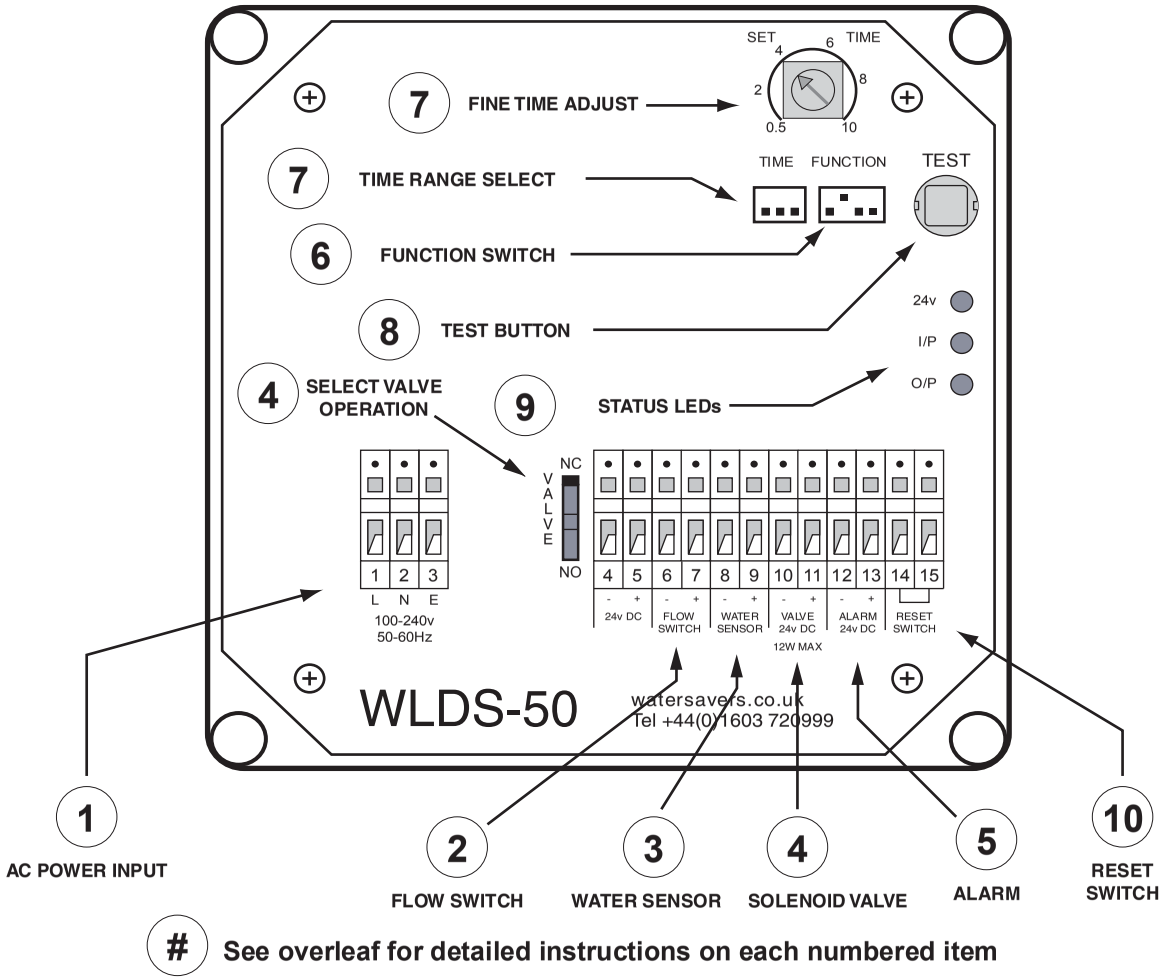
WLDS-50 Water Leak Detection System Installation Instructions

WLDS-50 Water Leak Detection System. Thank you for choosing to purchase this product - it has been designed and manufactured to the highest standards to give years of trouble free service.

