



Product Catalogue
Series 75 Valves

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Dorot Series 75

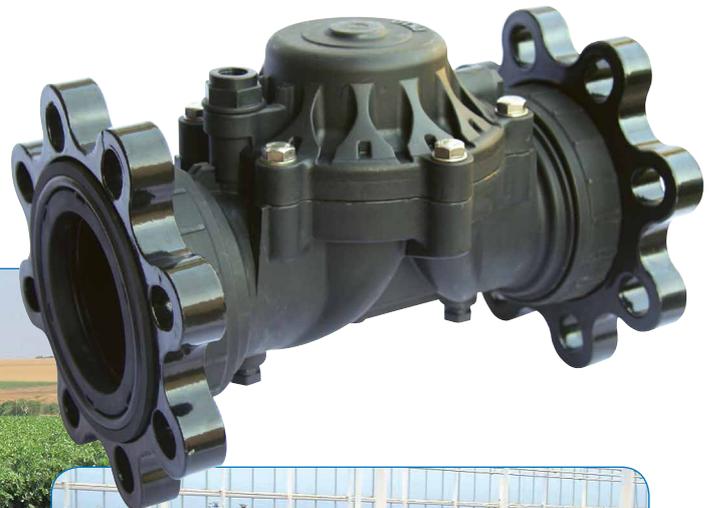
Series 75 plastic valves are designed to control irrigation systems for crop fields, vineyards and orchards.

This series boasts exceptional hydraulic characteristics enabling high flow rates, while operating at low head loss.

A wide range of control functions allow designing and operating optimal irrigation networks.

Features:

- Simple structure
- Superb hydraulic performance - unmatched high flow capacity
- Durable, corrosion free materials
- Unique clog-free labyrinth inlet in the electric 2-way valves
- Optional check feature
- Operates at a wide range of flow rates, from near zero to maximal flow
- Electric 2-way or hydraulic / electric 3-way actuation
- Optional flow control throttle handle
- Simple & Easy maintenance
- Suitable for Low pressure systems



Benefits:

Simplicity - Only 4 parts:



*For 3 way models only

End Connections Options:

BSP; NPT - Thread $\frac{3}{4}$ " - 3"



PVC Connection 2"



Universal Flange 3", 4"



Versatility

Manual throttling



Built-in Solenoid



Flexible Diaphragm

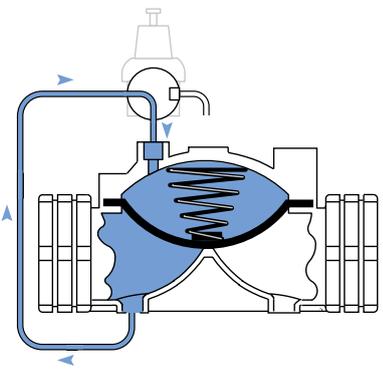
- Trouble-free open-close as well as regulating operation even with raw water (with high rate of solids and impurities) conduction
- Excellent Regulation capabilities, including at Zero Flow conditions
- Extremely wide water pass-through cross sections



Operating principle:

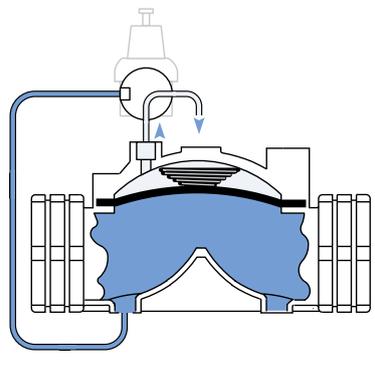
3 Way Control

Closed mode



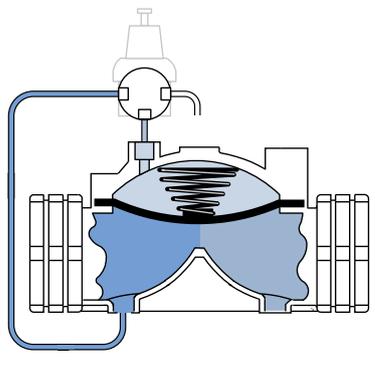
When inlet pressure is applied to the control chamber the valve closes drip-tight.

