

Dorot-80 valve

Dorot



The Dorot 80 diaphragm valve has been specially developed for use in greenhouse horticulture. The difference compared with the Dorot 75 Series is the form of the diaphragm and its connection to the housing. The diaphragm of the Dorot 80 is completely supported in both open and closed state. This prolongs the service life and increases the reliability. The large internal passage of the Dorot 80 ensures a high capacity.

The Dorot 80 is available in an angled (designation 'A' - Angle) version with 1.5" or 2" connection and in a straight version ('S' - Straight) with 1", 1.5" or 2" connection. The designation 'T' indicates that the valve has an integral flow restrictor (throttle). This throttle can be removed to prevent unauthorised changing of the setting during use. Even when the solenoid is energised, the valve can be closed manually by means of a throttle. Unique is the integrated non-return valve in the 2-way version. This prevents partial opening of the valve when the inlet pressure is relieved.

The Dorot 80 is available in a 2-way and 3-way version. The 2-way version is supplied with an agricultural or industrial solenoid (G80), the 3-way version with an industrial solenoid (Gem Sol).

We recommend that the maximum pressure loss across the valve does not exceed 0.5 bar.

APPLICATION

In sprinkler and drip irrigation systems with large irrigation sections. The Dorot-80-T-1" is a special fast-closing version intended e.g. for fogger installations. The opening and closing time is approx. 1 second.

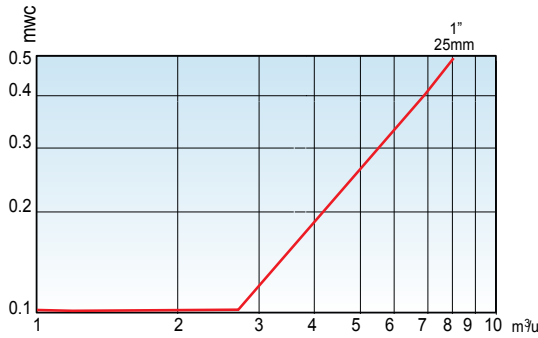
CHARACTERISTICS

- ✓ Closing by supported disc-shaped diaphragm
- ✓ Straight or angled connection
- ✓ Normally closed or normally open
- ✓ Equipped with a flow restrictor (throttle) for flow control
- ✓ Corrosion-resistant
- ✓ Improved control characteristic
- ✓ Large, simple manual operation
- ✓ Resistant to clogging thanks to large stainless steel inlet filter in the control flow. This filter can be cleaned manually without having to open the valve

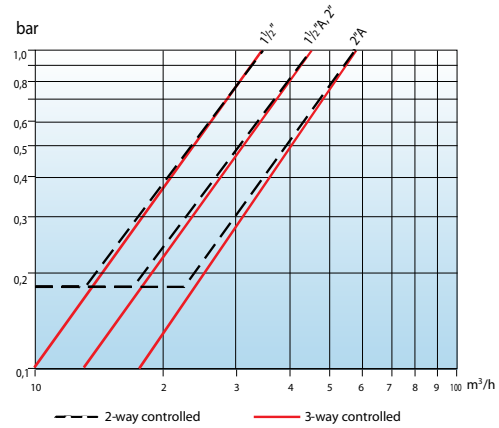
TECHNICAL DATA

Diameter	: 80 AT (angled with throttle): 1½" - 2" BSPT
	: 80 T (straight with throttle): 1" - 1½" - 2" BSPT
Optional	: 80 ¾" BSPT
Control connection	: ¾" UNF (2-way and 3-way)
Maximum pressure	: 10 bar (at 20°C)
Minimum pressure	: 0.5 bar
Maximum capacity	: 40 m ³ /h (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	: glassfibre-reinforced polyamide (housing) : EPDM and NBR (seals) : Stainless steel (metal parts)
Weight	: 0.8 kg (angled version) / 0.9 kg (straight version)
Electric solenoid (standard)	: 2-way: agricultural or G80 24V DC/AC (50/60 Hz); 230 VAC : 3-way: G80 24V DC/AC (50/60 Hz); 230 VAC
Type	: standard normally closed

