

Cash Valve



E-55 Series

**Pressure
Regulators For
Water and Air**

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ISO 9001 Certified

tyco Flow Control

E-55 High Capacity and Accurate Regulation

Description

Due to its exceptional design features, the Type E-55 pressure regulator will handle high and variable flow rates that are beyond the limitations of ordinary regulators and still maintain unusually close regulation of the downstream pressure.

The Type E-55 regulator is suitable for service on air, water, oil, gases (except steam) and fluids not corrosive to brass. It is particularly suitable for water systems of all kinds and various hydraulic and pneumatic systems that require a regulator with exceptional accuracy.

Available in 1/2" thru 2" sizes, the Type E-55 regulator is designed for systems having a maximum inlet pressure of 400 psi and allows delivery pressures to be adjusted from a maximum of 300 psi to a minimum of 25 psi depending on the adjusting spring used. Refer to the Spring Range Table under Specifications for additional information. The maximum system operating temperature must not exceed 180°F.

Features

A wide range of features contribute to make the Type E-55 an outstanding regulator.

Balanced Piston Design:

The Type E-55 is furnished with a fully balanced piston assembly; the upper and lower sections of the piston have the same cross section area and are

exposed to the same outlet pressure conditions. The balanced piston design allows the pressures pushing upward and downward on the piston to be equal, producing more sensitive operation while providing for closer regulation over wide fluctuations in the inlet pressure and assuring quiet performance.

Accurate Regulation at High Flow Rates:

A unique feature of the Type-55 regulator is its increased sensitivity to changes in the rate of flow which is accomplished through the use of an aspirating nozzle in the valve outlet. The velocity of the flow through the nozzle produces an aspirating action (suction) that reduces the pressure below the diaphragm, permitting a wider valve opening and higher capacity without sacrificing accuracy of regulation.

Inbuilt Strainer Screen:

An inbuilt Monel® strainer screen protects the working parts and is easily removed for cleaning by removing the bottom plug.

Cryogenic Service:

Optional construction is available for the Type E-55 regulator to enable it to be used in handling cold fluids or gases. For more information, write for Data Sheet.

Simplicity of Design:

The simple design of the Type E-55 regulator lends itself to easy maintenance and repair.

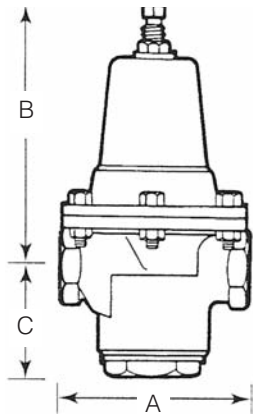


Construction

Part Description	Materials
Body	Bronze
Spring Chamber	Bronze
Adjusting Spring	Steel plated
Pressure Plate	Brass
Diaphragm	BUNA-N nylon reinforced
Body Seat	Stainless Steel
Seat Disc	BUNA-N
Piston	Brass
O-ring	BUNA-N
Strainer Screen	Monel®
Bottom Plug	Bronze

Type	Size	Valve Connections	Maximum Inlet Pressure	Adjustment Range	Maximum Operating Temp. (°F)
E-55	1/2", 3/4", 1", 1 1/4", 1 1/2", 2"	Threaded	400	25-300	180

E-55 Series - High Capacity Pressure Regulating Valves



Specifications

Size	Spring Range Adjustment (psi)				
	1/2", 3/4", 1"	15 - 50	25 - 80	50 - 110	75 - 195
1 1/4", 1 1/2", 2"	15 - 25	20 - 50	40 - 100	75 - 150	100-300*

* 100 - 300 range for 1 1/4", 1 1/2" and 2" sizes available.

Note: Adjustable range varies with use of closing cap; consult factory.

Dimensions

Size	Dimensions			Shipping Weight (lbs)
	A	B	C	
1/2"	4"	7 1/4"	2 1/4"	6
3/4"	4"	7 1/4"	2 1/4"	6
1"	4"	7 1/4"	2 1/4"	6
1 1/4"	5 5/8"	11 1/8"	3 1/4"	17
1 1/2"	5 5/8"	11 1/8"	3 1/4"	17
2"	5 5/8"	11 1/8"	2 7/8"	17

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.

Type E-55 Pressure Regulator Water Capacity Information

Water Capacity in GPM By Size							
Inlet (psig)	Outlet (psig)	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
25	15	4	5	6	18	20	25
	50	4	5	6	18	20	25
75	25	9	10	11	38	40	50
	50	12	14	15	56	62	74
100	25	13	17	19	60	70	80
	75	12	14	15	56	62	74
125	50	16	20	22	73	82	94
	25	16	22	24	80	90	100
150	75	16	20	22	73	82	94
	50	17	25	28	85	95	109
200	25	18	28	38	95	107	120
	100	16	20	32	73	82	94
250	75	17	25	28	85	95	109
	50	18	28	32	95	107	120
300/400	25	18	30	35	102	115	130
	150	16	20	22	73	82	94
300/400	100	18	28	32	95	107	120
	75	18	30	35	102	115	130
300/400	50	18	33	38	109	124	140
	250	18	28	32	95	107	120
300/400	100	18	33	38	109	124	140
	50	18	35	43	120	140	140
300/400	200	18	28	32	95	107	120
	100	18	35	43	120	140	140
300/400	50	18	35	43	120	140	140

Note: Capacities are based on a 20% falloff.

Capacity Information Continues >

E-55 Series - High Capacity Pressure Regulating Valves

Type E-55 Pressure Regulator Air Capacity Information

Air Capacity in SCFM By Size							
Inlet (psig)	Outlet (psig)	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
25	15	22	27	32	97	107	134
50	40	22	27	32	97	107	134
	25	61	68	74	257	271	338
75	50	81	95	101	379	420	500
	25	88	115	129	406	474	542
100	75	81	95	101	379	420	500
	50	108	135	149	494	555	636
	25	133	183	200	667	751	834
125	75	108	135	149	494	555	636
	50	142	208	233	709	792	909
	25	150	234	267	792	892	1000
150	100	108	135	149	494	555	636
	75	142	208	233	709	792	909
	50	150	234	267	792	892	1000
	25	150	234	267	792	892	1000
200	150	108	135	149	494	555	636
	100	150	234	267	792	892	1000
	75	168	290	335	959	1087	1223
	50	186	341	393	1126	1281	1446
250	150	150	234	267	792	892	1000
	100	186	341	393	1126	1281	1446
	50	206	400	492	1373	1602	1830
300/400	200	150	234	267	792	892	1000
	100	206	400	492	1373	1602	1830
	50	206	400	492	1373	1602	1830

Note: Capacities are based on a 20% falloff.

How To Order

To order, specify Cash Valve type by specific series designation (i.e. Type E Series) and the end connection, if applicable. Also state the following:

1. Valve pipe size
2. Fluid to be controlled
3. Inlet pressure
4. Outlet pressure setting and range
5. Maximum required flow rate
6. System operating emperature

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