

Medium Duty Exit Devices - 1490 / 1590 / 1690 / 1790 / 19 Series

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FALCON EXIT DEVICES

	Architectural Pushpads	Commercial Pushpads	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 Full compliment of electrical options Standard deadlocking 	 Steel operating mechanisms Aluminum push bar and end caps Durable design Surface Vertical and Rim options available 	 Patented pending latchbolt 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 / 9 finishes 4 lever designs 10-year warranty 	 Rim, SV 7 functions / 3 finishes 4 lever designs 10-year warranty 	 CV = 1490 / Rim = 1590 4 functions / 10 finishes 3 length options 10-year warranty 	 CV = 1690 / Rim = 1790 4 functions / 7 finishes 4 length options 10-year warranty

FALCON

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, style and quality. We take your expectations seriously, and that's why we build our door hardware to deliver durability, convenience and unmatched value. After all, we've built our reputation on the same standards that you have – providing quality door hardware at a reasonable price delivered on time. It's the way we do business and it's what makes Falcon a powerful choice for your project.



FEATURES

- ANSI Grade 1 rating
- Available in a full range of finishes
- Optional electrified and panic functions
- Compatible with stiles as narrow as 1³/4"
- Listing includes:
 - Type 4 Narrow stile rim exit device

Type 6 - Narrow stile concealed vertical rod exit device Type 8 - Metal door concealed vertical rod exit device Type 22 - Removable mullion

Crossbars			Recessed/Concealed Devices
xx	1990	2090	2390
 Classic traditional design Dependable and attractive Economic crossbar option Panic and fire rated options 	 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" steel latchbolt 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
 Light/Moderate traffic Commercial, Multi-family, Office, Retail Interior, exterior, retro-fit 	 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
 Rim, SV, CV, M 13 functions / 8 finishes 5 lever options 10-year warranty 	 CV 4 functions / 10 finishes 2 length options 10-year warranty 	 Rim 4 functions / 10 finishes 2 length options 10-year warranty 	 CV 3 functions / 4 finishes 2 length options 10-year warranty

Concealed Vertical 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"	2" 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. Both handed labels are provided standard.		
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.		
High Security:	1490 High Security devices are used for hurricane rated door openings. Consult door manufacturer's listing.		

Model	Trim Package	Туре	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	

Clean looks in a 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"	34"	43"

Consult factory for special sizes.

Model	Trim Package	Туре	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.		
Latchbolt:	$1^{1/4}$ " 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:	Doors: $1^{3/4}$ " thick metal or wood, specify if other than $1^{3/4}$ ".		
Projections:	Dns: 2 ^{3/} 4" maximum, 2" when dogged. Pushbar height is 3".		
Stile:	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.		
End Caps:	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 12.		

Tough performance for high-traffic applications.

The design of the 1690 is ideal for demanding, high-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)

Specification	S
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:	EL - electric latch retraction, ED - electric dogging (both EL and ED require PS914-2RS minimum power supply). RX - request to exit switch, monitors pushpad SPTD 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.
High Socurity	1690 High Security devices are used for hurricane rated door

High Security:

1690 High Security devices are used for hurricane rated door openings. Consult door manufacturer's listing.

	Model	Trim Package	Туре	Function
	1690	No outside trim	6	01
	1691	Pull Only (9970)	6	02
1	1692	Cylinder only	6	03/04
	1693	Pull and cylinder	6	02/03/04

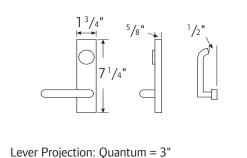
Low maintenance and high reliability.

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"





Sutro = $2^{7/8}$ " Dane = $2^{7/8}$ "

Key locks or unlocks trim. Lever retracts latchbolt 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 13 for other rim strikes available.		
Latchbolt:	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:	EL - electric latch retraction, ED - electric dogging (both EL and ED require PS914-2RS minimum power supply). RX - request to exit switch, monitors pushpad SPTD 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 12.		