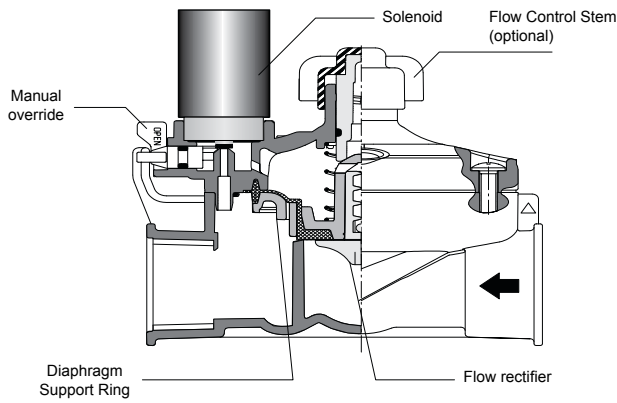
Pressure loss Dorot-80 1"



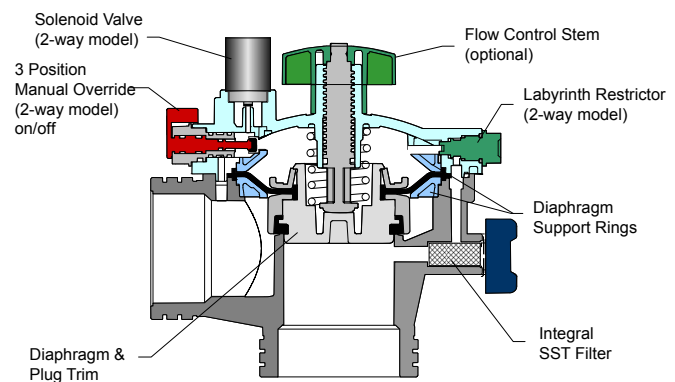
Dorot-80 1½" - 2"



Cross-section of working principle Dorot-80 1"



Dorot-80 1½" - 2" (old model)



Manual actuation Dorot-80 1½" - 2"

New model
open / automatic



Old model
closed / open / automatic



Maximum recommended capacity Dorot 80 with flow restrictor - throttle (m³/h)*

Type	Description	1"	1½"	2"
80AT-2-way	Angled 2-way agricultural solenoid	-	31	40
80AT-2-way-G80	Angled 2-way industrial solenoid	-	31	40
80AT-3-way-G80	Angled 3-way industrial solenoid	-	31	40
80T-2-way	Straight 2-way agricultural solenoid	-	22	31
80T-2-way-G80	Straight 2-way industrial solenoid	8	22	31
80T-3-way-G80	Straight 3-way industrial solenoid	-	22	31

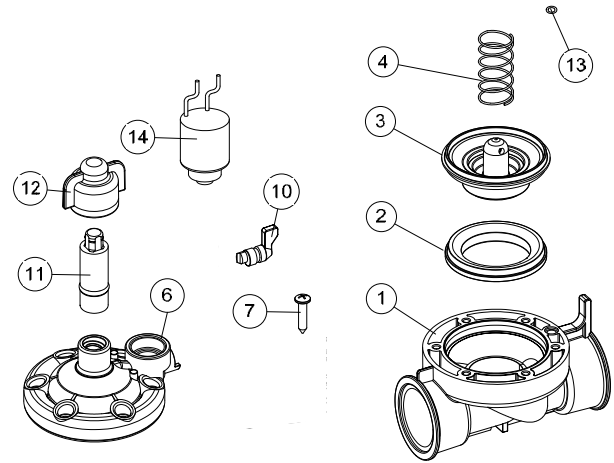
*Based on a pressure loss of 0.5 bar

INSTALLATION & MAINTENANCE

- ✓ The Dorot 80 Series can be installed in any position. Installation 'upright' or 'vertical with the solenoid facing upwards' are preferred as the air can thus escape easily and the accumulation of contaminants behind the solenoid plunger is prevented.
- ✓ If there is a risk of freezing, the water must be drained from the valves (and solenoids).

