DOROT S96-95 series

Advanced hydraulic solutions for optimal management of liquid conveyance systems

Aquestia

Directing the Flow

DOROT S95-96

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Benefits

Simplicity - Only 4 parts

Body

Diaphragm

Spring

Bonnet

End Connections Options

Thread 3" (80mm)
BSP or NPT

Solvent welded 3", 4", 6",
90mm, 110mm, 160mm

Cost effective, quick installation

- Extremely simple to install in the field, no tools or accessories required
- Solvent-weld or threaded end-connection options

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
- Extremely wide water pass-through cross sections

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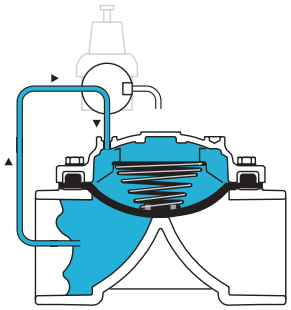
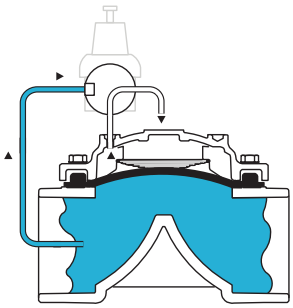
Technical Data

Principle of Operation



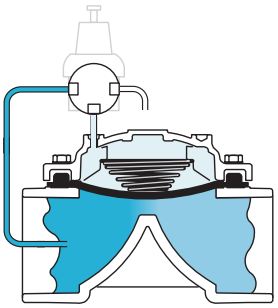
Closed mode

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



Open mode

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



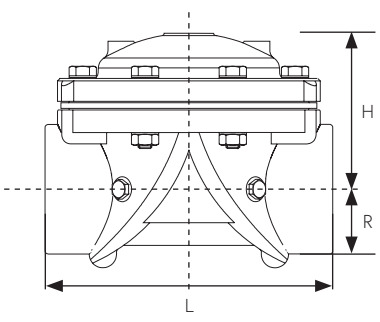
Modulating mode

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

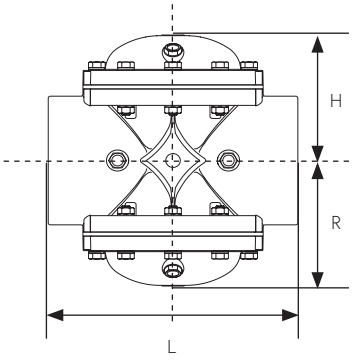
Dimensions

Dimension			90mm 3"	110mm 4"	160mm 6"
Height	H	mm / inch	138 / 5⅜	138 / 5⅜	191 / 7½
	R	mm / inch	70 / 2 11/16	70 / 2 11/16	191 / 7½
Length	L	mm / inch	258 / 10 3/16	278 / 10 15/16	360 / 14 3/16
Vol.control chamber		ltr / gal	0.7 / 0.18	0.7 / 0.18	2.6 / 0.68
Weight		kg / lbs	4 / 8.8	4.2 / 9.2	11.8 / 26

3" & 4"



6"



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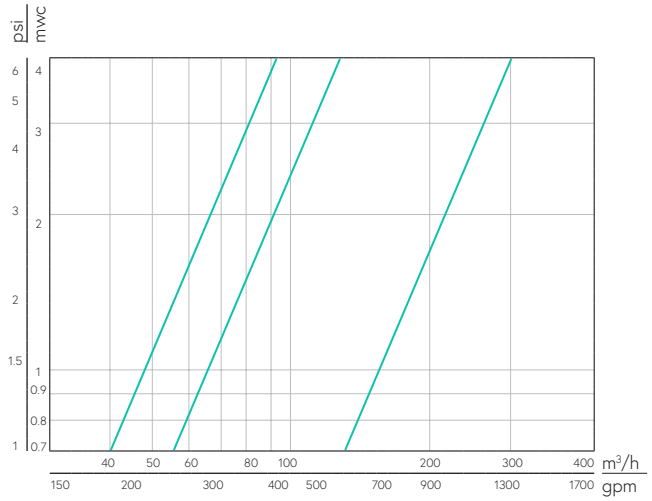
Pressure Losses



Hydraulic Performance

Valve Size	mm inch	90mm 3"	110mm 4"	160mm 6"
Max. recommended flow	m^3/hr	100	160	350
	gpm	440	700	1540
Min. recommended flow rate	m^3/hr	<1		
	gpm	<5		
Flow rate factor	Kv (metric)	152	215	480
	Cv (US)	177	250	560
Pressure range	wmc	6 - 80		5 - 100
	psi	9 - 115		7 - 150

Maximum operating temperature: 40°C (104°F)
Maximum operating pressure: 10 bar (150 psi)

Diaphragm and spring selection table

Diameter	Type	Diaphragm No.	Spring No.	Opening pressure	
				mwc	psi
3" / 90mm	Standard	95	9	6	7
	Low pressure	179	12	3	4
4" / 110mm	Standard	95	9	6	7
	Low pressure	179	12	3	4
6" / 160mm	Standard	52	6	5	9
	Low pressure	264	6	3	4

