

# **AVC-MCS102 Datasheet**

Aiming to create better and safer working environments and life experiences through the products we deliver.



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# Manhole NBIoT Sensor for Manhole Security and Water Level Detection

## **AVC-MCS102**

The NBIoT manhole detection sensor can be installed on the bottom of different manholes with high protection IP67 enclosure. It is designed with ARM32 bit low power CPU with position detection and ultrasonic liquid sensor. It is powered by 8000mAh Lithium battery which can last for 3 years under 4 times uplink per day. The Manhole sensor can send real time status of the manhole such as manhole angle and water level to cloud server like ATMS OTA through NBIoT B1/3/5/8/20/28 band. The manhole sensor can be applied for many smart city projects to enhance public safety.









#### Product Features

| Detection Technology        | Leveling Detection and Ultrasonic Detection |  |  |  |  |  |  |
|-----------------------------|---|--|--|--|--|--|--|
| Water Level Detection Range | 8 Meters Vertical                           |  |  |  |  |  |  |
| Detection Object            | Manhole                                     |  |  |  |  |  |  |
| Enclosure                   | IP67  |  |  |  |  |  |  |
| Installation                | Bottom side of Manhole                      |  |  |  |  |  |  |
| Dimension                   | Ф115mm Round, 80mm depth                    |  |  |  |  |  |  |
| Wireless                    | NBIoT (B1/3/5/8/20/28), 1 SIM               |  |  |  |  |  |  |
| Weight                      | 150g  |  |  |  |  |  |  |
| Cloud Protocol              | TCP   |  |  |  |  |  |  |
| Application Platform        | ATMS OTA                                    |  |  |  |  |  |  |
| Operating Temperature       | -40 to 75°C                                 |  |  |  |  |  |  |
| Power Supply                | Industrial battery 8000 mAh@3.6V            |  |  |  |  |  |  |
| Battery Life                | 3 years                                     |  |  |  |  |  |  |

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## **AVC-MCS 102**





#### **Ordering Information**

| Model Name | Description   |
|------------|---|
| AVC-MCS102 | Manhole Tilt Water Level Sensor NBIoT IP67, 8000mAh Battery |



#### ✓ Real Time OTA Management

- · Integrated OTA platform on public Cloud
- · Real-time status of manhole
- · Auto-assign group IP

| vice management     | Devic  | e list > Device repo   | ort history |        |            |          |      |      |         |                    |                    |      |     |       |
|---------------------|--------|------------------------|-------------|--------|------------|----------|------|------|---------|--------------------|--------------------|------|-----|-------|
| Time                | Height | Longitude and latitude | Temperature | Status | Tilt angle | Overflow | Fire | Tilt | Battery | Signal<br>strength | Battery<br>voltage | RSRP | SNR | Frame |
| 2019-12-26 15:11:11 | 291    |                        | 21          | 0      | 3          | 0        | 0    | 0    | 0       | 1                  | 3.63               | -828 | -8  | 14    |
| 2019-12-26 15:04:43 | 241    |                        | 21          | 0      | 22         | 1        | 0    | 0    | 0       | 2                  | 3.63               | -864 | -91 | 13    |
| 2019-12-26 13:07:52 | 297    |                        | 21          | 0      | 3          | 0        | 0    | 0    | 0       | 1                  | 3.63               | -695 | 47  | 12    |
| 2019-12-26 12:21:23 | 186    |                        | 21          | 0      | 6          | 1        | 0    | 0    | 0       | 2                  | 3.63               | -795 | -32 | 11    |
| 2019-12-26 12:17:42 | 306    |                        | 21          | 0      | 61         | 0        | 0    | 1    | 0       | 1                  | 3.63               | -898 | 48  | 10    |
|                     |        |                        |             |        |            |          |      |      |         | <                  | 1 2                | 3 4  | 5 6 | 7     |

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