Model	Trim Package	Туре	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

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 17.





F570 Standard F490 Strike optional



571/571A For rim x vertical rod installations.





565 For narrow stile door and removable mullion installations.





Cylinder Dogging

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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

	on-Handed.
Functions: Se	ee trim selection chart on this page.
	P28, SP313, US32D. entercase and end cap are powder-coated black only.
Serines:	tandard - F570. ptional - F490, 565, 571, 571A.
Latch: St	tainless Steel, ³ /4" throw dead locking.
	ex key dogging standard. Cylinder dogging or less dogging ptional.
	' for doors from 2'5" up to 3'. ' for doors from 3' up to 4'.
Doors: 1	^{3/} 4" thick metal or wood doors, specify if other.
	$^{1/_{2}}$ " in neutral position, $1^{7/_{8}}$ " in dogged position. ushbar height is $1^{3/_{4}}$.
Stile: 1	^{3/} 4" minimum.
	Il machine screw mounting. Device mounting fasteners are oncealed, latch fasteners are exposed to egress side.
End Caps: B	lack plastic end caps.
ANSI: C	ertified ANSI A156.3 Grade 1 standards.

Sep.

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 17.





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 KIL-NL)	1 or 4	09

Note: For blank escutcheon specify BE.

Specification	15
UL:	"B" label (1½ 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 15 and 16.
Finishes:	Powder-coated aluminum–SP28; powder-coated duranodic–SP313 stainless steel US-32D.
Strikes:	Stainless steel, F570 or F490.
Latchbolt:	Stainless steel, ³ /4" throw.
Deadlocking Latchbolt:	Standard.
Stock 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 specified on wood or composite doors.)
Projection:	$2\frac{1}{2}$ " in neutral position, $1\frac{7}{8}$ " in depressed, pushbar height $1\frac{3}{4}$ ".
Fasteners:	All mounting screws are concealed. Furnished with all machine screws.
Sex Bolts:	When used with wood, composite or non-reinforced hollow metal, sex bolts must be specified, 3-#4122 (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.



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 17.

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



P	۲
2789 Dogging Key	Cylinder Dogging

2130 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 15 and 16.
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.
Latchbolt:	Top stainless steel $\frac{3}{4}$ " throw. Bottom square bolt $\frac{1}{2}$ " throw.
Deadlocking Latchbolt:	Standard.
Dogging Feature:	$\frac{1}{2}$ turn hex dogging standard. No threaded parts to wear out.
Cylinder Dogging:	Specify "CD" prefix. Use $1^{1}\!$
Stock 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 $1\frac{3}{4}$ ".
Narrow Stile Doors:	To $1\frac{3}{4}$ " N.S. aluminum. With control trim $-2\frac{1}{4}$ " min. stile.
Projection:	2½″ max., 1½″ 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 40兆" 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; $\frac{1}{4}$ thick specify SK-19-V- $\frac{1}{4}$.
161 Cutout:	Device covers 161 cutout with KIK/KIL and Centron trims. Other trim requires cover plate.

Here 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 17.

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

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 15 and 16.
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.
Latchbolt:	Top stainless steel $\frac{3}{4}$ " throw. Bottom square bolt $\frac{1}{2}$ " throw.
Deadlocking Latchbolt:	Standard.
Stock 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 if other than $1\frac{3}{4}$ " thick.
Projection:	2 ¹ ⁄⁄″ 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 405/6" 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; $\frac{1}{4}$ " thick specify SK-19-V- $\frac{1}{4}$ ".
161 Cutout:	Device covers 161 cutout with KIK/KIL and Centron trims. Other trim requires cover plate.



