ED50LE

low energy swing door operator

dormakaba

The ED50LE low energy swing door operator is the perfect solution for touch free access applications, offering a true manual door closer experience. Simple and easy to install, the ED50LE provides many features and functions to make existing doors easily accessible.

Features

This medium-duty swing door operator can automate new or existing manual swing doors with a push plate, wave plate, or other "knowing act" device. The ED50LE combines advanced automatic power assist, minimal push forces (as low as ANSI size 1) and reliable closing. Outswing or inswing doors can be adapted for touch free access with push or pull mounting.

Operator Types and Configurations

- 2-3/4" × 5-1/8" Fine Cover
- Surface applied

ED50LE technical specifications

Configuration	
Header dimensions (H × D × L)	2-3/4" x 5-1/8" x 34" (Fine)
Operator weight	26.5 lb
Internal power supply available for accessories	24 volts DC ± 5% 1.5 A
Maximum door opening angle	110° (door stop recommended)
Maximum wire size	16 AWG
Maximum door weight	220 lb at 48" door width
Door width	Minimum 28" Maximum 48"
Axle extensions	13/16" (20 mm) 1-3/16" (30 mm) 2-3/8" (60 mm)
Reveal depth for pull arm	1-3/16" (30 mm)
Reveal depth for standard push arm	0 to 9-3/4"
Handing	Non-Handed

Required operating conditions	
Ambient temperature	5°F to 122°F
Power supply	115 volts AC ± 10%, 50/60 Hz Maximum 3.3 Amps, (SELV)
Branch circuit protection (provided by others)	Maximum 15 Amps, dedicated branch circuit
Protection class	NEMA 1
Power wiring: black, white, bare copper (ground)	Maximum 12 AWG
Operating noise	Maximum 50 db(A)

Inputs			
Activation inputs	**X4***	Interior, exterior	Normally open contact
Safety sensors	**X5**	Swing, approach sides, normally closed contact	
Night/bank (intercom system)	**X10** 57, 57a	8 to 24 volts DC/volts AC + 5%	
Night/bank (key switch)	**X1** 35, 3	**d2** parameter	Configure for Normally Open or Normally Closed
Deactivation of drive function	**X6** 4, 4a	**d1** parameter	Configure for Normally Open or Normally Closed

Operating specifications		
Automatic closing torque, lbf-ft [2]	**Minimum** 14.8 lb f	Maximum 49 lb f
Manual closing torque, lbf-ft [2]	**Minimum** 9.6 lb f	Maximum 27.3 lb f
Maximum opening speed, degrees per second [1]	27 °/s	
Maximum closing speed, degrees per second [1]	27 °/s	

NOTES

[1] Speeds automatically limited depending on door weight, set during learn cycle.

[2] In push version of slide channel with track installation type, forces are reduced by approximately 33%.

Door closer modes	
Automatic mode	Door opens automatically following pulse generation by a knowing act device or by push/pull.
Push-N-Go mode	Door opens automatically following a slight manual movement of the door.
Power assist	Available only in door closer mode, manual opening drive support is automatically adjusted to operator size.

Integrated functions			
Opening force N (lbf)	**Fo** parameter	**Minimum 20 lbf (4.5)**	Maximum 60 lbf (13.5.5)
Manual closing force N (lbf)	**Fc** parameter	**Minimum 20 lbf (4.5)**	Maximum 60 lbf (13.5.5)
Maximum opening speed, degrees per second	27 °/s	May be limited by door weight after learning cycle.	
Maximum closing speed, degrees per second	27 °/s		
Hold open time			
Automatic opening	**dd** parameter	0 to 30 seconds	
Night/bank	**dn** parameter	0 to 30 seconds	
Manual opening	**do** parameter	0 to 30 seconds	
Door blocking behavior	**hd** parameter	Automatic, manual door modes	
Electric strike delayed opening for locking mechanism	**Ud** parameter	0 to 4 seconds	
Door status **X7** 97, 98, 99	**Sr** parameter Door closed Door open Door closed, locked	Common Normally Open Normally Closed	
Locking device feedback **X3** 43,3	Motor lock		
Wind load control, maximum	**Fo, Fc** parameters	22.5 lb f 100 N	
Voltage independent braking circuit	Adjustable with potentiometer		
LED status indicators Service manual	Green Red Yellow	24 Vdc power Error codes Service interval	
Program and Exit Only switches	Auto, Close, Open, Exit Only; Off, On		
User interface	4-button keypad, 2-digit display		
TMP, temperature management program Service manual	Overload protection		
IDC, initial drive control	Driving phase optimization		
Cycle counter	**CC** parameter	0 to 1,000,000	
Power assist function	**hA**, **hF**, **hS** parameters	Drive support for manual opening door	
Push & go function	**PG** parameter	Auto opening of door at 4° open	