We take great care and pride in our products and literature. In the pursuit of continuous improvement we will be pleased to receive any feedback or suggestions that you may have.

GETTING TO KNOW YOUR WLDS-50



See overleaf for detailed instructions on each numbered item

TO ENSURE SUCCESS WITH YOUR WLDS-50 PLEASE READ THESE NOTES CAREFULLY!

Think carefully about your application - choose the correct sensor and solenoid valve. Consider the implications of the water being shut off - particularly in the event of a power cut.

USE A FLOW SWITCH in combination with the Timer to shut off the supply when water has been flowing continuously for greater than the preset time period. See items ② ⑥ & ⑦

USE A WATER SENSOR to detect presence of escaped water on the floor or other surface. See items ③ & ⑥

NC / NO VALVE select for a Normally Closed (preferred) or Normally Open solenoid valve according to requirements. See item ④

SPECIFICATIONS:

Power requirements: Universal input 100 - 240v AC 50/60Hz

Input ② For flow switches with normally open contact

Input ③ For our WS-10 water sensor, 12v DC. Observe polarity Several sensors may be wired in parallel to cover larger areas

Valve output: 24v DC solenoid valve. Normally closed or Normally Open operation can be selected by VALVE slideswitch (located between terminals 3&4)

Alarm output: 24v DC

Maximum load (valve & alarm): 12 watts or 500mA

Timer: adjustable from 0.5 secs to 100 hours by selecting 1 of 6 ranges together with finger / screwdriver fine control

Status leds: Orange, Red and Green leds to show 24v supply, input (sensor) and output (valve) status

Test button: provided to simulate sensor operation and verify function during installation and commissioning

Connections: via 45° screwless terminal blocks, maximum conductor size 1.5mm², cable entry via 4x M12 glands suitable for cable diameters 2.0 to 6.5mm

Enclosure: 130 x 130 x 75mm polystyrene with transparent polycarbonate cover. Protection to IP66 (nearest NEMA 4X).
Weight: 465gm **ROHS** compliant

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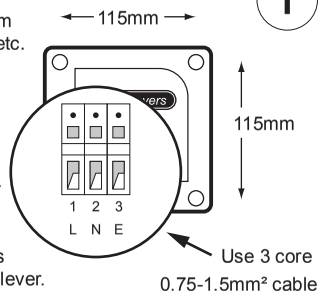
POSITION & FIX WLDS-50 (1)



in suitable position. Keep away from sources of heat, vibration, impact etc. Fixing centres are 115 x 115mm.

Connect 100-240v 50/60Hz supply to WLDS-50 terminals 1, 2, 3 - L N & E respectively. Supply should be fused at 2 amps.

Screwless terminals: strip back insulation 10mm, twist wires, press orange lever, insert wires, release lever.

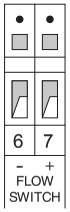
Observe current and local regulations - if in doubt employ a suitably qualified electrician.

PLUMBING

Solenoid Valve: install into the incoming mains water supply downstream from the stopcock. Ensure direction of flow corresponds to arrow on valve body. Coil should ideally by upright. Ensure bo debris, tape etc enters the valve as this can cause the valve to fail.

Flow Switch: install downstream from the solenoid valve. Follow the instructions carefully as some flow switches have to be vertical.

TO USE A FLOW SWITCH (2)



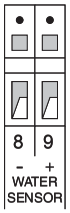
Choose sensor carefully, read instructions before installation. Some flow switches need to be installed in a vertical orientation. Connect switch to terminals 6 & 7

Set **FUNCTION** switch as in (6a)

Set **TIME** to slightly longer than anticipated water use eg if water is drawn for 10 minutes to fill a bath then set timer for 12 - 15 minutes - see (7)

TIP Check that Red I/P LED lights when water flows at above minimum flow rate (approx 1-2 litres/min) (7)

TO USE A WATER SENSOR (3)