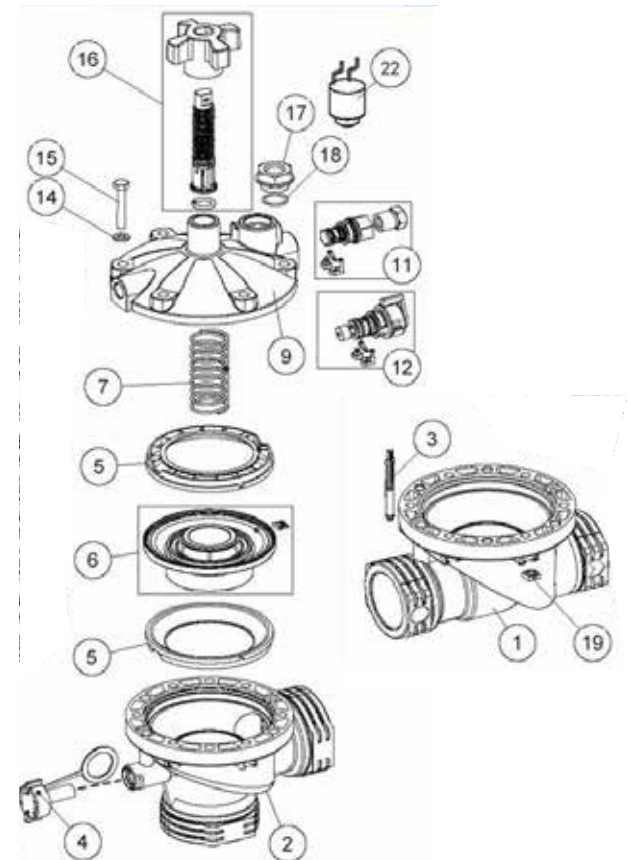
Parts list Dorot 80 1"

No.	Description	Article No.
1	¾" of 1" BSP body	
2	Supporting disk	71680-006165
3	Diaphragm assembly	
4	Spring	
6	Throttling E bonnet	
7	Bolt	
10	Override assy	71680-031770
11	Spindle assy	
12	Handwheel	
13	O-ring	
14	Solenoid operator	



Parts list Dorot 80 1" - 2"

No.	Description	Article No.
1	1 ½" of 2" Straight body BSP	
2	1 ½" of 2" Angle Body BSP	
3	Filter assy Straight valve	71680-010430
4	Filter assy Angle valve	71680-010420
5	Support ring (top)	
5a	Support ring (bottom)	
6	Diaphragm assembly	
7	Spring-3w valves	71680-010418
9	Throttling bonnet	
10	Upstream connection assy	
11	Downstream connection assy	
	Manual control	71680-031900
12	Override assy (old model)	
12	Override assy (new model)	71680-031770
	Upstream labyrinth	
14	Washer	
15	Bolt	
16	Throttling handle kit	
17	Adaptor	
18	O-Ring	
19	Nut	
22	Solenoid operator*	
	Labyrinth-CV	71680-009730



Solenoids 2-way (Normally Closed)

Description	Article No.
Sol-agr. 24VAC-50/60Hz-2,2W	71640-007040
Sol-agr. 24VDC-4,5W	71680-031060
Sol-ind.+operator 24VAC-50Hz-4W	02244-600853
Sol-ind.+operator 24VDC-6,5W	02244-600854
Sol-ind. 24VAC-50Hz-4W	02244-600985
Sol-ind. 24VDC-6,5W	02244-600987

Solenoids 3-way (Normally Closed)

Description	Article No.
Sol-3-way G80+oper. 24VAC 50Hz-7,5W	02244-600990
Sol-3-way G80+oper. 24VDC 6,5W	02244-600992
Sol. G80 24VAC 50Hz 7,5W	02244-600985
Sol. G80 24VDC 6,5W	02244-600987