

# Federal Signal Corp. IP TEST REPORT

**SCOPE OF WORK**

IP 6X Test Results - Enclosure - Model: 30W Selectone Enclosure

**REPORT NUMBER**

103945406CHI-001a

**ISSUE DATE**

23-May-2019

**[REVISED DATE]**

[NA]

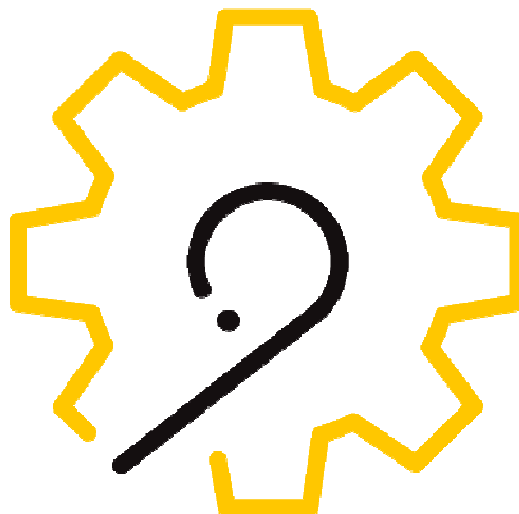
**PAGES**

11

**DOCUMENT CONTROL NUMBER**

GFT-OP-10i (28-Nov-2018)

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## TEST REPORT

23-May-2019

Intertek Report No. 103945406CHI-001a

Intertek Project No. G103945406

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**SUBJECT:** IP 6X Test Results  
Enclosure  
Model: 30W Selectone Enclosure

Dear Sean Moloney

This test report for IP 6X Test Results represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

**Degrees Of Protection Provided By Enclosures (IP Code) [IEC 60529:1989  
Ed.2+A2;A1;C1;C2;C3;A2;C1;C2]**

### Section 1

Test Summary	
Product	Surface Wall Mounted Enclosure
Sample condition:	Prototype
Sample ID:	AH0520201912475
Test Location:	Intertek- 545 E. Algonquin Rd, Suite H Arlington Heights, IL 60005 USA
The first character numeral:	6
The second character numeral:	x
Notes: (if applicable)	NA
Date of test:	22-May-19

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**TEST REPORT****Section 2****Test Report****TEST – FIRST CHARACTER NUMERAL 6****METHOD**

The atmospheric conditions during the test were:

Temperature range: 15 °C to 35 °C

Relative humidity: 25 % to 75 %

Air pressure: 86 kPa to 106 kPa (860 mbar to 1 060 mbar).

The test was made using a dust chamber incorporating the basic principles shown below whereby the powder circulation pump may be replaced by other means suitable to maintain the talcum powder in suspension in a closed test chamber. The talcum powder used was able to pass through a square-meshed sieve the nominal wire diameter of which is 50 µm and the nominal width of a gap between wires 75 µm. The amount of talcum powder used was 2 kg per cubic metre of the test chamber volume and was used for more than 20 tests.

Category 1: Enclosures where the normal working cycle of the equipment causes reductions in air pressure within the enclosure below that of the surrounding air, for example, due to thermal cycling effects.

Category 2: Enclosures where no pressure difference relative to the surrounding air was present.

Note: The enclosure was deemed category 1 unless the relevant product standard for the equipment specifies that the enclosure is category 2.

