

DOROT S96-95 series



Advanced hydraulic solutions for optimal
management of liquid conveyance systems

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

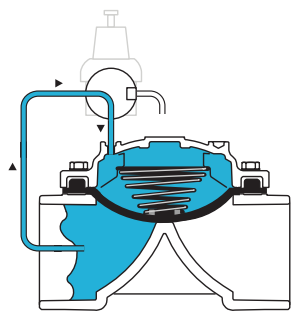
Flexible Diaphragm

- 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



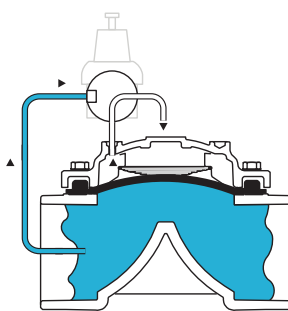
Technical Data

Principle of Operation



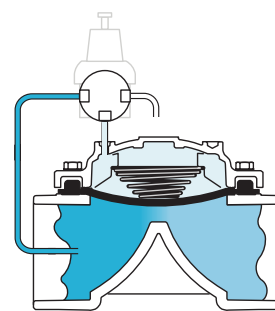
Closed mode

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.



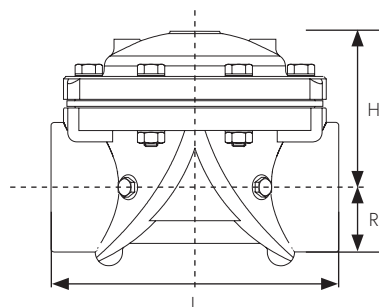
Modulating mode

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.

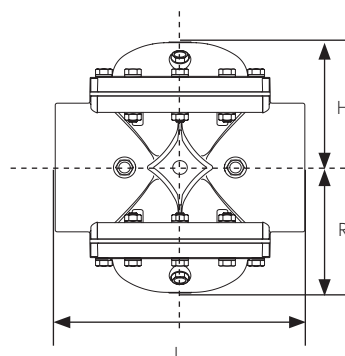
Dimensions

Dimension			90mm 3"	110mm 4"	160mm 6"
Height	H	mm / inch	138 / 5 $\frac{3}{8}$	138 / 5 $\frac{3}{8}$	191 / 7 $\frac{1}{2}$
	R	mm / inch	70 / 2 $\frac{11}{16}$	70 / 2 $\frac{11}{16}$	191 / 7 $\frac{1}{2}$
Length	L	mm / inch	258 / 10 $\frac{3}{16}$	278 / 10 $\frac{15}{16}$	360 / 14 $\frac{3}{16}$
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

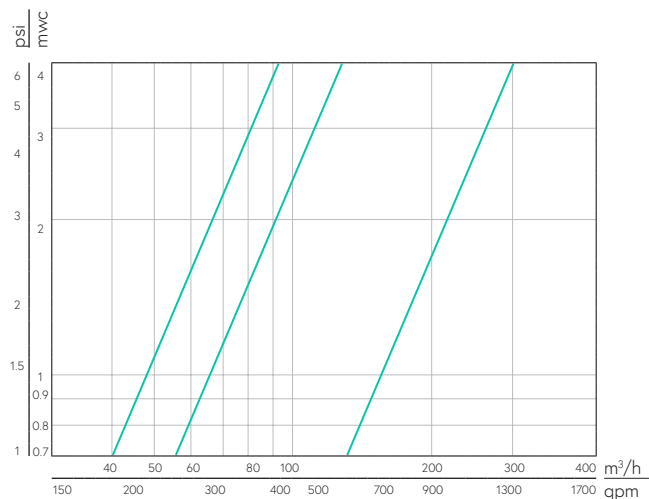
3" & 4"



6"



Pressure Losses



Hydraulic Performance

Valve Size	mm inch	90mm 3"	110mm 4"	160mm 6"
Max. recommended flow	m³/hr	100	160	350
	gpm	440	700	1540
Min. recommended flow rate	m³/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

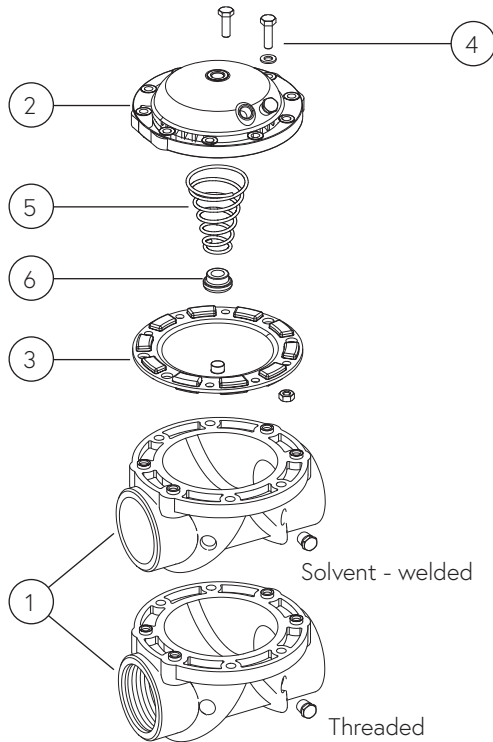
Diameter	Type	Diaphragm No.	Spring No.	Opening pressure	
				mwc	psi
3" / 90mm	Standard	95	9	6	7
	Low pressure	179	12	3	4
4" / 110mm	Standard	95	9	6	7
	Low pressure	179	12	3	4
6" / 160mm	Standard	52	6	5	9
	Low pressure	264	6	3	4

Low pressure diaphragm may be used for open/close applications – up to 5 bar/ 75 psi

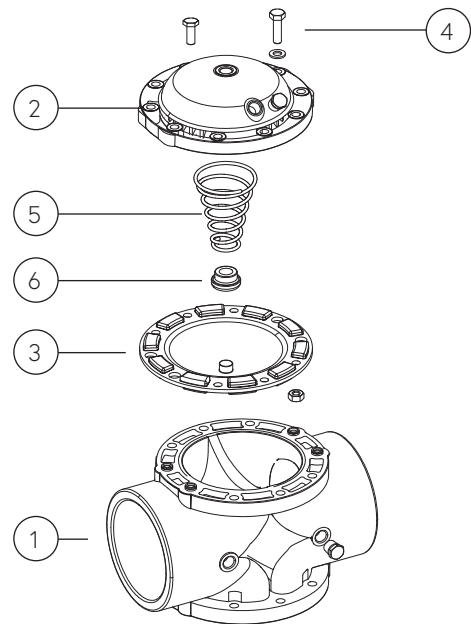
For flow/pressure modulation- use low pressure diaphragm only when dynamic upstream pressure is below 1.5 bar / 20 psi

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



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
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95 3 BSP PR

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



Directing the Flow

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.