1.1

Water Leak Detection system

A system for early detection of water leaks at particular locations in any water-dependent appliance and apparatus used in buildings such as homes, townhouses, apartments, mobile homes, and offices. A central control apparatus electrically interconnected with a plurality of circuits which enable water leaks to be accurately detected in a diversity of devices including air conditioners, compressor coils, hot water appliances, and pipes, and for communicating the severity of the water-related problem. A plurality of water sensors are incorporated into specially designed probes of the preferred embodiment wherein water leaks may be accurately and reliably detected in a diversity of water-dependent appliances and devices. The product shall be designed and should be easily installed and to be inherently devoid of any safety hazards. The total area under protection shall be divided into multiple zones. When there is a potential leak detected, the product shall be able to locate the zone(s) in which the leak has occurred with the corresponding zone name.

1.2

Main Control Panel

The main control panel shall be a microcontroller based intelligent system capable of accepting 4 / 8 sensor cables. The system shall have LCD / LED display unit and keypad for user interface. The sensing technology shall be AC excitation, and shall not use DC supply for leak detection. The AC excitation is preferred because of sensor cable getting degraded due to scale formation do to the electrolysis associated when DC excitation. The panel shall have potential free relay outputs for fire, fault, Hooter etc. Individual alarm relay output shall be provided for each zone. The panel shall have MODBUS connectivity built in and shall communicate to any BMS for integration. All necessary hardware, interface card shall be included in the panel. No external module shall be connected to the main panel for leak detection.

1.3

Sensor cable

The water leak sensor cable shall be twin insulated embodiment made up of PVC material. The sensor cable shall be SS316 grade or equivalent element. The elements shall be constructed in such a way that the “**λ**”distance between the consecutive twist shall be maintained.