

Timed Discharge Valve - TDV-100

Product code: TDV-100-valve size eg TDV-100-1/2"

INSTALLATION INSTRUCTIONS

please read carefully

DESCRIPTION The TDV-100 opens a solenoid valve at fixed intervals to pass a preset volume of water. This can be used for refreshing 'deadlegs' in buildings in order to prevent the buildup of Legionella bacteria and also for replenishing seals in traps, gulleys and drains.

PLUMBING Fit the solenoid valve supplied into the pipework to be replenished. Ensure water supply is connected to valve inlet (marked by an arrow or IN on the valve body. The TDV-100 may be screwed to a wall if required. The valve outlet is usually plumbed to a drain in order to dump the water.

Note when using the TDV-100 to refresh 'deadlegs' and runs of unused pipework, the valve should be located as far downstream as possible in order to refresh the maximum length of pipework.

ELECTRICAL Connect Brown and Blue wires of supply cable to a convenient 240v supply, with a 3A fuse (in a spur box) or a 5A fuse (in a consumer unit). If using a DC supply connect the Brown wire to positive +ve and the Blue wire to negative -ve. **Observe current and local wiring regulations!**

SETTING THE INTERNAL TIMING MODULE

CAUTION: ISOLATE ELECTRICITY BEFORE REMOVING COVER!

Remove the two screws on the TDV-100 cover in order to access the timer module. The ON (valve opening time) and also the OFF (interval) may be adjusted from 0.1 seconds to 100 hours in 7 ranges.

Therefore by setting appropriate ON & OFF times it is possible to provide timing ranges for any situation. **SEE PHOTO OF TIME MODULE >**

TO SET ON (VALVE OPEN) TIME - using switch A, select from ranges
1 second 10 seconds 1 minute 10 minutes 1 hour 10 hours 100 hours

Using multiplier switch B adjust above time ranges from 0.1 to 1

For example to set 5 minutes ON time set range switch A to 10 minutes and adjust the multiplier switch B to 0.5

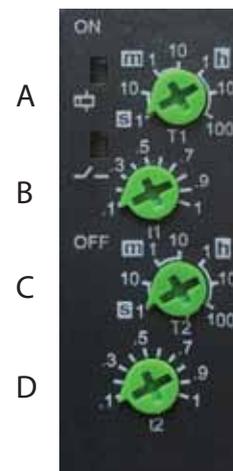
TO SET OFF (VALVE CLOSED) TIME - using switch C, select from ranges
1 second 10 seconds 1 minute 10 minutes 1 hour 10 hours 100 hours

Using multiplier switch D adjust above time ranges from 0.1 to 1

For example to set 4 hours OFF time set range switch C to 10 hours and adjust the multiplier switch D to 0.4

NOTE: The Green LED blinks to indicate timing in progress, the Amber LED lights to show ON status of the output

IMPORTANT: Isolate electricity before adjusting ON & OFF times, the TDV-100 will not respond to new time settings whilst energised



**Please see
overleaf for
handy hints
and tips for
your
TDV-100**



**Watersavers Limited
Earl Road, Rackheath Industrial Estate
Norwich NR13 6NT**

FOR TECHNICAL SUPPORT

Telephone 01603 720999
email sales@watersavers.co.uk
website www.watersavers.co.uk

TDV-100 Timed Discharge Valve - handy hints and tips

USE A STOPWATCH & MEASURING JUG

If you're not sure how long to open the valve for when setting the ON (valve open) time, use the measuring jug to catch say 10 seconds flow of water. This volume can then be used to help calculate daily or weekly volumes. **See also pipe volumes and flow factors below:**



HOW CAN I VERIFY THE TDV-100 IS WORKING? - consider plumbing a water meter upstream of the TDV-100. This can be used to monitor the volume of water that has been dumped on a daily or weekly basis.

A pulsed water meter may be connected to a BMS for automatic checking and the possible raising of an alarm should insufficient or no flow be detected. **Please call our sales department for pulse meters or further help.**

VOLUMES AND FLOW FACTORS - for various copper pipe sizes (approx)

Copper pipe OD (mm)	15	22	28	35	42	54
Litres per metre	0.145	0.32	0.539	0.835	1.232	2.091
Metres per litre	6.896	3.125	1.855	1.197	0.811	0.478
Litres per second (quiet flow)	0.22	0.45	0.82	1.3	1.9	3.1

EXAMPLE: To flush 20m of 15mm pipe, the volume is $20 \times 0.145 = 2.9$ litres. At a flow rate of 0.22 litres per second this equates to $2.9/0.22 = 13.18$ seconds. We would recommend setting the ON time to 20 seconds to be sure.



PLEASE CALL OUR TECHNICAL DEPARTMENT IF YOU NEED HELP

TECHNICAL SPECIFICATIONS

Dosing volume / frequency: as both the ON (valve opening time) and the OFF (interval) is user adjustable from 0.1 seconds to 100 hours, it follows that almost any requirement can easily be fulfilled.

Solenoid valve: Brass Normally Closed (fail safe), 1/2" BSP female threads, 13.5mm orifice, pressure range 0.35 - 10 BAR. Please contact sales for alternative valve sizes.

Timing options: The default sequence is: ON OFF ON OFF ON. By breaking or removing the internal Yellow wire link, the sequence can be changed to: OFF ON OFF ON OFF.

Power supply: The TDV-100 can be operated from 12 - 240VAC/DC (50/60HZ). Please note that the solenoid valve coil MUST match the supply voltage and vice versa.

Cables: Power and valve cables are supplied to a nominal 2m length. Core size is 0.75mm²

Enclosure: size 148 x 88 x 41mm, (excluding cable glands) in white.