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MINIATURE WATER DETECTION MODULES— AQUATEK 1 & 4; and AQUASWITCH



The AquaTek is a development on the larger Aqualeak "WATERBUG" range of Water Leak Detection Modules which have been widely used in Switching Centres, IT Complexes and Telephone Exchanges throughout UK, Europe, USA, Africa and the Far East. The AquaTek comes in four system variants, being the **Mini AquaTek**, the **AquaTek+Plus**, the **AquaTek 4** and the **AquaSwitch**. Specialised versions are also available..

The **Mini AquaTek** is an entry level 'black box' miniature Water Leak Detection Alarm designed as stand-alone module to only provide an alarm signal to a Building Management System or other Remote Alarms. This unit can also be linked to a Nursecall type alarm systems and would be the 'sensor module' for **wireless** or **SMS** Water Detection Systems. The AquaTek is a self contained module provided in a single gang housing which can be powered from either an external mains power supply, or from a 'PP3' Battery. The unit is designed to provide an output signal via on-board relay changeover contacts rated 230VAC 2amp. The AquaTek is designed to monitor for water leaks from Aqualeak Sensor Cables or Tapes, Sensor Pads, Sensor Probes, and other specialised Aqualeak Sensors. When powered from a PP3 Battery, the AquaTek will operate for approximately one year (passive) before the battery needs changing. The basic operation of the system is as defined for the AquaTek+Plus below.

The **AquaTek+Plus** is a miniature sophisticated Liquid Leak Detection Alarm designed as stand-alone module to provide local audible and visual alarms and also provide an alarm signal to a Building Management System or other Remote Alarms. The AquaTek circuit is based on a two-wire sensing system and uses a very safe low voltage 9VDC high impedance field sensing signal to detect the presence of water. Like the Mini AquaTek, the AquaTek+Plus is a fully self contained module which can be powered from either an external mains power supply, or from a 'PP3' Battery, or from a low voltage control power supply. The AquaTek+Plus is fitted with an LED Alarm Indicator, an internal Sounder and an external Mute Button. When water is detected by the Sensor, the Indicator illuminates, the horn sounds and the internal signalling relay activates. The horn can be muted by pressing the Mute Button but the Indicator will remain illuminated until the condition clears, when it automatically resets. The alarm Relay provides N/O or N/C changeover contacts. The AquaTek is designed to monitor for water leaks from Aqualeak Sensor Cables or Tapes, Sensor Pads, Sensor Probes, and other specialised Aqualeak Sensors. The AquaTek+Plus module would require to be mounted on the wall, connected to the appropriate power supply, and connected to the water detection sensor/s by a Leader Cable. The AquaTek housing has rear and sideway knockouts, or can be fitted with standard glands. The Leader Cable distance between the AquaTek and the Sensor/s, or the maximum linear Sensor Cable sensing distance, should not exceed 30m. When monitoring from multiple Sensors, these should be connected by Leader Cable and wired in parallel. Connections to a BMS or a Remote Alarm system are direct to the AquaTek relay terminal block.

The **AquaTek 4** Module operates on a generally similar principle to the Units above but offers four separate zones of detection and uses a very safe low voltage 12VDC high impedance field sensing signal to detect the presence of water. Each zone is provided with local audible and visual alarms via zone LED Alarm Indicators, an internal Sounder and an external Mute Button. Additionally, each zone is provided with individual zone sensitivity adjustment to allow for specific site conditions. When water is detected by the Sensor, the Indicator illuminates, the Horn sounds and the internal signalling Relay activates. The Horn can be muted by pressing the Mute Button but the Indicator will remain illuminated until the condition clears, when it automatically resets. The AquaTek 4 is designed to operate from the standard mains power supply, or from a constant low voltage control power supply, and provides a 'common alarm' no-volt output signalling Relay rated at 230VAC 8amp with 'Normally Open/ Closed' change-over contacts. The AquaTek 4 can also be provided with optional individual zone change-over signalling relays rated 230VAC 2amp. The AquaTek 4 Module can also be used to provide 'common alarm' water valve shutoff facilities via a Solenoid Valve should water be detected by any zone. A further optional feature can be provided for valve control by pressing an optional latching button on the outside of the cabinet. This would override the water detection circuit and immediately re-open the valve. Valves can be supplied 'normally open' or 'normally closed'. As all the AquaTek modules are entry level economy systems, units are not provided with line monitoring facilities. The AquaTek 4 system is contained in a plastic housing and units can be provided with IP rating.

The **AquaSwitch** was developed to monitor electrical appliances such as Washing Machines or Dishwashers which can flood because of the failure of the internal water level control not closing the solenoid water-fill valves. The AquaSwitch twin gang housing is connected by a mains cable to an existing power socket, and would require to be located adjacent to it. In one side of the housing is the AquaTek and in the other a standard mains socket into which would be plugged the Washing Machine. When water is detected by the Sensor, a mains rated 8amp relay would activate and the Washing Machine would automatically be switched off. Shutting off the power can result in the washing machine solenoid valves closing, thereby stopping further flooding. The AquaTek self re-activates when the leak has cleared and automatically reactivates the power supply. The AquaSwitch can be also be used to control individual electrical apparatus in Schools, Hospitals, Laboratories, Aquariums, etc.

AquaTek /+ Power Supply : 9-24VDC-AC/110VAC/230VAC	Power Usage :30mA min.	Relay Rating : 230V AC 2amp	Size mm: 80W x 88H x 55D
AquaTek 4 Power Supply : 9-24VDC-AC/110VAC/230VAC	Power Usage :50mA max.	Relay Rating : 230V AC 1x2; 1x8amp	Size mm: 120W x 122H x 60D
AquaSwitch Power Supply : 9-24VDC-AC/110VAC/230VAC	Power Usage :30mA max	Relay Rating : 230V AC 1x2; 1x8amp	Size mm: 174W x 88H x 48D

Suitable Aqualeak Linear Sensors	WC / DCS / DCD Linear Water Detection Sensor Cables; ST and AF Linear Sensor Tapes
Suitable Aqualeak Pad Sensors	FS2 and FS2/P Floor Mounted Spot Pad Sensors; FS2/R Adjustable Rain Detection Sensor
Suitable Aqualeak Probe Sensors	FS3 Wall Mounted Probe Sensors, FS4/S and FS4/SB Adjustable, MiniClip Floor Sensors
Suitable Aqualeak Level/Line Sensor	FS5 Adjustable Pipeline / Tank / Cistern / Overflow / Drain / Gutter / Manhole Probe Sensors

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