ALLEGION

FALCON®

Medium duty

Commercial exit devices

Table of contents

The Falcon difference
Safety, security and uncompromising value

At Falcon, we know that every product you sell not only has to meet local building codes, but also your expectations for performance and quality. We take your expectations seriously, and that's why we build our exits to deliver durability, convenience and unmatched value. After all, we've built our reputation on the same standards that you have – providing quality products at a reasonable price delivered on time. It's the way we do business and it's what makes Falcon exits a powerful choice no matter what your project.

Falcon exit devices

	Architectural pushpads	Commercial pushpads		
	24/25 Series	**19 Series**	**1490/1590**	**1690/1790**
Selling features	· Maximum flexibility in a variety of applications · Wide range of features and options · Patent pending deadlocking technology	· Lowest cost most dependable light-duty exit · Large trim selection · Standard deadlocking	· Steel operating mechanisms · Aluminum push bar and end caps · Durable design · Surface vertical and rim options available	· Patented pending latch bolt for hurricane ratings · #1 selling exit device for aluminum doors · Full compliment of electrical options · Durable design
Applications	· Frequent traffic · Offices, churches, hospitality, retail, education, healthcare · Interior, exterior, new construction, retro-fit	· Moderate traffic · Commercial, multi-family, office, retail · Interior, exterior, retro-fit	· Moderate traffic · Commercial, multi-family, office, retail · Interior, exterior, retro-fit	· Moderate traffic · Commercial, multi-family, office, retail · Interior, exterior, retro-fit
Device options	· Rim, SV, CV, M · 6 functions / 12 finishes · 9 lever designs · 10-year warranty	· Rim, SV · 7 functions / 3 lever designs · 3 finishes · 10-year warranty	· CV = 1490 / Rim = 1590 · 4 functions / 3 finishes · 3 length options · 10-year warranty	· CV = 1690 / Rim = 1790 · 4 functions / 5 finishes · 4 length options · 10-year warranty

Crossbars		Recessed/concealed devices

	1990	2090	2390
Selling features	· Classic industry look · Balanced appearance, dependable performance and economical pricing · Hardened steel latches · Adjustable strike to ensure safety, security and smooth operation	· Classic looks in a rim device · Designed for high use and abuse · $1/2$" inch steel latch bolt · Surface mounted strikes for full frame or blade type stops	· Reduced projection recessed device · Tough, reliable performance · Easy rod adjustment simplifies installation · Smooth, reliable operation
Applications	· Light traffic · Commercial, multi-family, office, retail · Interior, exterior, retro-fit	· Light traffic · Commercial, multi-family, office, retail · Interior, exterior, retro-fit	· Moderate/frequent traffic · Healthcare, assisted living, education · Interior, new construction
Device options	· CV · 4 functions / 5 finishes · 2 length options · 10-year warranty	· Rim · 4 functions / 5 finishes · 2 length options · 10-year warranty	· CV · 3 functions / 3 finishes · 2 length options · 10-year warranty

1490 Concealed vertical rod touchbar device

The 1490 offers a clean appearance with pushpad styling and a variety of practical features. The 1490 is built with rugged steel operating mechanisms, and durable aluminum push bars and end caps.

Length	Minimum door size (non-EL)	Minimum door size (EL)
36"	25 $^3/_4$"	34 $^3/_4$"
42"	25 $^3/_4$"	34 $^3/_4$"
48"	36 $^3/_4$"	43 $^3/_4$"

Consult factory for special sizes.

Specifications

Hand	Specify RHR or LHR-supplied RHR, if not specified.
Functions	See trim selection chart on this page.
Finishes	US28, DC13, DC 35, US3, US9, US10, US4, US10B, US14, US15
Strikes	PB48 top
Latches	RL - Rod bottom latch (standard) Hex bottom latch (standard for EL) PL - Pullman bottom latch (optional) ES - Electric strike top latch (optional) Device needs to be less bottom rod (LBR)
Dogging feature	Quarter turn hex dogging standard. No threaded parts to wear out.
Cylinder	Rim, night latch (NL) or hold back (HB) feature available. Simplified cartridge mounting for most standard rim cylinders. Furnished in DC35, if not specified.
Sizes	36", 42", 48"
Doors:	1 $^3/_4$" thick metal doors. Specify if other than 1 $^3/_4$"*
Projections	2 $^3/_4$" maximum, 2" when dogged. Pushbar height is 3"
Stile	1 $^3/_4$" minimum
Electric functions	EL - Electric latch retraction, include "S" Requires PS914-2RS minimum power supply S- latch bolt monitor switch (SPDT) Conversion kits available. Devices are handed.
Fasteners	All mounting screws are concealed. Uses all machine screws for device and latch.
End caps	Durable zinc die cast, powder coated
Vertical rods	1' standard, extension rods available up to 7' 10"
ANSI	Certified ANSI A156.3 2001 Grade 1 standards
Shim kits	$^1/_2$" riser is available
Hurricane	1490 devices are used for hurricane rated door openings. Consult door manufacturer's listing.

Model	Trim package	Type	Function
1490	No outside trim	6	01
1491	Pull only (9970)	6	02
1492	NL cylinder	6	03
1493	HB cylinder	6	04
1494	Pull (9970) w/ NL cylinder	6	02/03
1495	Pull (9970) w/ HB cylinder	6	02/04
1498	Dummy	6	

* 9970 is for use on HM and Alum doors only. Not for use on wood doors.

1590 Rim touchbar device

The 1590 offers the clean looks and easy pushpad design of the 1490 with the installation and maintenance ease of a rim exit device.

Length	Minimum door size (non-EL)	Minimum door size (EL)
36"	25"	35"
42"	25"	35"
48"	36"	43"

Consult factory for special sizes.

Model	Trim package	Type	Function
1590	No outside trim	6	01
1591	Pull only (9970)	6	02
1592	NL cylinder	6	03
1593	HB cylinder	6	04
1594	Pull (9970) w/ NL cylinder	6	02/03
1595	Pull (9970) w/ HB cylinder	6	02/04

Specifications

Hand	Non handed, "push" labels for each hand supplied standard.
Functions	See trim selection chart on this page.
Finishes	US28, DC13, DC35, US3, US9, US10, US4, US10B, US14, US15
Strikes	TD35 strike supplied standard; STK45 optional
Latch bolt	$1\,^1/_4$" high x $^3/_4$" projection, hardened steel
Dogging feature	Quarter turn hex key dogging
Cylinder	Night latch (NL) or hold back (HB) feature available, simplified cartridge mounting for most standard rim cylinders, furnished in DC35, if not specified.
Sizes	36", 42", 48"
Doors	$1\,^3/_4$" thick metal or wood, specify if other than $1\,^3/_4$"*
Projections	$2\,^3/_4$" maximum, 2" when dogged; Pushbar height is 3"
Stile	2" minimum
Electric functions	EL - electric latch retraction, include "S" Requires PS914-2RS minimum power supply. S - latch bolt monitor switch (SPDT) Conversion kits available. Devices are handed.
Fasteners	All mounting screws are concealed.
Endcaps	Durable zinc die cast, powder coated
ANSI	Certified ANSI A156.3-2001 Grade 1 standards
Shim kits	$^1/_2$" riser is available
Retractors	Used for cylinder assembly; special retractors available for use with mullions.
Mullions	Removable mullions are available for pairs of doors, see page 23.

