

Dorot-75 valve

Dorot



The Dorot 75 is a 'normally closed' (NC) plastic diaphragm valve with solenoid. The valves are resistant to fertilisers and have a large free passage (and hence a large capacity and/or low resistance). The function of the diaphragm minimises the risk of water hammer and allows precise control, even with low capacities.

When the solenoid is energised, the solenoid plunger opens a passage to the outlet side of the valve and the control current is switched off, causing the pressure above the diaphragm to be relieved. The diaphragm is opened by the water pressure in the main stream. If the solenoid is de-energised, the pressure above the diaphragm becomes equal to the pressure in the main stream and the diaphragm closes. Unique with the 2-way version is the integrated non-return valve that keeps the diaphragm valve closed even when the pressure in the line is relieved. This prevents leakage problems during starting.

The Dorot 2-way and 3-way diaphragm valves are equipped as standard with a flow restrictor (throttle), a solenoid and manual operation. The Dorot 75 Series has a BSPT female thread.

APPLICATIONS

The Dorot diaphragm valve is available in a variety of versions. The Dorot 75 2-way diaphragm valve is widely used in sprinkler and drip irrigation. The 3-way version is used where a large capacity is required or where contaminated water is involved. Basic diaphragm valves can be used to construct pilot valves, float valves, etc. and for (hydraulic) remote control.

CHARACTERISTICS

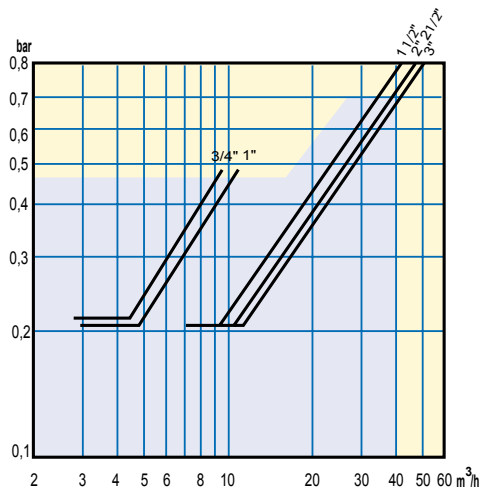
- ✓ Plastic diaphragm valve with large free passage for reduced pressure losses
- ✓ Closes by means of a freely moving diaphragm
- ✓ Equipped with a flow restrictor (throttle) for regulated water capacity
- ✓ Straight connection
- ✓ Diaphragm minimises the risk of water hammer
- ✓ Corrosion-resistant
- ✓ Optionally without throttle

TECHNICAL DATA

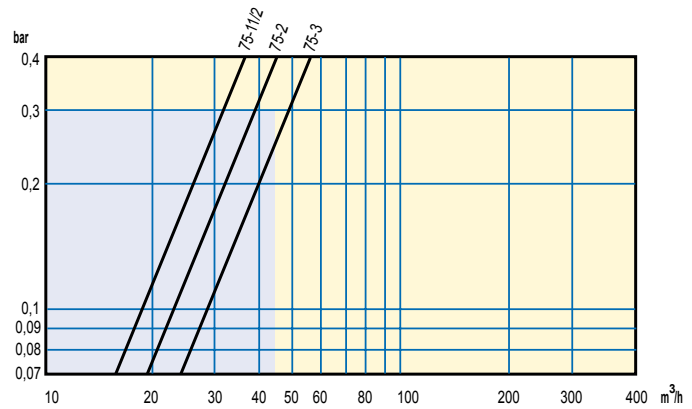
Diameter	: 2-way: ¾" - 3" BSPT : 3-way: 1½" - 3" BSPT : basic: 1½" - 3", optional ¾" - 1" BSPT
Control connection	: 2-way: ¾" UNF; 3-way M20x1
Maximum pressure	: 10 bar (at 20°C)
Minimum pressure	: 0.6 bar
Maximum capacity	: see chart
Maximum temperature	: 60°C (with decreasing maximum pressure)
Pressure losses	: see chart
Opening / closing time	: dependent on the diameter, pressure, capacity, etc.
Material	: reinforced polyamide (housing) : NR (standard diaphragm) : EPDM (diaphragm) : EPDM + ADL (optimal: higher chemical resistance) : Stainless steel 302 (spring) : Stainless steel 304 (bolts)
Electric solenoid (standard)	: 2-way: agricultural 24V DC/AC (50/60 Hz); 230 VAC : 3-way: industrial 24V DC/AC (50/60 Hz); 230 VAC
Optional	: air-controlled (3-way and basic) : as stand-alone with controller

