

Product Evaluation Report

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Manufacturer
E. F. San Juan, Inc.
11442 Highway 231
Youngstown, FL 32466

Product Series, Model and/or Description
Product Evaluation of Door Component
Interchangeability to E. F. San Juan, Inc.
Inswing and Outswing Wood Entry Doors

Code: Current Edition of the Florida Building Code including 8th Edition (2023) Florida Building Code.

Compliance Methods:

1. Product Approval Rule 61G20-3.005(1)(d) – Product Evaluation Report by a Licensed Professional Engineer
2. Florida Building Code Section 1709.5.3 (2023 FBC)
 - a. Door components evaluated by an approved product evaluation entity, certification agency, testing laboratory or engineer may be interchangeable in exterior door assemblies provided that the door component(s) provide equal or greater structural performance as demonstrated by accepted engineering practices.
3. Florida Residential Code Section R609.10 (2023 FRC)
 - a. ANSI/WMA 100; or
 - b. be evaluated by an approved product evaluation entity, certification agency, testing laboratory, or engineer and may be interchangeable in exterior door assemblies if the components provide equal or greater structural performance as demonstrated by accepted engineering practices.

Product Fenestration Description: Products covered by this evaluation include the following.

- E. F. San Juan, Inc. Outswing Wood Entry Doors
 - Drawing No. SAN0001, Rev. G, dated 2/10/23, Outswing Wood Entry Doors Installation Anchorage Details, signed and sealed by Robert J. Amoruso, P.E.
- E. F. San Juan, Inc. Inswing Wood Entry Doors
 - Drawing No. SAN0002, Rev. C, dated 2/10/23, Inswing Wood Entry Doors Installation Anchorage Details, signed and sealed by Robert J. Amoruso, P.E.

Product Testing:

- National Certified Testing Laboratories, Test Report No. NCTL-210-3699-1, dated 2/7/11, AAMA/WDMA/CSA 101/I.S. 2/A440-05 and ASTM E1996/E1886-02/05 testing for fixed sidelights to be used with exterior swinging entry doors.
- National Certified Testing Laboratories, Test Report No. NCTL-210-3699-2, dated 2/7/11, ASTM E330-02 and ASTM E1996/E1886-02/05 testing for alternate panel configurations to be used with exterior swinging entry doors.
- National Certified Testing Laboratories, Test Report No. NCTL-210-3699-3, dated 2/7/11, ASTM E330-02 and ASTM E1996/E1886-02/05 testing for double (XX) exterior swinging entry doors.
- National Certified Testing Laboratories, Test Report No. NCTL-210-3699-4, dated 2/7/11, AAMA/WDMA/CSA 101/I.S. 2/A440-05 and ASTM E1996/E1886-02/05 testing for double (XX) exterior swinging entry doors.

Engineering Analysis: The following engineering and/or rational analysis/calculations have been performed.

- Anchorage and product verification has been substantiated by calculation (PTC Report. No. 1892) prepared, signed, and sealed by Robert J. Amoruso, P.E. in accordance with the current edition of the Florida Building Code.
- Window glazing verified using ASTM E1300-12AE1 and 2016.



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Performance Testing:

- AAMA/WDMA/CSA 101/I.S. 2/A440-05, Standard/Specification for Windows, Doors, and Unit Skylights.
- ASTM E330-02, Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
- ASTM E1996-02/05, Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes
- ASTM E1886-02/05, Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials

Limitations & Conditions of Use:

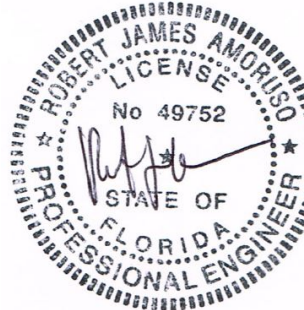
- This product has not been evaluated for use inside the HVHZ (High Velocity Hurricane Zone)
- This product is Impact Resistance. Therefore, a protective impact-rated device (i.e., shutter(s)) is not required.
- Refer to Product Installation Instructions noted above for:
 - Maximum allowable wind loads at related maximum allowable size(s).
 - Overall dimensions and material/grade of main product components, accessories, etc.
 - Illustrated diagrams of the attachment of the product to the structure.
 - Anchor type(s), size(s), substrate(s), embedment, edge distance, and spacing/locations.
- Site wind pressures shall be determined by a licensed professional engineer in accordance with the current edition of the Florida Building Code (and/or ASCE 7 as referenced in the current edition of the Florida Building Code) for components and cladding based on allowable stress design.
- Site conditions not covered in this product evaluation document are subject to additional engineering analysis by a licensed professional engineer or registered architect as required by the authority having jurisdiction.
- Adequacy of the existing structural substrates as a main wind force resisting system capable of withstanding and transferring applied product loads to the foundation is the responsibility of the licensed professional engineer or registered architect acting as the design professional of record for the project of installation.

