

# GAS PRESSURE REGULATORS CATALOG

2<sup>nd</sup> EDITION





**⚠ WARNING**

**Service and installation must be performed by a trained/experienced service technician.**

All products used with combustible gas **must** be installed and used **strictly** in accordance with the instructions of the Original Equipment Manufacturer (OEM) and with all applicable government codes and regulations, e.g. plumbing, mechanical, and electrical codes and practices. Maxitrol products should be installed and operated in accordance with Maxitrol Safety Warning Instructions.

Maxitrol Company is NOT responsible for any errors or omissions in reliance by anyone of any information set forth in this catalog without additional reference to local requirements and applicable ordinances or codes.

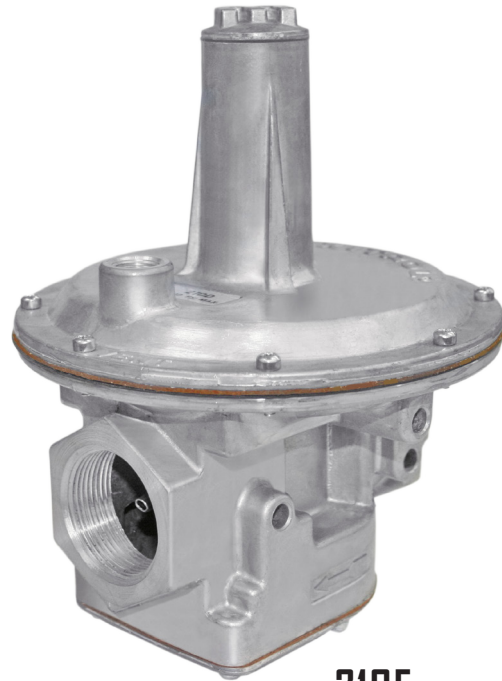
**Other worldwide approvals and certifications available upon inquiry.**



# 210 SERIES

## Balanced Valve Design

The 210 series is a lockup type regulator. The balanced valve design makes it possible to maintain steady outlet pressure control with widely varying inlet pressures. The regulator has an integrated dampening mechanism in the breather outlet and the sensing tube to improve regulating stability and reduce hunting tendencies. The 210 series provides precise regulation over a wide range of pressures and flow rates. Applications include gas-fired boilers, steam generators, industrial furnaces, and ovens.



210E

## Specifications

**Pipe Sizes** ..... 1" to 3" threaded connections with NPT or ISO7-1 threads. 4" 125 lb. flange (210J only).

**Housing Material** ..... 210D, 210E, 210G, 210J: aluminum.

**Mounting** ..... Mount in an upright position only.

**NOTE:** All Maxitrol gas pressure regulators should be installed and operated in accordance with Maxitrol Safety Warning Instructions (see GPR\_MI\_EN.ES or GPR\_CSA\_MI\_EN.FR).

**Certifications** ..... 210D, 210E, 210G: ANSI Z21.18/CSA 6.3 Gas Appliance Pressure Regulators.

**Gas Types** ..... Suitable for natural, manufactured, mixed gases, liquefied petroleum gases, and LP gas-air mixtures.

**Maximum Inlet Pressure** ..... CSA Certified: 210D, 210E, 210G: 10 psi (69 kPa)  
Maxitrol Tested: 210J: 10 psi (69 kPa)

**Emergency Exposure Limits** ..... 210D, 210E, 210G, 210J: 25 psi (172 kPa)

**Ambient Temperature Ranges** .... -40° to 200°F (-40° to 93°C)

**Sensing Taps** ..... Convenient tap locations are available for downstream sensing, cross connections, and differential control. Four locations can be tapped and plugged for measuring pressure.

**Remote Sensing** ..... 210D, 210E, 210G models may be ordered with remote sensing. The internal sensing tube is omitted and external sensing taps are provided. Add suffix letter "R" to model number when ordering.

