



Shenzhen CTL Testing Technology Co., Ltd.  
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## TEST REPORT

Report Reference No.....: CTL2208179021-IP

Tested by (name + signature).....: Ac Li

Supervised by (name + signature).....: May Guo

Approved by (name + signature).....: Ethan Chen

Date of issue.....: Nov. 10, 2022.

**Testing Laboratory Name.....: Shenzhen CTL Testing Technology Co., Ltd.**

Address.....: Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road,  
Nanshan District, Shenzhen, China 518055s

Testing location.....: **Shenzhen CTL Testing Technology Co., Ltd.**

**Applicant's name.....: Shenzhen QianWen Information Technology Co., Ltd**

**Address.....: Room 201, Building A, No. 1, Wanqian 1st Road, Qianhai  
Shenzhen-Hong Kong Cooperation Zone, Shenzhen, China.**

### Test specification:

Test specifications / Test standard : Verification test according to sub-clause 13.4 and 14.2.7(IP67) of IEC 60529:1989+A1:1999+A2:2013

IP code.....: IP67

Test procedure.....: Test report

Non-standard test method.....: N/A

**Test item description.....: Radio Frequency Identification**

Trade Mark.....: N/A

Manufacturer.....: Shenzhen QianWen Information Technology Co., Ltd  
Room 201, Building A, No. 1, Wanqian 1st Road, Qianhai  
Shenzhen-Hong Kong Cooperation Zone, Shenzhen, China.

Model/Type reference.....: RF-HM18, RF-HM18-R4, RF-HY18R-R4

Test result : Refer to the next pages.



## 1. Function / Description :

Radio Frequency Identification powered by DC24V, electronic components mounted on PCB, housed with plastic enclosure.

RF-HM18, RF-HM18-R4, RF-HY18R-R4 have same electrical circuit, PCB and BOM, Only model's name are different for marketing requirement.

All tests were conducted on the representative model RF-HM18

## 2. Summary of testing and conclusion :

### Clause 13.4

- The test is made using a dust chamber.
- The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50  $\mu\text{m}$  and the nominal width of a gap between wires 75  $\mu\text{m}$ . The amount of talcum powder to be used is 2 kg per cubic meter of the test chamber volume.

### Clause 14.2.7

- The lowest point of enclosures with a height less than 850 mm is located 1 000 mm below the surface of the water
- The highest point of enclosures with a height equal to or greater than 850 mm is located 150 mm below the surface of the water
- The duration of the test is 30 min.
- The water temperature does not differ from that of the equipment by more than 5 K. However, a modified requirement may be specified in the relevant product standard if the tests are to be made when the equipment is energized and/or its parts in motion.

The test was done in the Shenzhen CTL Testing Technology Co., Ltd.;

Tests were performed on Oct.21, 2022.

**3. Test Result:**

CLAUSE	Verdict
13.4 Test for first characteristic numeral 6 (IP6X)	Pass
After Testing:	Pass
<ul style="list-style-type: none"><li>No dust enter into the enclosure inside.</li></ul>	Pass

CLAUSE	Verdict
14.2.7 Test for second characteristic numeral 7 (IPX7)	Pass
After Testing:	Pass
<ul style="list-style-type: none"><li>No water enter into the enclosure inside.</li></ul>	Pass
<ul style="list-style-type: none"><li>After test, The sample can be operated normally, No damage to the safety of the sample</li></ul>	Pass
<ul style="list-style-type: none"><li>Electric strength test: between live part and enclosure: 500Vac / 1 min</li></ul>	N/A