Door Component Interchangeability - Conclusion:

Based on the engineering analysis in Appendix 1 performed in accordance with Compliance Methods 2 and 3 above, it was determined that the Ashland Multi-Point lock system used in testing can be replaced with a Von Duprin WS9827-9927 Exit Device (a.k.a., Panic Device).

Certificate of Independence per Product Approval Rule 61G20-3.009

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. does not have, nor will acquire, any financial interest in the company manufacturing or distributing product(s) covered by this Product Evaluation Report. PTC Product Design Group, LLC and Robert J. Amoruso, P.E. do not have, nor will acquire any financial interest in any other entity involved in the approval process or testing of the product(s) covered by this Product Evaluation Report.



Digitally signed
by Robert J
Amoruso
Date:
2023.07.23
15:07:09 -04'00'

Evaluated by:
Robert J. Amoruso, P.E.
FL PE License No. 49752



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Appendix 1 - Door Component Interchangeability

Exterior door assembly component can be interchanged in accordance with the following sections of the Florida Building Code if it can be shown they provide equal or greater structural performance.

- Florida Building Code Section 1709.5.3 (2023 FBC)
 - Door components evaluated by an approved product evaluation entity, certification agency, testing laboratory or engineer may be interchangeable in exterior door assemblies provided that the door component(s) provide equal or greater structural performance as demonstrated by accepted engineering practices.
- Florida Residential Code Section R609.10 (2023 FRC)
 - Door components evaluated by an approved product evaluation entity, certification agency, testing laboratory or engineer may be interchangeable in exterior door assemblies provided that the door component(s) provide equal or greater structural performance as demonstrated by accepted engineering practices.

Structural Testing of E. F. San Juan, Inc. Wood Entry Doors, Florida Product Approval Number FL14680, Drawing No. SAN0001 and SAN0002 is listed above under *Performance Testing* heading to a Design Pressure of +/-65 psf for all configurations except the 176-1/2" x 153-7/16" OOO/OXXO configuration which tested to +/-60 psf.

Locking hardware used in testing was an Ashland XP-55 Concealed Multi-Point Swing Door Lock (see Appendix 2). This locking device includes head and sill shoot bolts and a locking/deadbolt cylinders at the handle location. Both active and passive devices are used in XX door configurations and an active device in X door configurations.

The hardware to be interchanged with the Ashland Multi-Point Lock is Von Duprin WS9827-9927 Exit Device (a.k.a., Panic Device) (see Appendix 3). This locking device includes head and sill latches engaged by vertical rods activated by the pushbar engaged opening mechanism. For XX door configurations, two exit devices are employed and for X configurations, one exit device is employed.

The Von Duprin WS9827-9927 Exit Device (a.k.a., Panic Device) has been evaluated for Florida Product Approval using Miami-Dade HVHZ TAS 201/202/203 procedures. TAS 202 envelopes ASTM E330 Structural Load testing and TAS 201/202 envelopes ASTM E1886/E1996 Impact and Cyclic Load testing. This product approval is shown in Florida Product Approval FL14022 (or any current superseding FPAS approval) for single (X) and double (XX) doors at a maximum size of 52" x 100" for single door and 100" x 100" for double doors. A design pressure of +/- 75 psf was obtained.

Door panel wind loading is reacted at the hinge locations and at the head & sill shoot bolt/latch locations. Therefore, applied load is distributed to the surrounding frame in the same manner as tested when the WS9827-9927 Exit Device is used.

The E. F. San Juan, Inc. Wood Entry Doors were tested to a maximum size of 38-3/8" x 109-15/16" for the single door and 74-1/2" x 109-15/16" for the double door.