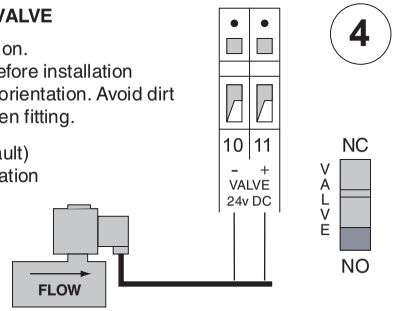
Fix water sensors at floor level where water will gather in the event of a leak. Position gold contacts downwards. Connect WS-10 water sensor to terminals 8 & 9, observe polarity. Black core to terminal 8, red core to terminal 9.

Set **FUNCTION** switch as in (6a)

Several sensors may be connected in parallel to cover more than one area. Keep cables as short as possible.

TIP Satisfy yourself that the sensors are working by bridging the gold contacts with a moist cloth. The Red I/P LED will light to indicate the sensor works, tripping the alarm after 3 seconds.

CONNECTING SOLENOID VALVE (4)

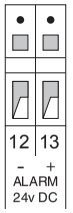


Choose valve to suit application.
Read instructions carefully before installation especially flow direction and orientation. Avoid dirt and debris entering valve when fitting.

Select Normally Closed (default) or Normally Open valve operation using VALVE slide switch

NOTE: Maximum total load is 12W or 0.5 amps

EXTERNAL ALARM (OPTIONAL) (5)



An external 24v DC audible and/or visual (flashing xenon beacon) may be connected to terminals 12 & 13. Observe polarity.

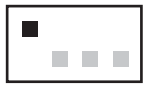
TIP See FUNCTION switch # for setting timeout of the alarm.

FUNCTION DIPSWITCH SETTINGS

FOR FLOW SWITCH (6a)

If the flow switch detects a continuous flow of water for longer than the preset time - the valve closes and the alarm is activated

FOR WATER SENSOR/S (6b)



When water is sensed the valve closes and the alarm is activated

ALARM OPTIONS (6c)

Alarm is activated until the WLDS-50 is reset

The alarm stops automatically after 20 minutes

28 DAY VALVE SERVICE (6d)

(recommended to prevent valve seizure)

Valve closes for 1 second every 28 days

Valve service is disabled

SETTING TIMER (7)

0.5 to 10 seconds

5 to 100 seconds

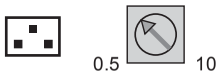
0.5 to 10 minutes

5 to 100 minutes

0.5 to 10 hours

5 to 100 hours

Set range as above then use finger / screwdriver control for fine adjustment



Example: this combination would be approx. 40 seconds

USE OF TEST BUTTON (8)

The TEST button may be used to simulate and override sensor input during commissioning and normal use. Use it also to confirm the correct functionality.

TIP: Set short time period T (1 - 5 secs) when checking functions. Even 1 minute seems like a lifetime to wait!

STATUS LEDS (9)

See what's going on in the WLDS-50 - without removing the cover.

POWER Ok (Orange)	24v
SENSOR ACTIVE (Red)	I/P
VALVE ON (Green)	O/P

RESET SWITCH (OPTIONAL) (10)

Remove existing wire link between terminals 14 & 15.
Opening this circuit immediately removes 24v DC from the WLDS-50, sensors, valve and alarm.
A normally closed switch or relay contact may be wired across terminals 14 & 15 in order to reset the WLDS-50

WHAT TO DO IF THE WLDS-50 ACTIVATES (11)

DISCONNECT WLDS-50 FROM ELECTRICITY. INVESTIGATE THE CAUSE. IF USING WATER SENSORS, REMOVE DRY AND CLEAN BEFORE REFITTING. MAKE GOOD ANY LEAKING FITTING OR APPLIANCE. RESTORE POWER TO WLDS-50

Watersavers

Contact Technical Support on 01603 720999
or email with any queries - we are here to help you!

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