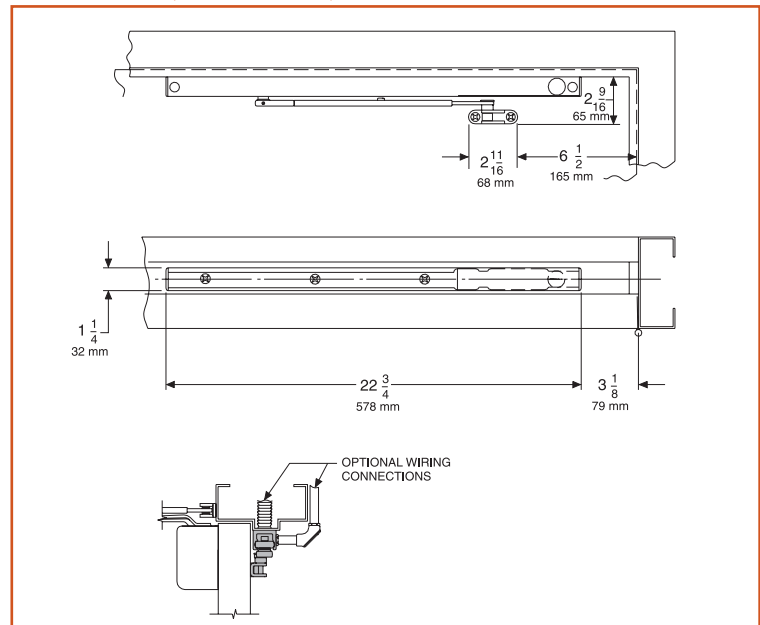
### SEH ELECTRICAL OPTIONS

These track assemblies require a single power circuit for the holding solenoid. SEH holding solenoid is either 24V or 120V input, please specify. An optional 4040SE-3210 TRANSFORMER reduces 120V AC line voltage to 24V AC. Circuitry accepts either AC or DC input.

## HINGE (PULL) SIDE MOUNT



## STOP FACE (PUSH SIDE) MOUNT



### Options

- 24V or 120V volt input for SEH, please specify.

### Special Templates

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

- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Swing Clear Hinges** consult factory.
- **Auxiliary Stop** is recommended at hold-open point.
- **Reveal** should not exceed 1/8" (3 mm) for standard arm.
- **Head Frame** requires 2" (51 mm) minimum.
- **Stop Width** 1-1/4" (32 mm) minimum.
- **Flush Ceiling** with 2" (51 mm) head frame does not require special templating.
- **Door Width** 2' 4" (711 mm) minimum for single door with SEH. 4' 8" (1422 mm) minimum for paired doors with SEH.
- **Wiring Diagram** See "FIRE/LIFE SAFETY" section page 19 for typical wiring and electrical diagram.



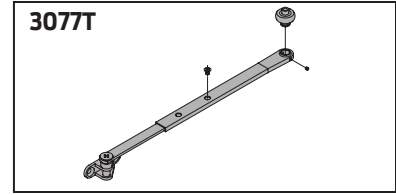
# SEH SERIES

## ACCESSORIES

### ARMS

#### HOLDER ARM, SEH-3077T

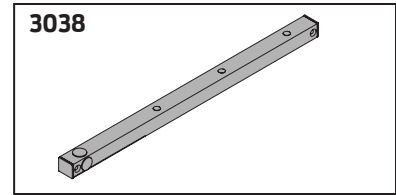
Non-handed arm can be combined with any 4040SE Series track to provide an electrically controlled hold-open function on either side of the door. All SEH type holders require a separate closer for fire or smoke barrier door applications.



### TRACKS

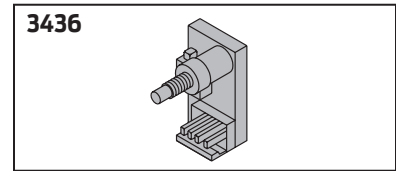
#### SE TRACK, SEH-3038

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



### SWITCH

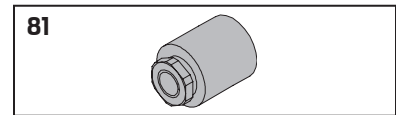
#### TEST SWITCH, SEH-3436



### INSTALLATION ACCESSORIES

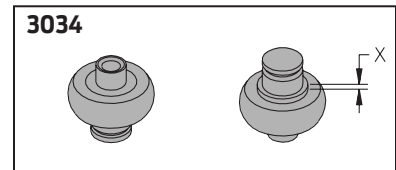
#### CONDUIT QUICK-CONNECTOR, SEH-81

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



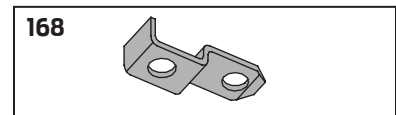
#### TRACK ROLLER, SEH-3034

Quiet, low friction roller assembly.  
Shoulder dimension "X" = 1/4" (6 mm).



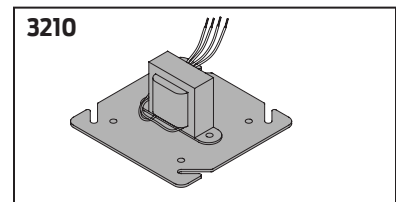
#### TRACK SLIDER, SEH-168

Alloy metal slider for use in SE series tracks only.



#### TRANSFORMER, 4040SE-3210

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).



# SEH SERIES

## HOW-TO-ORDER SEH SERIES

### 1. VOLTAGE

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

### 2. SPECIFY FINISH

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

#### Closer will be shipped with:

- STANDARD ARM,
- STANDARD TRACK,
- WOOD & MACHINE SCREW PACK,  
*unless options listed below are selected.*

## CLOSER OPTIONS

### FINISHES

- Custom Powder Coat (RAL)  
(handed metal cover required)

### SCREW PACK

- TB\*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB\* & TORX Machine Screw (TBTRX)  
\* Specify door thickness if other than 1-3/4".

### INSTALLATION ACCESSORIES

- Transformer, 4040SE-3210

### SPECIAL TEMPLATE

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