* 9970 is for use on HM and Alum doors only. Not for use on wood doors.

1690 Concealed vertical rod touchbar device

The design of the 1690 is ideal for demanding, moderate-traffic applications. The vertical rods and latch mechanisms are concealed in the vertical door stile, ensuring trouble-free operation. Cast metal cover plates and end caps hold up to rigorous use. A quick, single-point dogging feature in the housing deactivates the device, permitting unrestricted traffic flow. The 1690 may also be used to retrofit a 1990 Series crossbar device.

Length	Minimum door size (non-EL)	Minimum door size (EL)
30"	24"	28 1/2"
36"	30"	34 1/2"
42"	36"	40 1/2"
48"	42"	46 1/2"

Positioning retractor as shown for NL or HB functions.
Install retractor as shown below for both RHR and LHR doors; this makes all keys function in the same direction.
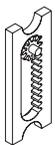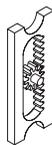
Hold back (HB)   Night latch (NL)

Specifications

Hand	Field reversible, non-handed
Functions	See trim selection chart on this page.
Finishes:	US28, DC13, DC 35, US3, US10, US26, US26D Centercase and end cap are powder-coated black only.
Strikes	PB48 top
Latches	Standard top - SU latch Standard bottom - hex bottom bolt Optional top - ES - electric strike top latch, device must be less bottom rod (LBR). Optional bottom - RL - rod bottom latch - PL - pullman bottom latch
Dogging feature	Hex key dogging standard, except EL where must use hold back feature on outside cylinder.
Cylinder	Rim, night latch (NL) or hold back (HB) feature available. Field selectable
Sizes	30", 36", 42", and 48"
Doors	1 3/4" thick metal doors, specify if other*
Projections	3 3/8" in neutral position, 2 3/8" in dogged position; Pushbar height is 2 1/2"
Stile	1 3/4" minimum
Electric functions	MEL - motorized electric latch retraction, requires PS900 series power supply; RX - request to exit switch, monitors pushpad 0SPTD switch
Fasteners	All machine screw mounting. Device mounting fasteners are concealed, latch fasteners are exposed to egress side.
End caps	Black powder-coated metal end caps
Vertical rods	7' standard, extension rods available up to 10' Rod extension kits available.
ANSI	Certified ANSI A156.3 grade 1 standards
Hurricane	1690 devices are used for hurricane rated door openings. Consult door manufacturer's listing.

Model	Trim package	Type	Function
1690	No outside trim	6	01
1691	Pull only (9970)	6	02
1692	Cylinder only	6	03/04
1694	Pull and cylinder	6	02/03/04

* 9970 is for use on HM and Alum doors only. Not for use on wood doors.

1790 Rim touchbar device

The 1790 rim device is typically used in applications where maintenance is a concern because the rim device has fewer parts and pieces than current exit devices. The result is less maintenance and adjustment. The streamlined design has no openings for chains, reducing the risk for code infringements and offering increased building security by eliminating the possibility of tampering and forced entry through the use of coat hangers and other tools. The 1790 may also be used to retrofit a 2090 series crossbar device.

Length	Minimum door size (non-EL)	Minimum door size (EL)
30"	24"	28 $^1/_2$"
36"	30"	34 $^1/_2$"
42"	36"	40 $^1/_2$"
48"	42"	46 $^1/_2$"

- Lock/unlock capability
- ADA accessible
- Lever designs
  - Dane
  - Sutro
  - Quantum
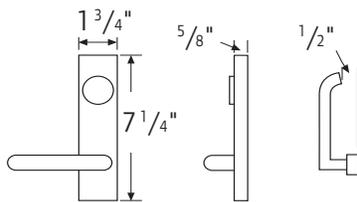
179L
179L-NL

179L-BE

Lever projection: Quantum = 3"
                  Sutro = 2 $^7/_8$"
                  Dane = 2 $^7/_8$"

Key locks or unlocks trim. Lever retracts latch bolt when trim is unlocked. Dane, Quantum and Sutro levers return to within $^1/_2$" of door.

Specifications

Hand	Non handed
Functions	See trim selection chart on this page.
Finishes	US28, DC13, DC35, US3, US10, US26, US26D Centercase and end cap are powder-coated black only.
Strikes	TD35 strike supplied standard, see page 11 for other rim strikes available.
Latch bolt	1" thickness, $^3/_4$" throw
Dogging feature	Hex key dogging standard, except EL where must use hold back feature on outside cylinder.
Cylinder	Rim, night latch (NL) or hold back (HB) available (field selectable).
Sizes	30", 36", 42", and 48"
Doors	1 $^3/_4$" thick metal or wood, specify if wood door**
Projections	3 $^3/_8$" in neutral position, 2 $^3/_8$" in dogged position. Pushbar height is 2 $^1/_2$".
Stile	1 $^3/_4$" minimum
Electric functions	MEL - motorized electric latch retraction, requires PS900 series power supply; RX - request to exit switch, monitors pushpad 0SPTD switch
Fasteners	All machine screw mounting. Device mounting fasteners are concealed, latch fasteners are exposed to egress side.
End caps	Black powder-coated metal end caps
ANSI	Carry UL label and approved for life safety. Certified ANSI A156.3 grade 1 standards.
Mullions	Removable mullions are available for pairs of doors, see page 23.

Model	Trim package	Type	Function
1790	No outside trim	4	01
1791	Pull only (9970)	4	02
1792	Cylinder only	4	03/04* or 08/09*
1794	Pull (9970) and cylinder	4	02/03/04

* Requires use of 179L
** 9970 is for use on HM and Alum doors only. Not for use on wood doors.

19-R Series non-handed rim device

Panic exit hardware

The Falcon 19-R Series rim device that delivers superior panic hardware with modern touchbar styling.
This non-handed device covers a 161 cutout and may be used on 1 3/4" narrow stile aluminum doors.
The "EO" (exit only) device is ready to accept any trim function shown on page 12.

F570
Standard

F490
Strike optional

571/571A
For rim x vertical
rod installations.