ACCESSORIES



Removable Mullion

- · Removable mullions are easily removed and reinstalled for full width access
- Increased security and tighter closure
- Minimizes door warpage 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 13 for strike information. KR mullions require $1^{1}/_{8}$ " 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



Sex Bolts

Sex bolts are available for $1\frac{3}{4}$ " door thickness. Screws to fit are available in $\frac{3}{4}$ " and 2" lengths to cover a wide range of door thicknesses. 2729 (#10-24 Thread)

4122 (1/4-20 Thread)

N	
Sammond	
China C	⊟ /

RM 170 Removable Mullion

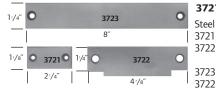
RM 170 for use with 1790 Series. Comes complete with adjustable mortised strikes and security clips. Compatible with doors 7' to 10' and for use with stiles as narrow as $1^{3}/_{4}$ ". Made of aluminum, available in anodized aluminum or bronze finishes. Mullion is $3^{1}/_{2}$ " deep, 1" wide on door side, and $1^{5}/_{8}$ " at the widest point.

Mullion Strikes



STK170 Adjustable mortise strikes (pair). 2⁷/8" tall 1³/4" wide 1" thick

Filler Plates



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

 3720
 ASA Strike Filler - set no.

 SM for 86 cutout

STRIKES / ACCESSORIES

Strikes

1690 Concealed Vertical Rod Device

PB48 Top strike for 1690 device. Packed with three 0.050" thick shims. 1¹/16" x 1¹/16" x ⁷/16" (H x W x D)

(F) 19-R Rim Devices

F570

Standard strike. 25/8" x 11/4" x 13/16" (H x W x D)

F490 Optional strike. 2⁵/8" x 1¹/4" x ⁷/8" (H x W x D)

565

1790 Rim Device

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

STK45

Strike for inactive leaf,

pair of doors with

 $3^{1/_4}$ " x $1^{5/_{16}}$ " x $^{1/_4}$ "

 $(H \times W \times D)$

0

. 1790 device.

571/571A

Used on inactive leaf for device on active leaf of pair of doors without removable mullion. 571 keeps 25/6" backset. 571A is trimmer and projects less into opening. Note: strike is not fire rated.

TD35

¹/8" shim.

3" x 2" x ¹/₂"

 $(H \times W \times D)$

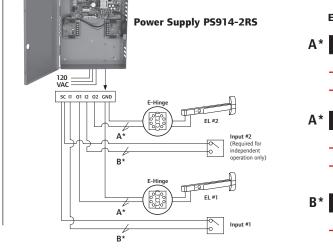
Strike for single doors,

1790 device. Includes

(F) 19-V Surface Vertical Rod Devices

3788 4155 2130 Top strike for 19-V. 19-V bottom strike for 19-V optional bottom strike. grouting into concrete or masonry floors. 4215 **Extension Rods** Angle bracket for 19-V Extension rods are available in 12", 24" devices flush transom and 36" lengths in all finishes. Both ends tapped and all-thread included applications. Does not require elimination of latch as connector. retention feature.

Popular EL Application



EL Device Wire Selection Size EL Device w/EPT or Door Loop Run Length 0-100 ft. 14 gauge 100-200 ft. 12 gauge Run Length EL Device w/Electric Hinge/Pivot 0-75 ft. 14 gauge 76-150 ft. 12 gauge Wire Selection Switch Wire Size 1200 ft. max. 18 gauge

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.

	PS902	PS904	PS906	PS914
Number of Connectors on Power Supply for the following:	2 amps	4 amps	6 amps	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

