



CASH VALVE™ E-55 SERIES PRESSURE REGULATORS

Pressure regulators for water and air services designed for high capacity, variable flow rates and accurate regulation



FEATURES

- Handles high and variable flow rates well beyond the limitations of ordinary regulators.
- Aspirated design for close pressure control.
- Balanced piston design provides sensitive operation, close regulation over wide fluctuations in inlet pressure and assures quiet performance.
- Simple design for easy maintenance and repair.
- Built-in strainer screen protects working parts and is easily cleaned.
- Optional construction for cryogenic service.

GENERAL APPLICATION

Suitable for service on air, water, oil, gases (except steam) and fluids not corrosive to bronze. It is particularly suitable for all types of water systems and various hydraulic and pneumatic systems that require exceptional accuracy.

TECHNICAL DATA⁽¹⁾

Materials:	Bronze
Sizes:	½ to 2 in. (15 to 50 mm)
Connections:	NPTF, BSPT
Maximum inlet pressure:	400 psig (27.6 barg)
Reduced pressure range:	10 to 300 psig (0.69 to 20.7 barg)
Maximum temperature:	180°F (82°C)

1. Refer to General Specifications Table in page 2 for more information.

CASH VALVE™ E-55 SERIES PRESSURE REGULATORS

GENERAL SPECIFICATIONS

Product	Spring Chamber			Body Size, in. (mm)	Materials		Maximum Inlet Pressure, psi (bar)	Maximum Outlet Pressure, psi (bar)	Temperature, °F (°C)
	Body Material	Material	Service		Diaphragm	Seat (Disc)			
E-55	Bronze	Bronze	Water/Air	½ to 1 (15 to 25)	NBR	NBR	400 (27.6)	250 (17.2)	180 (82)
	Bronze	Bronze	Water/Air	1 ¼ to 2 (32 to 50)	NBR	NBR	400 (27.6)	300 (20.7)	180 (82)

STANDARD SPRING RANGES, psig (barg)

Spring Material	Size, in. (mm)	1	2	3	4	5
Steel	½, ¾, 1 (15, 20, 25)	15 to 50 (1.0 to 3.4)	25 to 80 (1.7 to 5.5)	50 to 110 (3.4 to 7.6)	75 to 195 (5.2 to 13.4)	100 to 250 (6.9 to 17.2)
	1 ¼, 1 ½, 2 (32, 40, 50)	15 to 25 (1.0 to 1.7)	20 to 50 (1.4 to 3.4)	40 to 100 (2.8 to 6.9)	75 to 150 (5.2 to 10.3)	-----
	SST	½, ¾, 1 (15, 20, 25)	10 to 35 (0.69 to 2.4)	20 to 75 (1.4 to 5.2)	75 to 125 (5.2 to 8.6)	125 to 175 (8.6 to 12.1)
SST	1 ¼, 1 ½, 2 (32, 40, 50)	20 to 70 (0.69 to 4.8)	50 to 150 (3.4 to 10.3)	75 to 175 (5.2 to 12.1)	75 to 200 (5.2 to 13.8)	150 to 300 (10.3 to 20.7)

MATERIALS OF CONSTRUCTION

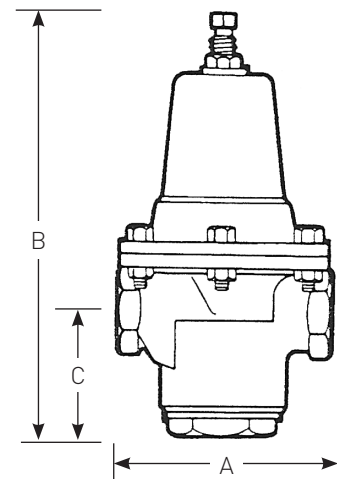
Part description	Materials
Body	Bronze
Spring chamber	Bronze
Pressure spring	SST, Steel
Diaphragm	NBR
Body seat	SST, Monel®(1)
Seat disc	NBR
Piston	Brass
O-ring	NBR
Strainer screen	Monel®
Bottom plug	Bronze

1. Available for ½ to 1 in. (15 to 25 mm) body size only.

DIMENSIONS

Size, in. (mm)	Dimensions, in. (mm)			Shipping weight, lbs (kg)
	A	B	C	
½ (15)	4.00 (102)	7.25 (184)	2.19 (55.6)	6.00 (2.72)
¾ (20)	4.00 (102)	7.25 (184)	2.19 (55.6)	6.00 (2.72)
1 (25)	4.00 (102)	7.25 (184)	2.19 (55.6)	6.00 (2.72)
1 ¼ (32)	5.50 (140)	11.96 (304)	3.19 (80.9)	17.0 (7.71)
1 ½ (40)	5.50 (140)	11.96 (304)	3.19 (80.9)	17.0 (7.71)
2 (50)	5.75 (146)	11.96 (304)	2.78 (70.6)	17.0 (7.71)

The amount of air or fluid any regulator will pass is governed by two factors: (1) pressure differential (difference between the inlet and outlet set pressure), and (2) fall-off (or droop). Outlet pressure fall-off drops slightly with increased flow (initially slight, increasing with higher flow). The rates of flow stated on the following charts are based on assumed conditions, which may be considered average for a given installation.



