Sanitron WC Electronic Dual Flush Valve Art. No. EDFV-04

Description

The Sanitron WC Flush Valve Art. No. EDFV-04 is a mains powered (transformer 240V to 12V) Electronic Dual Flush for in ceiling or in-duct installation. There are a variety of activator buttons available which have to be ordered separately. The WELS rating is 4 STAR.

Function

A user pushes the full or half flush button to activate the flush. A new flushing cycle can only be activated after the previous cycle has finished. Depending on the available line pressure the full and half flush time has to be manually adjusted on the controller module to set the required flush volume . To prevent misuse and enhance water saving the controller module will allow only a maximum of 6 flushes per minute. Once the valve has been flushed 6 times within one minute the controller will not allow another flush for 45 seconds.

Supplied with the Sanitron WC Electronic Dual Flush Valve EDFV-04 are the following components

1 x DFM-04 Electronic dual flush module, 1 x TR-5A Transformer 240V to 12Vdc, 1 x SV-9 Electronic Flush valve

2 x 3m extension cable for actuator buttons

Before you start installing read the complete manual first

Safety Precautions

1) The WC Electronic Dual Flush Valve and its components are for indoor use only.
2) Install the EDFV-04 and its' components only in a dry environment with an ambient temperature 5- 40°C.
3) When performing any work on the WC Electronic Dual Flush Valve or its' connected components the transformer has to be disconnected from the power supply. Also switch off the power supply.
4) Prior to performing any maintenance shut off the water supply to the valve.
5) Prior to removing parts or disconnecting the flush valve relive the water pressure inside the valve. The pressure can be relieved by opening the valve with the lever on the valve outlet as shown in Fig.3-B. Leave the lever open until all water has drained. Close after finished.
6) The transformer and the electronic module should be installed close to each other. The transformer and the electronic module should be installed as far away from the flush valve as the regulations require.
7) Replace faulty components only with Sanitron original components .
8) For the installation and operation observe all relevant electrical, safety plumbing and building standards.
9) Some equipment may radiates heat do not insulate any supplied equipment.
10) All supplied components should only be used for the purpose they are designed for.

Rough-in Installation

Note: All plumbing installation work have to be carried out in accordance with AS/NZS 3500 Standard

1) Make sure during the planning phase that the proposed installation location (see fig.1&2) for the flush pipe and flush valve is obstruction free (do not install additional bends or offsets along the flush pipe other than the bend on the bottom of the flush pipe). It is recommended to install acoustic insulation to pipe work and flush pipe in sound sensitive areas.
2) Provide a 240 V power point inside the ceiling space or service duct (see fig.1 or 2, also 4 in Safety Precautions above). The cable length of the transformer is about 1.5m.
3) Install the DFM-04 electronic module close to the power point (see also 4 in Safety Precautions above).
4) Size and install the water supply pipe to the requirement of the installation (for pipe size and installation requirements refer to the relevant standards AS 3500.1 section 10-Flush valves, see also fig.4 page 4 for technical information on the flush valve). **Note: In most cases plastic pipes require up-sizing!** Install an appropriately sized ball valve as a stopcock (not supplied).
5) **Prior to installing the flush valve flush the lines first.**
6) Install the flush valve and the flush-pipe (40 mm DWV not supplied) in the required location (see also fig.1 ,2,and3). Insert the square cut flush pipe into the compression joint on the bottom of the flush valve and tighten the nut.
7) Make sure that all pipework including the flush pipe are clipped properly.
8) Cary out all installation work as required by the pan supplier.
9) Install the supplied extension cables for the actuator buttons reaching from the DFM-04 module (see fig. 1 or 2) to the future installation location of the buttons and secure the cable ends. It is recommended to install the cables into a cable-duct. Depending on the actuator button provide also the appropriate cutout in the wall sheeting (see also installation instruction for the buttons).
10) Make provisions for access panel to be able to service the flush valve.

Important: When commissioning the valve for the first time or afer maintenance. **Open manual activation lever (see fig.3) first- then slowly open the stop cock to bleed the air out of the valve**. Allow the water to run for about 20 seconds. Then close the manual activation lever.

12) Temporarily connect the flush valve and operate the valve several times then check all plumbing connections on the valve for leaks. Disconnect the valve after testing.