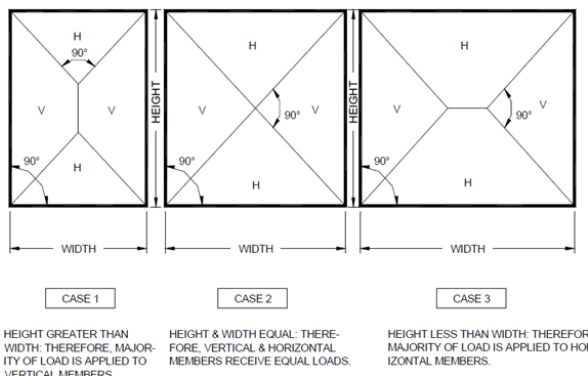


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Comparing the tributary loading areas:

Door Type	E. F. San Juan, Inc. Wood Entry Doors – Loading Area (psf)		Florida Product Approval No. FL14022 (or any current superseding FPAS Approval)– Loading Area (psf)	
Configuration	Single Door	Double Door	Single Door	Double Door
Full Tributary Loading Area	29.31	56.91	36.11	69.44
Jamb Loading Area	12.10	12.10	13.36	13.36
Conclusion	Results less than Florida Product Approval FL14022 (or any current superseding FPAS approval)		Results greater than E. F. San Juan, Inc. Wood Entry Doors	



Tributary Loading - Trapezoidal Distribution							
Area	Size		Tributary Loading				
			H/W	Case	Jamb	Head/Sill	Total
	Width	Height		No.	V (sf)	H (sf)	At (sf)
SanJuan X	38.375	110	2.87	1	12.10	2.56	29.31
SanJuan XX	37.25	110	2.95	1	11.82	2.41	28.45
FL14022 X	52	100	1.92	1	13.36	4.69	36.11
FL14022 XX	50	100	2.00	1	13.02	4.34	34.72

Additionally, the Florida Product Approval FL14022 (or any current superseding FPAS approval) doors were tested at a DP = 75 psf and the E. F. San Juan, Inc. Wood Entry Doors at a DP = 60 psf. Therefore the E. F. San Juan, Inc. Wood Entry Doors experience a lower overall loading and can be directly compared to the Florida Product Approval FL14022 (or any current superseding FPAS approval) doors results.

Conclusion: It has been demonstrated above that the Von Duprin WS9827-9927 Exit Device equipped doors in Florida Product Approval FL14022 (or any current superseding FPAS approval) have been structurally tested in a manner that meets and exceeds the Ashland Multi-Point Lock used in testing the E. F. San Juan, Inc. Wood Entry Doors. Additionally, it was shown that the E. F. San Juan, Inc. Wood Entry Doors are approved to a lower design pressure/tributary loading than that of the Florida Product Approval FL14022 (or any current superseding FPAS approval) doors.



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Therefore, the Von Duprin WS9827-9927 Exit Device can be interchanged with the Ashland Multi-Point Lock used in testing the E. F. San Juan, Inc. Wood Entry Doors.



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Appendix 2 - Ashland Multi-Point Lock

SENTINEL™ 70mm CONCEALED MULTI-POINT SWING DOOR LOCK SYSTEM

SWING DOOR HARDWARE

TECHNICAL

ASHLAND ADVANTAGE

KEY FEATURES

- Concealed Hardware Innovation
- Delivers a premium door edge appearance
- Lowest operating force by eliminating the need for multiple face plate mounting screws
- Rod lengths can be processed in-line to fit custom panel heights
- Eliminates face plate extensions to provide system savings
- Made from the finest 300 series stainless steel for superior corrosion resistance
- Incorporates the "Baby-Sitter Effect" that allows the consumer to operate the dead bolt and extension bolts independently of each other, eliminating the necessity for the consumer to lift the lever handle and engage the shoot bolts before activate the dead bolt
- Incorporates an "Anti-Slam" device that prevents the lock bolts from extending until the door is in the closed position, eliminating the potential for door frame damage by the consumer
- The shoot and dead bolts extend a full one-inch to meet the highest levels of structural testing, and meets most local building codes

