

# TESTREPORT

KOTITI No. | 82244001100165

To | Hanwha Vision Co., Ltd

Date In | Jul. 10, 2024

Date Out | Jul. 11, 2024

## 1. Client

- o Name : Hanwha Vision Co., Ltd
- o Address : 6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA

## 2. Test Sample

- o Name : NETWORK CAMERA
- o Model : TNV-C7013RC

## 3. Use of Report : Quality Control

## 4. Test Period : Jul. 10, 2024

## 5. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

- o Address : 122, Deurimsandan-ro, Cheongbuk-eup, Pyeongtaek-si, Gyeonggi-do

## 6. Test method used : ISO 2060529:2023

## 7. Test Results : Attached to Table 4 on page 5

|             |                     |                    |
|-------------|---------------------|--------------------|
| Affirmation | Prepared by         | Technical Manager  |
|             | Name : Yong Sik Cho | Name : Woo Bum Lee |

**KOTITI** Testing & Research Institute



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1. Test Sample



Fig. 1) Test Sample\_front



Fig. 2) Test Sample\_back

Table 1) Information of Test Sample

| Specimen       | Model       | Serial number   | Quantity (EA) |
|----------------|-------------|-----------------|---------------|
| NETWORK CAMERA | TNV-C7013RC | ZTVM70GW40000AV | 1             |

2. Test Equipment

Table 2) Information of Equipment

| Equipment name | Model name  | Manufacturer    | Next Calibration Date |
|----------------|-------------|-----------------|-----------------------|
| IPX9K Tester   | JFMA-015-9K | JFM Engineering | 2024.07.25            |

### 3. Test Condition

#### 3.1 IPX9 Test

3.1.1 Test Standard: ISO20653:2023

3.1.2 Test Method: Proceed according to detailed test conditions in Table 3 and Fig 2

3.1.3 Judgement: Check inside product after test

Table 3) Detailed Test Conditions

| 2nd code element | Nozzle degree (°) | Nozzle Distance (mm) | Water temp (°C) | Water pressure (kPa)   | Water flow rate (L/min) | Exposure time (sec) |
|------------------|-------------------|----------------------|-----------------|------------------------|-------------------------|---------------------|
| 9                | 0, 30, 60, 90     | 100 ~ 150            | $80 \pm 5$      | Approx. 8 000 ~ 10 000 | 14 ~ 16                 | 30<br>(Each nozzle) |

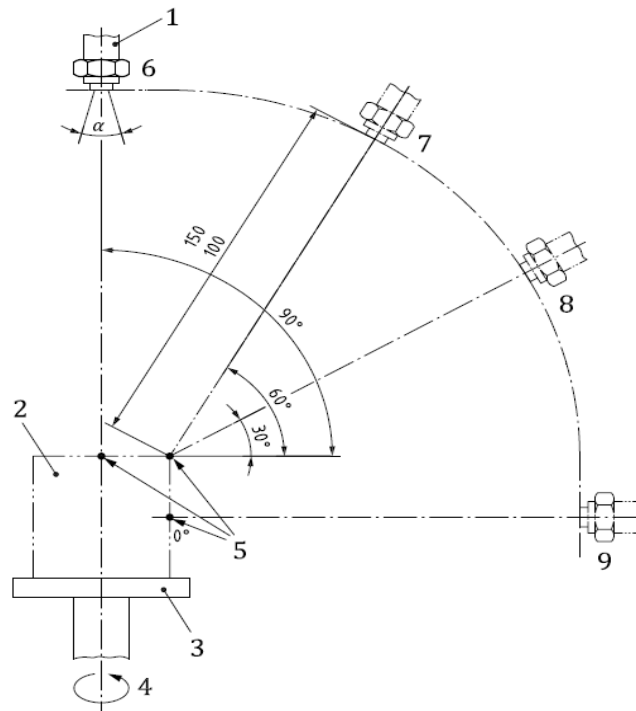


Fig. 3) Test equipment configuration

## 4. Test picture



Fig. 4) Test Sample Set-up



Fig. 5) Test Sample Set-up\_enlarge



Fig. 6) Nozzle distance



Fig. 7) Test\_water Temp

## 5. Test Result



Fig. 8) Test Sample\_After test\_front



Fig. 9) Test Sample\_After test\_back

Table 4) Test Results

| Specimen       | Test | Results                                                                               | Remarks                          |
|----------------|------|---------------------------------------------------------------------------------------|----------------------------------|
| NETWORK CAMERA | IPX9 | Check empty space between lenz and protector after test, there is no ingress of water | ※Judgement:<br>Visual Inspection |

The end.