Fit out

1) Connect the activator buttons to the extension cable that had been previously installed.
2) Connect the extension cables from the buttons and the solenoid valve to the DFM-04 module (see also fig.5).
3) Plug the transformer lead into the DFM-04 module (see also fig.5).
4) Plug the transformer into the power point and switch on the power.
5) **Important:** When commissioning the valve for the first time or afer maintenance. **Open manual activation lever (see fig.3) first- then slowly open the stop cock to bleed the air out of the valve**. Allow the water to run for about 20 seconds. Then close the manual activation lever.
6) Adjust the flush time settings on the DFM-04 module (see Fig.5) to the correct flush volume according to the requirements of the toilet pan (refer to the pan suppliers instructions).
   a) Temporarily connect a measuring bucket to the end of the flush pipe.
   b) Open the flush valve stopcock and activate first full and in a separate test the reduced flush.
   c) Compare each collected water volume with the required flush volume.
   d) If too much water is discharged shorten the flush time. With a small screwdriver turn the relevant dial on the controller anti clockwise (see fig.5). **Caution do not force the potentiometer dial beyond the min. setting**
   e) If not enough water is discharged extend the flush time. With a small screwdriver turn the relevant dial on the controller clockwise (see fig.5). **Caution do not force the potentiometer dial beyond the max. setting**
7) After testing install the buttons into the prepared wall cutout.
8) Install the toilet pan.
9) Activate the valve several times. Check on the valve that there is no water spillage on the airbrake. It is possible that the flush valve will squeak for the first few operations . It is caused by trapped air inside the valve. The squeaking should stop after a few flushes. Note: If the flush valve is activated more than 6 time within one minute it will stop flushing for 45 seconds.

In-Ceiling installation schmatics

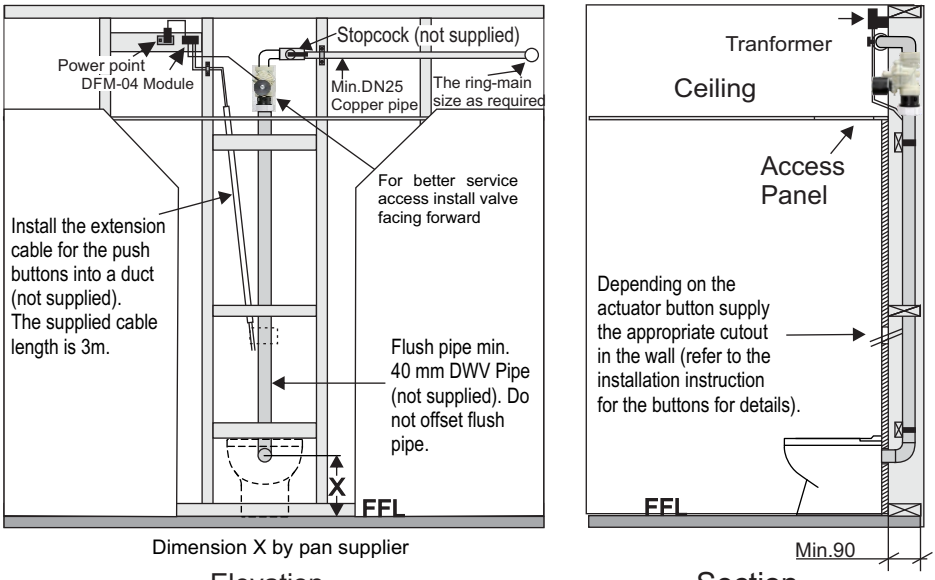
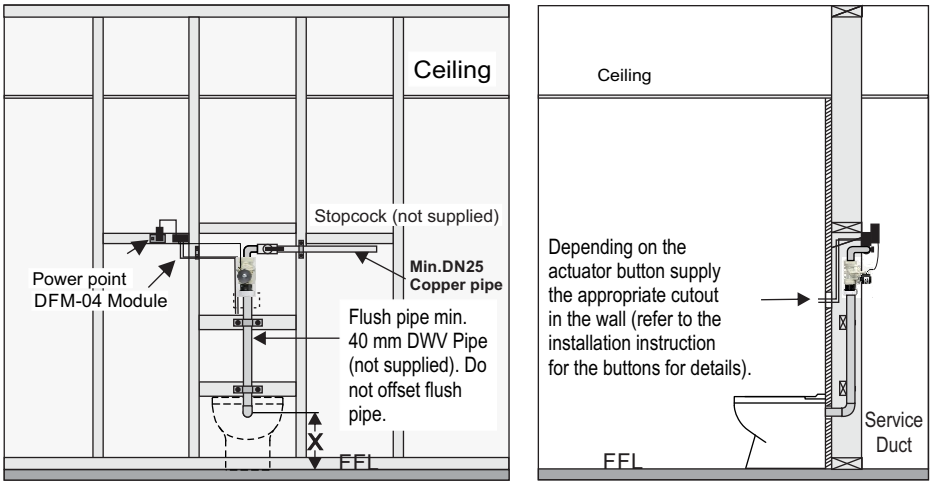


fig.1

Note: FFL = Finished floor level; Technical details, layouts are schematic only; all details for construction by others; dimensions & technical information can change without further notice. This publication edition 4; file name: WC flush valve installation EDFV-04; dated 09/07/2018 supercedes all previous publications.

In-Duct installation schematics



Dimension X by pan supplier

In duct elevation

Section

fig.2

Valve details

fig.3

A) To lower the flow rate of the valve turn screw with a flat screwdriver in (clockwise). To increase the flow turn screw out (anticlockwise).
Note: Do not force screw past its stops.

B) Open the manual actuation lever to test, bleed or depressurise the valve. To open quarter turn lever 90 degrees clockwise.

