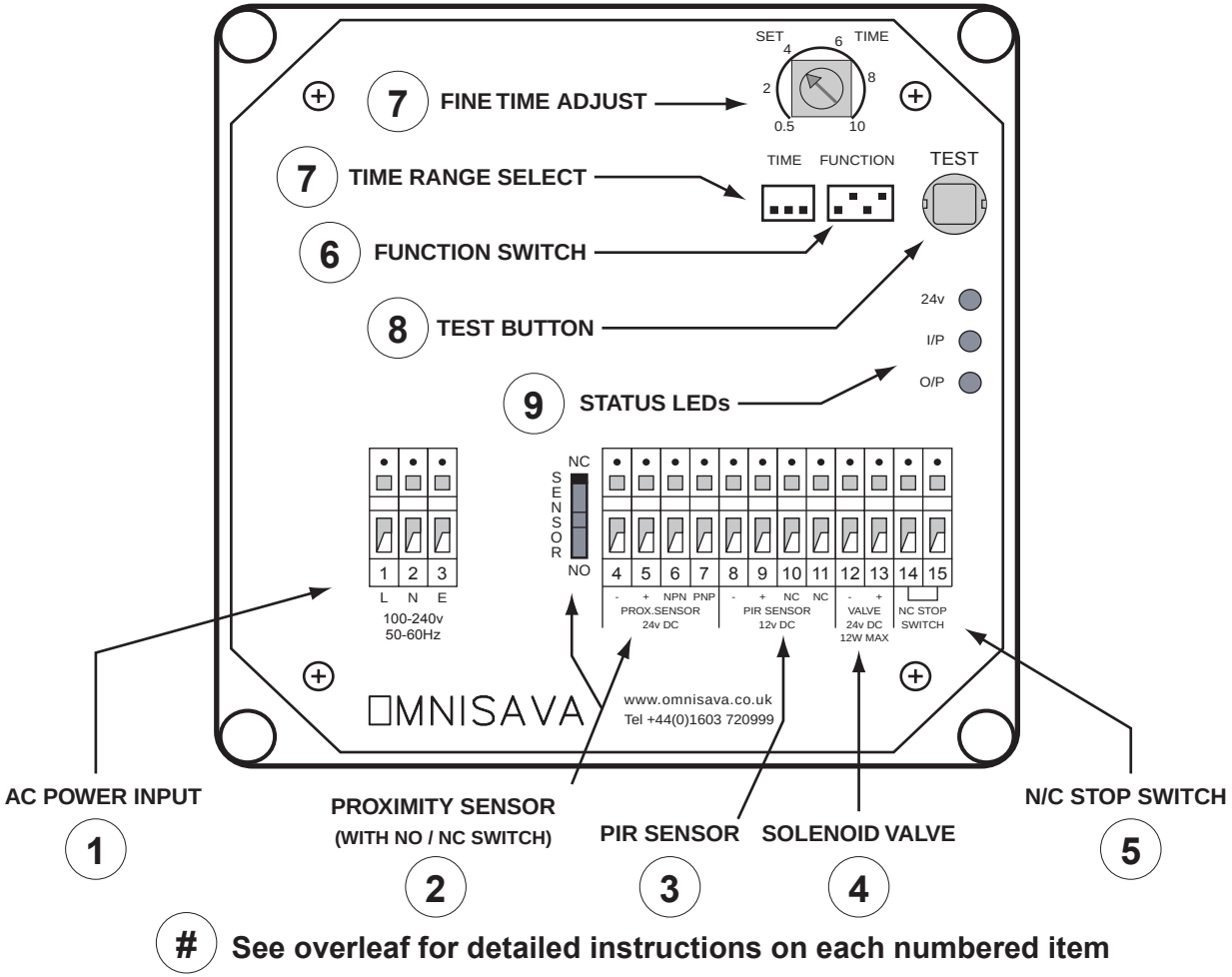
Omnisava Smart Flow Control Product Information

Omnisava Smart Flow Control. 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 and will repay your initial investment many times over.

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 OMNISAVA



 # See overleaf for detailed instructions on each numbered item

TO ENSURE SUCCESS WITH YOUR OMNISAVA PLEASE READ THESE NOTES CAREFULLY!