565
For narrow stile door and
removable mullion
installations.

2789
Dogging key

Cylinder dogging
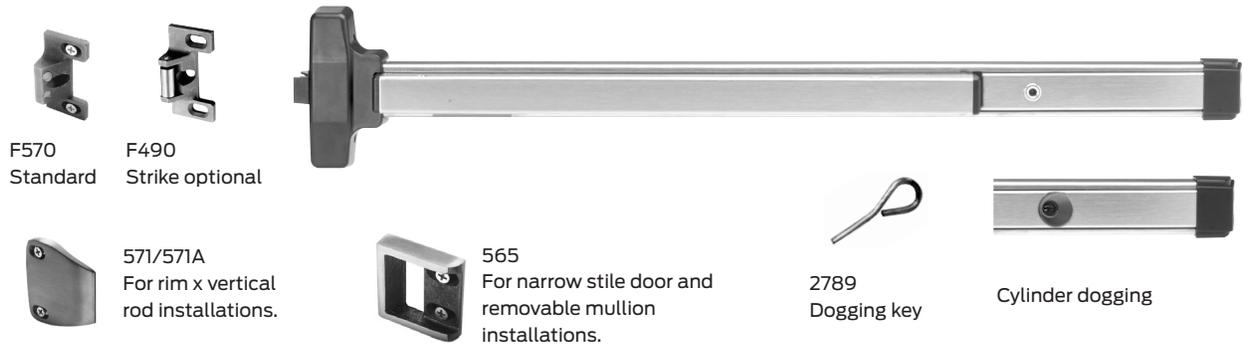
Device & trim	ANSI type	ANSI function
19-R-EO	1 or 4	01
19-R-DT	1 or 4	02
19-R-NL	1 or 4	03
19-R-K (or L or KIL)	1 or 4	08
19-R-K-NL (or L-NL or kil-nl)	1 or 4	09
19-R-TP-BE	1 or 4	
19-R-K-BE	1 or 4	
19-R-K-DT	1 or 4	
19-R-L-BE	1 or 4	
19-R-L-DT	1 or 4	
19-R-KIL-BE	1 or 4	
19-R-KIL-DT	1 or 4	

Note: For blank escutcheon specify BE.

Specifications

Hand	Non-handed
Functions	See trim selection chart on this page
Finishes	SP28, SP313, US32D
Centercase and end cap are powder-coated black only.
Strikes	Standard - F570
Optional - F490, 565, 571, 571A
Latch	Stainless steel, 3/4" throw dead locking
Dogging feature	Hex key dogging standard. Cylinder dogging or less dogging optional.
Sizes	3' for doors from 2'5" up to 3'
4' for doors from 3' up to 4'
Doors	1 3/4" thick metal or wood doors, specify if other
Projections	2 1/2" in neutral position, 1 7/8" in dogged position.
Pushbar height is 1 3/4"
Stile	1 3/4" minimum
Fasteners	All machine screw mounting. Device mounting fasteners are concealed, latch fasteners are exposed to egress side.
End caps	Black plastic end caps
ANSI	Certified ANSI A156.3 grade 1 standards

F-19-R Series non-handed rim device

🔥 Fire exit hardware

The F-19 Rim fire exit device is an excellent addition to the touchbar. This device is non-handed and is listed by UL for B label fire door installations on 4'0" x 7'2" single doors and/or 8'0" x 7'2" double doors with an F-4023 removable mullion or KRF-4023. The "EO" (exit only) device is ready to accept any trim function shown on page 12.

F570
Standard

F490
Strike optional

Device & trim	ANSI type	ANSI function
F-19-R-EO	1 or 4	01
F-19-R-NL	1 or 4	03
F-19-R-K (or L or KIL)	1 or 4	08
F-19-R-K-NL (or L-NL or KILl-NL)	1 or 4	09

Note: For blank escutcheon specify BE

Specifications

UL	"B" label (1 $\frac{1}{2}$"hr.); 4'0" x 7'2"
Functions	All functions built into "EO" device. All 19 series trim works with rim or vertical devices. See trim selection chart on pages 16 and 17.
Finishes	Power-coated aluminum-SP28; power-coated duranodic-SP313; stainless steel US-32D
Strikes	Stainless steel, F570 or F490
Latch bolt	Stainless steel, $\frac{3}{4}$" throw
Deadlocking latch bolt	Standard
Sizes	3' for doors from 2'5" up to 3' 4' for doors from 3' up to 4'
Doors	1 $\frac{3}{4}$" thick wood or metal; Specify thickness if other than 1 $\frac{3}{4}$" (SNB must be specific on wood or composite doors.)
Projections	2 $\frac{1}{2}$" in neutral position, 1 $\frac{7}{8}$" in depressed position. Pushbar height is 1 $\frac{3}{4}$"
Sex bolts	When used with wood, composite or non-reinforced hollow metal, sex bolts must be specific, 3-#4122 ($\frac{1}{4}$"-20)SNB standard. An additional 2-#2729 (10-24) SNB must be specified.
ANSI	Certified ANSI A156.3-2001 grade 1 standards
Shim kit	For glass lite applications; $\frac{1}{4}$" thick specify SK 19-R-$\frac{1}{4}$"
161 Cutout	Device covers 161 cutout with KIL and Centron trims. Other trim requires cover plate.

c(UL)us LISTED
FIRE EXIT HARDWARE
ISSUE NO.
Conforms with standards
UL 10C and UBC 7-2 (1997)
MONARCH SHEPHERDSVILLE, KY

19-V Series non-handed vertical rod device

Panic exit hardware

Manufactured to the same standards as the 19 Rim, the 19–V exit device complies with most exit door requirements, and is fully reversible and surface applied. This device is regularly furnished with deadlocking top latch with latch retention and square bolt at bottom. The "EO" (exit only) device is ready to accept any trim function shown on page 16.

3788 Strike
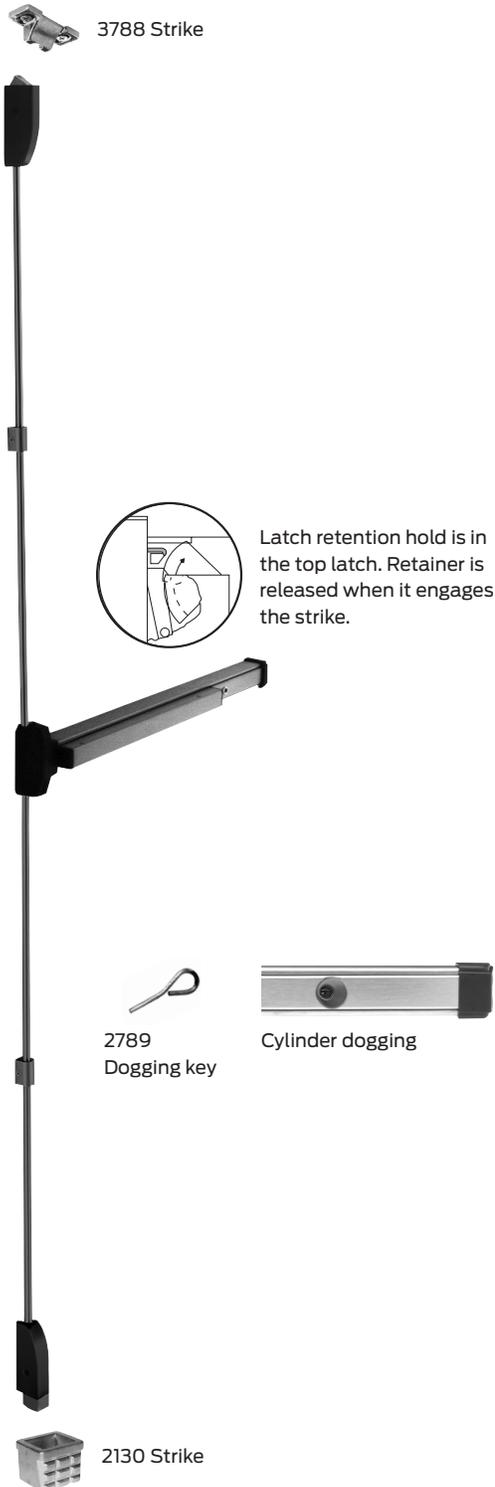
Device & trim	ANSI type	ANSI function
19-V-EO	2 or 5	01
19-V-DT	2 or 5	02
19-V-NL	2 or 5	03
19-V-K (or L)	2 or 5	08
19-V-K-NL (or KIL)	2 or 5	09

Note: For blank escutcheon specify BE.