PERFORMANCE AND SECURITY

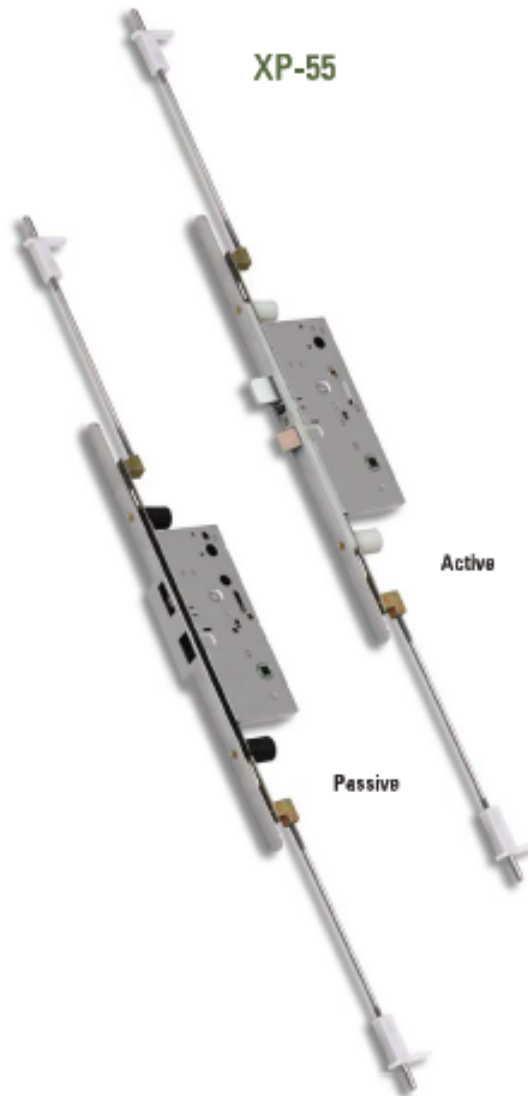
- More consumer friendly to lock the shoot bolts and open the door, requiring only 35° of handle rotation
- Robust and durable handle return spring design to prevent handle sag over time
- The handle is locked out when multi-point is in its locked position
- Designed without sliding extension, the system delivers lower friction for easier operation than traditional lock styles
- Withstands abusive torques of over 500 in-lbs
- Lab tested to over 50,000 cycles

MANUFACTURING FLEXIBILITY AND EASE

- The flexible lock system was designed to accept any rod lengths to accommodate various door panel heights
- Designed for applications in aluminum, steel, fiberglass and wood

LIFETIME WARRANTY

For warranty information, please contact Ashland Hardware Systems at 219-696-5950.



A Newell Rubbermaid Company

FOR MORE INFORMATION AND SAMPLES CALL 219-696-5950

750 COMMERCIAL AVENUE • LOWELL, INDIANA 46356-2249 • FAX 1-800-626-4758
www.ashlandhardware.com

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Appendix 3 - Von Duprin WS9827-9927 Exit Device

9827/9927 Surface Mounted Vertical Rod Device

VON DUPRIN.



9827/9927 surface mounted vertical rod device for all types of single or double doors, UL listed for Panic Exit Hardware. Devices are ANSI A156.3 – 2001 Grade 1. Covers stock hollow metal doors with 86 or 161 cutouts. The 9827 device has a smooth mechanism case and the 9927 device has a grooved case. The surface vertical rod device is non-handed except when the following device options are used: SD (Special Dogging), or SS (Signal Switch). See Opposite page for available outside trim and functions.

Vertical rod and latch guards are available to protect the bottom rod of the exit device from damage by impacts of carts or gurneys passing through doors.

Finishes – US3, US3A, US4, US4A, US10, US26, US26D, US26D-AM Antimicrobial, US28, 313, 315 & 643E. US15 and US32D available with 98 Series only.

