

Series WA-M115

ACV: Pressure Reducing Valve

Size: DN40 - DN300

The Watts WA-M115 Watermarked Pressure Reducing Valve is designed to automatically reduce a fluctuating or high inlet pressure to a stable lower outlet pressure. The outlet pressure is adjustable over a broad range and remains stable from maximum to minimum rated flows.

Features

- Certified to Australian Standard 5081 for control valves
- Certified to AS4020 for drinking water
- Stainless steel trim as standard, for greater reliability & service life
- Dual pressure gauges as standard, for ease of setting and confidence in performance
- Factory tested and downstream pressure preset to 500 kPa as standard

Pressure-Temperature

- Operating Pressure: up to 1600kPa Standard, higher pressures on request
- Temperature Range: 0-80 °C for NBR Diaphragm & Seals
- Set Pressure Range: Standard: 70 to 860 kPa (set at 500 kPa)
Optional: 140 to 1200 kPa (set at 500 kPa)

Test Pressures

- Body Test Pressure: 2400 kPa
- Seat Test Pressure: 1760 kPa
- Based on Table E Flange

Material

Component	Material
Body/bonnet	Ductile Iron with Epoxy Resin, NSF Certified Coating
Stem/seat	Stainless Steel
Diaphragm	Nylon Reinforced NBR
Main valve seal	NBR
Pressure reducing pilot	Stainless Steel
Pilot strainer, needle valve & fittings	Brass or Bronze
Pilot tubing	Copper

Operating Principle

The main valve is controlled by the action of the pressure reducing pilot valve. If the downstream pressure is below the set pressure then the pilot valve opens, releasing water from the top chamber of the main valve, causing the main valve to open and downstream pressure to rise. As the downstream pressure nears the set point the pilot valve begins to close a little, resulting in more water accumulating in the top chamber of main valve, causing main valve to modulate and maintain the downstream pressure. If the downstream pressure increases above the set point, the pilot valve closes completely, resulting in full line pressure gently closing the main valve and creating a drip tight seal. In this way the main valve responds precisely to accurately maintain the downstream pressure.

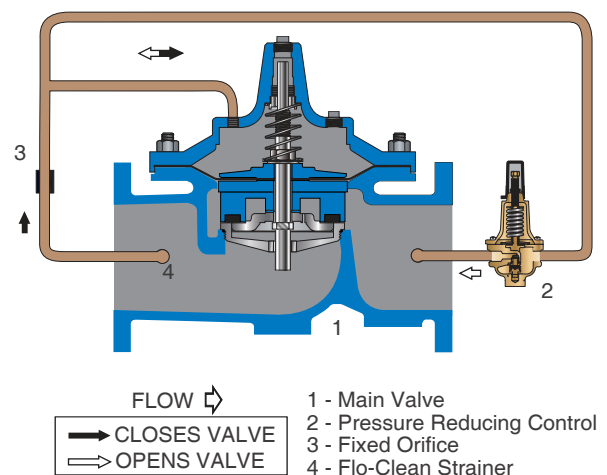


Specification

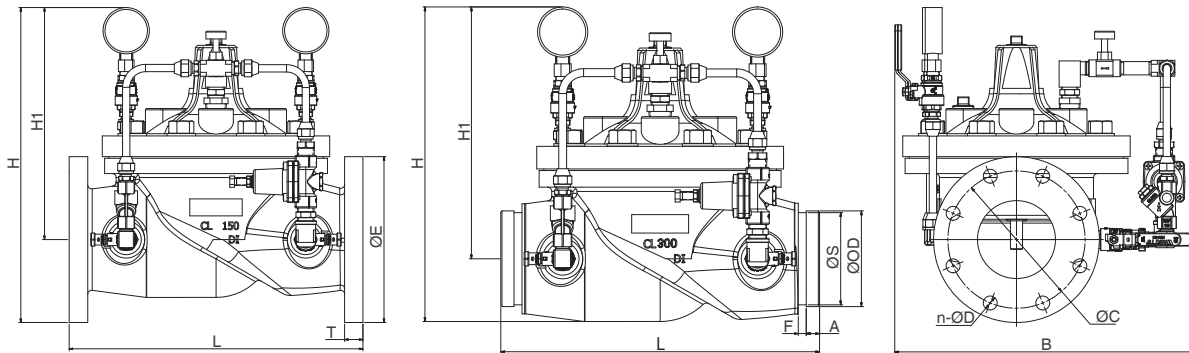
- Connection Type:
Flanged to AS 2129 Table E or D as standard: DN50-DN300
Threaded BSPT: DN40-DN50
Grooved to AWWA C606: DN50-DN150
- Working Medium: Non corrosive liquids

Approvals

- Water Mark License No.: WMK26355
- Standards Mark License No.: SMK26355



Installation Dimensions



Size DN		Dimensions(mm)				Flange Dimensions(mm)					Groove Dimensions (mm)				Weight (Kg)
		L	H	H1	B	ØC	n-ØD (Table E)	n-ØD (Table D)	ØE	T	ΦOD	ΦS	A	F	
40	Threaded	184	264	225	255	-	-	-	-	-	-	-	-	-	10.1
50	Threaded	238	273	228	255	-	-	-	-	-	-	-	-	-	13.9
50	Flanged	239	340	265	297	114	4-18	4-18	150	19.1	-	-	-	-	14.1
65	Flanged	280	355	272	305	127	4-18	4-18	165	22.4	-	-	-	-	22
80	Flanged	305	380	276	365	146	4-18	4-18	185	23.9	-	-	-	-	36.4
100	Flanged	381	413	305	370	178	8-18	4-18	215	23.9	-	-	-	-	52.1
150	Flanged	508	515	375	420	235	8-22	8-18	280	25.4	-	-	-	-	111.8
200	Flanged	645	575	402	510	292	8-22	8-18	335	28.4	-	-	-	-	197
250	Flanged	745	635	430	650	356	12-22	8-22	405	25	-	-	-	-	344
300	Flanged	864	900	528	750	406	12-26	12-22	455	31.8	-	-	-	-	526
50	Grooved	229	302	265	297	-	-	-	-	-	61	58	15.9	7.9	13.5
65	Grooved	290	315	272	305	-	-	-	-	-	73	69	15.9	7.9	21
80	Grooved	318	345	276	365	-	-	-	-	-	89	85	15.9	7.9	34.4
100	Grooved	381	376	305	370	-	-	-	-	-	115	110	15.9	7.9	40.3
150	Grooved	508	475	375	420	-	-	-	-	-	169	164	15.9	10	109.5

Flow Rates

Size DN	40	50	65	80	100	150	200	250	300
Maximum Continuous (l/s)	8	13	19	31	50	117	196	315	442
Maximum Intermittent (l/s)	10	17	25	37	63	145	252	394	561
Minimum Continuous (l/s)	0.3	0.4	0.6	0.9	1.0	1.1	1.6	3.5	4.4

Installation General Instructions

- Prior to installation, flush line to remove debris.
- Install valve horizontally "in line" (cover facing UP), so flow arrow matches flow through the line. Avoid installing valves 6" and larger vertically, flow must be upwards. Consult factory prior to ordering if installation is other than described.
- Install inlet and outlet isolation valves. NOTE: When using butterfly valves, insure disc does not contact control valve, as damage or improper valve seating may occur.
- Provide adequate clearance for valve servicing and maintenance.
- If installation is subjected to very low flow or potentially static conditions, it is recommended a pressure relief valve (1/2" minimum) be installed downstream of the Pressure Reducing Valve for additional system protection.

General Application