Latch retention hold is in the top latch. Retainer is released when it engages the strike.

Specifications

Hand	Field reversible
Functions	All functions built into "EO" device. All 19 Series trim works with rim or vertical devices. See Trim Selection Chart on pages 16 and 17.
Finishes	Powder-coated aluminum–SP28; powder-coated duranodic–SP313; stainless steel US-32D
Strikes	3788 strike is surface applied standard, 2130 strike is mortised into floor.
Angle bracket	Use 4215 angle bracket in flush transom or rabbeted installations. Allows use of standard 3788 strike.
Latch bolt	Top stainless steel $3/4$" throw. Bottom square bolt $1/2$" throw
Deadlocking latch bolt	Standard
Dogging feature	Half turn hex dogging standard. No threaded parts to wear out.
Cylinder dogging	Specify "CD" prefix. Use $1\,1/8$" long mortise cylinder with standard "A" cam
Stock sizes	3' for doors from 2'5" up to 3'. 4' for doors from 3' up to 4'.
Doors	$1\,3/4$" thick, wood or metal. Specify thickness if other than $1\,3/4$".
Narrow stile doors	To $1\,3/4$" N.S. aluminum. With control trim– $2\,1/4$" min. stile
Projection	$2\,1/2$" max., $1\,7/8$" dogged
Fasteners	All mounting screws are concealed. Furnished with sheet metal screws. Machine screws available, specify AMS.
Sex bolts	3–#4122 ($1/4$"–20) SNB standard. Hollow core wood, light gauge hollow metal, etc. require additional sex bolts. 19–V: 6–#2729 #10–24 SNB; 19–V–LBR: 3–#2729 #10–24 SNB
ANSI	Certified ANSI A156.3 2001 grade 1 standards.
19–V	Latch retention and 3788 strike top, deadbolt and 2130 flush strike bottom.
19–V–LBR	3788 strike top
Vertical rods	Furnished to length based on 40 $5/16$" horizontal CL from finished floor and a 7'0" door standard. Variations from these standards must be specified when ordering.
Shim kit	For glass lites applications; $1/4$" thick specify SK-19-V-$1/4$".
161 cutout	Device covers 161 cutout with KIK/KIL and Centron trims. Other trim requires cover plate.

2789
Dogging key

Cylinder dogging

2130 Strike

F–19–V Series non-handed vertical rod device

⬥ Fire exit hardware

Manufactured to the same standards as the F–19 Rim, the F–19–V Fire exit device complies with most exit door requirements, and is fully reversible and surface applied. This device is regularly furnished with deadlocking top latch retention and square bolt at bottom. (This device is listed by UL for "B" label fire door installations.) The "EO" (exit only) device is ready to accept any trim function shown on page 16.

3788
Strike

Device & trim	ANSI type	ANSI function
F-19-V-EO	2 or 5	01
F-19-V-DT	2 or 5	02
F-19-V-NL	2 or 5	03
F-19-V-K (or L or KIL)	2 or 5	08
F-19-V-K-NL (or L-NL or KIL-NL)	2 or 5	09

Note: For blank escutcheon specify BE.

Specifications

Hand	Field reversible
Functions	All functions built into "EO" device. All 19 Series trim works with rim or vertical devices. See Trim Selection Chart on pages 16 and 17.
Finishes	Powder-coated aluminum–SP28; powder-coated duranodic–SP313; stainless steel US-32D.
Strikes	3788 strike is surface applied. 2130 strike is mortised into floor.
Latch bolt	Top stainless steel $3/4$" throw; Bottom square bolt $1/2$" throw
Deadlocking latch bolt	Standard
Stock Sizes	3' for doors from 2'5" up to 3' 4' for doors from 3' up to 4'
Doors	$1\,3/4$" thick, wood or metal; specify if other than $1\,3/4$" thick.
Projection	$2\,1/2$" maximum
Fasteners	All mounting screws are concealed. All machine screws standard.
Sex bolts	3–#4122 ($1/4$"-20) SNB standard. Composite or non-reinforced wood, hollow metal require additional sex bolts. F-19–V: 6–#2729 #10–24 SNB; F-19–V–LBR: 3–#2729 #10–24 SNB
ANSI	Certified ANSI A156.3-2001 grade 1 standards
F-19-V	Latch retention and 3788 strike top deadbolt and 2130 flush strike bottom
F-19-V-LBR	Latch retention and 3788 strike top
Vertical rods	Furnished to length based on a 40 $5/16$" horizontal CL from finished floor and a 7'0" door standard. Variations from these standards must be specified when ordering.
Shim kit	For glass lites applications; $1/4$" thick specify SK-19-V-$1/4$"
161 cutout	Device covers 161 cutout with KIK/KIL and Centron trims. Other trim requires cover plate.

Latch retention hold is in the top latch. Retainer is released when it engages the strike. The door is in the closed position.

c(UL)us LISTED
FIRE EXIT HARDWARE
ISSUE NO.
Conforms with standards
UL10C and UBC 7-2 (1997)
MONARCH SHEPERDSVILLE, KY

2130
Strike

1990 Series concealed vertical rod crossbar device

Tough crossbar design.

The classic look of 1990 has a long history of reliable performance. It is equipped with hardened steel latches and adjustable strike to ensure safety, security and quiet operation.

Specifications

Hand	Field reversible, non handed
Functions	See trim selection chart on this page
Finishes	P28, P13, P35, US26D
Strikes	PB48 top
Latches	Hex bottom latch (standard), RL - rod bottom latch, PL - Pullman bottom latch, ES - electric strike top latch (optional). Device needs to be less bottom rod (LBR).
Dogging feature	Hex dogging standard
Cylinder	Rim, key entry (NL) or hold back (HB) available (field selectable)
Sizes	Field adjustable width, 41" crossbar standard extra length cross bar available
Doors	$1\,^3/_4$" thick metal doors
Projections	$4\,^3/_8$" extended, $2\,^1/_2$" depressed
Stile	$1\,^3/_4$" minimum
Fasteners	All mounting screws are concealed.
ANSI	Certified ANSI A156.3 grade 1 standards
UL	UL305 listed
Vertical rods	7' standard, extension rod kits available up to 10'

Positioning retractor as shown for NL or HB functions.

Install retractor as shown below for both RHR and LHR doors; this makes all keys function in the same direction.
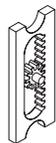
Hold back (HB)   Night latch (NL)

Model	Trim Package	Type	Function
1990	No outside trim	6	01
1991	Pull only (9970)	6	02
1992	Cylinder only	6	03/04
1993	Pull and cylinder	6	02/03/04

2090 Series rim crossbar device

Classic looks in a rim exit device.
The 2090 provides balanced appearance, dependable performance and economical pricing, making it a popular choice where rim exit devices are required.