**Zero Governor Models** ..... Please refer to pages 32-37 for 210Z model information.

**Minimum Regulation** ..... 210D: 25 CFH; 210E, 210G: 50 CFH; 210J: 100 CFH.



## Capacities

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210D	1" x 1"	8.0" w.c.	2400 (68.0)	1900 (53.8)	1300 (36.8)	---	---	---	---	---	---
		0.5 psi	3400 (96.3)	3100 (87.8)	2700 (76.5)	2200 (62.3)	---	---	---	---	---
		0.75 psi	3500 (99.1)	4000 (113)	3800 (108)	3400 (96.3)	2900 (82.1)	2200 (62.3)	---	---	---
		1 psi	3500 (99.1)	4000 (113)	4500 (127)	4300 (122)	3900 (110)	3400 (96.3)	2700 (76.5)	1900 (53.8)	---
		1.5 psi	3500 (99.1)	4000 (113)	4500 (127)	4800 (136)	4800 (136)	5000 (142)	4600 (130)	4100 (116)	3600 (102)
		2 psi	3500 (99.1)	4000 (113)	4500 (127)	4800 (136)	4800 (136)	5000 (142)	5000 (142)	5000 (142)	5000 (142)
		3 psi	3500 (99.1)	4000 (113)	4500 (127)	4800 (136)	4800 (136)	5000 (142)	5000 (142)	5000 (142)	5000 (142)
		5 psi	3500 (99.1)	4000 (113)	4500 (127)	4800 (136)	4800 (136)	5000 (142)	5000 (142)	5000 (142)	5000 (142)
		7.5 psi	3500 (99.1)	4000 (113)	4500 (127)	4800 (136)	4800 (136)	5000 (142)	5000 (142)	5000 (142)	5000 (142)
		10 psi	3500 (99.1)	4000 (113)	4500 (127)	4800 (136)	4800 (136)	5000 (142)	5000 (142)	5000 (142)	5000 (142)

**NOTE:** CSA maximum capacities vary with spring range and pipe size. Please contact Maxitrol directly for CSA maximums. See pages 58-59 for Regulator Sizing Requirements and Examples.

# 210 SERIES

Balanced Valve Design

## Capacities

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210D	1 1/4" x 1 1/4"	8.0" w.c.	3000 (84.9)	2400 (68.0)	1700 (48.1)	---	---	---	---	---	---
		0.5 psi	4000 (113)	3905 (111)	3400 (96.3)	2700 (76.5)	---	---	---	---	---
		0.75 psi	4000 (113)	5000 (142)	4700 (133)	4200 (119)	3700 (105)	2700 (76.5)	---	---	---
		1 psi	4000 (113)	5000 (142)	5000 (142)	5300 (150)	4900 (139)	4200 (119)	3400 (96.3)	2400 (68.0)	---
		1.5 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6000 (170)	5700 (161)	5200 (147)	4600 (130)
		2 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)
		3 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)
		5 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)
		7.5 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)
10 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)		

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210D	1 1/2" x 1 1/2"	8.0" w.c.	3100 (87.8)	2500 (70.8)	1800 (51.0)	---	---	---	---	---	---
		0.5 psi	4000 (113)	4000 (113)	3600 (102)	2800 (79.3)	---	---	---	---	---
		0.75 psi	4000 (113)	5000 (142)	5000 (142)	4400 (125)	3800 (108)	2800 (79.3)	---	---	---
		1 psi	4000 (113)	5000 (142)	5000 (142)	5600 (159)	5100 (144)	4400 (125)	3600 (102)	2500 (70.8)	---
		1.5 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6500 (184)	6000 (170)	5400 (153)	4800 (136)
		2 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)	6500 (184)
		3 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)	6500 (184)
		5 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)	6500 (184)
		7.5 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)	6500 (184)
10 psi	4000 (113)	5000 (142)	5000 (142)	6000 (170)	6000 (170)	6500 (184)	6500 (184)	6500 (184)	6500 (184)		

**NOTE:** CSA maximum capacities vary with spring range and pipe size. Please contact Maxitrol directly for CSA maximums. See pages 58-59 for Regulator Sizing Requirements and Examples.

