# Safety and peace of mind for every river.

# eWL004

## Cloud-Based Water Level Monitoring System

A high-precision monitoring system designed to capture sudden rises in water levels caused by unexpected heavy rain. Its compact, maintenance-free design supports the development of monitoring systems for small and medium-sized rivers.

### POINT 1 High-Precision, Fast Measurement

With 60GHz millimeter-wave radar, the system achieves ±1.5cm accuracy.Water levels can be measured in 1 second, with intervals as short as 1 minute *—enabling near real-time monitoring.
This makes it ideal for rivers prone to sudden water level fluctuations.

*When using our cloud server.

The system consists of a water level sensor, power supply unit (solar panel and battery), and communication control unit. Power and communication functions are independent, eliminating the need for cable installation.

### POINT 2 Compliant with Crisis Management Water Level Gauge Standards

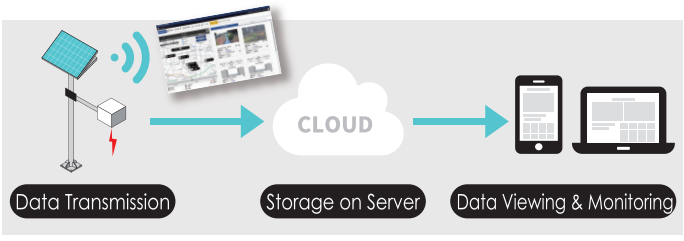
To address increasingly severe flood disasters, Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) launched the "Innovative River Technology Project (Phase 1)" to develop and promote water level gauges dedicated to for flood monitoring. Specifications required by the government were presented, and compliant products were released as "Crisis Management Water Level Gauges."
Our company also participated in this project, developing the compliant model "eWL001A." The features of that model have been inherited and enhanced in this successor product.

### Key Features

- Maintenance-free operation for over 5 years
- Supports long-distance measurement (up to 50m)
- Compact design (approx. 10cm square) for easy installation on bridges and similar locations
- Rugged, waterproof and dustproof design (IP66/67)


### POINT 3 Check Water Level Data via the Cloud

Water level data is automatically sent to the cloud, accessibleanytime from your smartphone or PC.

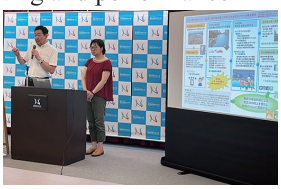



### Customizable Display Options

On the web, water level data is displayed with intuitive visuals such as river cross-sections and water level graphs -for easy understanding.
Display options can be customized to meet your needs, enabling accurate assessment of flood risks.

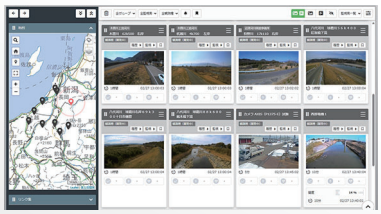
## Developed Through Industry-Academia Collaboration!

This product employs a highly accurate 60GHz millimeter-wave radar that is less affected by surrounding environments. In 2023, it was adopted into the Ministry of Internal Affairs and Communications' "SCOPE" program. Through collaboration with Nagaoka University of Technology, we conducted extensive testing and performance improvements.
Leveraging this experience,we developed a more efficient water level gauge, refined through feedback from multiple field demonstrations.



## Achieve Higher Accuracy by Combining with River Monitoring Cameras!

By integrating this product with river monitoring cameras, both water level data and still images can be collected simultaneously, enabling a more effective flood monitoring system.
All data can be viewed on a single screen and used as integrated river disaster prevention information.



**Our Latest In-House Developed River Monitoring Camera**

Cloud-Based Disaster Monitoring Camera System

# eT002

As of March 2025, arround 2,500 units are in operation across 6 regional development bureaus and over 25 local governments, including previous models.

### Install Anywhere
Operates with solar power and LTE connectivity, making it installable even in areas without infrastructure.

### Clear Nighttime Imaging
Equipped with a high-sensitivity camera module, enabling clear images with near-daylight brightness even at night.

### Flexible Angle Adjustment
The varifocal lens allows flexible adjustment between wide-angle and zoom, enabling customizable coverage.

## Specifications

### ■ Water Level Sensor | eWL004

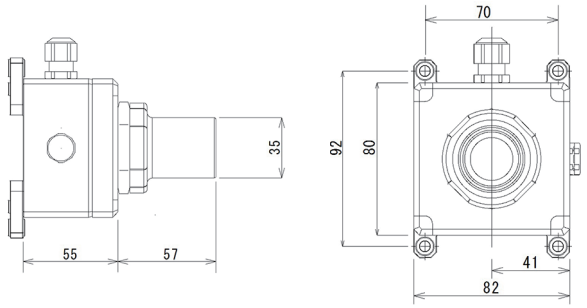
| | |
|---|---|
| Measurement Method | FMCW Radar |
| Transmission Frequency | 60GHz band, compliant with ARIB STD-T48 |
| Measurement Range | 0.65 ~ 50m (distance to water surface) |
| Minimum Reading Unit | 1cm |
| Measurement Accuracy | ±1.5cm (for distances 0.65m to under 10m) |
| | ±0.15% (for distances 10m to 50m) |
| Weight | 0.5kg (excluding mounting bracket) |
| Observation Standard | Crisis Management Water Level Gauge Standard<br>• Compliant with Autonomous Water Level Gauge Specifications (Jan. 23, 2018) |
| Communication & Transmission Standard*<br>*Supported by dedicated communication controller | Crisis Management Type<br>• Compliant with "Draft Cloud Water Level Transmission Standard" (Apr. 5, 2018) |

### ■ Cloud Server

| | |
|---|---|
| System | Internet Cloud System |
| Service Information | Water level, power status, and other maintenance information |
| Alert Function | Email notifications based on preset water levels |
| Control Function | Start/stop water level monitoring and automatic observation intervals |
| Data Retention | 6 months (basic service configuration) |

### ■ Size & Dimensions

(Unit : mm)




eTRUST Co., Ltd.

6F, Sorimachi Shoji Building, 1-3-5 Taito, Taito-ku, Tokyo 110-0016, Japan

+81-3-5246-4531 eigyo-honsya@etrust.ne.jp

https://www.etrust.ne.jp/