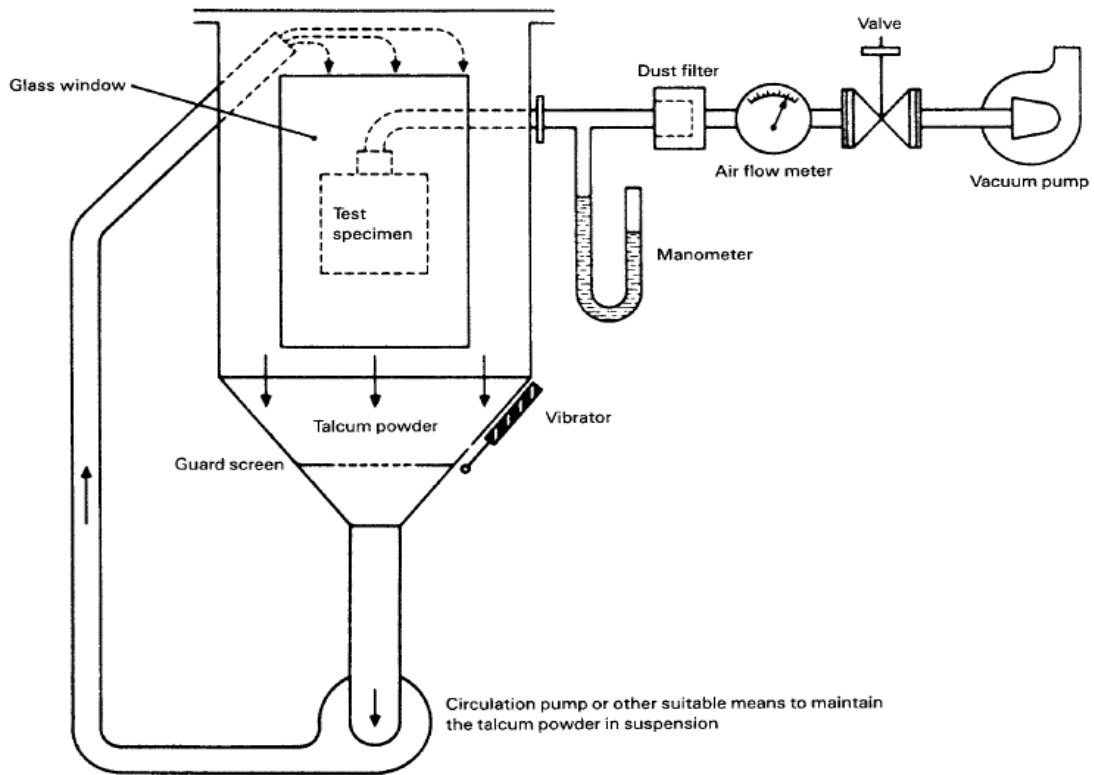
**TEST REPORT**

## Category 1 enclosures:

The enclosure under test was supported inside the test chamber and the pressure inside the enclosure was maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection was made to a hole specially provided for this test. If not otherwise specified in the relevant product standard, this hole was in the vicinity of the vulnerable parts.

The object of the test was to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer shown in figure below. If an extraction rate of 40 to 60 volumes per hour was obtained the duration of the test is 2 h. If, with a maximum depression of 2 kPa (20 mbar), the extraction rate was less than 40 volumes per hour, the test was continued until 80 volumes have been drawn through, or a period of 8 h has elapsed.

## TEST REPORT



After the conditioning:

-No ingress of dust.

### RESULTS OF TEST

***Enclosure did Comply with the Requiements for IP6X***

**TEST REPORT**

**Section 3**

**DESCRIPTION/PHOTOGRAPHS**

**Prior to Testing**  
**IP6X Sample**

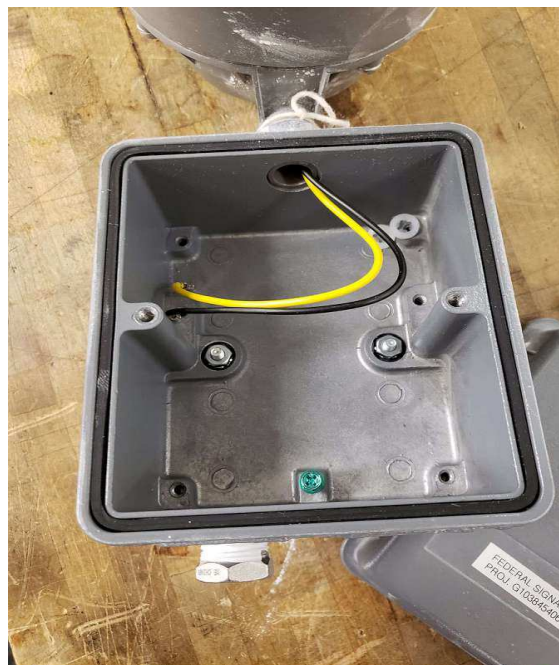
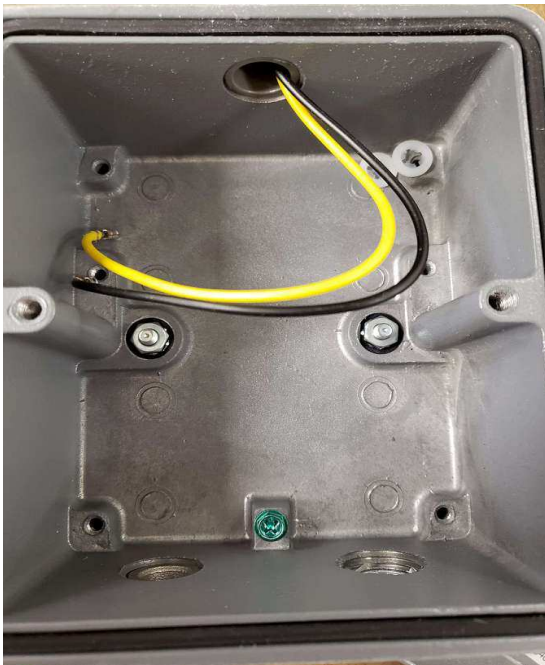


## TEST REPORT

### During IP6X Testing



### After IP6X Testing




## TEST REPORT


### Conclusion

The results of the test indicate that the Surface Wall Mounted Enclosure model(s) 30W Selectone Enclosure **did** meet the requirements for Degrees Of Protection Provided By Enclosures (IP Code) [IEC 60529:1989 Ed.2+A2;A1;C1;C2;C3;A2;C1;C2] Tests for IP6X

This letter report completes our evaluation for this model, covered by Intertek Project No. G103945406. If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact the undersigned.

Please note; this Letter Report does not represent authorization for the use of any Intertek certification marks.

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Date	<u>5/23/2019</u>

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Signature	
Date	<u>5/23/2019</u>