

# CAST IRON VALVES

PRESSURE REDUCING  
VALVES SERIES





# NETAFIM CAST IRON VALVES

PRESSURE REDUCING VALVES

INLINE 20 - 600MM

ANGLE 40 - 150MM



## SPECIFICATIONS

- Manufactured to ISO 9001
- Available Valve sizes INLINE Flanged 50mm to 600mm & Threaded 19mm to 80mm
- Available Valve sizes ANGLE Flanged 80mm to 150mm & Threaded 40mm to 80mm
- Body and cover material Cast Iron/ASTM A45 CIS25A Cast Bronze/BS 1400 LG Ductile Iron/ ASTM A-536
- Cover bolts steel cobalt coated (standard) stainless steel 304 option
- Flanged connections BST-D (standard) BST-E, ANSI, ISO
- Threaded Connections BSP, NPT 25, 40, 50 & 80mm  
Victaulic Connections 80, 100 & 150mm
- Body coating fusion bonded Polyester (Standard) Nylon 11, Rilsan, Enamel & Ceramic options available
- Diaphragm nylon reinforced Acrylonitrile - Butadiene (NBR) (standard) other options available, EPDM and Viton
- Operating Pressure Range 0.4 - 25 Bar
- Temperature range water up to 80°C (175°F).

## FEATURES & BENEFITS

- Fast & accurate modulation over a wide range of flows & pressures
- Supplied fully plumbed & assembled with 8mm Polyethylene tubing, Nylon fittings Pressure change point & Plastic filters
- Maximum working range of 3:1 (Standard configuration)
- Pressure Reducing range from 0.3 - 7.5 Bar (29-100 Pilot)
- Full range of springs for varying operating pressures
- Available in both AC and DC Electric options plus Hydraulic Relay Control
- Supplied with manual override for positive valve closure.



# 29-100

## PLASTIC MINI PILOT 3-WAY PILOT-VALVE PRESSURE-REDUCING



### DESCRIPTION

The **29-100** is a 3-way, diaphragm actuated, spring-loaded pilot-valve that is designed for control of pressure-reducing hydraulic valves. The pilot valve serves as a selector between the common port and the two other ports. The pilot valve will vent, pressurize or lock the hydraulic valve's chamber as a factor of the relation between the regulated pressure and the adjusted set-value.

### FEATURES

- Made of corrosion-proof composite materials
- Minimize pressure losses through the main valve by completely venting the control chamber
- "Poppet" design: minimal internal sealing and maximal dependability

### APPLICATIONS

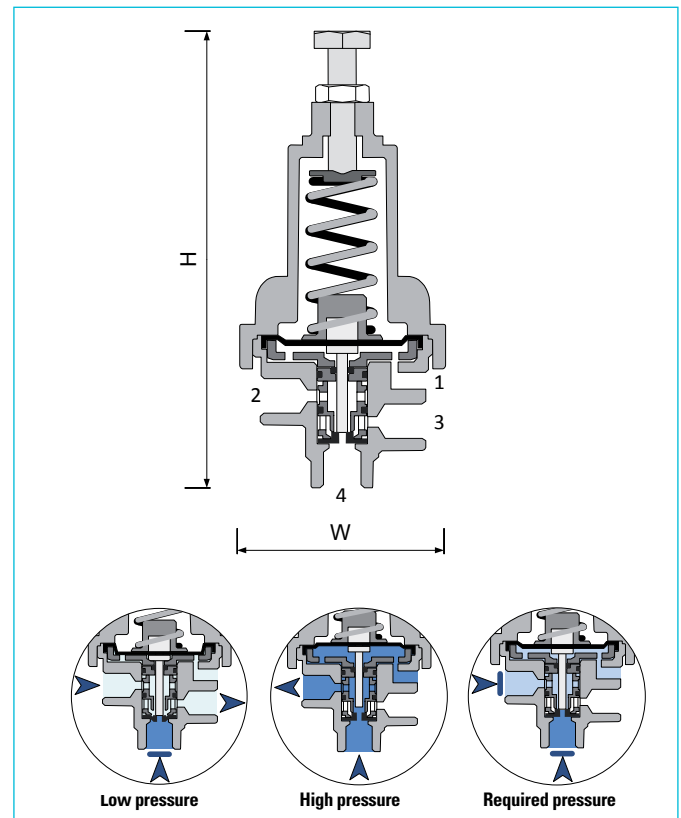
- Pressure reducing valves - **PR**
- Topography-compensating, 'Normally Open', remote hydraulic-control - **RC(NO)**