If cylinder is used, set pinion cam on back of active housing for hold-back (HB) or night latch (NL) operation.

Hold-back (HB)
Turning key one complete rotation retracts latch bolt. If key is removed in this position, latch bolt stays retracted. Returning key to original position before removing allows latch bolt to extend.

To set for hold-back: Turn pinion cam until latch bolt starts to retract, then turn pinion cam the other way as far as it will go. Leave pinion cam in this position.

Pinion cam
Latch bolt
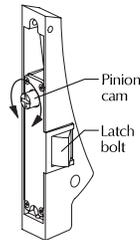
Night latch (NL)
Turning key as far as it will go retracts latch bolt. Key must be returned to original position to be removed, leaving the door locked.

To set for night latch: Turn pinion cam until latch bolt starts to retract. Leave pinion cam in this position.

Specifications

Hand	Specify RHR or LHR, not reversible
Functions	See trim selection chart on this page
Finishes	P28, P13, P35, US26D
Strikes	SD36 standard, see page 21 for other rim strikes available
Latch bolt	$1/2$" throw hardened steel
Dogging feature	Hex dogging standard
Cylinder	Rim, key entry (NL) or hold back (HB) available (field selectable)
Sizes	Field adjustable width, 41" crossbar standard extra length crossbars available.
Doors	$1\,3/4$" thick metal or wood doors, specify if wood door; 9970 is for use on HM and Alum doors only; Not for use on wood doors
Projections	$4\,3/8$" extended, $2\,1/2$" depressed
Stile	$1\,3/4$" minimum
Fasteners:	All mounting screws are concealed
UL	UL305 listed
Mullions	Removable mullions are available for pairs of doors, see page 23.

Model	Trim package	Type	Function
2090	No outside trim	4	01
2091	Pull only (9970)	4	02
2092	Cylinder only	4	03/04
2093	Pull and cylinder	4	02/03/04

Trim designs

Control trim
SP28, SP313 and US-32D

K-control   L-control

911K
BE
NL

L-Control-Dane
912L
BE
L-DT
NL

L-Control-Sutro
912L
BE
L-DT
NL

L-Control-Quantum
912L
BE
L-DT
NL
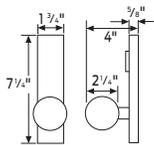
Key locks or unlocks trim. Knob retracts latch bolt when trim is unlocked.
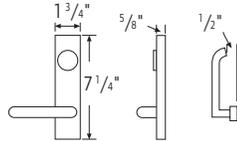
Lever Projection: Quantum = 3"
Sutro = 2 7/8 "
Dane = 2 7/8 "

Key locks or unlocks trim. Lever retracts latch bolt when trim is unlocked. Dane, Quantum and Sutro levers return to within 1/2" of door.

DT-control   NL-control   Pull

918 DT
Pull when dogged.

918NL
Key retracts latch bolt.

9970
Can be used with all devices (not for use on wood doors).
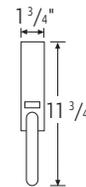
9 1/4" center to center

2 7/8" projection

1 3/4" clearance

Cover plates

4167
3 1/4" x 15" x .050
Used with TP control & DT control
Covers 161 & 86 cutouts

4168
3 1/4" x 7 1/2" x .050
Used with EO device to cover No. 86 cutout for mortise lock

4170
3 1/4" x 7 1/2" x .050
Used with K control, DT/K control, L control, or DT/L control
Covers 161 & 86 cutouts

*For type 86 cutout specify 4174 inside cover plate.

Key-in-lever

914KIL   **914-KIL-IC**

For 1-3/4" thick doors only

Centron trim
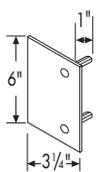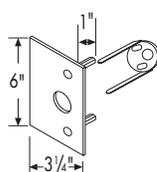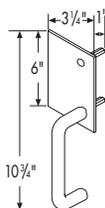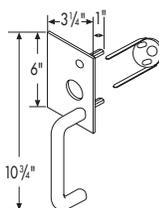
930 EO   **930 C**   **930 DT**   **930 NL**

Pull only 917 DT
CTC - 5 1/2" round - 3/4" dia.
Pull when dogged.

Trident trim
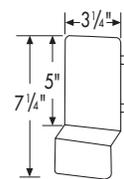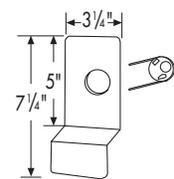
920 DT   **920 NL**

Trim chart

Control

Device	DT	NL	T-BE	K	K-BE	K-DT
19-R/19-V	918	918	910	911	911	911
Cylinder type	—	rim	—	1 $1/8$" Mortise	—	—

Device				Dane*			Sutro*			Quantum*		
	L	L-BE	L-DT	L	L-BE	L-DT	L	L-BE	L-DT	L	L-BE	L-DT
19-R/19-V	912	912	912	912	912	912	912	912	912	912	912	912
Cylinder type	1 $1/8$" Mortise	—	—	1 $1/8$" Mortise	—	—	1 $1/8$" Mortise	—	—	1 $1/8$" Mortise	—	—

KIL

Device	KIL*	KIL-LS/LK[1]	KIL-NL*	KIL-IC*
19-R/19-V	914	914	914	914
	Falcon "C" keyway A23160	—	Falcon "C" keyway A23160	Small format

Trident trim			Centron		
Device	NL	DT	C	DT	NL
19-R/19-V	920	920	930	930	930
Cylinder type	Rim	—	Rim	—	Rim

*Specify hand.
Note: For "NL" night latch function on K and L add "NL" after trim number.
All locking trim except KIL furnished less cylinder.

Type and functions

19 Series devices

Functions (ANSI)	Rim devices ANSI type 1 and 4 (F)-19-R	Vertical rod devices ANSI type 2 and 5 (F)-19-V
EO or N (01) Exit only, no trim.	19-R-EO	19-V-EO
DT (02) Entrance by trim when actuating bar is dogged down.*	19-R-DT	19-V-DT
NL (03) Entrance by trim when latch bolt is retracted by key. Key removable only when locked.	19-R-NL	19-V-NL
K or L or KIL (08) Entrance by knob or lever. Key locks or unlocks knob.	19-R-19-R-K or L or KIK or KIL	19-V-K or L or KIK or KIL
K(NL) or L(NL) (09) **or KIL (NL)** Entrance by knob or lever only when released by key. Key removable only when locked.	19-R-K (NL) or L(NL) or KIK(NL) or KIL(NL)	19-V-K (NL) or L(NL) or KIK(NL) or KIL(NL)
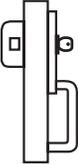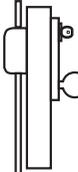
*Latch, device, and authorize degress monitors. (See electrified hardware catalog.)

*Fire exit devices cannot be dogged down. Some codes permit electric dogging with fail secure circuitry.