Open mode



When the operating pressure is relieved from the control chamber, the line pressure at the valve inlet opens the valve.

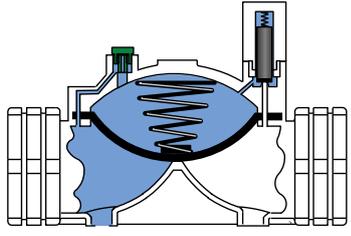
Modulating mode



The position of the diaphragm is dictated by the volume of water in the control chamber, which is regulated by the pilot valve in order to maintain a preset pressure value.

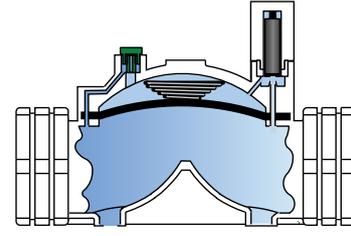
2 Way Electric-Control

Closed mode



A solenoid operator plugs the control chamber's outlet. A permanent connection from the upstream through a labyrinth restriction ensures line pressure into the chamber closing the valve.

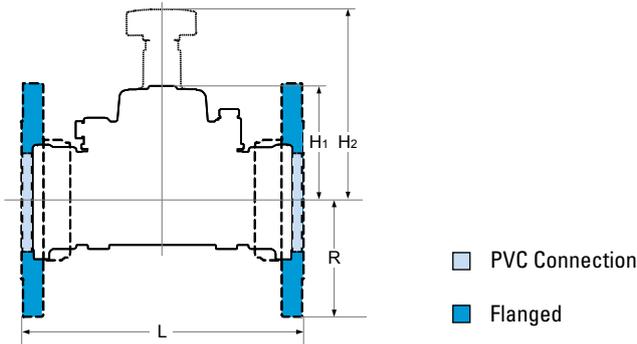
Open mode



Energizing the solenoid operator opens a drain to the downstream, allowing the valve to open.

Dimensions

Dimension		20mm 3/4"	25mm 1"	35mm 1 1/2"	50mm 2"	50mm 2"	65mm 2 1/2"	80mm 3"(323)	80mm 3"	80mm 3"	100mm 4"	
Height	H1	mm / inch	38 / 1 1/2	38 / 1 1/2	67 / 2 5/8	67 / 2 5/8	67 / 2 5/8	67 / 2 5/8	100 / 3 15/16	100 / 3 15/16	100 / 3 15/16	
	H2	mm / inch	100 / 4	100 / 4	112 / 4 3/8	112 / 4 3/8	112 / 4 3/8	112 / 4 3/8	180 / 7 1/8	180 / 7 1/8	180 / 7 1/8	
	R	mm / inch	18 / 11/16	22 / 13/16	30 / 1 3/16	37 / 1 1/2	37 / 1 1/2	47 / 1 7/8	54 / 2 1/8	60 / 2 3/8	100 / 3 15/16	110 / 4 5/16
Length	L	mm / inch	113 / 4 1/2	124 / 4 7/8	188 / 7 3/8	199 / 7 7/8	247 / 9 11/16	228 / 9	236 / 9 1/4	260 / 10 1/4	280 / 11	
Vol.control chamber		cc / gal	36 / 0.01	36 / 0.01	180 / 0.04	180 / 0.04	180 / 0.04	180 / 0.04	250 / 0.05	250 / 0.05	250 / 0.05	
Weight		kg / lbs	0.2 / 0.44	0.2 / 0.44	0.9 / 2	0.9 / 2	1.3 / 2.8	1.2 / 2.6	1.4 / 3.1	2 / 4.4	3.1 / 6.8	4 / 8.8