Think carefully about your application - choose the correct sensor, decide upon which function to choose - verify using TEST button as in (8)
Check that sensor is working as desired using the Red status led.

USE A PIR SENSOR for detecting presence of people - usually for closing the valve when there is no one around. Just select **FUNCTION 0** as overleaf.

USE A PROXIMITY SENSOR for sensing products, particularly those on moving conveyor. Choose **FUNCTIONS 1,2,3 or 4**.
Note that FUNCTIONS 1,2 & 3 will open the valve only upon on a ***change*** of input status - whereas functions 4 & 6 will open the valve upon a change of input status *and* while the sensor is made.

NO / NC SWITCH: This tells the Omnisava which type sensor has been fitted - Normally Open or Normally Closed.

IMPORTANT: A PIR sensor can be used as an alternative to proximity sensors in all function settings. However please remember to set the above switch to NC (to match the NC contact of the PIR Sensor).

SPECIFICATIONS:

Power requirements: Universal input 100 - 240v AC 50/60Hz
Input 1: For sensing occupancy / human movement.
Accepts industry standard security type PIR sensor, 12v DC 20mA maximum with normally closed (NC) alarm contact
Input 2: For sensing objects, products, containers etc.
Accepts industry standard optical, inductive or capacitive proximity sensor, 24v DC 50mA maximum, NPN or PNP inputs with switch to select Normally Open (NO) or Normally Closed (NC) operation.
Valve output: 24v DC maximum load 12 watts or 500mA with integral flywheel diode.
Timing: adjustable from 50mS to 100 hours by selecting 1 of 7 ranges together with finger / screwdriver fine control.
Functions: Multifunction including PIR timed shut off, valve opening on sensor B-M change, M-B change, B-M & M-B changes, Set/Reset Direct, and more.
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 1.5mm≤, cable entry via 3x 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

Omnisava

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

Designed and Manufactured by Watersavers, Earl Road, Rackheath Industrial Estate
Norwich NR13 6NT UK Tel +44 (0) 1603 720999 www.omnisava.co.uk

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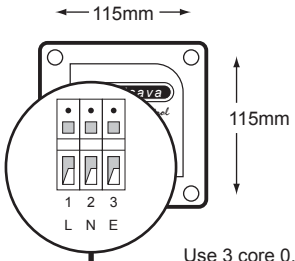
Omnisava Smart Flow Control Installation Instructions

1 POSITION & FIX OMNISAVA

in suitable position. Keep away from sources of heat, vibration, impact etc.
Keep all cables as short as practicable.

Fixing centres are 115 x 115mm.



Use 3 core 0.75-1.5mm≤

AC SUPPLY 100-240v 50/60Hz

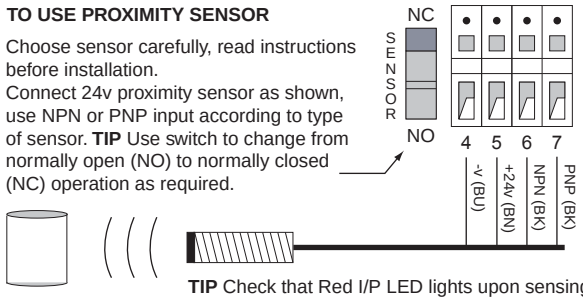
Connect 100-240v 50/60Hz supply to Omnisava terminals 1, 2, 3 - L N & E respectively. Use 3 core cable 0.75 - 1.5mm≤ maximum. Supply should be fused at 2 amps.

Screwless terminals: strip conductors back 10mm, twist conductors, press orange lever, insert conductors, release lever - that's it!

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

2 TO USE PROXIMITY SENSOR

Choose sensor carefully, read instructions before installation.
Connect 24v proximity sensor as shown, use NPN or PNP input according to type of sensor. **TIP** Use switch to change from normally open (NO) to normally closed (NC) operation as required.