GENERAL	
<b>PRESSURE RATING</b>	10 bar / 150 psi
<b>PRESSURE ADJUSTMENT RANGE</b>	0.3 - 7.5 bar / 4 - 110 psi
<b>FLUID TEMPERATURE</b>	50°C max. / 120°F max.
<b>WEIGHT</b>	0.17 kg / 0.37 lbs
MATERIALS	
<b>BODY AND BONNET</b>	GRP
<b>ELASTOMERS</b>	NBR
<b>INTERNAL PARTS</b>	SST
<b>SPRING</b>	SST
DIMENSIONS	
<b>H (HEIGHT) MAX.</b>	130 mm / 5.12"
<b>W (WIDTH)</b>	65 mm / 2.56"
PORT CONNECTIONS	
<b>1,2,3,4</b>	NPT 1/8"

\* Other materials available upon demand

SPRING NUMBER	COLOUR	BAR	PSI
54 (Std.)	Green	0.5 - 4.5	7 - 65
72	Yellow	0.3 - 3	4 - 40
65	Red	1 - 7.5	15 - 110

Adjustment: Turn the adjusting screw clockwise to increase the set point

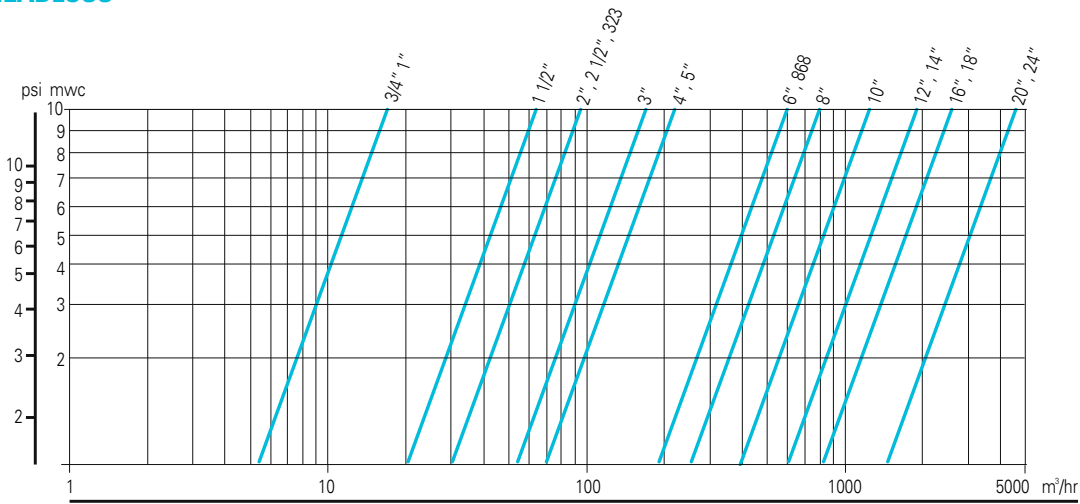


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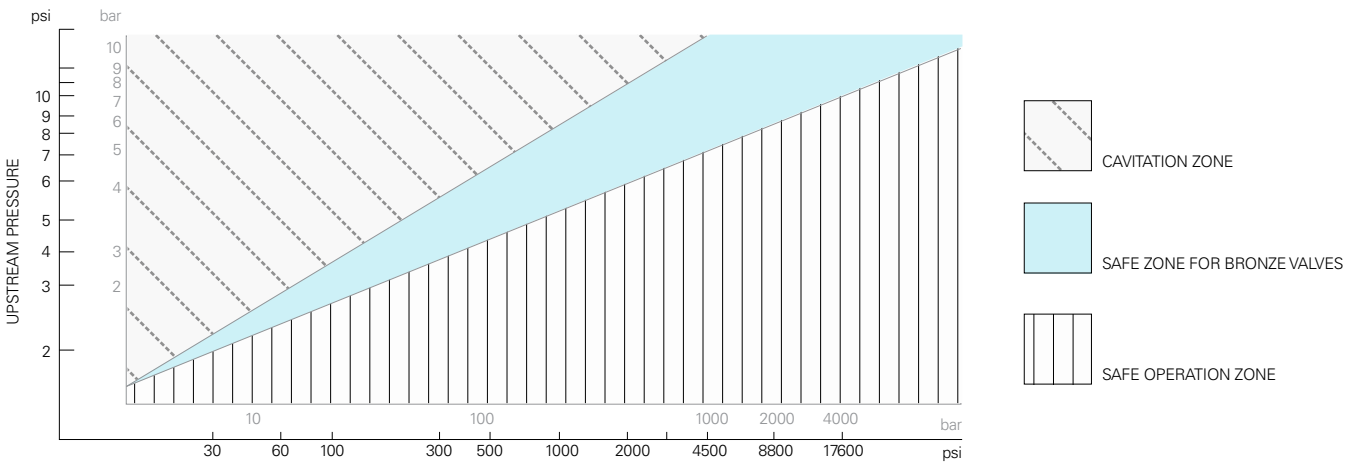
## HEADLOSS & CAVITATION DATA