Standards of compliance

Upon installation in conformance to manufacturers directives, the ED50LE can be configured to meet ANSI/BHMA A156.19, U.S. Standard for Power Assist and Low Energy Power Operated Doors.

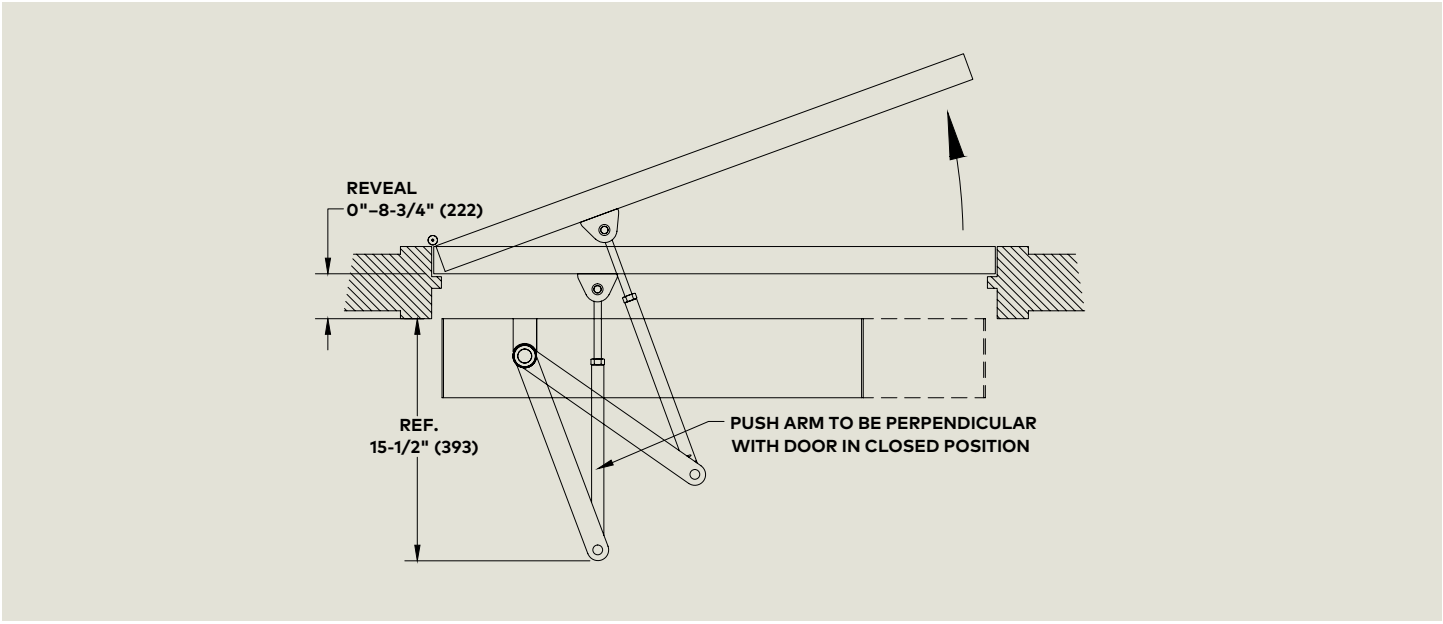
Low energy power operated door

A door fitted with an ED50LE operator that opens the door upon receipt of a knowing act activating signal, does not generate more kinetic energy than specified in ANSI A156.19, and includes provisions to reduce the chance of user injury or entrapment. In an A156.19 application, this is achieved utilizing the folllowing design factors:

