

RKIT Flood Warning System

Flood Warning System With Capacitive Sensor

- **High Reliability With No Moving Parts**
- **Visual And Audible Alert**
- **Designed To Provide Early Warning Of Rising Floodwater**
- **GSM Text Message Alert Option**
- **Radio Link Option For Remote Sensor Installation up to 16km**
- **80db Audible Buzzer**
- **Low Standby Current 2.3w**
- **230vac, 110-230vac, and 24vdc Versions Available**

The RKIT Flood Level Warning Kit provides a visible and audible high level alert using a capacitive water sensor.

A power switch enables or disables the system and a green power lamp confirms that the system is active. Upon the sensor becoming immersed in water a flashing red warning light alerts the user to a potential flood event and is accompanied by a repeating buzzer.

The capacitive sensor can be mounted onto any outdoor structure such as an outside wall or steps, or a point near a water course to provide an early warning of a potential flood event. Early warning is intended to maximise the time available to install flood defences, activate drainage pump systems, move vehicles and objects of value.

The sensor is encapsulated in plastic with no moving parts and will survive all weather and long term immersion. Water detection is achieved by sensing the electrical properties of a body of water surrounding the sensor, which can only be triggered by immersion and will not false alarm in rain, humidity, or when splashed.

The standard 230VAC versions are suited to most permanent buildings while the 110VAC versions are intended for use on temporary worksites and are ideal for monitoring excavations. An extra-low-voltage 24VDC version is intended for marine and portable use and incorporates a 5 second time delay before triggering the alarm, making it suitable for moving water in bilges and compartments.

Mains powered RKIT installations should be supplied by a power located situated above the warning level of the sensor. A green Power-On light remains lit at all times to indicate a valid power supply.



RKIT1

For remote or unattended locations, RKIT5T includes a GSM module which will send a text message alert to up to 4 phone numbers in the event of a flood.

Additionally RKIT5T can be configured to place a phone call to some or all recipients as an additional audible alert.

The same flashing lamp and buzzer as other RKIT versions also provides a local alarm, as well as the green power-on lamp to verify the system is powered and ready.

RKIT5T is mains powered but runs internally at 24VDC, and so can easily be configured for 24V power supplies, battery backup, or remote solar powered deployment.

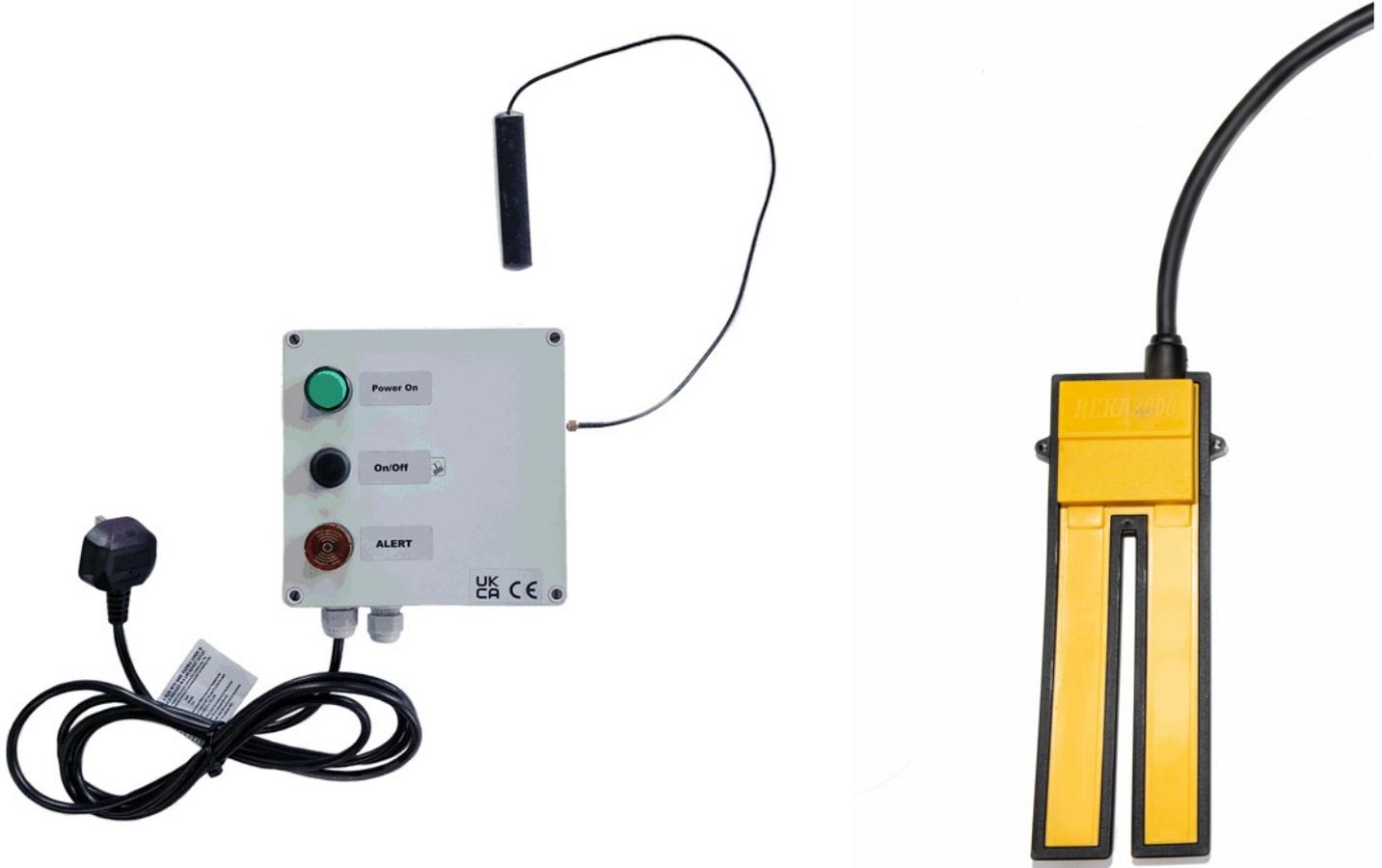
For locations without a reliable mobile signal, we can upon request provide a long range radio connection between local and remote warning panels using LoRa FM radio up to 16km in open ground, or over longer distances using repeater stations. This can be to a remote beacon or sounder, and/or a GSM module located in a zone that has reliable mobile reception.