Type and functions

Double doors

Device & trim	Length	Top strike	Bottom strike	Min. stile	Door opening width
(F) 19-V	3'0"	3788	2130	3 1/2"	2' 5 1/4" to 3'0"
(F) 19-V	4'0"	3788	2130	3 1/2"	3'0" to 4'0"

Note: For (F-) 19-V-LBR use "V" information less bottom strike. F-19-V-LBR requires use of auxiliary fire latch.

Single doors with 5/8" stop

Device & trim	Length	Strike	Min. stile	Door opening width
19-R	3'0"	F570	3 1/2"	2'5 1/4" to 3'0"
		565	1 3/4"*	2' 4 3/4" to 2' 9 1/4"
F-19-R	3'0"	F570	3 1/2"	2'5 1/4" to 3'0"
19-R	4'0"	F570	3 1/4"	3'0" to 4'0"
		565	1 3/4"*	3'0" to 3'9 3/4"
F-19-R	4'0"	F570	3 1/4"	3'0" to 4'0"

*For EO and NL functions only. 2- 1/4" minimum stile required for control trim.

Dimensions:

- Recommended height from finished floor - 40 5/16" at CL

- Touchbar projections: neutral - 2 1/2" depressed - 1 7/8"

- Extension rods or longer top rods available upon request

- Specify door height

- Dummy touchbar available. Specify 190 DT 3' or 4'

- Overall length: 3' 30 1/2"- 4' 42 5/8"

- Changes for minimum door size for charts on left:
  - For cylinder dogging, add 2 1/4" to minimum door size
  - For exit alarm, add 4 1/2" to minimum door size
  - To fit on smaller door, consult factory

Double doors with mullion

Device & trim	Length	Strike	Min. stile	Door opening width	Fire	Panic
19-R	3'0"	F570	3 1/2"	2'5 1/4" to 3'0"	–	2923[1]
			3 3/4"		–	4023/ KR4-23
		565	3 1/8"	2'4 3/4" to 2'9 1/4"	–	2923[1]
			3 3/8"		–	4023/KR4023
F-19-R	3'0"	F-570	3 3/4"	2'5 1/4" to 3'0"	(F)4023	–
					KR(F)4023	–
19-R	4'0"	F570	3 1/2"	3'0" to 4'0"	–	2923[1]
			3 3/4"		–	4023/ KR4-23
		565	3 1/8"	3'0" to 3'9 3/4"	–	2923[1]
			3 3/8"		–	4023/KR4023
F-19-R	4'0"	F-570	3 3/4"	3'0" to 4'0"	(F)4023	–
					KR(F)4023	–

[1] To cover 161 cutout on double door installation, specify 2923 mullion with 565 strike.

Door applications

Door thickness

All devices and components supplied for 1 3/4" doors standard. Specify door thickness if other than 1 3/4".

Number	BHMA/ANSI function
01	Exit only, no trim.
02	Entrance by trim when actuating bar is locked down.
03	Entrance by trim when latch bolt is retracted by key; key removable only when locked.
04	Entrance by trim when latch bolt is retracted by key or set in a retracted position by key.
08	Entrance by knob or lever; key locks or unlocks knob or lever.
09	Entrance by knob or lever only when released by keys; key removable only when locked.

U.S. standard	BHMA	Description
US28	628	Anodized aluminum – clear
DC13	710	Anodized aluminium – dark bronze
DC35	711	Anodized aluminum – black
P28	689	Painted aluminum – silver
P13	695	Painted aluminum – dark bronze
P35	622	Painted aluminum – black
US3	666	Bright brass
US4	667	Satin brass
US9	705	Bright bronze
US10	668	Satin bronze
US10B	703	Oxidized satin bronze
US14	669	Bright nickel
US15	670	Satin nickel
US26	672	Bright chrome
US26D	702	Satin chrome

Door application chart

Inside | Inside

Right hand reverse bevel (RHR) | Left hand reverse bevel (LHR) | Left hand reverse bevel (LHR) | Right hand reverse bevel (RHR)

Single door
1690, 1790, 19-R

Pair of doors with mullions
1790, 19-R x 19-R

Pair of doors without mullions
1690, 19-R x 19-V, 19-V x 19-V
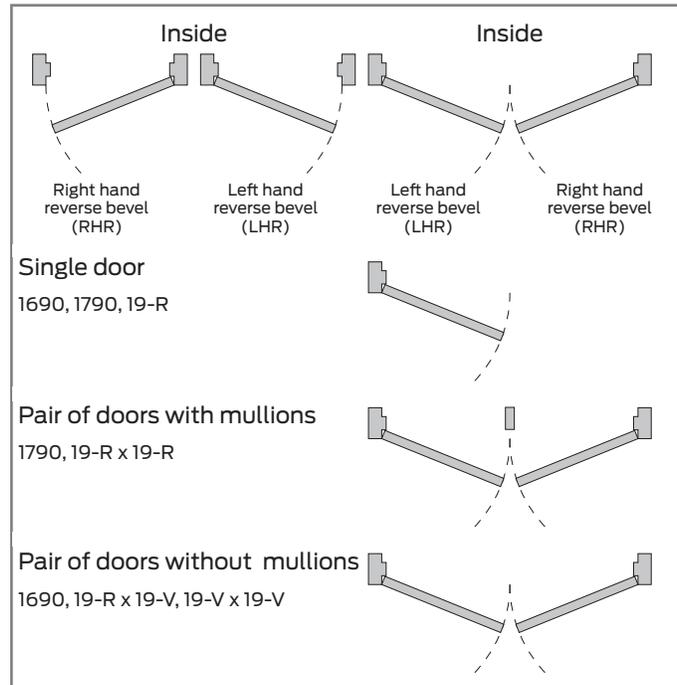
Device	Label	Door opening	Application
Hollow metal door			
F-19-R	1 1/2 hr. "B"	4' x 7'2" 8' x 7'2"	Single, pair, same egress w/ F-4023 mullion and KR-F-4023
F-19-V	1 1/2 hr. "B"	8' x 10'	Pair, double egress, same egress
F-19-V-LBR	1 1/2 hr. "B"	8' x 8'	Pair, double egress, same egress
Wood door			
F-19-V-LBR	20 min.	8' x 8'	Wood or comp., pair, double egress, same egress
F-19-R	1 1/2 hr. "B"	4' x 7'2" 8' x 7'2"	Single, pair, same egress w/ F-4023 mullion and KR-F-4023

19 Device dimensions:

1 1/2"   1 7/8"
5 3/4"
3' = 32"
4' = 44 3/8"
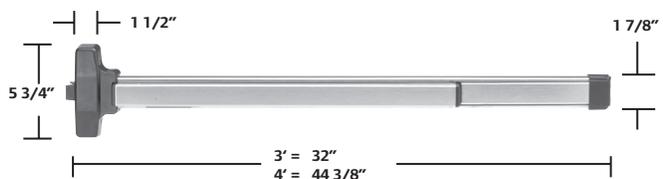
Strikes

1690 Concealed vertical rod device

PB48
Top strike for 1690 device. Packed with three 0.050" thick shims.
1 1/16" x 1 1/16" x 7/16" (H x W x D)

1790 Rim device

STK45
Strike for inactive leaf, pair of doors with 1790 device.
3 1/4" x 1 5/16" x 1/4" (H x W x D)

TD35
Strike for single doors, 1790 device. Includes 1/8" shim.
3" x 2" x 1/2" (H x W x D)

(F) 19-R Rim devices

F570
Standard strike.
2 5/8" x 1 1/4" x 13/16" (H x W x D)

F490
Optional strike.
2 5/8" x 1 1/4" x 7/8" (H x W x D)

565
Adjustable surface mounted for use with blade or applied stops. Mounts flush for 1/2" stop height.

571/571A
Used on inactive leaf for device on active leaf of pair of doors without removable mullion. 571 keeps 2 5/16" backset. 571A is trimmer and projects less into opening.