- Reduced dynamic door panel contact forces
- Reduced static door panel contact forces
- Time delays
- Low opening and closing speeds
- Force limitations
- Signage
- Presence sensors (optional)

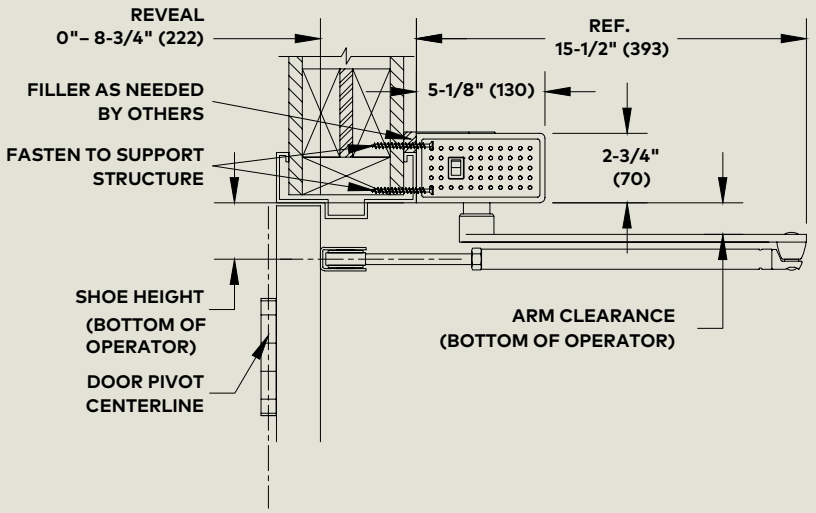
ED50LE Fine Cover surface applied

Plan view
Single push operator
Left hand door shown (right hand opposite)

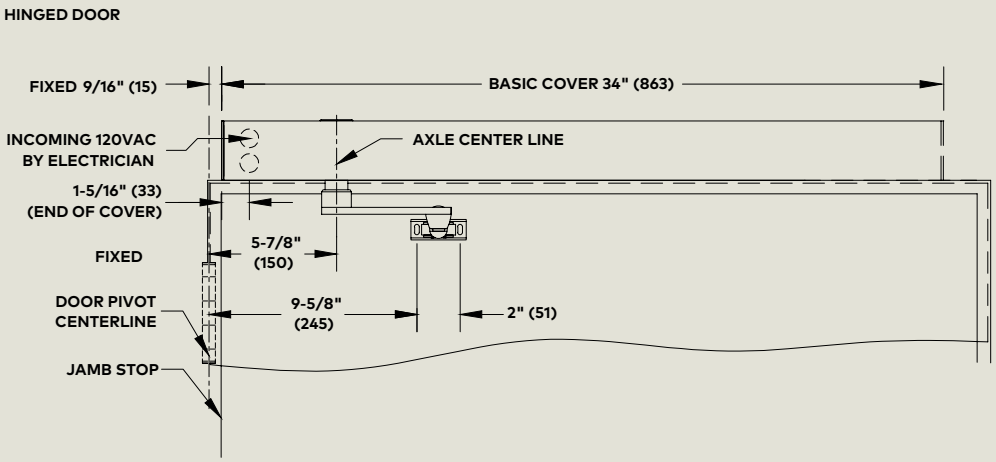


ED50LE Fine Cover surface applied

Section view
Push operator
Left hand door shown (right hand opposite)

