



## IP67 WEARABLE ENCLOSURE - SMW series

### IP67 TEST CERTIFICATE

#### Test certification: Remark

1. This certificate is the IP67 test certificate for model SMW-50□.

Since the largest size enclosure, SMW-50□ has passed the IP67 test, we consider that the test results shall apply to all other models in the SMW series.

2. The waterproof performance will be lost by drilling/milling holes or cutouts for buttons or switches on the enclosures.

Please note that this certificate is only applicable to standard enclosures as-is without any customization, and does not apply to enclosures which have been drilled/milled, or attached any connector/switch or other component.

3. This certificate should be shown, used, or referenced to, in its entirety, and is not to be done so in a partial format.

If you wish to upload this certificate on your website, please contact our R&D department stating the reasons for intended usage.

(Unauthorized uploading or partial reproduction, such as on a website, or in other media such as print, is strictly prohibited.)

November 6, 2025

TAKACHI ELECTRONICS ENCLOSURE CO., LTD.

R&D department

E-mail : [sales@takachi-el.co.jp](mailto:sales@takachi-el.co.jp)

# TEST CERTIFICATE

We, hereby, verify that the under mentioned electrical product submitted to test at our laboratory dated September 29,2025 (Reception No. D25Y0244 ) is in compliance with the requirement of the test standard to be applied, as shown in the attached TEST REPORT (Ref. No. 25TR-Y0618 )

Applicant (name & address): TAKACHI ELECTRONICS ENCLOSURE CO., LTD

3-21-16, Higashi-ryoke, Kawaguchi-shi, Saitama  
JAPAN(332-0003)

Name of product: WEARABLE ENCLOSURE

Model/Type Ref.: SMW-50□

Rating and principal characteristics: —

Date of issue: November 6,2025



Masaki Kato  
Director, Yokohama Laboratories  
Japan Electrical Safety &  
Environment  
Technology Laboratories (JET)

# TEST REPORT

Report reference No. 25TR-Y0618

Date & No. of reception September 29, 2025 (D25Y0244)

Applicant (Name&address)

TAKACHI ELECTRONICS ENCLOSURE CO., LTD

3-21-16, Higashi-ryoke, Kawaguchi-shi, Saitama  
JAPAN (332-0003)

Name of product WEARABLE ENCLOSURE

Model/type Ref. SMW-50□

Rating and principal characteristics  
—

Test Standard JISC0920:2003  
Combination of test conditions for;  
the first characteristic numeral: 6  
the second characteristic numeral: 7

Test Result Pass

Date of issue November 6, 2025



Masaki Kato  
Director, Yokohama Laboratory  
Japan Electrical Safety & Environment  
Technology Laboratories (JET)

## Testing laboratory

Japan Electrical Safety & Environment Technology Laboratories

- ☐ JET Tokyo Laboratory  
5-14-12 Yoyogi, Shibuya-ku, Tokyo, 151-8545, Japan
- ☒ JET Yokohama Laboratory  
1-12-30 Motomiya, Tsurumi-ku, Yokohama, Kanagawa, 230-0004, Japan
- ☐ JET Kansai Laboratory  
4-1 Koyo-cho Nishi, Higashinada-ku, Kobe, Hyogo, 658-0033, Japan
- ☐ JET Power Technology Testing Laboratory  
1-12-28 Motomiya, Tsurumi-ku, Yokohama, Kanagawa, 230-0004, Japan
- ☐ Other Location ( )  
Address :

Date of Sample received      September 29, 2025

Date of test                      September 30, 2025      until      November 4, 2025

Tested by Akihisa Yorozu

Approved by Kazuo Hasegawa

## Test case verdicts

N ( . A . ) : Test case does not apply to the test object.

P (ass) : Test item does meet the requirement.

F(ail) : Test item does not meet the requirement.

— Test item not applied. (according to request from the applicant)

## General remarks

- The test results presented in this report relate only to the object tested.
- This report shall not be reproduced except in full without the written approval of JET.