Pressure loss

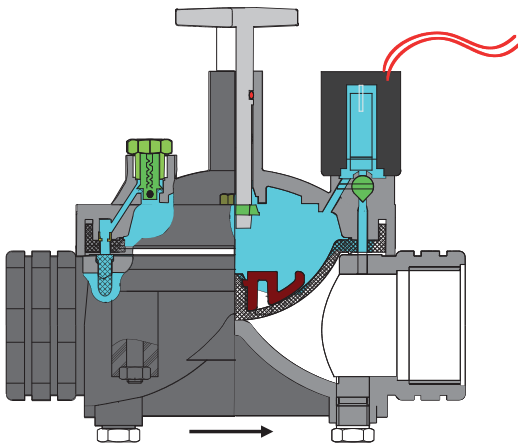
Dorot 75 2-way



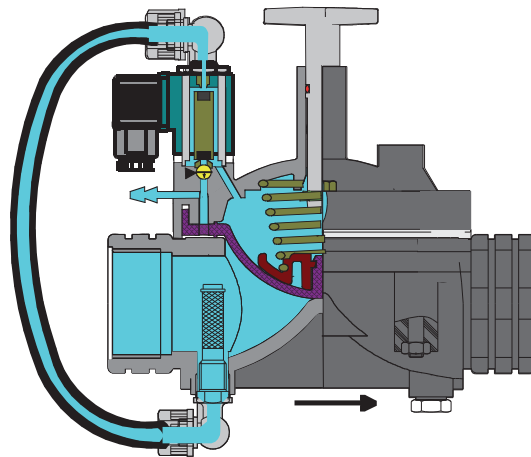
Dorot 75 3-way



Dorot 75 2-way



Dorot 75 3-way



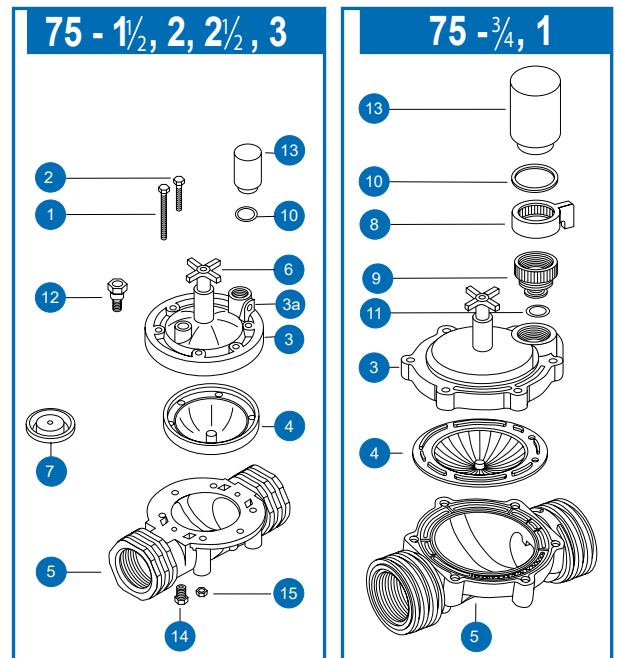
INSTALLATION & MAINTENANCE

Installation

- ✓ The Dorot 75 Series can be installed in any position as long as the solenoid is not pointing downwards in order to avoid accumulations of contaminants in the solenoid.
- ✓ Take care with air control that the air pressure is not higher than 0.5 to 1 bar above the line pressure when the valves are closed. The air used must be free from lubricants.
- ✓ If there is a risk of freezing, the water must be drained from the valves (and solenoids).

Parts list Dorot 75 2-way

No.	Description	Article No.
1	Long bolt	71680-012666
2	Short bolt	71680-012663
3	2-Way bonnet throttling (1½" - 3")	71680-009930
	2-Way bonnet throttling basic (1½" - 3")	71680-009120
3a	Manual operation 2-way	71680-030030
4	2-Way diaphragm (1½" - 3")	71680-007250
	2-Way diaphragm (1½" - 3" low flow)	71680-031750
	2-Way diaphragm (¾ - 1")	71680-006950
	2-Way diaphragm throttling (¾ - 1")	71680-006140
5	Body 2"	71680-018290
6	throttle (½" - 3")	71680-009139
7	Throttling disc	(600577)
8	Manual activation ring	71680-009965 (kit)
9	Adaptor	71680-009965 (kit)
10	O-ring	71680-009965 (kit)
11	O-ring	71680-015940
12	Inlet filter	71680-006221
13	Solenoid (2-Way Agr-24VAC)	71640-007040
	Solenoid (2-Way Agr-24VDC)	71680-031060
	Solenoid + operator (2-Way) Ind-24VAC	02244-600853
	Solenoid + operator (2-Way) Ind-24VDC	02244-600854
14	Plug	71610-000800
15	Nut	71680-031760



2-way diaphragm 3-way diaphragm

When converting to a pneumatic control, Dorot-75-ond Checkvalve/nozzle-2-way (71680-006221) should be applied.

Parts list Dorot 75 3-way

No.	Description	Article No.
1	Long bolt	71680-012666
2	Short bolt	71680-012663
3	Spring	71680-008400
4	3-Way diaphragm	71680-006210
	3-Way diaphragm chemical	71680-022160
5	Body	
6	3-Way bonnet throttle	71680-009940
6a	Dorot-75-ond Manual operation-St.St.-3-way	71680-031780
7	Throttling disc	
8	O-ring	
9	Solenoid (3-Way Gem-Sol) 24VAC-5,5W 50Hz	02244-600793
	Solenoid (3-Way Gem-Sol) 24VAC-5,5W 60Hz	02244-600791
	Solenoid (3-Way Gem-Sol) 24VDC- 5,5W	02244-600794
	Solenoid + operator (3-Way Gem-Sol) 24VAC- 5,5W	02244-600787
	Solenoid + operator (3-Way Gem-Sol) 24VDC- 5,5W	02244-600798
NO-valve	Solenoid + operator + base (NC) 24VAC- 5,5W 1,6mm	02244-600845
NO-valve	Solenoid + operator + base (NC) 24VDC- 5,5W 1,6mm	02244-600847
10	Finger filter	71680-014170

