

Test Report

Verified Code:275555

Report No.:H202403271022-01EN

Customer: ProTech CO., Ltd

Address: No. 18, Baoying Road, Dawang High-Tech District, Zhaoqing, Guangdong

Sample Name: SINORA HARD SHELL

Sample Model: SIN-02920-10BK

Receive
Sample Date: Mar.28,2024

Test Date: Apr.02,2024 ~ Apr.13,2024

Reference
Document: According to ISO 20653:2013

Test Result: Please refer to page 4 of the report for details

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Issued Date: 2024/4/17

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| | | | | |
|--|---|----------|------------|--------------------|
| Test type | <input checked="" type="checkbox"/> Commissioning Test <input type="checkbox"/> Routine test <input type="checkbox"/> R&D test <input type="checkbox"/> PV <input type="checkbox"/> DV <input type="checkbox"/> ECV <input type="checkbox"/> Others_____ | | | |
| Sample Source | <input checked="" type="checkbox"/> Commissioned units send sample <input type="checkbox"/> Others: | | | |
| Sample | Model | Quantity | Sample No. | Test No. |
| SINORA HARD SHELL | SIN-02920-10BK | 1 pc | / | H202403271022-0001 |
| Sample Components and Accessories | Components: / Accessories: / | | | |
| Test with packaging or not | <input type="checkbox"/> Yes, Outer Packing _____ <input checked="" type="checkbox"/> No | | | |
| Sample quality before test | <input checked="" type="checkbox"/> Conformity Product <input type="checkbox"/> Non-conformity Product <input type="checkbox"/> Prototype <input type="checkbox"/> Others | | | |
| Abnormal condition of sample before test | No Abnormalities | | | |
| Environmental requirements | Temperature: 15.0℃~35.0℃ Relative Humidity: 25%~75% Atmospheric pressure: 86kPa~106kPa | | | |
| Test Address | No.10,Dafu Industrial Erea,Guanguang RD, Guanlan Street, Longhua Sistrick Shenzhen Guangdong China. | | | |

Summary of Test Information

| No. | Item Name | Test Standard | Test Result | Page |
|-----|-----------|----------------|--------------------|--------|
| 1 | IP6X | ISO 20653:2013 | Meet a requirement | Page 6 |
| 2 | IPX7 | ISO 20653:2013 | Meet a requirement | Page 9 |

----- The following blanks -----

1 IP6X

1.1 Test Condition

According to ISO 20653:2013.

1.1.1 Before the test: Check the appearance of sample.

1.1.2 Dustproof test:

1.1.2.1 Degrees of protection against access: use a metal probe with a diameter of 1.0mm to detect the shell of the tested product with a force of $1N \pm 0.1N$.

1.1.2.2 Degrees of protection against foreign objects: fix the tested product in the test box and carry out the test according to the items in Table 1-1.

1.1.3 After the test: Check the appearance of the sample.

Table 1-1 Dustproof test conditions

| Test dust | Dosage of dust | Test time |
|----------------|--------------------|---|
| Arizona powder | 2kg/m ³ | 6s blowing dust, 15min standing, this is a cycle, running 20 cycles |

1.2 Sample Information

Sample information is shown in Table 1-2.

Table 1-2 Sample Information

| Sample Name | Sample Model | Quantity | Test No. |
|-------------------|----------------|----------|--------------------|
| SINORA HARD SHELL | SIN-02920-10BK | 1 pc | H202403271022-0001 |

1.3 Test Requirements

According to ISO 20653:2013.

The rigid test wire (diameter 1.0 mm) shall not penetrate, and dust shall not penetrate.

1.4 Test Result

The test result are shown in Table 1-3.

Table 1-3 Test Result

| Test No. | Test Results | Conclusion |
|--------------------|--|----------------------|
| H202403271022-0001 | The 1mm metal probe did not enter the sample shell, and no dust entered the inside of the subject after the test | Meet the requirement |

1.5 Test Photos



Fig.1-1 Sample appearance inspection before test



Fig.1-2 Sample appearance inspection after test



Fig.1-3 Sample appearance inspection before test



Fig.1-4 Sample unpacking inspection after test



Fig.1-5 Metal probe inspection before test



Fig.1-6 Test sample placement

----- The following blanks -----

2 IPX7

2.1 Test Condition

According to ISO 20653:2013.

2.1.1 Before the test: Check the appearance of sample.

2.1.2 Waterproof test: Fix the sample in the dipping tank and test according to the conditions listed in Table 2-1.

2.1.3 After the test: Check the appearance of the sample.

Table 2-1 Waterproof test conditions

| Distance between the highest point of the box body and the water surface | Test time |
|--|------------|
| 1000mm | Soak 30min |

2.2 Sample Information

Sample information is shown in Table 2-2.

Table 2-2 Sample Information

| Sample Name | Sample Model | Quantity | Test No. |
|-------------------|----------------|----------|--------------------|
| SINORA HARD SHELL | SIN-02920-10BK | 1 pc | H202403271022-0001 |

2.3 Test Requirements

According to ISO 20653:2013.

Water shall not penetrate in a quantity causing harmful effects or impair performance if the enclosure is immersed in water temporarily under specified pressure and time conditions.

2.4 Test Result

The test result are shown in Table 2-3.

Table 2-3 Test Result

| Test No. | Test Results | Conclusion |
|--------------------|---|----------------------|
| H202403271022-0001 | After the experiment, there is no water inside the measured object. | Meet the requirement |

2.5 Test Photos



Fig.2-1 Sample appearance inspection before test



Fig.2-2 Sample appearance inspection after test



Fig.2-3 Sample unpacking inspection before test



Fig.2-4 Sample unpacking inspection after test



3 Test Instrument & Equipment

| List of instruments for testing equipment | | | | | |
|---|------------------------|-------------------|----------|---------------|------------------------|
| No. | Testing item | Equipment | Type | Serial No. | Calibration valid date |
| 1 | Dustproof test (IP6X) | Dust test chamber | GT1321 | GT20170703001 | 2023-12-16~2024-12-15 |
| | | IP4X test sonde | CX-T4D | CX1807237 | 2024-03-23~2025-03-22 |
| 2 | Waterproof test (IPX7) | Water tank | / | / | / |
| | | Steel rule | 0~1000mm | 2482515 | 2024-02-21~2025-02-20 |
| | | Stopwatch | PC396 | 949696 | 2023-06-06~2024-06-05 |

----- End of Report -----