JIS C 0920 (2003)			
Clause	Requirement – Test	Result - Remark	Verdict
<b>11</b>	<b>General requirements for the tests</b>		<i>P</i>
11.1	Atmospheric conditions for water or dust tests:		-
	Temperature range: 15~35 °C	Water temperature during waterproof test 21 °C Water temperature during dustproof test 19 °C	-
	Relative humidity: 25~75 %	Relative humidity during waterproof test 44 % Relative humidity during dustproof test 43 %	-
	Air pressure: 86~106 kPa	Air pressure during waterproof test 101.5 kPa Air pressure during dustproof test 102.5 kPa	-
11.2	Test samples for each test		-
	- in a clean and new condition	<i>New condition</i>	-
	- the complete equipment	<i>Complete equipment</i>	-
	- representative parts		-
	- smaller equipment having the same full-scale design		-
	Number of samples to be tested	Waterproof test: 1 Dustproof test: 1	-
	Conditions for mounting, assembling and positioning of samples	<i>The test sample for the dustproof test is attached to the test box prepared by the applicant.</i>	-
	Pre-conditioning	<i>No pre-conditioning</i>	-
	Whether to be tested energized or not	<i>Not energized</i>	-
	Whether to be tested with its parts in motion or not	<i>Not in motion</i>	-
11.3	Application of test requirements and interpretation of test results	<i>No drain-holes or ventilation openings</i>	<i>P</i>
	Standard applied for the general requirements for tests and the acceptance conditions for equipment containing drain-holes or ventilation openings		<i>N</i>
	Standard applied for the interpretation of test results	<i>This standard</i>	<i>P</i>
11.4	Combination of test conditions for the first characteristic numeral: Table V applied	<i>The first characteristic numeral: 6</i>	<i>P</i>
11.5	Empty enclosures		<i>P</i>
	Whether the enclosure to be tested is with or without equipment inside	<i>The entire inside of the test sample</i>	<i>P</i>

JIS C 0920 (2003)			
Clause	Requirement – Test		Verdict
<b>12</b>	<b>Tests for protection against access to hazardous parts indicated by the first characteristic numeral</b>		<i>N</i>
<b>13</b>	<b>Tests for protection against solid foreign objects indicated by the first characteristic numeral</b>		<i>P</i>
13.1	Test means		<i>P</i>
	The test means and the main test conditions applied as in Table VII	<i>The first characteristic numeral: 6 Dust chamber</i>	<i>P</i>
13.2	Test conditions for first characteristic numerals 1, 2, 3, 4		<i>N</i>
13.3	Acceptance conditions for first characteristic numerals 1, 2, 3, 4		<i>N</i>
13.4	Dust test for characteristic numerals 5 and 6		<i>P</i>
	Use of dust chamber in Fig. 2	<i>Fig. 2 (Dust chamber)</i>	<i>P</i>
13.4A	Category 1 enclosures		<i>P</i>
	- 2 hours (extraction rate: 40~60 volumes per hour)		<i>N</i>
	- until 80 volumes have been through or continued for a period of 8 hours	<i>Test time: 8 hour</i>	<i>P</i>
13.4B	Category 2 enclosures		<i>N</i>
13.4C	Category 1 enclosures and Category 2 enclosures		<i>P</i>
	If it is impracticable to test the complete enclosure in the test chamber, one of the following procedures shall be applied:		<i>N</i>
13.5	Special conditions for first characteristic numeral 5		<i>N</i>
13.6	Special conditions for first characteristic numeral 6		<i>P</i>
13.6.1	Test conditions		<i>P</i>
	Category 1 applied	<i>Refer to 13.4</i>	<i>P</i>
13.6.2	Acceptance conditions		<i>P</i>
	No deposit of dust is observable inside the enclosure at the end of the test	<i>No talc powder entered the test box in which the test sample was attached.</i>	<i>P</i>
<b>14</b>	<b>Tests for protection against water indicated by the second characteristic numeral</b>		<i>P</i>
14.1	Test means		<i>P</i>
	The test means and the main test conditions applied as in Table VIII	<i>The second characteristic numeral: 7</i>	<i>P</i>
14.2	Test conditions		<i>P</i>