(F) 19-V Surface vertical rod devices

3788
Top strike for 19-V.

2130
19-V bottom strike for grouting into concrete or masonry floors.

4155
19-V optional bottom strike.

2126A
19-V optional bottom strike.
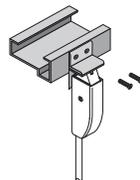
4215
Angle bracket for 19-V devices flush transom applications. Does not require elimination of latch retention feature.

Extension rods
Extension rods are available in 12", 24" and 36" lengths in all finishes. Both ends tapped and all-thread included as connector.

Power supply

The PS900 series is a consolidated line of power supplies and accessories that offer enhanced flexibility and functionality specific to the changing needs of the access control market. The PS900 series can be used in a variety of applications to convert high voltage AC power into the low voltage DC outputs required by most access control devices. The PS900 series protects devices downstream by providing Class 2*, filtered and regulated power. The full line is UL294 certified.

Note: PS906 can provide Class 2 rated outputs when used with 900-8P distribution board.

Features:

- Constant output rating at both 12 VDC and 24 VDC provides superior performance ; includes field selectable jumper
- Polarized connectors for option boards eliminate need for racks and side connectors
- Flat mounting of option boards provides easier access to terminal blocks for connection of electrified devices
- High voltage protective cover
- Battery back-up board auto-selects voltage
- Fire alarm relay can be configured to provide either switched or un-switched outputs from a power supply
- PS914 designed with high in rush current for powering electrified panic devices
- Universal 120-240 VAC input
- Low voltage DC, regulated and filtered
- Electronic power limiting foldback circuit for AC current overload protection
- Fused primary input
- AC status monitor- isolated SPDT contacts
- AC input and DC output LED status indicators
- Cover mounted AC input indication
- Hinged cover with lock down screws

Certifications:

- UL 294 certified—the standard for access control
- Class 2 rated*

* Except PS906, output rating exceeds Class 2 power limits

Once power is converted to low voltage DC, the PS900 Series offers a variety of distribution options, including basic fuse protection, simple relay, and advanced logic providing complex sequencing and timing functions.

* PS906 can provide Class 2 rated outputs when used with 900-8P distribution board.

Number of connectors on power supply for the following:	PS902 2 amps	PS904 4 amps	PS906 6 amps	PS914 4 amps
Distribution boards	1	2	3	2
Battery back-up board	1	1	1	1

Note: One fire alarm board can be connected directly to the PS902. If a fire alarm board is desired for the PS904, PS906 or PS914 it can be connected to a distribution board.

Applications:

The PS900 series of power supplies works with many electrified devices including Falcon exit devices, electromagnetic locks, hardwired locks, electrified mechanical locks, electrified strikes and many other products.

Accessories:

The PS900 series features seven option boards for use in a variety of applications. All PS900 series power supplies option boards are UL 294 certified.

Option boards:
900-4R: 4 relay controlled output board to power multiple devices
900-4RL: 4 relay distribution board with logic is field configurable for time delay function, auto operator, security interlock
900-8F: Provides 8 individually fuse-protected outputs, giving the flexibility to power multiple devices and provide another layer of protection
900-FA: Emergency interface relay integrates with fire alarm and is used to cut power in case of emergency
900-BB: Battery backup
900-2RS: 2 relay EL panic device control board (PS914 only)
900-BBK: Battery backup kit includes two 7A/hr batteries and provides up to four hours of backup power when cycled every 5 minutes at full load.

Wire selection size / type

Run length	EL device w/ EPT or door loop
0-100 ft	14 gauge standard wire
101-200 ft	12 gauge standard wire
Run length	**EL device w/ electric hinge / pivot**
0-75 ft	14 gauge standard wire
76-150 ft	12 gauge standard wire
Wire selection	**Switch wire size**
1200 ft max.	16 gauge

Accessories

Removable mullion

- Removable mullions are easily removed and reinstalled for full width access
- Increased security and tighter closure
- Minimizes door warp age and sag
- Regulates the traffic flow in-and-out
- Rim devices are used on both leaves, attaining a perfect symmetrical opening
- Mullion assembly consists of a mullion, top and bottom fittings and mounting package
- Mullion can be cut on the job for doors under stock lengths

2923, (F)4023, (F)KR4023 Mullion

These steel mullions can be used with the 19-R and F-19-R devices. Soffit adapters are available for the 2923 and 4023 mullions. The F4023 and F-KR4023 fire-rated mullions also include four stabilizer blocks as required for labeled installations. Strikes are not included with mullion and should be specified with the 19-R or F-19-R device, see page 11 for strike information. KR mullions require $1\,^1/_4$" mortise cylinder with standard "A" cam. The mullion fittings are made from ductile iron. The (F)4023 and (F)KR4023 are 2" wide and 3" deep. The 2923 is $1\,^1/_2$" wide and $2\,^1/_2$" deep. Furnished in prime coat.

F-4023 Shown

Mullions

Mullion brackets

525 Mullion stabilizer for RM170

RM 170

RM 170 Removable mullion

RM 170 for use with 1790 series. Comes complete with adjustable mortised strikes and security clips. Compatible with doors 7' to 10' and for use with stiles as narrow as $1\,^3/_4$". Made of aluminum, available in anodized aluminum or bronze finishes. Mullion is $3\,^1/_2$" deep, 1" wide on door side, and $1\,^5/_8$" at the widest point.

Mullion strikes

STK170
Adjustable mortise strikes (pair)
$2\,^7/_8$" tall
$1\,^3/_4$" wide
1" thick

Sex bolts

Sex bolts are available for $1\,^3/_4$" door thickness. Screws to fit are available in $^3/_4$" and 2" lengths to cover a wide range of door thicknesses.
2729 (#10-24 thread)
4122 ($^1/_4$"-20 thread)

Filler plates

1 $^1/_4$"   3723   8"

1 $^1/_8$"   3721   1 $^1/_4$"   3722
2 $^1/_4$"   4 $^7/_8$"
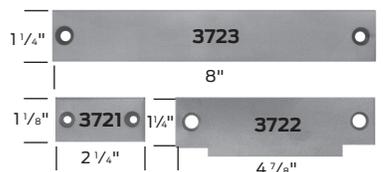
3721/3722/3723

Steel filler plates
3721   Cylindrical lock front filler
3722   ASA strike filler - set no. SC for 161 cutout
3723   Mortise lock front filler
3722   ASA strike filler - set no. SM for 86 cutout

