KESCO 한국전기안전공사 안전인증센터
KESCO Safety Test Center
Tel : 82-31-240-4500 Fax : 82-31-240-4590

TEST REPORT

Report No. : STC-B13-333

KESCO

1. Customer

○ Name : Sentech Korea Corp.

○ Address : (Sinchon-Dong) 21-6, Jimokro 75-gil, Paju-Si Gyeonggi-Do, Republic of Korea

○ Date of Receipt : 2013. 09. 02

2. Use of Test Report : Reference

3. Product : Breath Alcohol Tester

○ Model : AlcoScan ALP-1 ○ Serial No. : Not applicable

4. Test Period : 2013. 09. 03 ~ 2013. 09. 13

5. Test Method/Item : IEC 60529:2001 / IP54

6. Test Environment

○ Temperature : (28 ± 1) ℃ ○ Relative Humidity : (61 ± 5) % R.H.

7. Test Results : Pass

Conformation	Tested by Name B. R. Kim Signature	Approved by Technical Manager Name D. K. Han Signature

☐ This is certified that the above mentioned products have been tested for the sample provided by customer and forbid the use except for original purpose.

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2013. 09. 17

The head of Korea Electrical Safety Corporation Safety Test Center

☐ 338-1, Yeonghwa Dong, Jangan Gu, Suwon City, Gyeonggi Do, 440-819, Korea

Test Report

IEC 60529:2001

KETCO
Safety Test Center

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Customer: Sentech Korea Corp.
Product: Breath Alcohol Tester
Model: AlcoScan ALP-1

1. Test Environment

- Temperature: (28 ± 1) ºC, Relative Humidity: (61 ± 5) % R.H.
- Location: Dust Chamber, IP Water Test Lab.

2. List of Used Equipment

Equipment	Description	Manufacturer	Model	Serial No.	Calibration Valid Until
A-74-01	Dust Chamber	PTL	P14	5040172	2014. 07. 17
A-75-02	Handheld Spray Nozzle	E.D & D	SNZ-01	W0350118	2014. 03. 18
B-01-01	Stop Watch	Time Art	PC-80A	TPST002	2013. 10. 09
B-03-03	Tape measure	HIBO	-	-	2014. 05. 02

3. Test Date

Date of receipt of test item.....:	2013. 09. 02
Test Period.....:	2013. 09. 03 ~ 2013. 09. 13

4. Test Condition: IP54

5. Test Results: Pass

1) Dust Test

Test results for dust protection (first characteristic numeral 5)

Description of test:

1. Degree of protection.

Ingress of dust is not totally prevented, but dust shall not penetrate in a quantity to interfere with satisfactory operation of the apparatus or to impair safety

2. Category for enclosure;

☒ Category 1 ☐ Category 2 ☐ Category 1 and Category 2

3. Testing method:

- The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50 µm and the nominal width between wires was 75 µm.
- The amount of talcum powder was 2 kg per cubic meter of the chamber volume.
- The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume.

Category 1

☐ If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h.

☒ If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed.

4. Test conditions

The enclosure shall be deemed category 1 unless the relevant product standard for the equipment specifies that the enclosure is category 2

5. Acceptance conditions

The protection is satisfactory if, on inspection, talcum powder has not accumulated in a quantity or location such that, as with any other kind of dust, it could interfere with the correct operation of the equipment or impair safety. Except for special cases to be clearly specified in the relevant product standard, no dust shall deposit where it could lead to tracking along the creepage distances.

6. Test result: Pass

2) Water Test

Test results for water protection (second characteristic numeral 4)

Description of test

1. Degree of protection.

Water splashed against the enclosure from any direction shall have no harmful effects.

2. Testing method :

☐ A) Test device to verify protection against spraying and splashing water(oscillating tube)

☒ B) Hand-held device to verify protection against spraying and splashing water(spray nozzle)

- Test condition:

☐ A) 0.07 L/min ± 5 % per hole;

Tube radius R : mm

Number of open holes: N

Total water flow: L/min

☒ B) 10 L/min ± 5 %

A) The tube is caused to oscillate through an angle of almost 360°, 180° on either side of flow vertical, the time for one complete oscillation (2 x 360°) being about 12 s.

B) The counterbalanced shield is removed from the spray nozzle and the enclosure is sprayed from all practicable directions.

- Minimum test duration: 5 min

☐ Distance from the tube to the enclosure surface: 200 mm max.

☒ Distance from the spray to the enclosure surface: 300 ~ 500 mm

3. Acceptance conditions:

Dielectric strength test: N/A

It shall not;

- be sufficient to interfere with the correct operation of the equipment or impair safety;
- deposit on insulation parts where it could lead to tracking along the creepage distances;
- reach live parts or windings not designed to operate when wet;
- accumulate near the cable end or enter the cable if any.