### HEADLOSS



### CAVITATION DATA



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## HYDRAULIC PERFORMANCE



### HYDRAULIC PERFORMANCE

VALVE		MAX. FLOW CONTINUANCE	MAX. FLOW INTERMITTENT	MINIMAL FLOW	STANDARD PRESSURE KV	HIGH PRESSURE MODELS KV
MM	INCH	M <sup>3</sup> /HR	M <sup>3</sup> /HR	M <sup>3</sup> /HR	M <sup>3</sup> /HR @ 1 BAR	M <sup>3</sup> /HR @ 1 BAR
20	3/4"	6	16	<1	17	-
25	1"	10	27	<1	17	-
40	1½"	25	68	<1	64	-
50	2"	40	109	<1	95	78
80LF	323	40	109	<1	95	-
80	3"	90	245	<1	170	120
100	4"	100	273	<1	220	200
150	6"	350	955	<1	600	550
200	8"	480	1,309	<1	800	800
250	10"	970	2,645	<1	1,250	1,300
300	12"	1,400	3,818	<1	1,900	-
350	14"	1,400	3,818	<1	1,900	-
400	16"	2,500	6,818	<1	2,600	2,600
450	18"	2,500	6,818	<1	2,600	2,600
500	20"	3,890	10,609	<1	4,600	4,600
600	24"	5,500	10,609	<1	4,600	4,600

LF = Low Flow

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## DIMENSIONS



### STRAIGHT FLOW THREADED CONNECTION

VALVE SIZE		LENGTH		HEIGHT		D	W	WEIGHT	
		CAST IRON	BRONZE	CAST IRON	BRONZE			CAST IRON	BRONZE
MM	INCH	MM	MM	MM	MM	MM	MM	KG	KG
20	3/4"	115	112	43	43	20	68	1.0	1.0
25	1"	120	119	52	52	24	68	1.0	1.0
40	1 1/2"	170	149	93	86	33	93	2.2	1.8
50	2"	188	184	115	101	42	112	3.2	2.6
65	2 1/2"	219	212	118	109	46	112	3.6	3.4
80LF	323	225	221	126	116	54	112	4.5	3.9
80	3"	316	316	135	135	53	200	11.0	-

LF = Low flow

### STRAIGHT FLOW FLANGED CONNECTIONS STANDARD MODELS 16 BAR / 230 PSI

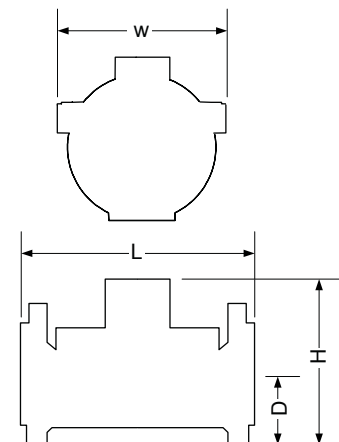
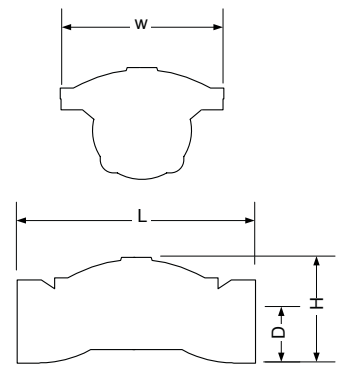
VALVE SIZE		L	H	D	W	WEIGHT		
						CAST IRON	DUCT. IRON	BRONZE
MM	INCH	MM	MM	MM	MM	KG	KG	KG
50	2"	200	166	85	166	7.2	7.7	8.0
80LF	323	200	202	105	200	11.0	11.8	-
80	3"	285	200	105	200	17.0	18.2	19.0
100	4"	305	230	110	230	22.0	24.0	24.0
150	6"	390	314	145	300	46.0	49.0	51.0
200LF	868	385	350	170	365	50.0	54.0	-
200	8"	460	400	170	365	80.0	86.0	89.0
250	10"	535	445	205	440	117.0	125.0	131.0
300	12"	580	495	240	490	156.0	167.0	147.0
350	14"	580	495	270	540	182.0	172.0	180.0