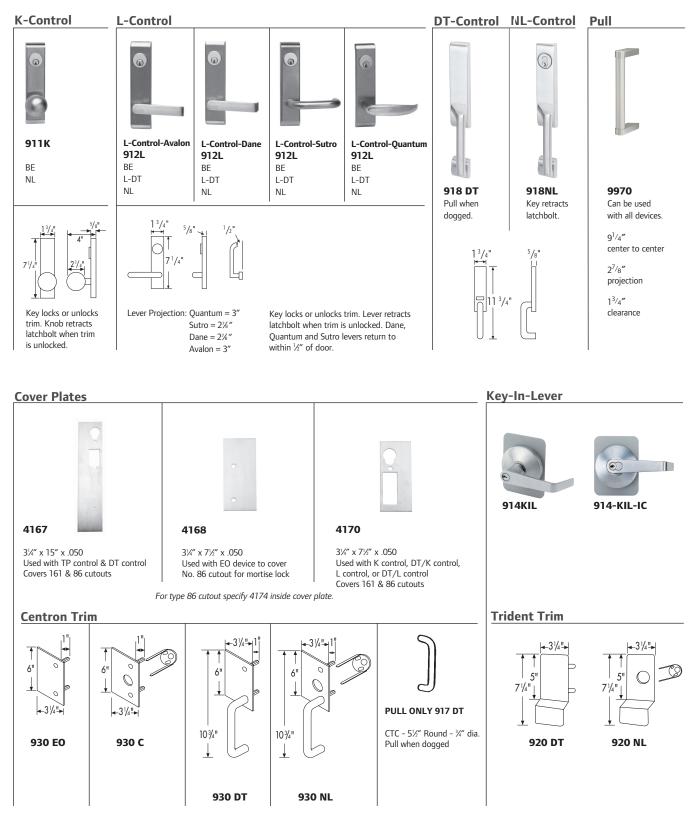
Wire Selection Size / Type

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

TRIM DESIGNS

Control Trim

SP28, SP313 and US-32D.



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

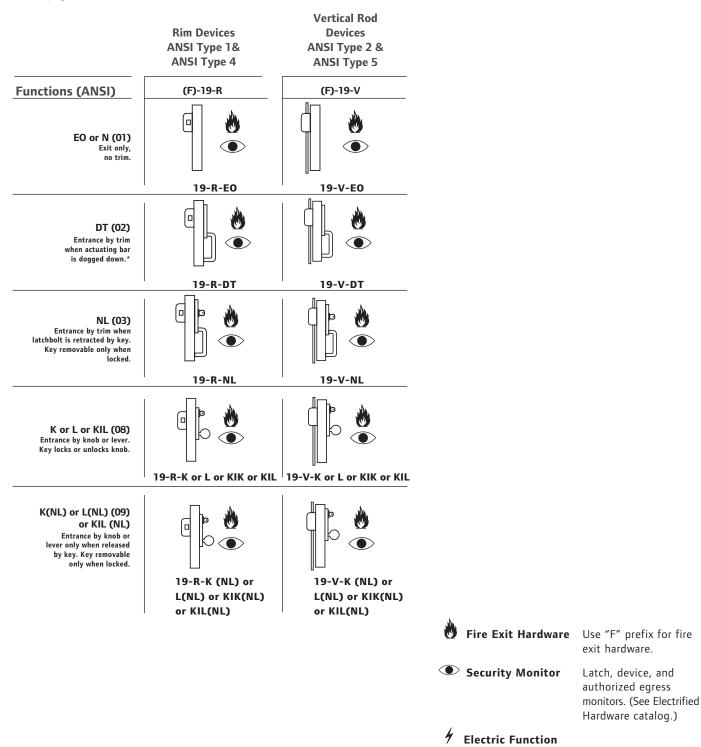
		Avalon*			Dane*		9	Sutro*		(Quantum*	
Device	L	L-BE	L-DT	L	L-BE	L-DT	L	L-BE	L-DT	L	L-BE	L-DT
19-R/19-V	912	912	912	912	912	912	912	912	912	912	912	912
Cylinder Type	1 ¹ /8″	_	_	1½″	_	_	1½″	_	_	1 ¹ /8″	_	_
	Mortise			Mortise			Mortise			Mortise		

KIL-LS/LK ¹	KIL-NL*	KIL-IC*
914	914	914
	Falcon "C" Keyway A23160	Small Format
	914	914 914 — Falcon "C"

	Trider	nt Trim		Centron	
Device	NL	DT	с	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. These pages list all functions available for the 19-Series devices.