JIS C 0920 (2003)			
Clause	Requirement – Test	Result - Remark	Verdict
	Tests performed according to sub-cl. 14.2, the test method and main test which was given in Table VIII	<i>Test conditions are given in Table 8 (Refer to sub-clause 14.2.7)</i>	<i>P</i>
	Difference between water temperature and temperature of the specimen (the maximum 5 K)		<i>P</i>
	Calculation of the enclosure surface area	$<1.0 \text{ m}^2$	<i>P</i>
14.2.1	Test for second characteristic numeral 1 with the drip box		<i>N</i>
14.2.2	Test for second characteristic numeral 2 with drip box		<i>N</i>
14.2.3	Test for second characteristic numeral 3 with oscillating tube or spray nozzle		<i>N</i>
14.2.4	Test for second characteristic numeral 4 with oscillating tube or spray nozzle		<i>N</i>
14.2.5	Test for second characteristic numeral 5 with 6.3 mm nozzle		<i>N</i>
14.2.6	Test for second characteristic numeral 6 with 12.5 mm nozzle		<i>N</i>
14.2.7	Test for second characteristic numeral 7: temporary immersion between 0.15 m and 1 m		<i>P</i>
	a) The lowest point is located 1000 mm from the surface of the water	<i>1000 mm from the surface of the water enclosure with height <math>&lt; 850 \text{ mm}</math></i>	<i>P</i>
	b) The highest point is 150 mm to the surface of the water (enclosure with height $\geq 850 \text{ mm}$ )		<i>N</i>
	c) The duration of the test: 30 min	<i>30 min.</i>	<i>P</i>
	d) Difference between the water temp. and the temp. of the equipment: $\leq 5 \text{ K}$	<i>Sample temperature: 21 °C Water temperature: 19 °C Difference: 2 K</i>	<i>P</i>
14.2.8	Test for second characteristic numeral 8: continuous immersion subject to agreement		<i>N</i>
14.3	Acceptance conditions		<i>P</i>
	Acceptance conditions applied as specified in :		<i>P</i>
	- sub-clause 14.3	<i>Acceptance condition of sub-clause 14.3</i>	<i>P</i>
	- the relevant product standard		<i>N</i>
	Whether or not any water has entered	<i>No water entered the test sample</i>	<i>P</i>
	If any water has entered, it is proved by inspection that any water which enters:		<i>N</i>
15	Tests for protection against access to hazardous parts indicated by the additional letter		<i>N</i>

Photo of the appliance (IP6X)

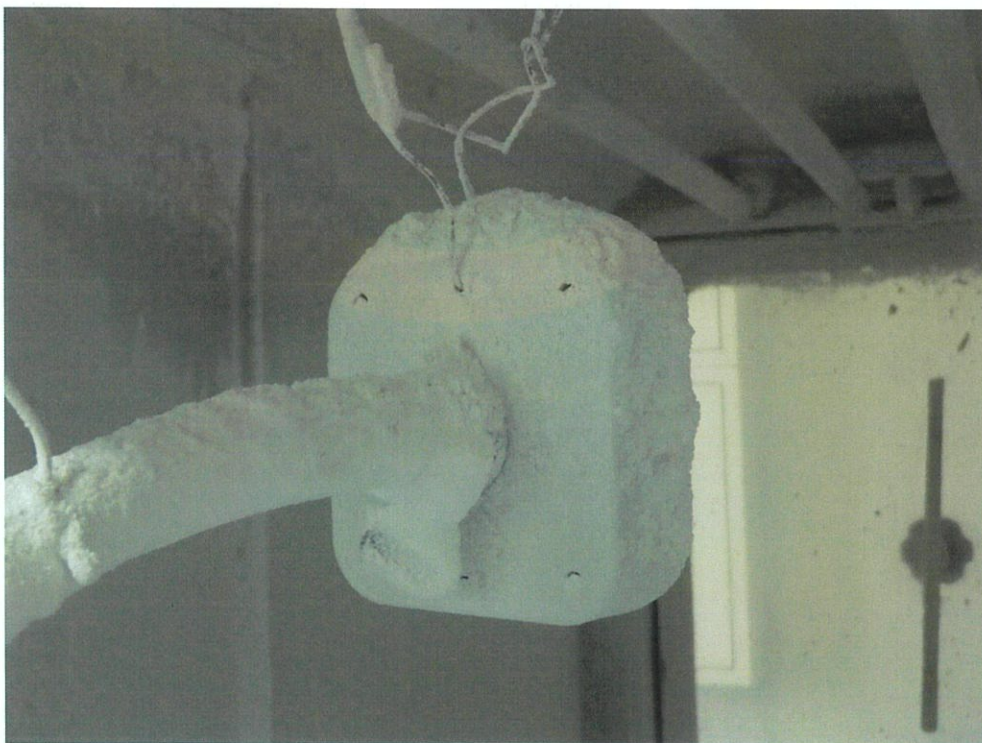
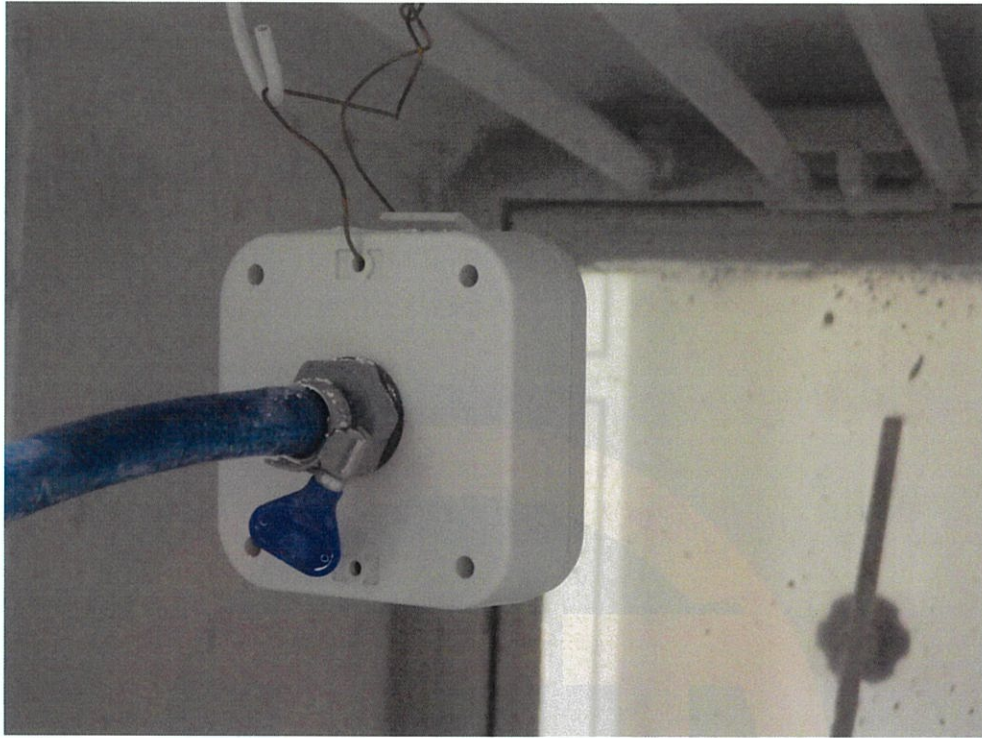