## Capacities

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210E	1 1/2" x 1 1/2"	8.0" w.c.	4450 (126)	3650 (103)	2550 (72.2)	---	---	---	---	---	---
		0.5 psi	6300 (178)	5750 (163)	5150 (146)	4050 (115)	---	---	---	---	---
		0.75 psi	7000 (198)	7500 (212)	7050 (200)	6300 (178)	5450 (154)	4050 (115)	---	---	---
		1 psi	7000 (198)	8800 (249)	8500 (241)	7950 (225)	7250 (205)	6300 (178)	5150 (146)	3650 (103)	---
		1.5 psi	7000 (198)	8800 (249)	8800 (249)	10450 (296)	9950 (282)	9250 (262)	8550 (242)	7700 (218)	6800 (193)
		2 psi	7000 (198)	8800 (249)	8800 (249)	10500 (297)	10500 (297)	10500 (297)	10500 (297)	10250 (290)	9600 (272)
		3 psi	7000 (198)	8800 (249)	8800 (249)	10500 (297)	10500 (297)	10500 (297)	10500 (297)	10500 (297)	10500 (297)
		5 psi	7000 (198)	8800 (249)	8800 (249)	10500 (297)	10500 (297)	10500 (297)	10500 (297)	10250 (290)	10500 (297)
		7.5 psi	7000 (198)	8800 (249)	8800 (249)	10500 (297)	10500 (297)	10500 (297)	10500 (297)	10250 (290)	10500 (297)
		10 psi	7000 (198)	8800 (249)	8800 (249)	10500 (297)	10500 (297)	10500 (297)	10500 (297)	10250 (290)	10500 (297)

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210E	2" x 2"	8.0" w.c.	5150 (146)	4200 (119)	2950 (83.5)	---	---	---	---	---	---
		0.5 psi	7250 (205)	6650 (188)	5950 (168)	4700 (133)	---	---	---	---	---
		0.75 psi	8000 (226)	8650 (145)	8150 (231)	7250 (205)	6300 (178)	4700 (133)	---	---	---
		1 psi	8000 (226)	10000 (283)	9850 (279)	9150 (259)	8400 (238)	7250 (205)	5950 (168)	4200 (119)	---
		1.5 psi	8000 (226)	10000 (283)	10000 (283)	12000 (340)	11500 (326)	10700 (303)	9850 (279)	8900 (252)	7850 (222)
		2 psi	8000 (226)	10000 (283)	10000 (283)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	11850 (335)	11000 (311)
		3 psi	8000 (226)	10000 (283)	10000 (283)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)
		5 psi	8000 (226)	10000 (283)	10000 (283)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)
		7.5 psi	8000 (226)	10000 (283)	10000 (283)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)
		10 psi	8000 (226)	10000 (283)	10000 (283)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)	12000 (340)

**NOTE:** CSA maximum capacities vary with spring range and pipe size. Please contact Maxitrol directly for CSA maximums. See pages 58-59 for Regulator Sizing Requirements and Examples.

# 210 SERIES

## Balanced Valve Design

### Capacities

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210G	2 1/2" x 2 1/2"	8.0" w.c.	10400 (294)	8500 (241)	6000 (170)	---	---	---	---	---	---
		0.5 psi	14700 (416)	13410 (380)	12000 (340)	9500 (269)	---	---	---	---	---
		0.75 psi	16000 (453)	17500 (495)	16400 (464)	14700 (416)	12750 (361)	9500 (269)	---	---	---
		1 psi	16000 (453)	20000 (566)	19900 (563)	18500 (524)	16950 (480)	14700 (416)	12000 (340)	8500 (241)	---
		1.5 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	23250 (658)	21600 (612)	19900 (563)	18000 (510)	15850 (449)
		2 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	22450 (636)
		3 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)
		5 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)
		7.5 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)
10 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)	24000 (680)		

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210G	3" x 3"	8.0" w.c.	11500 (325)	9400 (266)	6600 (187)	---	---	---	---	---	---
		0.5 psi	16000 (453)	14800 (416)	13200 (374)	10450 (296)	---	---	---	---	---
		0.75 psi	16000 (453)	19300 (546)	18100 (516)	16200 (459)	14000 (396)	10450 (296)	---	---	---
		1 psi	16000 (453)	20000 (566)	20000 (566)	20350 (576)	18700 (529)	16200 (459)	13200 (374)	9350 (265)	---
		1.5 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	23800 (674)	21900 (620)	19800 (561)	17450 (494)
		2 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	27000 (765)	27000 (765)	26400 (748)	24700 (699)
		3 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	27000 (765)	27000 (765)	27000 (765)	27000 (765)
		5 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	27000 (765)	27000 (765)	27000 (765)	27000 (765)
		7.5 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	27000 (765)	27000 (765)	27000 (765)	27000 (765)
10 psi	16000 (453)	20000 (566)	20000 (566)	24000 (680)	24000 (680)	27000 (765)	27000 (765)	27000 (765)	27000 (765)		

**NOTE:** CSA maximum capacities vary with spring range and pipe size. Please contact Maxitrol directly for CSA maximums. See pages 58-59 for Regulator Sizing Requirements and Examples.