Specifications

Device Functions	Device ships EO/DT/NL. Field selectable. For TP, K or L remove NL drive screw from device.
Device Lengths	2' 2" (610mm) Door Size (shipped less UL label) 3' 2'4" to 3' (711mm to 914 mm) Door Size 4' 2'10" to 4' (864 mm to 1219 mm) Door Size
Device Centerline from Finished Floor	39½" (1006 mm)
Center Case Dimensions	8" x 2¾" x 2¾" (203mm x 70mm x 60mm)
Mechanism Case Dimensions	2¼" x 2¼" (57mm x 57mm)
Projection	Pushbar Neutral – 3¼" (97 mm) Pushbar Depressed – 3¼" (78 mm)
Latch Bolt	Deadlocking Anti-friction Top & Bottom Bolt, ⅝" (16mm) throw
Door Undercut	¼" (7mm) recommended
Top & Bottom Latch Case	4½" x 2½" x 1½" (114mm x 54mm x 38mm)
Vertical Rods	½" square tubing, standard rods accommodate 7' (2134mm) doors. Top rod length: 34½" (887mm); Bottom rod length: 31½" (794mm) Extension rods available in 1' (205mm) or 3' (914mm) for doors over 7'. One piece top rod is available for 8' (2438mm) and 10' (3048mm) doors.
Fasteners & Sex Bolts (SNB)	Includes screw pack for 1¾" (44mm) to 2¼" (57mm) thick metal or wood doors, and 325 SNB for top and bottom latch. Optional 425 SNB available.
Electric Options	LX Latchbolt Monitor Switch RX Pushpad Monitor Switch RX2 Double Pushpad Monitor Switch EL Electric Latch Retraction QEL Quiet Electric Latch Retraction SS Signal Switch CX Chexit Delayed Exit ALK Alarm Exit Kit PN Pneumatic Latch Retraction LBR Less Bottom Rod WP-RX Waterproof Request to Exit
Mechanical Options	GBK Glass Bead Kit PL Pullman Latch WS Tornado and Hurricane Tested SNB Sex Bolts SEC Security Screws
Dogging Feature Dogging Options	Hex key dogging standard CD Cylinder Dogging SD Special Center Case Dogging LD Less Dogging DI Dogging Indicator CDI Cylinder Dogging Indicator
Strikes	Top - 299 – Dull Black, Bottom – 248L4 & 304L – Unfinished



WS

Windstorm
• Severe weather certified/tested
• FEMA and ICC compliant

CD

Cylinder Dogging
• Replaces hex key dogging
• Requires standard 1¼" mortise cylinder

QEL

Quiet Electric Latch Retraction
• Bolt retraction via switch
• Converts exit door to push-pull operation

RX

Pushpad Monitor Switch
• Signals use of an opening
• SPDT switch to monitor pushpad

EL

Electric Latch Retraction
• Enables remote unlatching
• Alternative to manual dogging

ALK

Alarm Exit Kit
• Unauthorized opening triggers 85-decibel horn
• Set in armed or disarmed mode by key

PN

Pneumatic Latch Retraction
• For areas where electrical devices banned
• Special linkage for mechanical or pneumatic dogging

CX

Chexit Delayed Exit
• Meets NFPA 101 requirements
• Self-contained controls, locking, alarm

E (E 996L)

Electrified Breakaway Lever
• Electrified remote locking/unlocking
• Standard in fail safe condition

SS

Signal Switch
• Signals unauthorized use of an opening
• Switch makes latch bolt tamper-resistant

9827/9927 Surface Mounted Vertical Rod Device

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Standard Trim

	EO	DT	NL	NL-OP	TL	TL-BE
						
	Exit only	Dummy Trim Pull When Dogged	Night Latch Key Retracts Latchbolt	Night Latch Key Retracts Latchbolt Optional Pull Required	Thumbturn Key Locks & Unlocks (Use with DT Trim)	Thumbturn Blank Escutcheon Always Operable (No Cylinder) (Use with DT Trim)
Product Description	9827EO 9927EO	9827DT 9927DT	9827NL 9927NL	9827NL-OP 9927NL-OP	9827TL 9927TL	9827TL-BE 9927TL-BE
Trim Description	—	990DT	990NL-R/V	110NL-MD 110NL-WD	374T x 990DT	374T-BE x 990DT
Escutcheon Plate Size	—	3" x 14 ³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm)	3" x 14 ³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm)	—	1 ¹ / ₁₆ " x 7 ¹ / ₂ " x 7 ⁷ / ₈ " (43x191x22mm)	1 ¹ / ₁₆ " x 7 ¹ / ₂ " x 7 ⁷ / ₈ " (43x191x22mm)
Pull Center to Center	—	5 ¹ / ₂ " (140mm)	5 ¹ / ₂ " (140mm)	—	—	—
Projection	—	2" (51mm)	2" (51mm)	—	3 ¹ / ₄ " (83mm)	3 ¹ / ₄ " (83mm)
ANSI Function	01	02	03	03	11 or 12	16
Cylinder Type	—	—	Rim	Rim	1 ¹ / ₄ " Mortise	—
Handing	—	—	—	—	—	—
Optional Trim	x990EO x996EO	x996K-DT x996L-DT x696DT x697DT	x996K-NL x996L-NL x696NL x697NL			
Optional #425 SNB Quantity for Device	6	2	2	6	2	2