LF - Low flow

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Issued: January 2016



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## DIMENSIONS



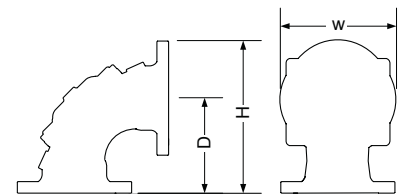
### ANGLE FLOW THREADED CONNECTION

VALVE SIZE		H	D	W	WEIGHT
MM	INCH	MM	MM	MM	KG
40	1½"	110	75	93	1.7
50	2"	136	90	112	2.4
80LF	323	165	114	112	3.6
80	3"	239	145	200	10.8

LF = Low flow

### ANGLE FLOW FLANGED CONNECTION

VALVE SIZE		H	D	W	WEIGHT
MM	INCH	MM	MM	MM	KG
80	3"	278	174	200	18.0
100	4"	300	185	230	21.0
150	6"	380	230	300	45.0



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## DIAPHRAGM SELECTION TABLE



### DIAPHRAGM SELECTION TABLE

DIAMETER		TYPE	NO.	PRESSURE RANGE	
MM	INCH			MWC	PSI
20, 25	3/4", 1"	Standard	18	12 - 160	17 - 230
20, 25	3/4", 1"	Low Pressure	85	5 - 100	7 - 140
40	1 1/2"	Standard	13	12 - 160	17 - 230
40	1 1/2"	S. Low Pressure	82	5 - 50	7 - 70
50, 65	2", 2 1/2", 3 2/3"	Standard	03	15 - 160	21 - 230
50, 65	2", 2 1/2", 3 2/3"	Low Pressure	02	7 - 100	10 - 140
50, 65	2", 2 1/2", 3 2/3"	S. Low Pressure	12	4 - 50	6 - 70
50, 65	2", 2 1/2", 3 2/3"	Extreme	60	20 - 160	28 - 230
50HP	2"HP	High Pressure	69	10 - 250	15 - 360
80, 100	3", 4"	Standard	32	12 - 160	17 - 230
80, 100	3", 4"	Low Pressure	05	4 - 100	6 - 140
80, 100	3", 4"	Extreme	61	20 - 160	28 - 230
80HP	3"HP	High Pressure	70	10 - 250	15 - 360
100HP	4"HP	High Pressure	71	10 - 250	15 - 360
150	6", 868	Standard	62	15 - 160	21 - 230
150	6", 868	Low Pressure	09	5 - 100	7 - 140
150	6", 868	S. Low Pressure	91	2 - 60	3 - 85
150	6", 868	Extreme	35	20 - 160	28 - 230

Standard Diaphragm: Nylon Reinforced Natural Rubber. Optional Materials: Nitrile, EPDM, Neoprene Available Upon Request.

HP = High Pressure



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## DIAPHRAGM SELECTION TABLE



### DIAPHRAGM SELECTION TABLE

DIAMETER		TYPE	NO.	PRESSURE RANGE	
MM	INCH			MWC	PSI
150HP	6"HP	High Pressure	72	10 - 250	15 - 360
200, 300, 350	8", 12", 14"	Standard	36	7 - 160	10 - 230
200, 300, 350	8", 12", 14"	Low Pressure	37	2 - 100	3 - 140
200, 300, 350	8", 12", 14"	Extreme	63	20 - 160	28 - 230
200HP	8"HP	High Pressure	73	10 - 250	15 - 360
250	10"	Standard	40	7 - 160	10 - 230
250	10"	Low Pressure	50	2 - 100	3 - 140
250HP, 400HP, 500HP, 600HP	10"HP, 16"HP, 20"HP, 24"HP	High Pressure	78	10 - 250	15 - 360
250HP, 400HP, 500HP, 600HP	10"HP, 16"HP, 20"HP, 24"HP	Low Pressure	92	2 - 100	3 - 140

Standard Diaphragm: Nylon Reinforced Natural Rubber. Optional Materials: Nitrile, EPDM, Neoprene Available Upon Request.  
HP = High Pressure

### PRESSURE RATING

Pressure rating of series 100 valves is body strength, connection standard and diaphragm type.

Pressure rating of valve body of standard models: 16 Bar / 230 psi.

Pressure rating of valve body of high pressure models: 25 Bar / 360 psi.

Connection standard is marked on the identification plate, assembled on the valve body. Diaphragms operation pressure range is presented at the above table.

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