## Capacities

Capacities expressed in CFH (m<sup>3</sup>/h) @ 0.64 sp gr gas

Model	Pipe Size	Inlet Pressure	Outlet Pressure - inches w.c. (kPa)								
			2.0 (0.5)	4.0 (1.0)	6.0 (1.5)	9.0 (2.25)	12 (3.0)	16 (4.0)	20 (5.0)	24 (6.0)	28 (7.0)
210J	4" x 4"	8.0" w.c.	20800 (589)	17000 (481)	12000 (339)	---	---	---	---	---	---
		0.5 psi	29500 (835)	27000 (764)	24000 (680)	19000 (538)	---	---	---	---	---
		0.75 psi	32000 (906)	35000 (991)	33000 (934)	29420 (833)	25500 (722)	19000 (538)	---	---	---
		1 psi	32000 (906)	40000 (1132)	40000 (1132)	37000 (1048)	34000 (963)	29420 (833)	24000 (680)	17000 (481)	---
		1.5 psi	32000 (906)	40000 (1132)	40000 (1132)	48000 (1359)	47000 (1331)	43350 (1227)	39700 (1124)	36000 (1019)	31800 (900)
		2 psi	32000 (906)	40000 (1132)	40000 (1132)	48000 (1359)	48000 (1359)	50000 (1416)	50000 (1416)	48000 (1359)	45000 (1274)
		3 psi	32000 (906)	40000 (1132)	40000 (1132)	48000 (1359)	48000 (1359)	50000 (1416)	50000 (1416)	50000 (1416)	50000 (1416)
		5 psi	32000 (906)	40000 (1132)	40000 (1132)	48000 (1359)	48000 (1359)	50000 (1416)	50000 (1416)	50000 (1416)	50000 (1416)
		7.5 psi	32000 (906)	40000 (1132)	40000 (1132)	48000 (1359)	48000 (1359)	50000 (1416)	50000 (1416)	50000 (1416)	50000 (1416)
		10 psi	32000 (906)	40000 (1132)	40000 (1132)	48000 (1359)	48000 (1359)	50000 (1416)	50000 (1416)	50000 (1416)	50000 (1416)

**NOTE:** CSA maximum capacities vary with spring range and pipe size. Please contact Maxitrol directly for CSA maximums. See pages 58-59 for Regulator Sizing Requirements and Examples.