	L	L-NL	L-BE	L-DT
				
	Lever Key Locks & Unlocks	Lever - Night Latch Key Retracts Latchbolt	Lever - Blank Escutcheon Always operable (No Cylinder)	Lever Dummy Trim Pull When Dogged
Product Description	9827L 9927L	9827L-NL 9927L-NL	9827L-BE 9927L-BE	9827L-DT 9927L-DT
Trim Description	996L-R/V*	996L-NL-R/V	996L-BE-R/V*	996L-DT
Escutcheon Plate Size	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)
Pull Center to Center	—	—	—	—
Projection	2 ⁷ / ₈ " (73mm)	2 ⁷ / ₈ " (73mm)	2 ⁷ / ₈ " (73mm)	2 ⁷ / ₈ " (73mm)
ANSI Function	08	03	14	02
Cylinder Type	Rim	Rim	—	—
Handing	Handed/Reversible	Handed/Reversible	Handed/Reversible	Handed/Reversible
Optional #425 SNB Quantity for Device	2	2	2	2

* Electrified lever operation available

Notes

9827/9927 Surface Mounted Vertical Rod Device

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9827-F/9927-F Surface Mounted Vertical Rod Fire Device VON DUPRIN.



9827-F/9927-F fire exit surface mounted vertical rod device pairs of doors up to 8' x 10' (2438mm x 3048mm), UL listed for Fire Exit Hardware. See page 68 for detailed information on UL listed fire exit hardware label and door opening size information. Devices are ANSI A156.3 – 2001 Grade 1. The 9827-F device has a smooth mechanism case and the 9927-F device has a grooved case. The surface vertical rod device is non-handed except when the following device options are used: SS (Signal Switch). See Opposite page for available outside trim and device functions.

Vertical rod and latch guards are available to protect the bottom rod of the exit device from damage by impacts of carts or gurneys passing through doors. Rod and latch guards can be used on hollow metal or tin clad composite fire doors.

Finishes – US3, US4, US10, US26, US28 & 313. US15 and US32D available with 98 Series only.



Specifications

Device Functions	Device ships EO/DT/NL. Field selectable. For TP, K or L remove NL drive screw from device.
Device Lengths	2' 2' (610mm) Door Size (shipped less UL label) 3' 2'4" to 3' (711mm to 914 mm) Door Size 4' 2'10" to 4' (864 mm to 1219 mm) Door Size
Device Centerline from Finished Floor	39½" (1006 mm)
Center Case Dimensions	8" x 2¾" x 2¾" (203mm x 70mm x 60mm)
Mechanism Case Dimensions	2¼" x 2¼" (57mm x 57mm)
Projection	Pushbar Neutral – 3¼" (97 mm) Pushbar Depressed – 3¼" (78 mm)
Latch Bolt	Deadlocking Anti-friction Top & Bottom Bolt, ⅝" (16mm) throw
Door Undercut	¼" (7mm) maximum
Top & Bottom Latch Case	4½" x 2½" x 1½" (114mm x 54mm x 38mm)
Vertical Rods	½" square tubing, standard rods accommodate 7" (2134mm) doors. Top rod length: 34½" (887mm); Bottom rod length: 31½" (794mm) Extension rods available in 1' (205mm) or 3' (914mm) for doors over 7'. One piece top rod is available for 8' (2438mm) and 10' (3048mm) doors.
Fasteners & Sex Bolts (SNB)	Includes screw pack for 1¾" (44mm) to 2¼" (57mm) thick metal or wood doors, and 325 SNB for top and bottom latch. Optional 425 SNB available.
Electric Options	LX Latchbolt Monitor Switch RX Pushpad Monitor Switch RX2 Double Pushpad Monitor Switch E Electric Unlocking and Locking Trim EL Electric Latch Retraction QEL Quiet Electric Latch Retraction SS Signal Switch CX Chexit Delayed Exit ALK Alarm Exit Kit WP-RX Waterproof Request to Exit
Mechanical Options	GBK Glass Bead Kit PN Pneumatic Latch Retraction LBR Less Bottom Rod WS Tornado and Hurricane Tested SNB Sex Bolts SEC Security Screws SLM Special Laminate Material Blocking
Dogging Option	No mechanical dogging. EL and QEL option available
Strikes	Top - 299F (499F LBR) – Dull Black, Bottom - 304L - Unfinished