Accessories

EL application

Power supply PS914-2RS
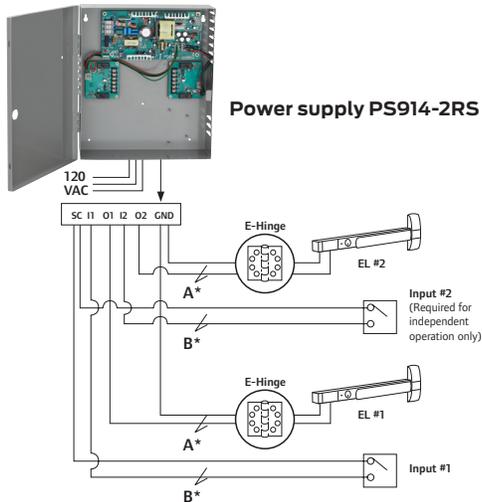
EL wire selection size

A*	Run length	EL device w/EPT or door loop
	0-100 ft.	14 gauge
	100-200 ft.	12 gauge

A*	Run length	EL device w/electric hinge/pivot
	0-75 ft.	14 gauge
	76-150 ft.	12 gauge

B*	Wire selection	Switch wire size
	1200 ft. max.	18 gauge

MEL application

MEL electronic specifications

MEL electric load

Voltage	24 VDC
Current	1.0 A Inrush (0.5 sec)
	0.14 A holding

MEL wire run lengths

Distance (one way)	Wire Gauge
200'	18 AWG
320"	16 AWG
500'	14 AWG
800'	12 AWG

MEL wire run lengths

Power supply PS902-2RS
Electric power transfer
EPT-2 or EPT-10
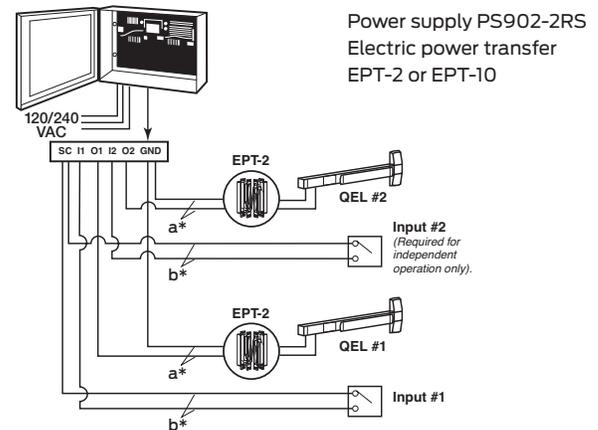
Accessories

The MEL has a low in rush current = 1.0 amps, so it can be used with standard Schlage power supplies. When powering multiple components, verify that the amperage requirements of all components combined does not exceed the power supply output rating, see table below for output ratings.

Schlage PS902	Schlage PS904	Schlage PS906
Up to 2 amps	Up to 4 amps	Up to 6 amps

The MEL device is compatible with the following equipment: PS900 Series power supplies - PS902, 904, 906, 914; 900 Series Option Boards - 900-2RS, 900-4R, 900-4RL, 900-2Q; PS873 Power Supply including 871-2, 871-2Q, 873-4TD/AO Option Boards. The power transfer is also sold separately. Please refer to Von Duprin catalog for more information on EPT-2/EPT-10 power transfers and PS900 series power supplies.

How to order

1490/1590

EL	1490	EO	36"	US28	CYL	RL*	RHR*

HH	Hurricane device *
EL	Electric latch retraction
S	Signal switch—monitors latch bolt

1490	See model numbers on page 6
1590	See model numbers on page 7

EO	Exit only
DT	Dummy trim
NLOP	Night latch cylinder assembly—optional pull
HBOP	Hold back cylinder assembly—optional pull
NLP	Night latch cylinder assembly with 9970 pull
HBP	Hold back cylinder assembly with 9970 pull

36"	36" (standard)
42"	42" (optional)
48"	48" (optional)

US28	**DC35**	**US9**	**US4**	**US14**
DC13	**US3**	**US10**	**US10B**	**US15**

RISER	Riser (¹⁄₂")
CYL	Rim cylinder
7 PIN CYL	Cylinder assembly for 7-pin cylinder. Cylinder not included.

RL	Standard bottom latch
HEX	Standard EL bottom latch
PL	Pullman bottom latch
LBR	Less bottom rod

RHR	RHR
LHR	LHR

*Applies to 1490 only

1690/1790

MEL	1690	EO	36"	US28	RL*

HH	Hurricane device*
RX	Request to exit switch
MEL	Motorized electric latch retraction
ED	Electric dogging

1690	See model numbers on page 8
1790	See model numbers on page 9

EO	Exit only
DT	Dummy trim
NL-HBOP	Cylinder assembly—optional pull
NL-HBP	Cylinder assembly with 9970

30"	30" (optional)
36"	36" (standard)
42"	42" (optional)
48"	48" (optional)

US28	**DC35**	**US10**	**US26D**
DC13	**US3**	**US26**	

1690 Only	
HEX	Standard bottom latch
RL	Rod bottom latch
PL	Pullman bottom latch
ES	Top latch for use with electric strike
LESS RODS	Less rods (retrofit of 1990 device)
LBR	Less bottom rods

*Applies to 1690 Only

19 Series

| CD | F | 19 | V | L-DANE | US32D | 3' | L | HR | LBR | SNB | WD |

Prefixes
CD	Cylinder dogging
KOR	Key bypass switch

Rating
F	Fire exit hardware
Blank	Panic exit hardware

Device Series
19	Touch bar device, narrow stile

Device Type
R	Rim
V	Surface vertical rod

Trim Function (see Trim pages for all functions)
EO	Exit only	**K**	Knob
DT	Dummy trim	**L**	Lever (dane standard)
NL	Night latch	**TL**	Thumb lever
C	Cylinder trim less pull	**KIL**	Key in lever

Finish
US32D
SP28
SP313

Door Width
3'	Standard default
4'	
–	Specify exact door width

Handing
RHR	Right hand reverse
LHR	Left hand reverse

Less bottom rod
LBR	Less bottom rod
LBR-AFL	LBR w/auxiliary fire latch

Other device options
RBB	Round bottom bolt
SSTB	Stainless steel touch bar
VRP	Black pad on touch bar
TAC	Tactile warning

Accessories
CYL	Cylinder
SNB	Sex bolts
SK	Shim kit
AMS	All machine screws

Other miscellaneous door information
HMD	Hollow metal door
HMF	Hollow metal frame
WD	Wood door
WDF	Wood frame
ALD	Aluminum door
ALF	Aluminum frame
SCDC	Steel channel door construction
–	Specify other door or frame
–	Material information
–	Door height
–	Door thickness
–	Door undercut
–	Door label (20 min, 45 min, 90 min 1-$\frac{1}{2}$ hr)
–	Stile width
–	Frame stop height
SGL	Single door
PR	Pair of doors swinging same direction

Notes

About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions.

For more, visit **www.allegion.com**

KRYPTONITE ■ **LCN** ■ **SCHLAGE** ■ **STEELCRAFT** ■ **VON DUPRIN**

ALLEGION™