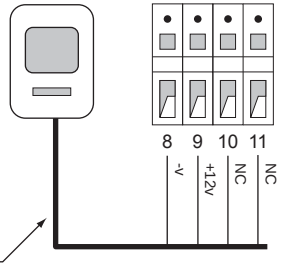


TIP Check that Red I/P LED lights upon sensing

3 TO USE PIR SENSOR

Connect 12v DC 'security' type PIR sensor as shown.
Read instructions carefully before installation, especially regarding location.
Avoid sources of heat & draughts, check detection range using walk/test led.

TIP Use 4 core cable such as RS Stk No 365-571



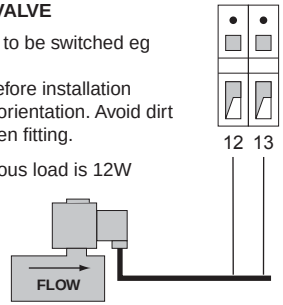
Note: Tamper circuit not used!

4 CONNECTING SOLENOID VALVE

Choose valve to suit medium to be switched eg water or air.
Read instructions carefully before installation especially flow direction and orientation. Avoid dirt and debris entering valve when fitting.

WARNING: Maximum continous load is 12W or 0.5amps!

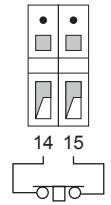
TIP Use 24v DC relay or contactor to switch loads such as motors, heaters, fans etc.



5 EXTERNAL STOP SWITCH (OPTIONAL)

Remove existing wire link from terminals 14 & 15
Connect normally closed switch or relay contact
Opening this circuit immediately removes 24v DC from solenoid valve and Omnisava

WARNING: When using external stop switch beware of machinery / air / water suddenly restarting consult 'MACHINERY DIRECTIVE'



PUSH TO STOP

6 SETTING CONTROL FUNCTION

SETTING CONTROL FUNCTION Choose from the list of functions below, set FUNCTION switch as shown.
TIP Set short time period T (1 - 5 secs) and press TEST button to satisfy yourself that the fuction is suitable for the application.

TERMINOLOGY / NOMENCLATURE / EXPLANATION OF DIAGRAMS BELOW:

INPUT (SENSOR) I/P — M : MAKE : CLOSED : SENSING : ACTIVE
B : BREAK : OPEN : NOT SENSING : INACTIVE

OUTPUT (VALVE) O/P — OPEN : ENERGISED : ON : FLOWING
CLOSED : DE-ENERGISED : OFF : SHUT OFF

TIME 'T' is the time period set as in step 7
Use status LEDs to check sensor & valve operation

If you cannot find the function you require, let us know and we may (depending upon the application) be able to program it in for you!

TECHNICAL SUPPORT: Please call our team on 01603 720999
We won't bite and we're very helpful ...

0 — **PIR**: Valve is open while sensing, closes time T after area is unoccupied Typical time is 10secs - 10 mins

1 — **B-M CHANGE:** Valve opens on sensor change from break to make. Remains open for time T

2 — **M-B CHANGE:** Valve opens on sensor change from make to break. Remains open for time T

3 — **B-M & M-B CHANGES:** Valve opens on make to break *and* break to make changes. Remains open for time T

4 — **TIME DELAY ON B:** Valve opens while sensor makes and for time T following sensor break

5 — **TRIP ON TIMED I/P:** Normally energised valve trips closed when sensor makes for > preset time T. Power off/on to reset

6 — **TAP:** Specifically designed to open valve as in automatic hand washing tap. Valve remains open for time T

7 — **SET:** Valve is closed at switch on, valve opens and remains open when sensor makes (while power is on)

8 — **RESET:** Valve is opened at switch on, valve closes and remains closed when sensor makes (until power is reset)

9 — **FLOW TRIP:** Normally energised valve trips closed when pulse period from water meter < preset time period T. Power off/on to reset

7 SETTING TIME PERIOD T

- 0.05 to 1.0 second
- 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

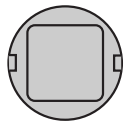
Set range as above then use finger / screwdriver control for fine adjustment

Example: this combination would be approx. 40 seconds

8 USE OF TEST BUTTON

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

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



9 STATUS LEDS

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

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

Omnisava

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or email with any queries - we are here to help you!

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