

INSTRUCTION MANUAL

Float Valve (EDRV)



Thank you very much for purchasing Tozen products.

Please read the Instruction Manual. To ensure you use the product in safe and correct manner.

The definition of the symbol use in the text as below shown: -

-  **Warning** : If did not implement protection measure, it may cause major injury or death.
-  **Caution** : If did not implement protection measure, it may cause minor injury or damaged parts.

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1. Application

Building equipment, air-conditioning equipment, factory equipment, irrigation facility, the water pipe connect to tank which maintains the required water level in the tank.

2. Specification

Model		EDRV
Size (mm)		50 ~ 400
Application Fluid		Water
Fluid Temperature		-10~80°C / EPDM, HNBR -10~70°C / NBR (No freezing)
Applicable Inlet Pressure		16 bar / 25 bar
Material	Body	GJS500-7
	Restriction	ANSI 304
	Ball valve	ANSI 304
	Float pilot	ANSI 304
	Strainer	ANSI 304
	Tube	ANSI 304

3. Structure & dimensions

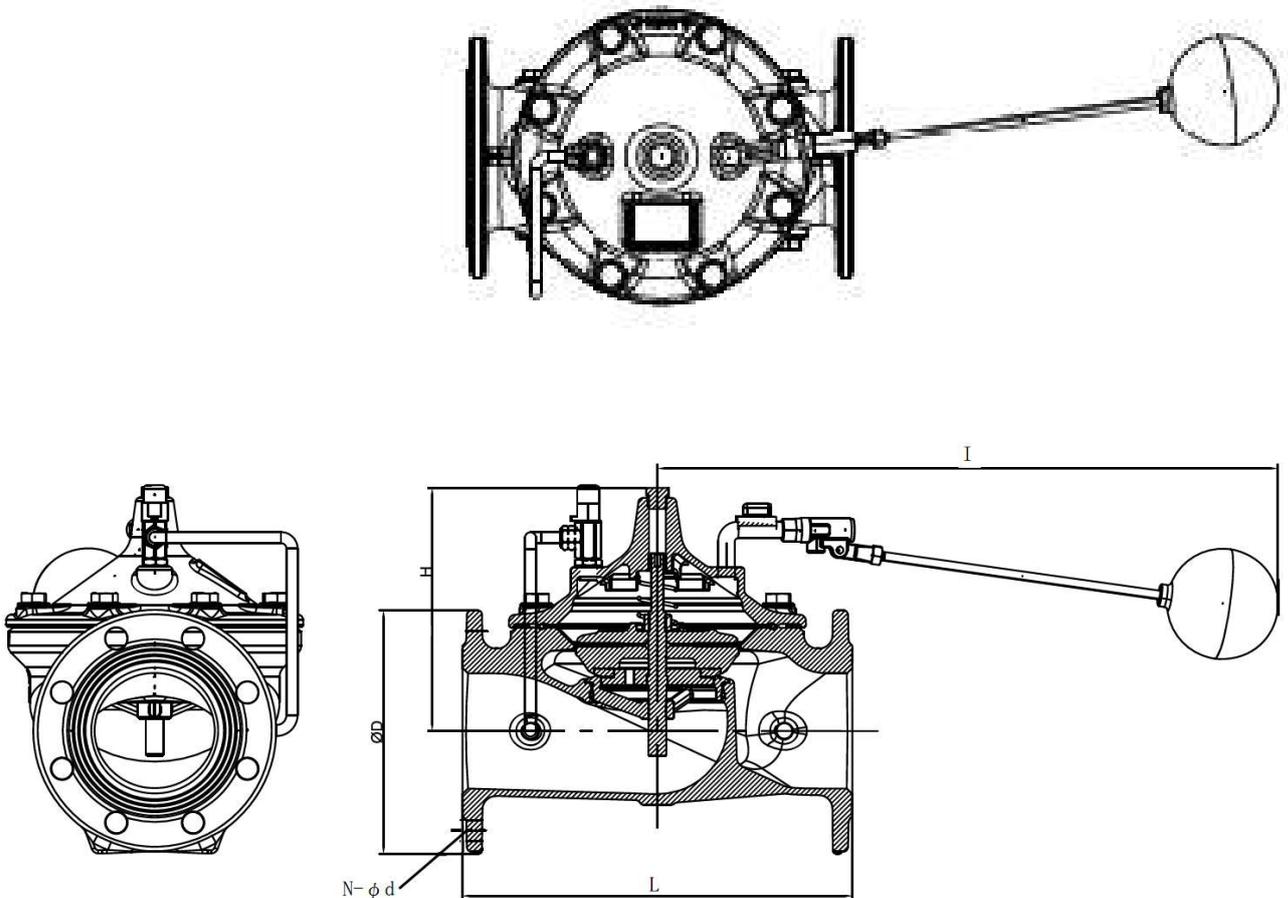


Fig. 1 Structural drawing

Dimensions (Unit : mm)