# 210 SERIES

Balanced Valve Design

## Pressure Drop: inches w.c. (kPa)

Flow Rate CFH (m <sup>3</sup> /h)	210D			210E		210G		210J
	1"	1 1/4"	1 1/2"	1 1/2"	2"	2 1/2"	3"	4"
500 (14.2)	0.23 (0.06)	0.15 (0.04)	0.14 (0.03)	---	---	---	---	---
1000 (28.3)	0.92 (0.23)	0.59 (0.15)	0.54 (0.13)	0.27 (0.07)	0.20 (0.05)	0.05 (0.01)	0.04 (0.009)	0.01 (0.002)
1500 (42.5)	2.08 (0.52)	1.33 (0.33)	1.22 (0.30)	---	---	---	---	---
2000 (56.6)	3.07 (0.76)	2.37 (0.59)	2.16 (0.54)	1.09 (0.27)	0.82 (0.20)	0.20 (0.05)	0.17 (0.04)	0.05 (0.01)
2500 (70.8)	5.78 (1.44)	3.70 (0.92)	3.38 (0.84)	---	---	---	---	---
3000 (85.0)	8.32 (2.07)	5.33 (1.33)	4.87 (1.21)	2.46 (0.61)	1.84 (0.46)	0.45 (0.11)	0.37 (0.09)	0.12 (0.03)
3500 (99.1)	11.33 (2.82)	7.25 (1.81)	6.62 (1.65)	---	---	---	---	---
4000 (113)	14.79 (3.68)	9.47 (2.36)	8.65 (2.15)	4.37 (1.09)	3.28 (0.82)	0.80 (0.20)	0.66 (0.16)	0.21 (0.05)
4500 (127)	18.72 (4.66)	11.98 (2.98)	10.95 (2.73)	---	---	---	---	---
5000 (142)	23.11 (5.76)	14.79 (3.68)	13.52 (3.37)	6.82 (1.70)	5.12 (1.28)	1.25 (0.31)	1.03 (0.26)	0.34 (0.08)
5500 (156)	27.97 (6.97)	17.90 (4.46)	16.35 (4.07)	---	---	---	---	---
6000 (170)	33.28 (8.29)	21.30 (5.30)	19.46 (4.85)	9.82 (2.45)	7.37 (1.84)	1.80 (0.45)	1.48 (0.37)	0.49 (0.12)
6500 (184)	---	25.00 (6.23)	22.84 (5.69)	---	---	---	---	---
7000 (198)	---	28.99 (7.22)	26.49 (6.60)	13.36 (3.33)	10.05 (2.50)	2.45 (0.61)	2.02 (0.50)	0.66 (0.16)
7500 (212)	---	---	30.41 (7.57)	---	---	---	---	---
8000 (226)	---	---	---	17.45 (4.35)	13.10 (3.26)	3.20 (0.80)	2.64 (0.66)	0.87 (0.22)
8500 (241)	---	---	---	---	---	---	---	---
9000 (255)	---	---	---	22.10 (5.50)	16.60 (4.13)	4.05 (1.01)	3.35 (0.83)	1.10 (0.27)
9500 (269)	---	---	---	---	---	---	---	---
10000 (283)	---	---	---	27.30 (6.80)	20.50 (5.11)	5.00 (1.24)	4.15 (1.03)	1.35 (0.34)
11000 (311)	---	---	---	33.00 (8.22)	24.80 (6.18)	6.05 (1.51)	5.00 (1.24)	---
12000 (340)	---	---	---	39.30 (9.79)	29.50 (7.35)	7.20 (1.79)	5.95 (1.48)	1.95 (0.48)
13000 (368)	---	---	---	---	34.60 (8.62)	8.50 (2.12)	7.00 (1.74)	---
14000 (369)	---	---	---	---	40.15 (10.00)	9.85 (2.45)	8.10 (2.01)	2.68 (0.67)
15000 (425)	---	---	---	---	---	11.30 (2.81)	9.30 (2.32)	---
16000 (453)	---	---	---	---	---	12.85 (3.20)	10.60 (2.64)	3.47 (0.86)
17000 (481)	---	---	---	---	---	14.50 (3.61)	11.95 (2.98)	---
18000 (510)	---	---	---	---	---	16.25 (4.05)	13.40 (3.34)	4.40 (1.09)
19000 (538)	---	---	---	---	---	18.10 (4.51)	14.90 (3.71)	---
20000 (566)	---	---	---	---	---	20.05 (4.99)	16.50 (4.11)	5.42 (1.35)
22000 (623)	---	---	---	---	---	24.25 (6.40)	20.00 (4.98)	6.56 (1.63)
24000 (680)	---	---	---	---	---	28.85 (7.19)	23.80 (5.93)	7.81 (1.94)
26000 (736)	---	---	---	---	---	33.85 (8.43)	27.90 (6.95)	9.06 (2.26)
28000 (793)	---	---	---	---	---	39.25 (9.78)	32.40 (8.07)	10.62 (2.64)
30000 (849)	---	---	---	---	---	---	37.20 (9.27)	12.41 (3.09)
32000 (906)	---	---	---	---	---	---	---	13.90 (3.46)
34000 (963)	---	---	---	---	---	---	---	15.69 (3.91)
36000 (1019)	---	---	---	---	---	---	---	17.60 (4.38)
38000 (1076)	---	---	---	---	---	---	---	19.60 (4.88)
40000 (1133)	---	---	---	---	---	---	---	21.70 (5.40)
45000 (1274)	---	---	---	---	---	---	---	27.40 (6.82)
50000 (1416)	---	---	---	---	---	---	---	33.80 (8.42)
55000 (1557)	---	---	---	---	---	---	---	41.00 (10.21)

**NOTE:** The maximum capacities for the different models listed on the capacity charts and represented by the heavy line on the pressure drop are values at which these controls have been certified by CSA (except for the 210J). See pages 58-59 for Regulator Sizing Requirements and Examples.