Low pressure diaphragm may be used for open/close applications – up to 5 bar/ 75 psi
For flow/pressure modulation- use low pressure diaphragm only when dynamic upstream pressure is below 1.5 bar / 20 psi

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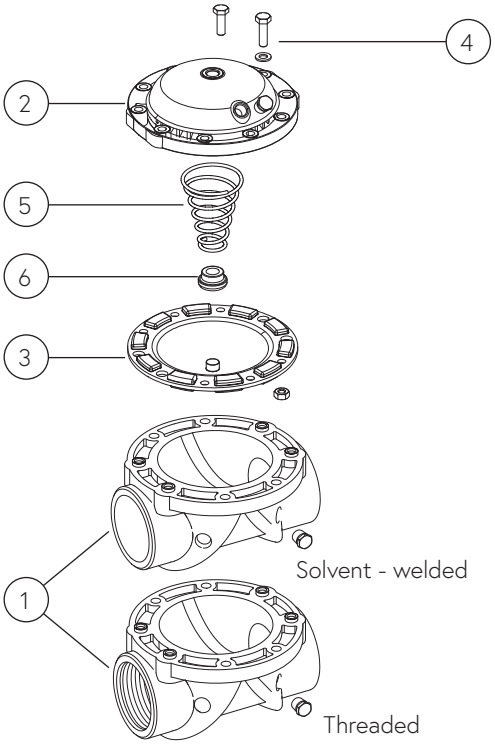
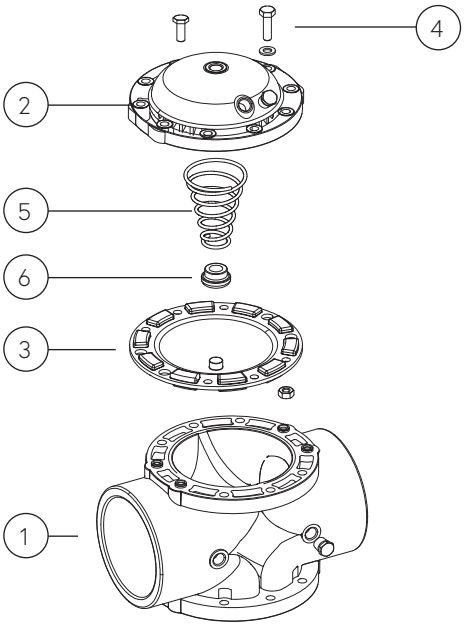
Parts and Materials

	Part	Standard	Optional
1	Body	uPVC	
2	Bonnet	GRP	PPS
3	Diaphragm	NR	ALD 70 & EPDM
4	Bolts & Washers	Steel	SST 316
5	Spring	SST 302	SST 316
6	Spring disc	GRP	Polypropylene PP



3"- 4" / 90 - 110 mm



6" / 160 mm

Typical Applications

Pressure Reducing

Pressure Reducing

Pressure Reducing for Mining

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Ordering Guide

Ordering data		Ordering code				Ordering data	
		9□	□	□ □	□ □		
Versions			↑	↑		**Application**	
Threaded	→	5 *			B	←	Basic
PVC solvent-welded	→	6			M	←	Manual ON-OFF
Port Size					RC	←	Remote Hydraulic Control
3" / 80 mm		→	3		EL(D3)	←	Electric 3Way valve***
90 mm		→	90		PR	←	Pressure Reducing
4"		→	4		PS	←	Pressure Sustaining/Relief
110 mm		→	110		PR/EL	←	Electrically-activated Pressure Reducing***
6"		→	6		PR/RC	←	Hydraulically-activated Pressure Reducing
160 mm		→	160		PR/PS	←	Pressure Reducing and Pressure Sustaining
Connection Standard					PS/EL	←	Electrically-activated Pressure Sustaining***
Solvent-welded			→	-	FR	←	Flow Control Valve
BSP **			→	BSP	FL	←	Modulating Float Controlled Valve
NPT **			→	NPT	XX	←	Other (Specify)

* Only for 3" / 80mm valves

** Only for 95 (threaded) version

*** For electric applications please specify voltage and current

- For copper or gold mine-applications, please add a text note to the order
- Other control functions available - please consult Application Engineering Department

Example:

95	3	BSP	PR

95 3 BSP PR

Dorot Series 95, size 3" (80mm), BSP, Pressure Reducing Control Valve

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Advanced hydraulic solutions for optimal management of liquid conveyance systems

Aquestia is a world leader in providing optimal solutions for surge protection, water loss reduction and pressure management, by integrating uniquely developed products with innovatively designed software.Bringing together three strong brands - A.R.I., DOROT and OCV – we combine decades of experience, a wealth of knowledge and expertise, and a wide range of solutions and services.
We are where liquid flows, serving customers in segments that include waterworks and wastewater systems, irrigation, fire protection, mining, ballast water, desalination, commercial plumbing, aviation fueling, oil & gas, and more.

Aquestia – high-quality, reliable products and committed service - for your peace of mind.

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