Size	L	H	D (PN16/PN25)		N- ϕ d(PN16/PN25)		I
50A	230	139	165		4- ϕ 19		485
65A	290	159	185		4- ϕ 23	8- ϕ 19	515
80A	310	179	200		8- ϕ 19		525
100A	350	214	220	235	8- ϕ 19	8- ϕ 23	545
125A	400	214	250	270	8- ϕ 19	8- ϕ 28	550
150A	480	333	285	300	8- ϕ 23	8- ϕ 28	556
200A	600	407	340	360	12- ϕ 23	12- ϕ 28	562
250A	730	476	405	425	12- ϕ 28	12- ϕ 31	630
300A	850	526	460	485	12- ϕ 28	16- ϕ 31	655
350A	850	585	520	555	16- ϕ 28	16- ϕ 34	655
400A	1100	624	580	620	16- ϕ 31	16- ϕ 37	684

4. Operation Manual

1. All the stop valves must fully open at float pilot tube between float valve to float ball tap.
2. When all the stop valves open, water flow from the ball tap vent, float valve main disc assembly open, the water flow to the tank.
3. When the water level reaches the required limit, the float will float upwards and the float vent will stop the water flow. Float valve main disc assembly also will close and stop the water flow to tank.
4. When the water level goes down, the float ball will go down due to gravity. Water will then flow out from the float vent and float valve main disc assembly will also open, until the water level reaches the limit. The float vent and float valve will close.

5. Installation

1. Make sure the valve's flow arrow direction follow the pipe flow direction when install the valve.
2. Make sure there are enough space to do installation, adjustment and dismantle the valve.
3. To ease maintenance, before and after float valve must install stop valve.
4. Install Y-strainer before float valve.
5. Install horizontally will improve float valve function. For size 200mm and above, must be installed horizontally.
6. For size 150mm and below, the float valve main body and pilot tube (2 in 1 unit) can be installed at water tank above water level.

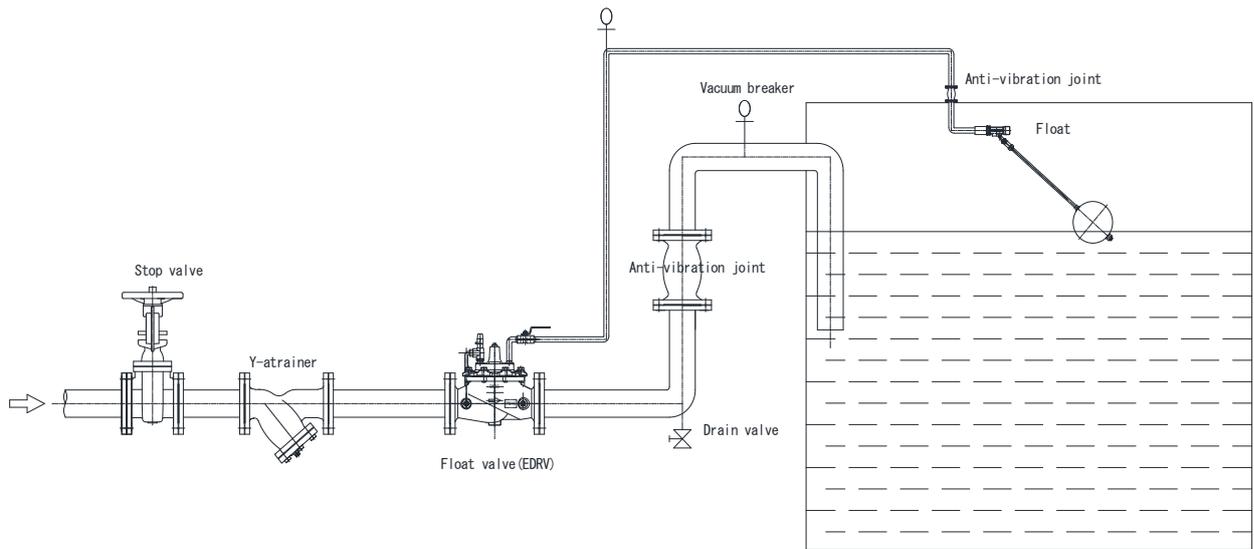


Fig. 2 Construction example

6. Maintenance Manual

1. If the pipe leaks, we need to inspect 2 parts. One is float valve main body. One is float pilot tube and float ball vent after the float valve.
2. Inspect the float pilot tube to check for any leakages. If there is a leak, change whole float pilot tube, or tighten the screw connection to fix it.
3. Manually inspect the float vent by lifting the float ball up. Check the water not flowing from the float vent, if water keep flowing out from the float vent, please refer to cause and countermeasure of malfunction.
4. Please refer to cause and countermeasure of malfunction if float valve is leaking in spite of all the float pilot tube system in good condition.

7. Cause & Countermeasure Of Malfunction

Conditions	Possible Causes	Countermeasures
Main Disc assembly is not opened	No inlet pressure	Check the inlet pressure.
	Float vent disc not functioning	Clean the stem and change the part if it is defective.
	Float valve main disc assembly is not opened. The disc may be blocked.	Dismantle and clean
	Float pilot tube ball valve was closed.	Turn to open
	Float pilot tube keep clogging.	Dismantle the tube and clean
Main Disc assembly is not closed	Foreign objects stuck between disc and seat. Stem scale out	Dismantle the valve and clean the parts. Change the part if it is defective.
	Needle valve was closed.	Open the needle valve correctly
	Worn disc assembly	Dismantle and change
	Worn diaphragm	Dismantle and change
	Float pilot tube leaking	Dismantle the tube and clean
Broken rubber seal	Dismantle and change	

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