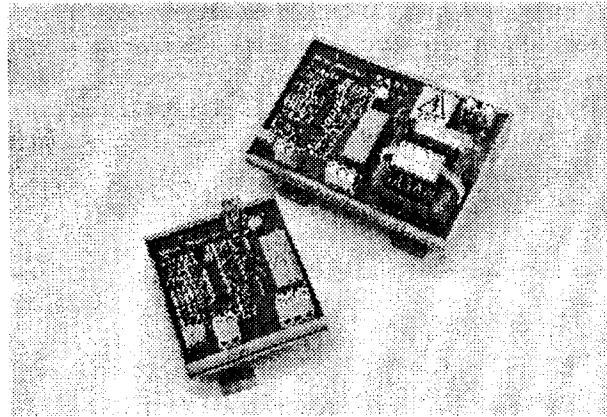


WD-AM WATER DETECTION RELAY MODULES



Technical overview

The **WD-AM** is a single zone water leak detection module, designed for DIN rail mounting inside AHU's power distribution units, or other equipment where localised leak detection is required. Up to 200m of detector tape **WD-TS1** or cable **WD-CS1** can be connected, or up to 4 rain detectors **WD-RS1** or point detectors **WD-PS1**. The cable excitation used is an isolated AC signal which ensures the detector tape will not be subject to oxidation or erosion over time, avoiding the degradation problems associated with DC systems. A relay output provides an alarm signal for connection to a BEMS controller, or remote alarm annunciation panel such as the **UI-AA1**. LED alarm indication is also provided. Detection sensitivity is adjustable to allow fine tuning to suit local conditions.



- * Can be used with tape, cable or remote sensors
- * AC detector excitation for reliability
- * LED indication of alarm condition
- * 24Vac/dc powered (230Vac option)
- * DIN rail mounting
- * Adjustable sensitivity
- * Audible alarm option

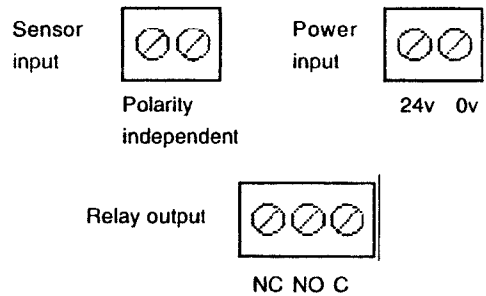
Specification:

Supply voltage	15 - 30 Vac/dc ($\pm 10\%$) 230 Vac mains option
Supply current	50 mA max
Output	Relay (see connection details)
Relay contacts	12A @ 240Vac
	L.E.D. indication
Response time	< 1 sec. after exposure
Max. sensor tape length	200 Metres
Max. sensor cable length	200 Metres
Alarm hysteresis	Dependent on sensitivity
Audible alarm output (where fitted)	85 dB @ 2.3kHz at 10 cms.
Housing	DIN rail carrier
Dimensions	(77H x 67W x 44D) mm
Ambient temp.	0 / +40 °C
Weight	125 g
Country of origin	UK

Installation:

With the sensor connected to the input, apply power to the module. Adjust the 20-turn pot VR1 clockwise until the LED comes on, and the back until the LED goes off. Less sensitivity may be needed with long runs of sensor connection are used.

Connections:



N.B. Where the audible alarm version is used, the jumper SK5 may be temporarily removed to silence the beeper. This DOES NOT take the LED or relay out of alarm. Only the clearing of the fault condition resets the relay output on any version of the unit.

Product codes:

WD-AM1	24Vac/dc detector unit
WD-AM1A	24Vac/dc detector unit + sounder
WD-AM2	230Vac/dc detector unit
WD-AM2A	230Vac/dc detector unit + sounder
WD-PS1	Point sensor
WD-RS1	Rain sensor
WD-TS1	Sensor tape
WD-CS1	Sensor cable

Data sheet : WD-AM Iss. 3.0 10.9.97

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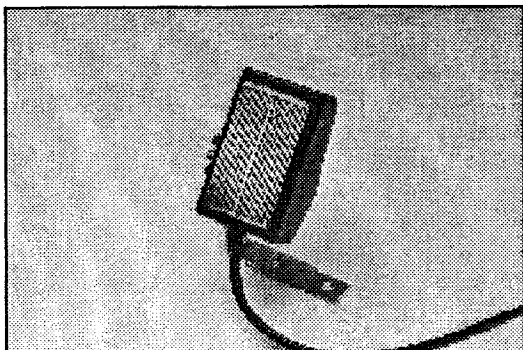
WD-RS1 Rain detector:

The **WD-RS1** is a bracket mounted device which can be connected to a **WD-AM** for the detection of rain. The surface of the detector can be heated to avoid false detection alarms resulting from dew forming. The detector can be swivelled on the mounting bracket and is held in place by a wing-nut.

The heater requires 24 volts @ 40mA max.

The **WD-RS1** is connected to the detector with standard leader cable.

N.B. Bird-cage detection is recommended.



Connections:

Connections are by 4-core flying lead and the terminations are as follows:

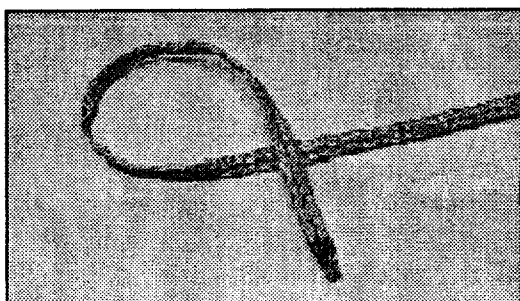
- Red:- To detector
- Blue:- To detector
- Yellow:- Heater 24 Vac/dc
- Green:- Heater 0V

Dimensions:

- Body 72 x 45 x 32mm Max
- S/S bracket: 65 x 65mm.

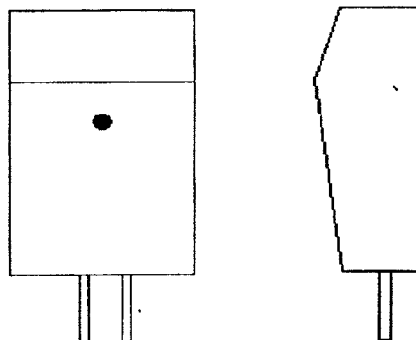
WD-TS1 Sensor tape:

Flat sensor tape for use with the **WD-AM** detector. The tape is covered with a plastic netting to prevent short-circuits when used in metal trays or conduit, and enables the tape to be folded at right-angles to allow easy routing. The tape has an average width of 15mm when enclosed in the plastic netting.



WD-PS1 Point detector:

The **WD-PS1** is a wall mounted device which can be connected to a **WD-AM** for the detection of localised water at a specific point. The **WD-PS1** is connected to the detector with standard leader cable. Up to 4 sensors can be connected, in parallel, into 1 **WD-AM** controller.



Connections:

Connections are by 2-way terminal block and are polarity independent.

Dimensions:

- Body 70 x 43 x 30mm Max
- Steel probes: 8mm long 8mm apart.

WD-CS1 Sensor cable:

Round sensor cable for use with the **WD-AM** detector. The cable has an average circumference of 10mm.