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

Double Doors

DEVICE & TRIM	Length	Top Strike	Bottom Strike	Min. Stile	Door Opening Width
(F) 19-V	3′0″	3788	2130	3½″	2′5¼″ TO 3′0″
(F) 19-V	4′0″	3788	2130	3½″	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 %" Stop

DEVICE & TRIM	Length	Strike	Min. Stile	Door Opening Width
19-R	3′0″	F570 565	3 ¹ ⁄⁄″″ 1 ³ ⁄⁄4″ *	2′5 ¹ ⁄4″ TO 3′0″ 2′4 ³ ⁄4″ TO 2′9 ¹ ⁄4″
F-19-R	3′0″	F570	3 ¹ ⁄2‴	2′5¼″ TO 3′0″
19-R	4′0″	F570 565	3 ¹ ⁄4″ 1 ³ ⁄4″*	3′0″ TO 4′0″ 3′0″ TO 3′9 ³ ⁄4″
F-19-R	4′0″	F570	31⁄4″	3′0″ TO 4′0″

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

Double Doors with Mullion

DEVICE & TRIM	Length	Strike	Min. Stile	Door Opening Width	Mullio Fire	n Panic
19-R	3′0″	F570 565	3½″ 3¾″ 3⅛″ 3¾″	2′5 ¹ ⁄4″ TO 3′0″ 2′4 ³ ⁄4″ TO 2′9 ¹ ⁄4″		2923' 4023/KR4023 2923' 4023/KR4023
F-19-R	3′0″	F-570	3¾″	2′5 ¹ ⁄4″ TO 3′0″	(F)4023 KR(F)4023	-
19-R	4′0″	F570 565	3 ¹ ⁄2″ 3 ³ ⁄4″ 3 ¹ ⁄8″ 3 ³ ⁄8″	3′0″ TO 4′0″ 3′0″ TO 3′9 ³ ⁄4″	- - -	2923' 4023/KR4023 2923' 4023/KR4023
F-19-R	4′0″	F-570	3¾″	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.



Dimensions:

- \cdot Recommended height from finished floor $40\%'_{6}$ at CL.
- Touchbar Projections: Neutral 21/2", Depressed 17/8"
- Extension rods or longer top rods available upon request. Specify door height.
- Dummy touchbar available. Specify 190 DT 3' or 4'. Overall length: 3': 301/2" 4': 425/4"
- Changes for minimum door size for charts on left: For cylinder dogging, add $2\frac{1}{4}$ " to minimum door size. For exit alarm, add $4\frac{1}{2}$ " to minimum door size.
- To fit on smaller door consult factory.

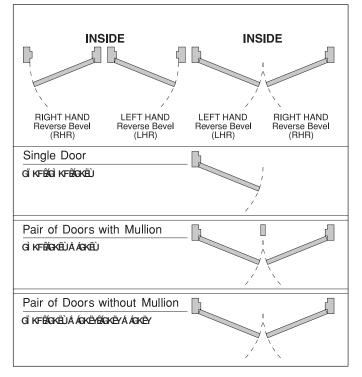
Door Thickness

All devices and components supplied for 1³/₄" doors standard. Specify door thickness if other than 1³/₄".

Number	BHMA/ANSI Function
01	Exit only, no trim.
02	Entrance by trim when actuating bar is locked down.
03	Entrance by trim when latchbolt is retracted by key; key removable only when locked.
04	Entrance by trim when latchbolt 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.