For deployment where no electrical supply exists, we can provide a battery based system ready for connection to a solar charge controller.

R versions contain an output relay capable of handling up to 20A at 250VAC with normally open and normally closed contacts. This can be used for connection to BMS systems of more powerful external sounders, or to operate motorised flood barriers or pumps.

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CODE	CABLE LENGTH	SUPPLY VOLTAGE	SENSOR VOLTAGE	MAXIMUM CABLE LENGTH	ALERT
RKIT1	10m	230VAC		1000m	Flashing Lamp + 80db Buzzer
RKIT2	40cm				
RKIT3	10m	110VAC		100m	
RKIT4	40cm				
RKIT5	10m	12-24VDC			
RKIT6	40cm				
RKIT5T	10m	230VAC	24VDC		Flashing Lamp + 80db Buzzer + GSM Text Message
RKIT1R	10m	230VAC			1000m
RKIT2R	40cm				
RKIT3R	10m	110VAC		100m	
RKIT4R	40cm				
RKIT5R	10m	12-24VDC			
RKIT6R	40cm				
RKIT5TR	10m	230VAC	24VDC		Flashing Lamp + 80db Buzzer + GSM Text Message + Relay Output

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Flood Warning System With Capacitive Sensor

Capacitive Sensor Technical Details				
	RKIT1, RKIT2	RKIT3, RKIT4	RKIT5, RKIT6	RKIT5T
Physical				
Dimensions	93mm(W) x 31mm(D) x 250mm(H)			
Weight	240g			
Material - Body	Polypropylene			
Mounting	Vertical, Surface Mounted, 2 screw holes			
Max Operating Pressure	0.2 Bar			
Electrical				
Power Supply	230VAC		24VDC	
Power Consumption	10mA	20mA		200mA
Output	230VAC 10A(AC1) 4A(AC3)	110VAC 10A(AC1) 4A(AC3)		12-24VDC 10A
Dielectric Strength	1500V			
Level Sensing	Capacitive (No electrical contact with sensed fluid)			
Environmental Limits				
Storage Temperature	-20°C to + 80°C			
Operating Temperature	Up to 50°C			
Ingress Protection	IP68 Suitable for continuous immersion			
Maximum Immersion Depth	2m			

Display Unit Technical Details				
	230VAC	110VAC	24VDC	230VAC
Physical				
Dimensions	110mm(W) x 100mm(D) x 180mm(H) excluding cable glands			180mm (W) x 182mm(H) x 100mm(D) excluding cable glands
Weight	200g			350g
Material - Body	Polystyrene (HIPS)			
Mounting	Vertical, Surface Mounted, 4 screw holes			
Alarm	Visual and Sounder 80db			
Electrical				
Power Supply	230VAC	110VAC	24VDC	230VAC
Power Consumption	25mA (35mA including sensor)	50mA (70mA including sensor)	80mA (280mA including sensor)	30mA (40mA including sensor)
Electrical Class	Class 1			Class 2
Environmental Limits				
Storage Temperature	-20°C to + 80°C			
Operating Temperature	Up to 45°C			
Ingress Protection	IP65 Splash resistant			
Maximum Immersion Depth	2m			

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