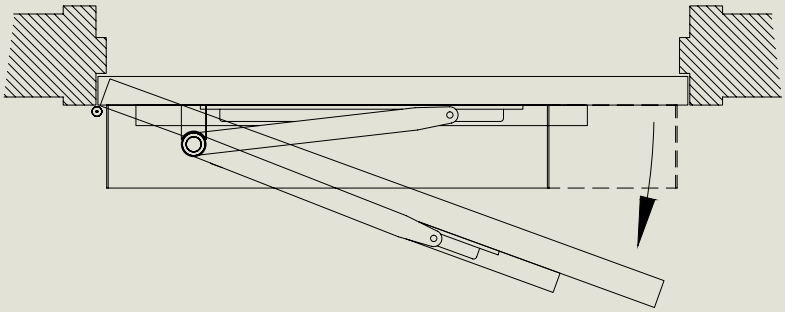


Elevation view
Single Push operator
Left hand door shown (right hand opposite)

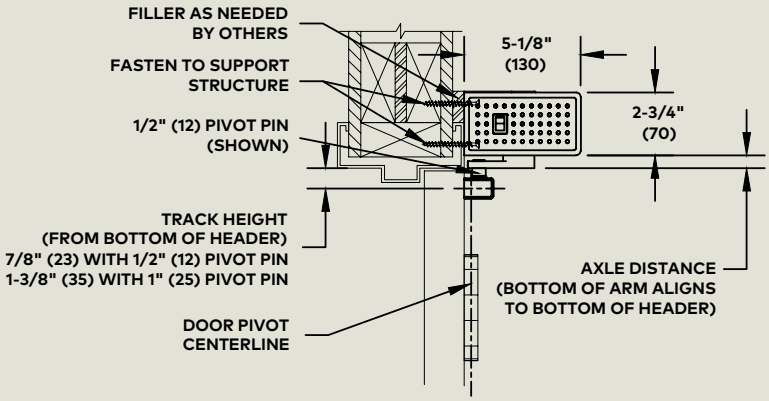


ED50LE Fine Cover surface applied

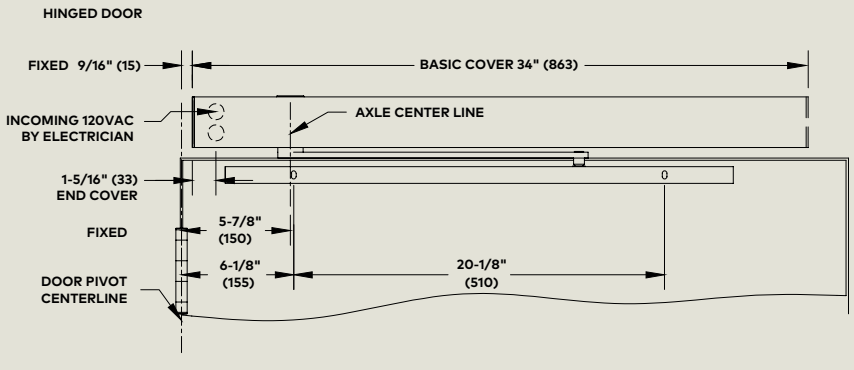
Plan view
Single pull operator
Right hand door shown (left hand opposite))



Section view
Pull operator
Right hand door shown (left hand opposite)e)



Elevation view
Single pull operator
Right hand door shown (left hand opposite)



Accessories

912 Series Wireless, Battery Powered, Touch Free Actuators

The 912 Series wireless, battery-powered, actuators utilize proven infrared motion detection technology to ensure consistent, dependable touch-free activation. Adjustable to comply with ANSI A156.19 knowing act applications.

The 912 Series is available in three models:

- 912-WBT (Double Gang)
- 912N-WBT (Narrow)
- 912GL-WBT (Surface Applied)

910TC Touch-free Switch for the activation of automatic doors

The 910 Series are available with three plate designs, touch-free, healthcare and stainless steel. The unique low-profile touchless actuator plate utilizing capacitive technology for the activation of automatic doors. The aesthetically pleasing design provides hands-free door operation when used in conjunction with a low energy swing door operator to help reduce the spread of germs and bacteria.

The 910 Series is available in three models:

- 910TC (Wave)
- 910TC-HC (ADA)
- 910TC-SS (Stainless Steel)

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