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CASH VALVE™ E-55 SERIES PRESSURE REGULATORS

TYPE E-55 PRESSURE REGULATOR - WATER CAPACITY IN GPM BY SIZE

Inlet, psig (barg)	Outlet, psig (barg)	½ in. (15 mm)	¾ in. (20 mm)	1 in. (25 mm)	1 ¼ in. (32 mm)	1 ½ in. (40 mm)	2 in. (50 mm)
25 (1.7)	15 (1.0)	4	5	6	18	20	25
50 (3.4)	40 (2.8)	4	5	6	18	20	25
	25 (1.7)	9	10	11	38	40	50
75 (5.2)	50 (3.4)	12	14	15	56	62	74
	25 (1.7)	13	17	19	60	70	80
100 (6.9)	75 (5.2)	12	14	15	56	62	74
	50 (3.4)	16	20	22	73	82	94
	25 (1.7)	16	22	24	80	90	100
125 (8.6)	75 (5.2)	16	20	22	73	82	94
	50 (3.4)	17	25	28	85	95	109
	25 (1.7)	18	28	38	95	107	120
	100 (6.9)	16	20	32	73	82	94
150 (10.3)	75 (5.2)	17	25	28	85	95	109
	50 (3.4)	18	28	32	95	107	120
	25 (1.7)	18	30	35	102	115	130
	200 (13.8)	150 (10.3)	16	20	22	73	82
200 (13.8)	100 (6.9)	18	28	32	95	107	120
	75 (5.2)	18	30	35	102	115	130
	50 (3.4)	18	33	38	109	124	140
	250 (17.2)	150 (10.3)	18	28	32	95	107
250 (17.2)	100 (6.9)	18	33	38	109	124	140
	50 (3.4)	18	35	43	120	140	140
	300 (20.7)	200 (13.8)	18	28	32	95	107
400 (27.6)	100 (6.9)	18	35	43	120	140	140
	50 (3.4)	18	35	43	120	140	140

NOTES

1. Capacities are based on a 20% fall-off.
2. To obtain capacities for regulators using metal diaphragms, multiply the table values by 0.7

TYPE E-55 PRESSURE REGULATOR - AIR CAPACITY IN SCFM BY SIZE

Inlet, psig (barg)	Outlet, psig (barg)	½ in. (15 mm)	¾ in. (20 mm)	1 in. (25 mm)	1 ¼ in. (32 mm)	1 ½ in. (40 mm)	2 in. (50 mm)
25 (1.7)	15 (1.0)	22	27	32	97	107	134
50 (3.4)	40 (2.8)	22	27	32	97	107	13
	25 (1.7)	61	68	74	257	271	338
75 (5.2)	50 (3.4)	81	95	101	379	420	500
	25 (1.7)	88	115	129	406	474	542
100 (6.9)	75 (5.2)	81	95	101	379	420	500
	50 (3.4)	108	135	149	494	555	636
	25 (1.7)	133	183	200	667	751	834
125 (8.6)	75 (5.2)	108	135	149	494	555	636
	50 (3.4)	142	208	233	709	792	909
	25 (1.7)	150	234	267	792	892	1000
150 (10.3)	100 (6.9)	108	135	149	494	555	636
	75 (5.2)	142	208	233	709	792	909
	50 (3.4)	150	234	267	792	892	1000
	25 (1.7)	150	234	267	792	892	1000
200 (13.8)	150 (10.3)	108	135	149	494	555	636
	100 (6.9)	150	234	267	792	892	1000
	75 (5.2)	168	290	335	959	1087	1223
	50 (3.4)	186	341	393	1126	1281	1446
250 (17.2)	150 (10.3)	150	234	267	792	892	1000
	100 (6.9)	186	341	393	1126	1281	1446
	50 (3.4)	206	400	492	1373	1602	1830
300 (20.7)	200 (13.8)	150	234	267	792	892	1000
400 (27.6)	100 (6.9)	206	400	492	1373	1602	1830
	50 (3.4)	206	400	492	1373	1602	1830

NOTES

1. Capacities are based on a 20% fall-off.
2. To obtain capacities for regulators using metal diaphragms, multiply the table values by 0.7

CASH VALVE™ E-55 SERIES PRESSURE REGULATORS

SELECTION GUIDE

Example:	E55	C	W	S	B	B	01	-	D	1
Model										
E55	E-55 valve w/ bronze body and spring chamber									
Valve size										
C	½ in. (15 mm)									
D	¾ in. (20 mm)									
E	1 in. (25 mm)									
F	1 ¼ in. (32 mm)									
G	1 ½ in. (40 mm)									
H	2 in. (50 mm)									
Service										
W	Water/air									
Body style/connection style										
S	Side inlet/side outlet - straight thru w/ NPT connections									
B	Side inlet/side outlet - straight thru w/ BSPT connections									
Diaphragm material										
B	NBR (water/air)									
Seat material										
B	NBR (water/air)									
Variation										
01	Standard									
02	Without strainer screen									
Design revision										
(-)	Indicates original design									
Spring material										
D	Steel									
E	SST									
Spring range										
	Refer to table on page 2									

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