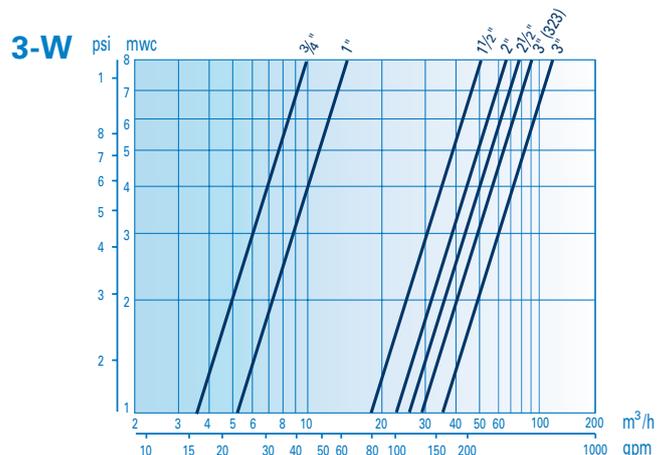
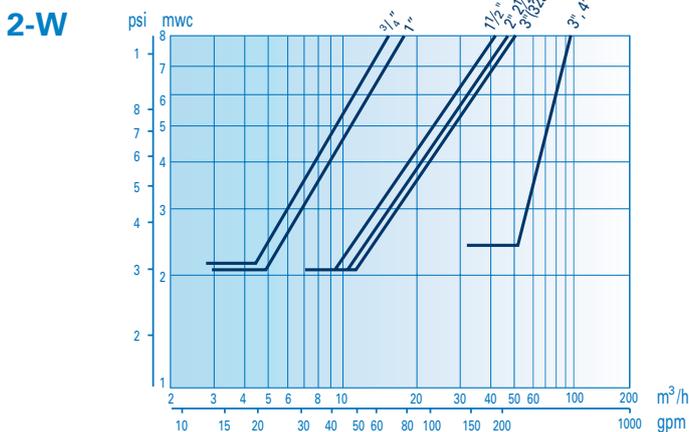
Hydraulic performance:

Valve Size	mm inch	20mm 3/4"	25mm 1"	35mm 1 1/2"	50mm 2"	65mm 2 1/2"	80mm 3"(323)	80mm 3"	100mm 4"
Max. Recommended Flow	m ³ /hr	6	10	25	40	65	90	145	145
	gpm	26	44	110	176	285	396	640	640
Min. recommended flow rate	m ³ /hr	<1							
	gpm	<5							
Flow rate factor	Kv (metric)	7.5	15	60	71	79	79	120	120
	Cv (US)	9	17.5	70	82	92	92	140	140
Pressure range	meter	9 * - 80			7 * - 100			4 - 100	4 - 100
	psi	15 * - 115			15 * - 150			6 - 145	6 - 145

* Low pressure diaphragms - minimal opening pressure: 3/4" - 1" : 6 meter / 9 psi
 1 1/2" - 3" : 3.5 meter / 5 psi