#### 4. Photo document

Photo 1 Side View

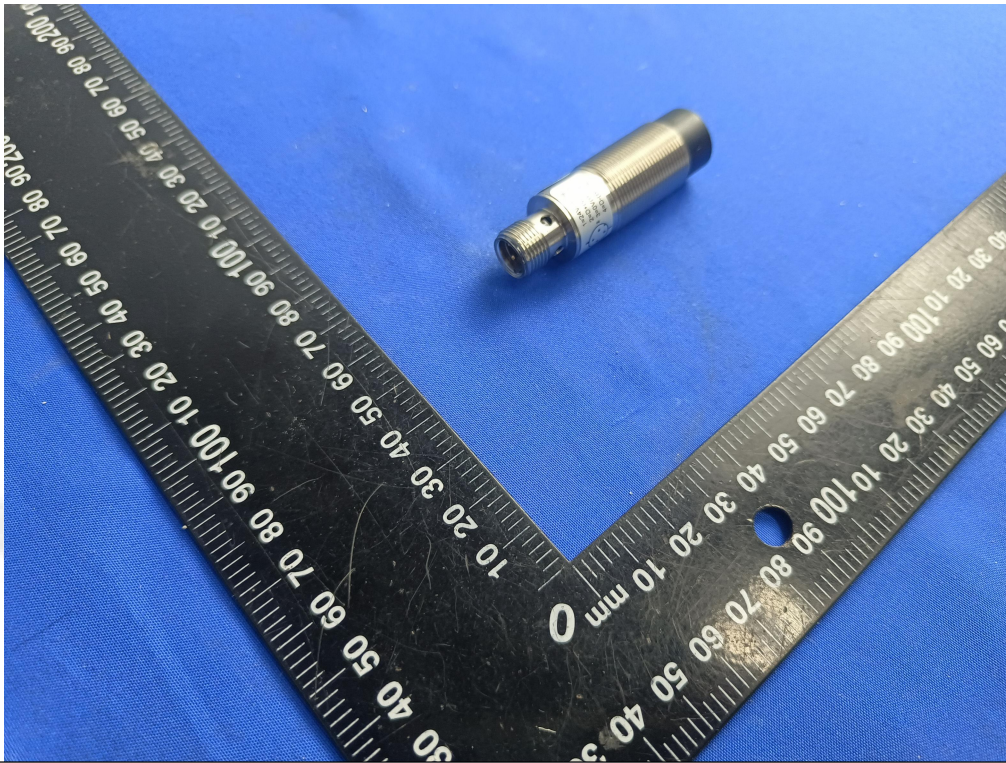
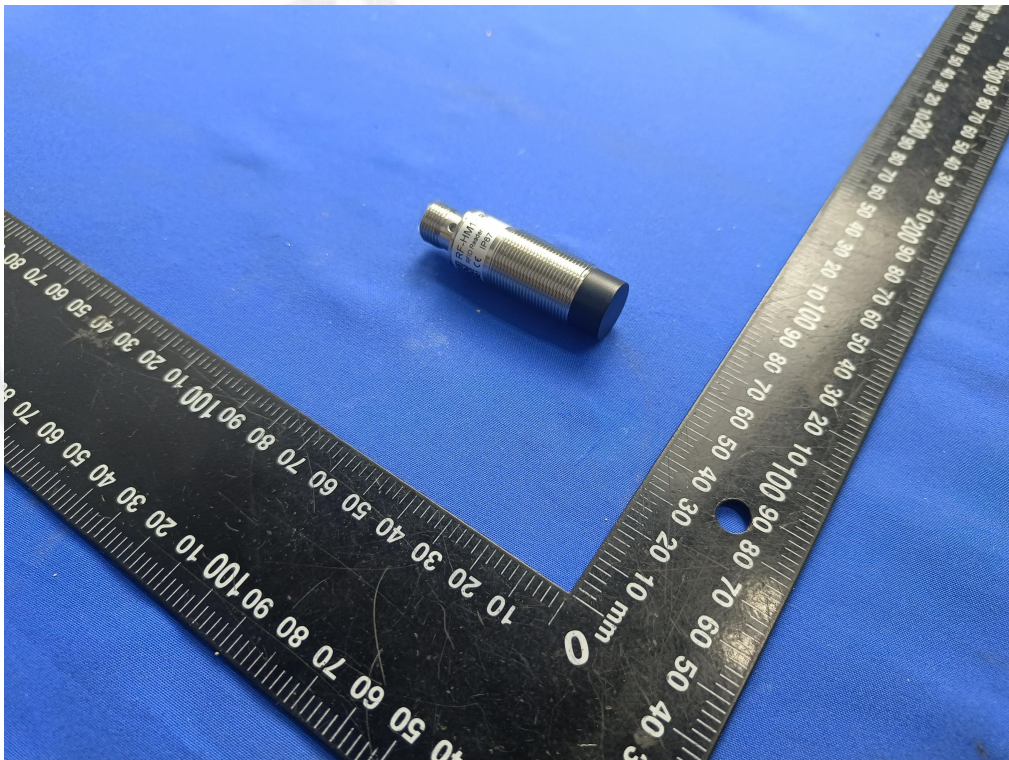


Photo 2 Side View





**Photo 3 Before test view (IP6X)**



**Photo 4 Testing view(IPX7)**

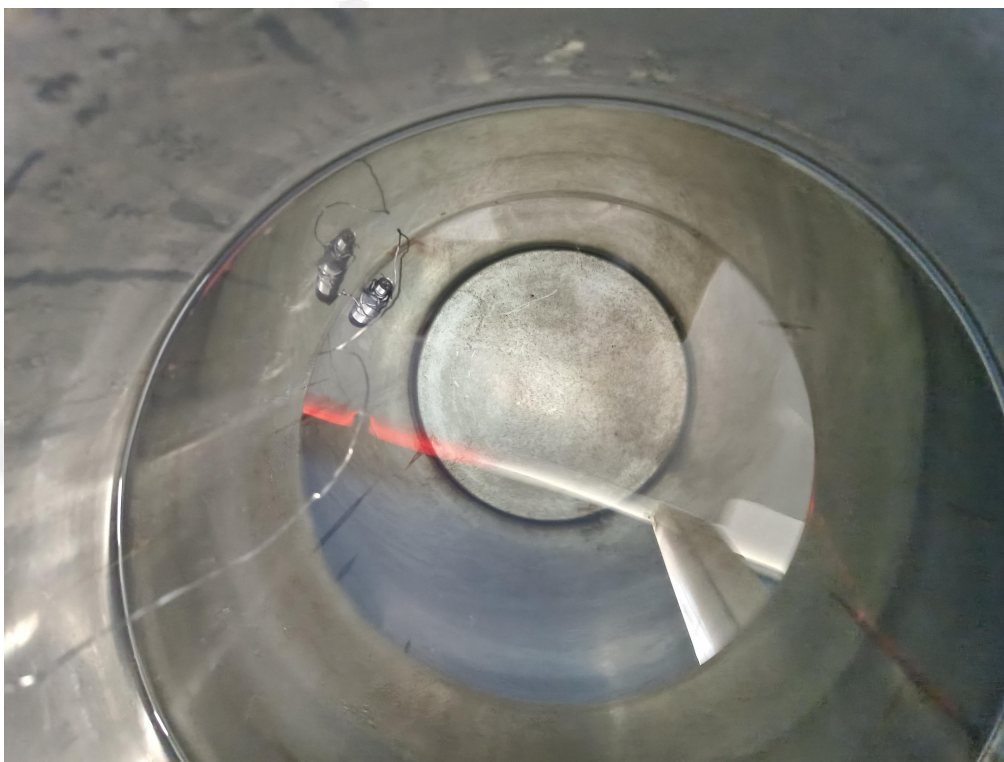


Photo 5 After test view



--- End of Report ---