



# SEWER MONITORING

KernelSphere



## Sewer Level Monitoring

Most of the cities adopted underground drainage system. But it's difficult, yet necessary to maintain the system. Failure of which would lead the waste water overflows and accidents. This device monitors the manhole waste water level height to prevent from the overflow of waste water from the manhole. It is designed with Ruggedized ultrasonic level sensor which works in type of harsh environments. Its sensor has featured with real time auto calibration and noise rejection to get accurate level. This Device works with LoRAWAN Network which gives ultra low power consumption and provides long range coverage .It is powered with long lasting battery. This device is easy to install in the manholes and requires very low maintenance.

Its monitoring application can be visualized and analyzed in the secured web application dashboard and mobile app. It gives Continuous live data monitoring of waste water level in sewer to prevent the overflow. It gives complete comprehensive data analytics dashboard of sewer which helps to take us preventive and proactive decisions. It gives alerts via SMS & Email when waste water level crosses the certain threshold level. It is very cost effective, easy to use monitoring system for sewer overflow prevention.

### Features of Sewer Level Monitoring Device

- Acoustic and electrical noise resistance
- Reliable and stable range data
- Robust Low Cost IP67 standard sensor
- Very low power excellent battery based system
- Very less maintenance required
- Ruggedized weather resistant ultrasonic range finder is used for level sensing
- The alert system ensures no waste waster overflows in the manholes
- Its powered with LoRaWAN Network for low power consumption & long range network
- Reduces labor cost and man power
- Notification over the SMS and Emails when reaches threshold level
- Monitoring application gives complete live and analytical data in web and mobile

### Specifications

Operating Voltage	3.0 V - 5.5 V
Protection Requirements	IP67 Rated
Wireless Frequency Band	865-867 ISM
Power Supply	Battery/AC powered
Receive Sensitivity	-136 dBm typ.
Operating Temperature	-10°C ~ 50°C
Dimensions	L:59 x W:24 x 11.5mm
Number of Channel	Configurable 8 channels (SKU-EU)
Transmit Power	+20 dBm
Antenna Type	Internal antennas/External Antenna
Modulation	Based on IEEE 802.15.4g
LED indicator	TBD