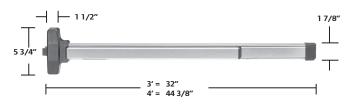
U.S. Standard	BHMA	Description
US28	628	Anodized Aluminum – Clear
DC13	710	Anodized Aluminium – Dark Bronze
DC35	711	Anodized Aluminum – Black
P28	689	Painted Aluminum – Silver
P13	695	Painted Aluminum – Dark Bronze
P35	622	Painted Aluminum – Black
US3	666	Bright Brass
US4	667	Satin Brass
US9	705	Bright 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



DEVICE	Label	Door Opening	Application
Hollow Meta	Door		
F-19-R 1 ¹ /2 hr. <i>"B"</i>		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:



HOW TO ORDER

How t	o Orde	r 14	90/15	590		EL	1492	EO	36"	US28	CYL	RL*	RHR*
HH EL S	High Security Electric Latch Signal Switch	Retraction											
1490 1590	See Model #s See Model #s												
EO DT NLOP HBOP NLP HBP	Exit Only Dummy Trim Night Latch C Hold Back Cyl Night Latch C Hold Back Cyl	inder Asse ylinder As	mbly - Optionsembly with	onal Pull 9970 Pull									
36" 42" 48"	36" (Standard 42" (Optional) 48" (Optional))											
US28 DC13		JS9 JS10	US4 US10B	US14 US15									
RISER CYL 7 PIN CYL	Riser (1/2") Rim Cylinder Cylinder Asser	nbly for 7	-pin Cylinder	. Cylinder no	t included.								
RL HEX PL ES LBR	Standard Bott Standard EL E Pullman Botto Top Latch for Less Bottom I	Bottom La om Latch ⁻ use with	tch	ke									
RHR LHR	RHR LHR												

* Applies to 1490 Only

low to	o Order 1690/1790	EL	1690	EO	36"	US28	RL*
HH RX EL ED	High Security Device* Request to Exit Switch Electric Latch Retraction Electric Dogging						
1690 1790	See Model #s on page 6 See Model #s on page 7						
EO DT NL-HBOP NL-HBP	Exit Only Dummy Trim Cylinder Assembly - Optional Pull Cylinder Assembly with 9970						
30" 36" 42" 48"	30" (Optional) 36" (Standard) 42" (Optional) 48" (Optional)						
US28 DC13	DC35 US10 US26D US3 US26						
1690 Only HEX RL PL ES LESS RODS LBR	Standard Bottom Latch Rod Bottom Latch Pullman Bottom Latch Top Latch for use with Electric Strike i Less Rods (Retrofit of 1990 Device) Less Bottom Rods						

Applies to 1690 Only

HOW TO ORDER

How t	o Order 19-Series				19	R	EO	SP31	3 3′	LHR	нл
Prefixes CD KOR	Cylinder Dogging Key Bypass Switch										
Rating F Blank	Fire Exit Hardware Panic Exit Hardware										
Device Se	ries Touch Bar Device, Narrow Stile										
Device Ty R V	r pe Rim Surface Vertical Rod										
Trim Fund EO DT NL C	Ltion (see Trim pages for all functio Exit Only Dummy Trim Night Latch Cylinder Trim Less Pull	ns)	K L TL KIL	Knob Lever (Dane St. Thumb Lever Key in Lever	andard)	_					
Finish US32D	SP28 SP313]				
Door Wid 3′ 4′	th Standard Default Specify Exact Door Width										
– Handing RHR LHR	Right Hand Reverse Left Hand Reverse										
Less Bott LBR LBR-AFL	om Rod Less Bottom Rod LBR w/Auxiliary Fire Latch]	
Other Dev RBB VRP	vice Options Round Bottom Bolt Black Pad on Touch Bar	SSTB TAC	Stainless Tactile W	Steel Touch Bar 'arning							
Accessori CYL SK	es Cylinder Shim Kit	SNB AMS	Sex Bolts All Machi	ine Screws							
Other Mis HMD HMF WD WDF ALD ALF	Scellaneous Door Information Hollow Metal Door Hollow Metal Frame Wood Door Wood Frame Aluminum Door Aluminum Frame	SCDC - - -	Specify o	ckness			– – SGL PR	Stile Fran Sing	e Width ne Stop gle Door	(20 min, 45 mir Height rs Swinging	

NOTES

NOTES



Falcon is a brand of Ingersoll Rand. Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. We are a \$14 billion global business committed to a world of sustainable progress and enduring results.

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