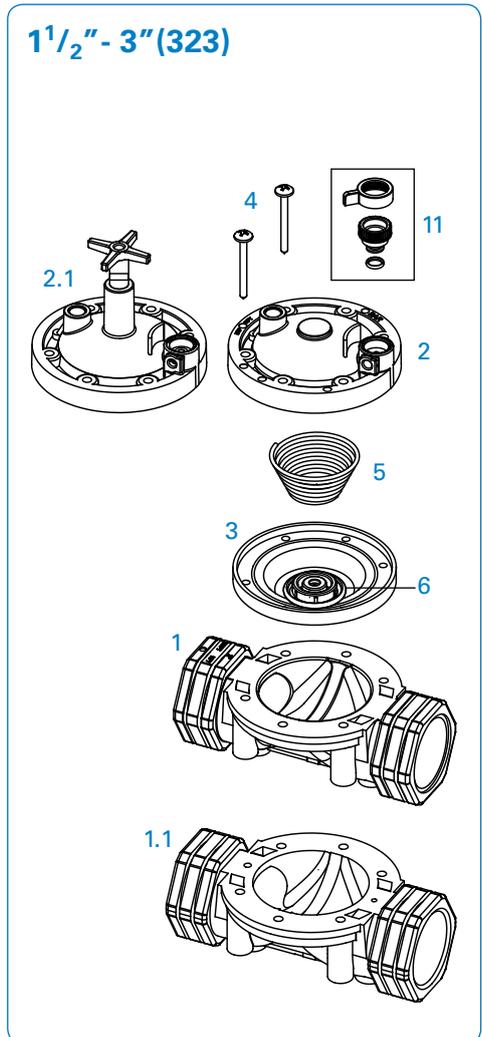
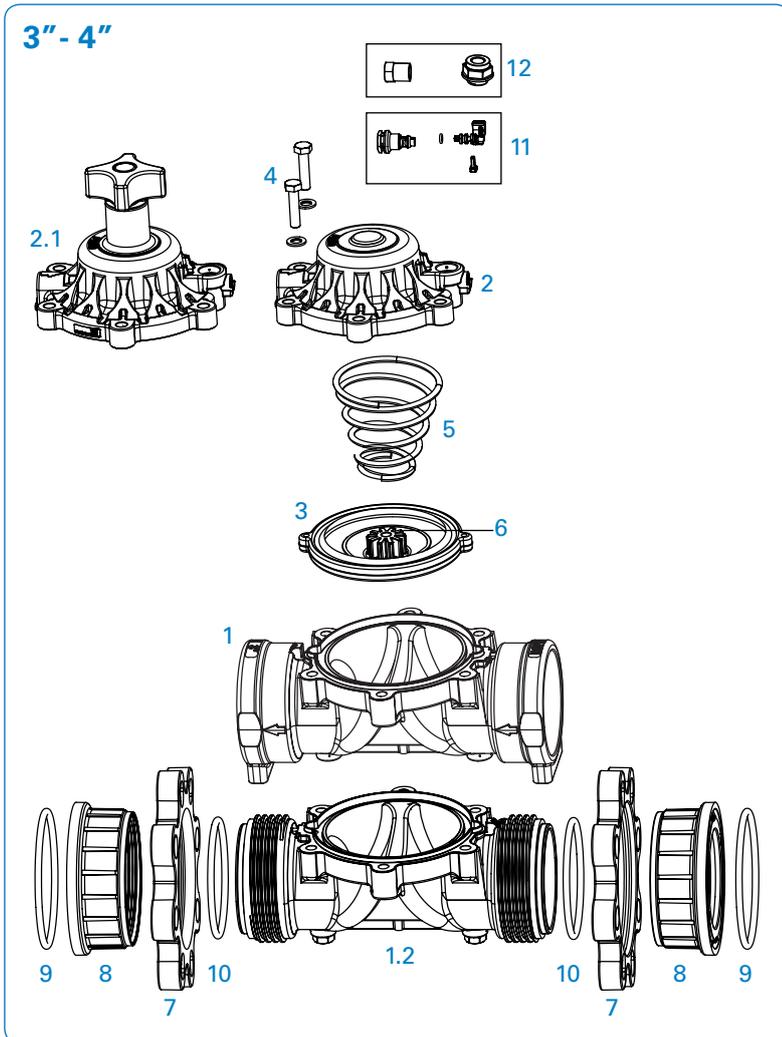
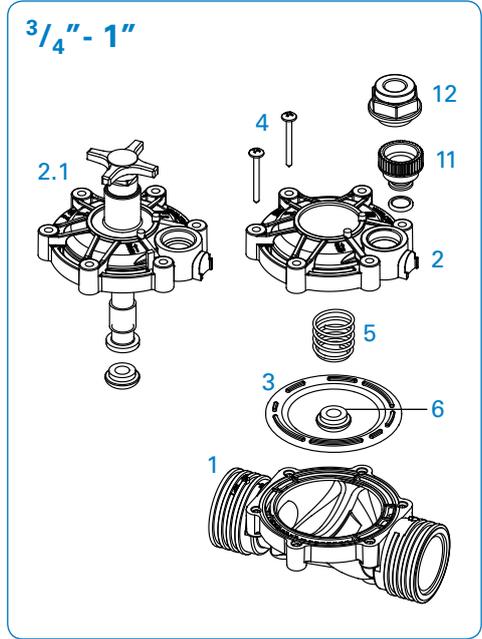
Maximum operating temperature: 60°C (140°F)