4. Test result: Pass

Photo Documentation

KETI CO
Safety Test Center

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Customer: Sentech Korea Corp.
Product: Breath Alcohol Tester
Model: AlcoScan ALP-1

[Specimen]

1. Test Condition (IP54 Test)

1) Dust test for first characteristic numeral 5
   - Depression: 2 kPa
   - Duration of time: 8 h
2) Water test for second characteristic numeral 4
   - Delivery rate: 10 L/min
   - Duration of time: 5 min

2. Applicant & Model

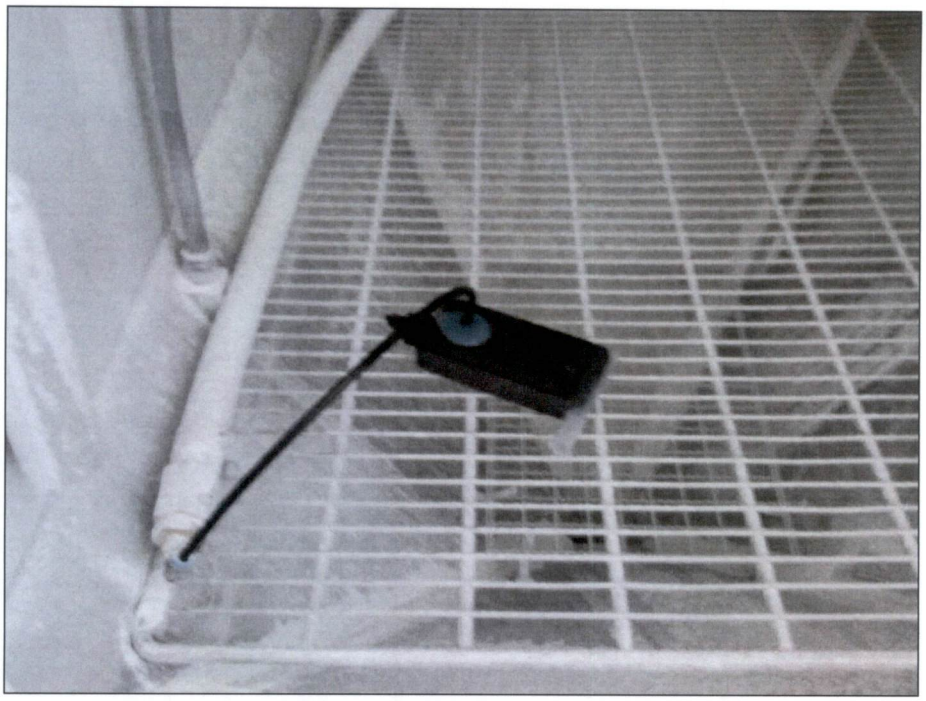
- Sentech Korea Corp. / Breath Alcohol Tester (AlcoScan ALP-1)

3. Test Equipment

- A-74-01, A-75-02, B-01-01, B-03-03

4. Test Figure

1) Dust Test



[Before Test]

[After Test]

Photo Documentation

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Safety Test Center

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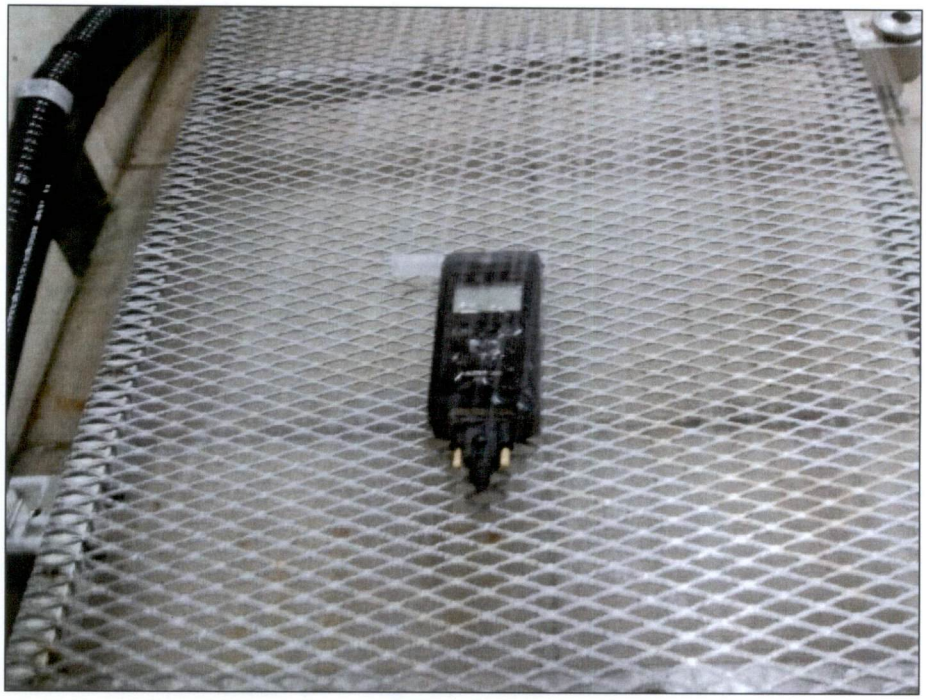
		Model:	AlcoScan ALP-1

2) Water Test



[During Test]