WS

Windstorm

- Severe weather certified/tested
- FEMA and ICC compliant

RX

Pushpad Monitor Switch

- Signals use of an opening
- SPDT switch to monitor pushpad

QEL

Quiet Electric Latch Retraction

- Bolt retraction via switch
- Converts exit door to push-pull operation

ALK

Alarm Exit Kit

- Unauthorized opening triggers 85-decibel horn
- Set in armed or disarmed mode by key

EL

Electric Latch Retraction

- Enables remote unlatching
- Alternative to manual dogging

CX

Chexit Delayed Exit

- Meets NFPA 101 requirements
- Self-contained controls, locking, alarm

PN

Pneumatic Latch Retraction

- For areas where electrical devices banned
- Special linkage for mechanical or pneumatic dogging

SG

Safety Glow

- Shows exit door location in darkness or smoke
- Developed to meet MEA standards

E (E 996L)

Electrified Breakaway Lever

- Electrified remote locking/unlocking
- Standard in fail safe condition

LBR

Less Bottom Rod

- Available with UL Fire Label
- For pairs of vertical rod devices

9827-F/9927-F Surface Mounted Vertical Rod Fire Device

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Standard Trim

	EO	DT	NL	NL-OP	TL	TL-BE
						
	Exit only	Dummy Trim Pull When Dogged (Not recommended for fire device)	Night Latch Key Retracts Latchbolt	Night Latch Key Retracts Latchbolt Optional Pull Required	Thumbturn Key Locks & Unlocks (Use with DT Trim)	Thumbturn Blank Escutcheon Always Operable (No Cylinder) (Use with DT Trim)
Product Description	9827EO-F 9927EO-F	—	9827NL-F 9927NL-F	9827NL-OP-F 9927NL-OP-F	9827TL-F 9927TL-F	9827TL-BE-F 9927TL-BE-F
Trim Description	—	990DT	990NL-R/V	110NL-MD 110NL-WD	374T x 990DT	374T-BE x 990DT
Escutcheon Plate Size	—	3" x 14 ³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm)	3" x 14 ³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm)	—	1 ¹ / ₁₆ " x 7 ¹ / ₂ " x 7 ⁷ / ₈ " (43x191x22mm)	1 ¹ / ₁₆ " x 7 ¹ / ₂ " x 7 ⁷ / ₈ " (43x191x22mm)
Pull Center to Center	—	5 ¹ / ₂ " (140mm)	5 ¹ / ₂ " (140mm)	—	—	—
Projection	—	2" (51mm)	2" (51mm)	—	2" (51mm)	2" (51mm)
ANSI Function	01	02	03	03	11 or 12	16
Cylinder Type	—	—	Rim	Rim	1 ¹ / ₄ " Mortise	—
Handing	—	—	—	—	—	—
Optional Trim	x990EO x996EO	x996K-DT x996L-DT x696DT x697DT	x996K-NL x996L-NL x696NL x697NL	—	—	—
Optional #425 SNB Quantity for Device	6	2	2	6	2	2

	L	L-NL	L-BE	L-DT
				
	Lever Key Locks & Unlocks	Lever - Night Latch Key Retracts Latchbolt	Lever - Blank Escutcheon Always operable (No Cylinder)	Lever Dummy Trim Pull When Dogged (Not recommended for fire device)
Product Description	9827L-F 9927L-F	9827L-NL-F 9927L-NL-F	9827L-BE-F 9927L-BE-F	— —
Trim Description	996L-R/V*	996L-NL-R/V	996L-BE-R/V*	996L-DT
Escutcheon Plate Size	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)	2 ³ / ₄ " X 10 ³ / ₄ " X 2 ⁷ / ₃₂ " (70x273x21mm)
Pull Center to Center	—	—	—	—
Projection	2 ¹ / ₈ " (73mm)	2 ¹ / ₈ " (73mm)	2 ¹ / ₈ " (73mm)	2 ¹ / ₈ " (73mm)
ANSI Function	08	03	14	02
Cylinder Type	Rim	Rim	—	—
Handing	Handed/Reversible	Handed/Reversible	Handed/Reversible	Handed/Reversible
Optional #425 SNB Quantity for Device	2	2	2	2

* Electrified lever operation available

Notes

9827-F/9927-F Surface Mounted Vertical Rod Fire Device