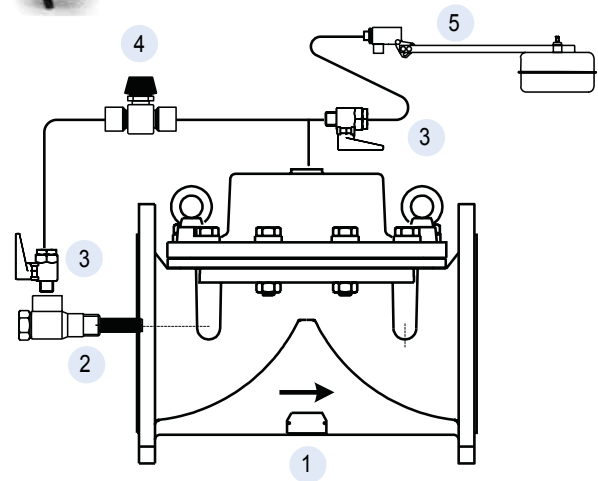


FL Modulating Float Controlled Valve - code 4653.FL.02-15



Description

The main valve is controlled by a float valve, located in the tank or reservoir and set at the required maximum water level. The valve maintains the maximum level continuously.

Features

- Accurate and repeatable level control
- Simple and reliable design
- Easy installation and maintenance
- Adjusts the inlet flow to the reservoir's outlet flow
- WRAS Approval no. 0009092

Purchase Specifications

The valve will be hydraulic, direct sealing diaphragm type, which allows inline maintenance. No stem, shaft or guide bearing will be located within the water passage.

The valve will be activated by the line pressure and be operated by a modulating, 2-way float activated pilot valve. The valve and the controls will be a Dorot Series 100 valve or similar in all aspects.

Quick Sizing

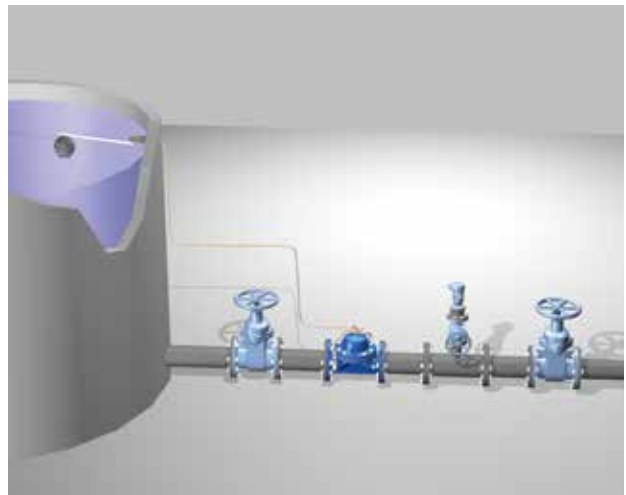
- Valve size same as the fill line or one size smaller
- Maximum flow speed for continuous operation 5.5 m/sec (18 ft/sec)

Design Considerations

- The valve should be suited for the maximal flow
- Upstream pressure at closed position should be at least 10m (15psi) higher than the hydrostatic water pressure at the downstream
- Large pressure differentials may cause cavitation damage. Consult Dorot for solutions if such cases are expected
- Prefer use of differential level control in case excessive noise should be avoided (residential areas)

Control System Components:

- 1 Main Valve
- 2 Self-flushing filter
- 3 Cock valve* OPTIONAL
- 4 Needle valve
- 5 Modulating float pilot valve



Typical Application

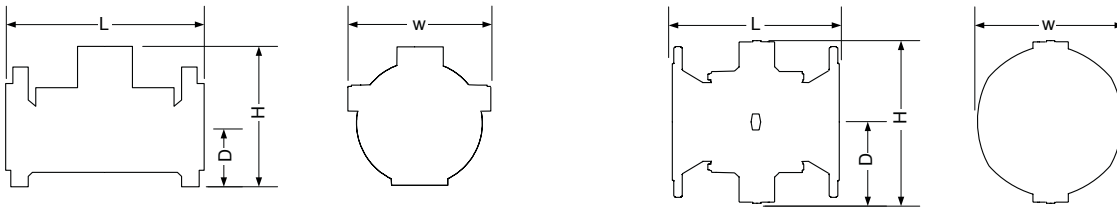
Dorot Modulating Float Controlled valve prevents tank overflow.

L mm	DN	codice
120	1" BSP	4653.FL.02
170	1"½ BSP	4653.FL.04
200	50	4653.FL.05
214	65	4653.FL.06
285	80	4653.FL.08
305	100	4653.FL.10
365	125	4653.FL.12
390	150	4653.FL.15