Photo of the appliance (IPX7)



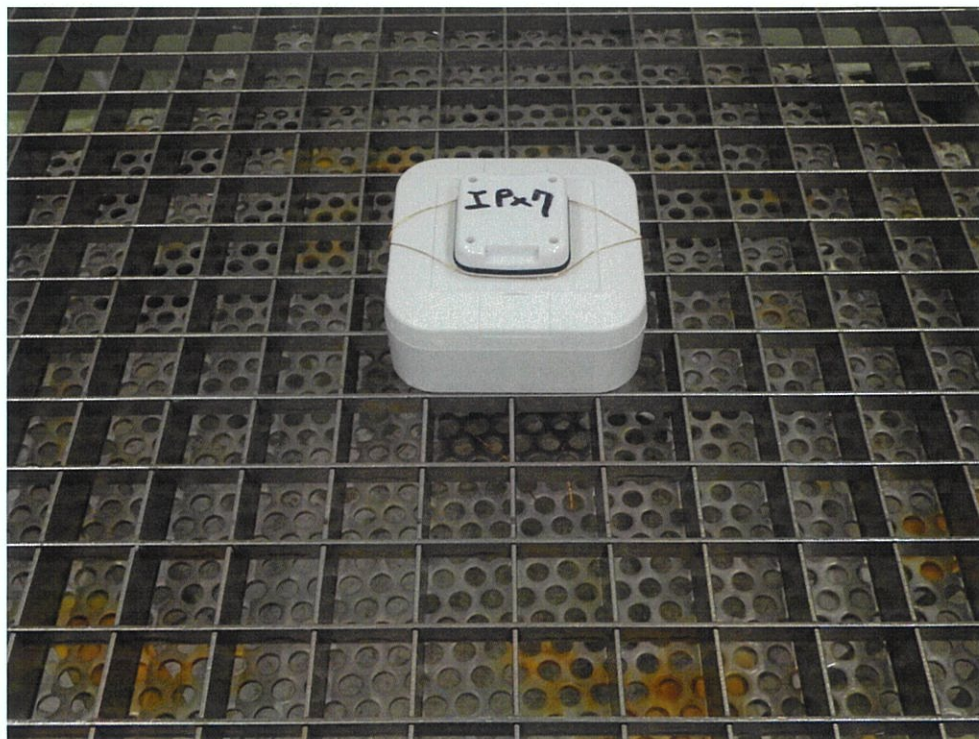


**Test situation photos (IP6X)**





Test situation photos (IPX7)



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