C) Insert the 40 mm DWV flush pipe into the compression connection on the bottom of the flush valve and tighten the nut. Also install pipe clips to secure the flush pipe

Trouble shooting

Unit will not flush when pressing full or half flush button

>> Check that the power is switched on, all cable connectors are plugged in and the water is turned on.

>> Check that the water is switched on

Water is running constantly

>> Turn manual actuation lever in fig.3 B a quarter turn anti-clockwise.

Unit stopped flushing after several activations.

>> The controller has a build in function that temporarily (45 sec) suspends further flushing once the unit has been flushed mor than 6 times within a minute. Wait for 45 seconds, the unit will reset itself or unplug the transformer and re-connect after a view seconds.

Too much flush volume

>> Shorten Full or Half flush time on the controller see page 4, Fig.5 and page 2 “Fit out” 6-d

>> Turn screw as described in fig.3A anti-clockwise to slow the flow.

Not enough flush volume

>> Extend Full or Half flush time on the controller see page 4,Fig.5 and page 2 “Fit out” 6-e

>> Turn screw in as described fig.3A anti-clockwise to increase the flow.

If any issue cannot be resolved contact after sales service Sanitron on 07-38752465

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Hydraulic conditions required at the flush valve.

Min. flow pressure:	250 kPa.
Min. flow rate at the valve	1.4 l/sec
Max. flow pressure to AS 3500.1	500 kPa
Min. connecting pipe size from the ring main to the valve (see below)**	**25 mm copper or equivalent. 25mm plastic pipe is not the equivalent to 25mm copper. Plastic pipes have to be appropriately up-sized.**
WELS rating:	4 STAR
Mini. Water temperature:	5 ° C
Max. Water temperature:	30° C
Ambient temperature:	5- 40°C
Matched-WC-pans:	AXA Floor Mounted Art. No. 13015, Stoddart Stainless Steel Art. No. SPPL.TP

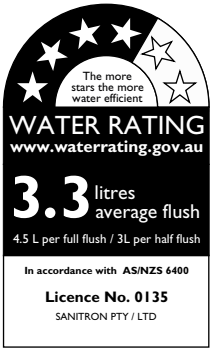
The flush valve is designed to operate of a water supply equivalent to potable water standards.

****Refers to the minimum connection pipe size to any valve branched off the ring main pipe providing that the above required technical specifications can be met. Pipe work to the valve fixture must be sized to and installed to water service rules and regulations (AS/NZS 3500.1 section 10 and local regulations) and simultaneous demand requirements. To ensure proper sizing of the pipe work for the valve it is recommended to engage a qualified hydraulic designer.**

fig.4

Spare Parts EDFV-04	
Article No	Description
TR-5A	Transformer
DFM-04	Dual flush modul
SV-9	Electronic flush valve complete

For after sales service contact
Sanitron on 07-38752465
or email: service@sanitron.com.au



Maintenance

1) Check in regular intervals, that the equipment functions correctly and visually inspect the valve and its components.
2) When carrying out work on the valve observe all safety precautions.
3) Before opening the flush valve disconnect the valve from power and isolate the water supply. Also depressurise the flush valve as outlined in fig.3 - B.

Schematics

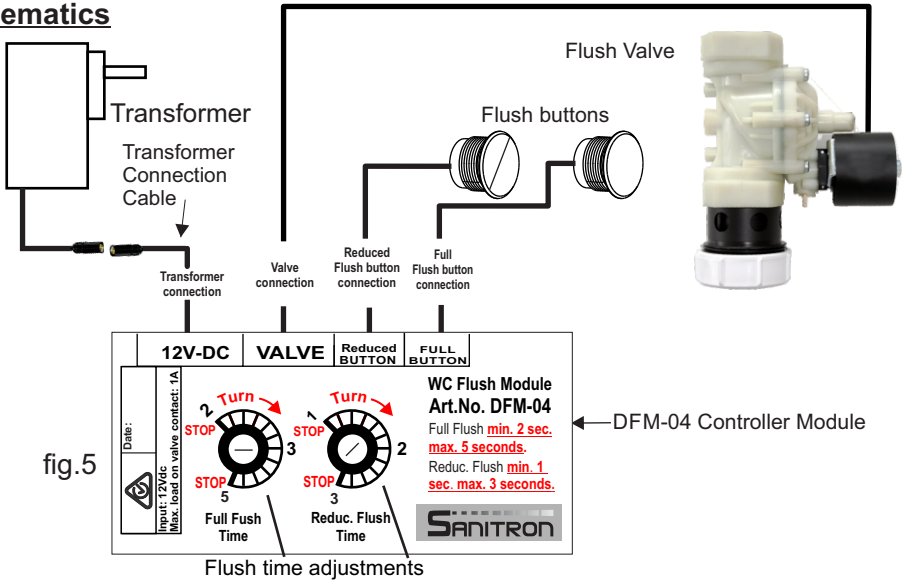


fig.5

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