Dimensions and Weights

Straight Flow, Flanged Connection - Standard Models 16 Bar / 250 psi

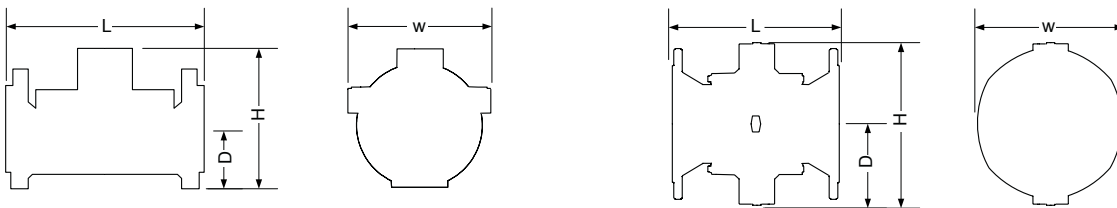
Valve Size		L		H		D		W		Weight					
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Cast Iron		Duct. Iron		Bronze	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs	kg	lbs
40	1 1/2	186	7.32	153	6.02	76.5	3.01	76.5	3.01	5.8	13	6.2	14	6.5	14.3
50	2	200	7.87	166	6.54	85	3.35	166	6.54	7.2	15.8	7.7	17	8	17.6
65	2 1/2	214	8.43	185	7.28	92.5	3.64	185	7.28	10.3	22.7	10.3	22.7		
80R	3R	200	7.87	202	7.95	105	4.13	200	7.87	11	24.3	11.8	26		
80	3	285	11.22	200	7.87	105	4.13	200	7.87	17	37.5	18.2	40.1	19	42
100	4	305	12.01	230	9.06	110	4.33	230	9.06	22	48.5	24	53	24	53
150	6	390	15.35	314	12.36	145	5.71	300	11.8	46	101	49	108	51	112
200R	8R	385	15.16	350	13.78	170	6.69	365	14.4	50	110	54	119		
200	8	460	18.11	400	15.75	170	6.69	365	14.4	80	176	86	190	89	196
250	10	535	21.06	445	17.52	205	8.07	440	17.3	117	258	125	276	131	289
300	12	580	22.83	495	19.49	240	9.45	490	19.3	156	344	167	368	147	324
350	14	580	22.83	495	19.49	270	10.6	530	20.9	182	401	172	379	180	397



Straight Flow, Flanged Connection - High Pressure Models 25 Bar / 360 psi

Valve Size		L		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
50	2	228	8.98	169	6.65	85	3.35	175	6.9	10	22
50 TH	2 TH	250	8.98	120	6.65	42	1.65	175	6.9	6	13
65	2 1/2	233	9.18	185	7.28	92.5	3.64	185	7.28	14.5	32
80	3	310	12.2	237	9.33	105	4.13	200	7.87	30	66.1
100	4	356	14.02	263	10.35	120	4.72	260	10.24	38	83.8
150	6	436	17.17	378	14.88	150	5.91	320	12.6	75	165.3
200	8	530	20.87	481	18.94	180	7.09	400	15.75	123	271
250	10	636	25.04	546	21.5	215	8.46	495	19.49	190	419
400	16	709	27.91	830	32.68	310	12.2	830	32.68	433	955
450	18	715	28.15	830	32.68	340	13.39	830	32.68	460	1014
500	20	900	35.43	970	38.19	490	19.29	980	38.58	674	1486
600	24	900	35.43	970	38.19	490	19.29	980	38.58	696	1534

* TH = Threaded



Operating instructions

Valve model FL (x=11/2 to 24)

FLOAT CONTROLLED VALVE

Installation:

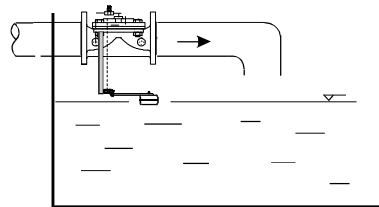


Fig.1

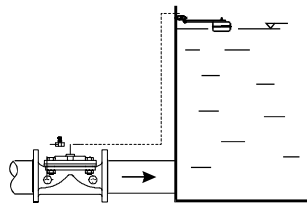


Fig.2

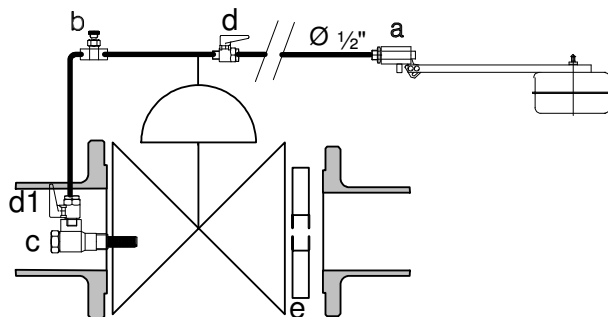
Fig. 1- The valve is located above the water level. The pilot is attached to the valve by a bracket.

Fig. 2- Separate installation of valve and pilot. The pilot is connected to the tank wall or to a suspension rod (not supplied).

Assembly:

- Connect the float pilot to the main valve by a 3/8" or larger pipe.
- In the case that the inlet pressure, on a closed valve, exceeds 4 bars, it is recommended to assemble an orifice plate downstream the valve in order to reduce noise. Consult the factory for orifice size.
- In the case that inlet pressure, on closed valve, is lower than 2 bars, it is recommended to use a low-pressure diaphragm.

Pilot / valve connection:



Main components:

- a. Float valve mod.70-400 (metal) or 70-300 (plastic)
- b. SST Needle valve
- c. Self- flushing, Inline filter
- d. Isolating valve
- e. Orifice plate (optional)

Adjustment

- Locate the pilot (a) in the tank / reservoir at the requested maximal water level.
- Adjust valve closure speed by the needle valve (b).

Manual activation

- Turn the handle of the valve (d) to "Close" position for manual closure.

Maintenance

- Dismantle and clean inline filter (c) periodically as determined by the water quality.

