Internet of Things

Sensor

SiWa
Sigfox Water Detector

A flood sensor with connectivity to the SIGFOX wireless global network for the Internet of Things (IoT).

The sensor works in the wireless network, and it also contains acoustic alerts for certain situations. In addition to the flood alarm, the flood sensor monitors the temperature when there is a risk of freezing, its position (security element), the network connection test, and the battery status.

Main advantages:

- Wireless connection
- No need to pay for a SIM card for the GSM or to set up an Internet connection
- Easy commissioning - the sensor just has to be activated and registered
- Reliable notification of alarm or technical events via calls, SMS and e-mail
- Simple design - no probes or cables, only the sensor itself

Key features:

- Local acoustic signalling of flooding or incorrect detector orientation
- Detection and sending of alarm and warning events
  - Flooding, drying, incorrect orientation, correct orientation
  - Monitoring the risk of freezing, regular battery check
  - A test button for an immediate connection check
- The sending of alarm and warning messages
  - SIGFOX cloud
  - Supervisory centre (T-Mobile IoT Portal)
  - Calls, SMS, and e-mail for selected contact information (can be set up for multiple users)
- Battery-powered operation for 5 years under normal conditions
- An operating temperature ranging from -10 to +50 °C
- Sensor dimensions 80 x 80 x 40 mm

Sensor operation:

When flooding is detected, the sensor sends a report to the supervisory centre within 10 seconds, where it is distributed among users according to the settings. The sensor also signals flooding acoustically.

The sensor is equipped with a position sensor that monitors its orientation in order to ensure that the sensor is in the correct position and that it functions properly. If its position is incorrect, the sensor first notifies the user acoustically and then sends a report to the centre. The end of all alarms and other warning statuses is also reported to the centre.

Overview of SiWa events:

- **Alarm statuses**
  - flooding
  - drying
  - incorrect position
  - correct position
  - risk of freezing

- **Technical warnings**
  - Sensor failure
  - Low battery
  - A new connection
  - Manual sensor test

- **Notification**
  - Automatic connection testing

FLOODING DETECTION SENSORS

COMMUNICATION OF THE FLOODING DETECTION SENSORS USING THE SIGFOX NETWORK

SIGFOX GATEWAY

SECURED IP CONNECTION

SIGFOX CLOUD

T-MOBILE IOT PORTAL

E-MAIL

VOICE CALL

SMS

REMOTE MONITORING

sigfox