

Evaluation Report

Title: Evaluation of Commercial Hardware
Report #: IR2011-005
Manufacturer: Ingersoll-Rand Company
Security Technologies
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Date: October 10, 2011

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I. Introduction/ Scope

Based on wind load and impact/cyclic testing for commercial hardware, the following report will review the wind load and impact requirements for additional Schlage Interconnected Locksets (CS200, FE200 & RS200 Series).

All hardware testing from CTL and NCTL were conducted per TAS 201-94 (Impact Test Procedures), TAS 202-94 (Uniform Static Air Pressure) and TAS 203-94 (Criteria for Testing Products Subject to Cyclic Wind Pressure Loading).

II. Reference Documents

The following documents were referenced in the evaluation review:

1. CTL Report No: CTLA-992W, IR Residential Deadbolt and Knob Sets for Residential Doors +/-67 PSF and +/-55 PSF, Dated 01/02/2003
2. NCTL Report No: 210-3357-2, IR Schlage F Cylindrical lock w/ Fusion deadbolts +80/-70PSF and +55/-70PSF Dated 03/09/2008
3. Dade County NOA 08-0908.19, IR Series "Schlage/Broadway/Dexter, Cobra Keypad" passage locks w/deadbolts Hardware-Component Approval, Approval Date: December 11, 2008
4. Dade County NOA 09-0528.05 IR "Schlage Cylindrical Lock w/ Fusion Deadbolts Hardware - Component Approval, Approval Date: April 28, 2010
5. IR Drawing S-2303, "IR Schlage", Dated 05/02/06, 12 Shs
6. IR Drawing 3357-2, "Schlage F-series w/ Fusion Platform deadbolts", Dated 03/29/10, 4 Shs
7. IR Drawing S-200 "IR Schlage Interconnected Locks", Dated 9/09/11, 3 Shs

8. Schlage Installation Instructions:

Current S200 Series (S210, S251, S270, S280) 2 pages ID# P515-847

New FE200 Series (FE210F) 3 pages ID # P516-161

New CS200/RS200 Series (210 Function Interconnect) 3 pages ID# P516-312

III. Product Evaluation

The following table summarizes the hardware configurations that have been tested and evaluated to Florida Building Code and Dade County test protocols.

The Schlage interconnected lock utilizes a deadbolt and cylindrical lock with operating features linked by a surface mounted assembly. The locks under evaluation are the same Schlage F-series cylindrical lock (NOA 08-0908.19) and the same Fusion Deadbolt (NOA 09-0528.05) used in current NOA approvals.

Item	Hardware	Door type / size	Design Pressure	Impact	Approval Method	Engineering Drawing	Notes
1	Schlage deadbolts and F-series locks	3080 single	+/-67 psf	Yes	NOA 08-0908.19	S-2303	
2	Schlage S200-series interconnected	3080 single	+/-55 psf	Yes	NOA 08-0908.19	S-2303	
3	Schlage S200 series interconnected	3068 single	+/-67 psf	Yes	NOA 08-0908.19	S-2303	
4	Schlage B series Deadbolt and F series lock	3080 single	+80/-70 psf	Yes	NOA 09-0528.05	3357-2	1
5	Schlage RS200/CS200/FE200 series w/ deadbolt	3080 single	+/-55 psf	Yes	Evaluation Report	S-200	2,3,4
6	Schlage RS200/CS200/FE200 series w/ deadbolt	3068 single	+/-67 psf	Yes	Evaluation Report	S-200	2,3,4

Note 1 – New Fusion platform deadbolts tested.

Note 2 – The same latch tested in items 1 through 4 is furnished standard for items 5 and 6

Note 3 – The same deadbolt tested in item 4 was is furnished standard for items 5 and 6

Note 4 – CS200 Series (CS210/CS251/CS270/CS280), FE200 Series (FE210/FE215)
RS200 Series (RS210/RS270/RS280)

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IV. Limitations of Use

The drawings referenced above provide the primary details for the limitations of use.
The door hardware details and door sizes are contained in the IR drawings listed above.

I have concluded that the configurations shown above comply with the structural requirements for the wind load and large missile impact requirements of the 2007/2010 Florida Building Code.

Maximum door width #1	3'-0"
Maximum door height #1	8'-0"
Maximum wind load #1	+/-55 psf
Maximum door width #2	3'-0"
Maximum door height #2	8'-8"
Maximum wind load #2	+/-67psf
Door Panel Construction	Reference drawings listed above
Hardware Details	Reference drawings listed above
Rated for TAS 201 impact rating	Yes

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Certification of Independence Of Evaluation Entity

I hereby certify that (1) I have no financial interest in Ingersoll Rand Security Technologies; (2) I am an independent licensed Professional Engineer in the State of Florida and; (3) I comply with the criteria of independence as stated in BR.72.110(3) F.A.C. and (b).72.110(4) F.A.C.