Head loss chart:



Parts and Materials:

	Part	Standard	Optional
1	Body	GRP	Polypropylene PP
1.1	Body - 2 way	GRP	Polypropylene PP
1.2	Body for flange connections	GRP	Polypropylene PP
2	Bonnet	GRP	Polypropylene PP
2.1	Bonnet with throttling handle	GRP	Polypropylene PP
3	Diaphragm	NR	ALD
4	Bolts and washers	SST 304	SST 316
5	Spring	SST 302	SST 316
6	Spring disc	GRP	Polypropylene PP
7	Flange	3" - Aluminium 4" - Plastic / Aluminium	
8	Flange adapter	PA-GF	
9	O-ring No. 2-347	NBR	
10	O-ring No. 2-342	NBR	
11	2 way adaptors	GRP	Polypropylene PP
12	3 way adaptors	GRP	Polypropylene PP



Typical Applications:



Ordering guide:

Ordering data		Ordering code				Ordering data		
		7□	□	□□	□□	□□		
Versions			↑	↑	↑		Port connections	
Threaded	→	5				BS	BSP threaded	
	→	5S*				NP	NPT threaded	
Flanged	→	5S-F**				SW	PVC solvent welded	
PVC solvent welded***	→	6					Application	
Polypropylene PP	→	5P / 6P				B	←	Basic
Bonnet						M	←	Manual ON-OFF
Standard	→	-				RC	←	Remote hydraulic control
with throttling handle	→	T				ED2	←	Electric 2Way valve (integral operator)****
Port size						ED2(CV)	←	Electric 2Way valve with check feature****
3/4" / 20 mm	→	75				EL(D3)	←	Electric 3Way valve****
1" / 25 mm	→	1				ED3	←	Electric 3Way valve (integral operator)****
1 1/2" / 40 mm	→	1.5				PR	←	Pressure Reducing
2" / 50 mm	→	2				PS	←	Pressure Sustaining/Relief
2 1/2" / 65 mm	→	2.5				PR/EL	←	Electrically-activated Pressure Reducing****
3" (323) / 80 mm	→	3				PR/RC	←	Hydraulically-activated Pressure Reducing
3" / 80 mm	→	3				PR/PS	←	Pressure Reducing and Pressure Sustaining
4" / 100 mm	→	4				PS/EL	←	Electrically-activated Pressure Sustaining****
						FR	←	Flow Control Valve
						FL	←	Modulating Float Controlled Valve
						XX	←	Other (Specify)

* For 3" full port designate 5S

** Available for 3" and 4" only

*** 2"/50mm valves are available with solvent welded only

**** For Electric applications please specify voltage and current



Innovation
Innovation

Expertise
Expertise

Reliability
Reliability



Hundreds of companies in the industrial, civil engineering, municipal and agricultural sectors around the world have chosen DOROT's innovative and field-proven technologies. Since its establishment in 1946, DOROT leads the valves market with continued innovation, uncompromising excellence and firm commitment to its customers, consulting and supporting them through all stages of a project and overcoming challenges in R&D, design, implementation, and maintenance.



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