## Spring Selection Chart: inches w.c. (kPa)

Model	CSA Certified Springs										Other Springs
	1 to 3.5 (0.25 to 0.9) Brown	2 to 5 (0.5 to 1.25) Plated	3 to 6 (0.75 to 1.5) Plated	3 to 8 (0.75 to 2) Pink	4 to 8 (1 to 2) Orange	4 to 12 (1 to 3) Violet	5 to 12 (1.25 to 3) Blue	5 to 15 (1.25 to 3.7) Green	10 to 22 (2.5 to 5.5) Red	15 to 30 (3.7 to 7.5) Yellow	
210D	1 to 3.5 (0.25 to 0.9) Brown	2 to 5 (0.5 to 1.25) Plated	3 to 6 (0.75 to 1.5) Plated	3 to 8 (0.75 to 2) Pink	4 to 8 (1 to 2) Orange	4 to 12 (1 to 3) Violet	5 to 12 (1.25 to 3) Blue	5 to 15 (1.25 to 3.7) Green	10 to 22 (2.5 to 5.5) Red	15 to 30 (3.7 to 7.5) Yellow	20 to 42 (5 to 10.5) Black
210E	1 to 3.5 (0.25 to 0.9) Brown	2 to 5 (0.5 to 1.25) Plated	3 to 6 (0.75 to 1.5) Plated	3 to 8 (0.75 to 2) Pink	4 to 8 (1 to 2) Orange	4 to 12 (1 to 3) Violet	5 to 12 (1.25 to 3) Blue	5 to 15 (1.25 to 3.7) Green	10 to 22 (2.5 to 5.5) Red	15 to 30 (3.7 to 7.5) Yellow	20 to 42 (5 to 10.5) Black
210G	1 to 3.5 (0.25 to 0.9) Brown	2 to 5 (0.5 to 1.25) Plated	3 to 6 (0.75 to 1.5) Plated	3 to 8 (0.75 to 2) Pink	4 to 8 (1 to 2) Orange	4 to 12 (1 to 3) Violet	5 to 12 (1.25 to 3) Blue	5 to 15 (1.25 to 3.7) Green	10 to 22 (2.5 to 5.5) Red	15 to 30 (3.7 to 7.5) Yellow	20 to 42 (5 to 10.5) Black
210J	---	2 to 5 (0.5 to 1.25) Plated	3 to 6 (0.75 to 1.5) Plated	3 to 8 (0.75 to 2) Pink	---	4 to 12 (1 to 3) Violet	5 to 12 (1.25 to 3) Blue	---	10 to 22 (2.5 to 5.5) Red	15 to 30 (3.7 to 7.5) Yellow	20 to 42 (5 to 10.5) Black

**NOTE:** The area within the heavy line indicates CSA certified springs. See pages 56-57 for complete Spring Selection Chart.

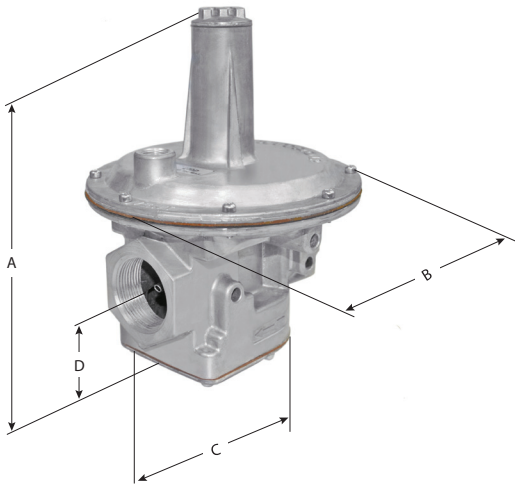
# 210 SERIES

Balanced Valve Design

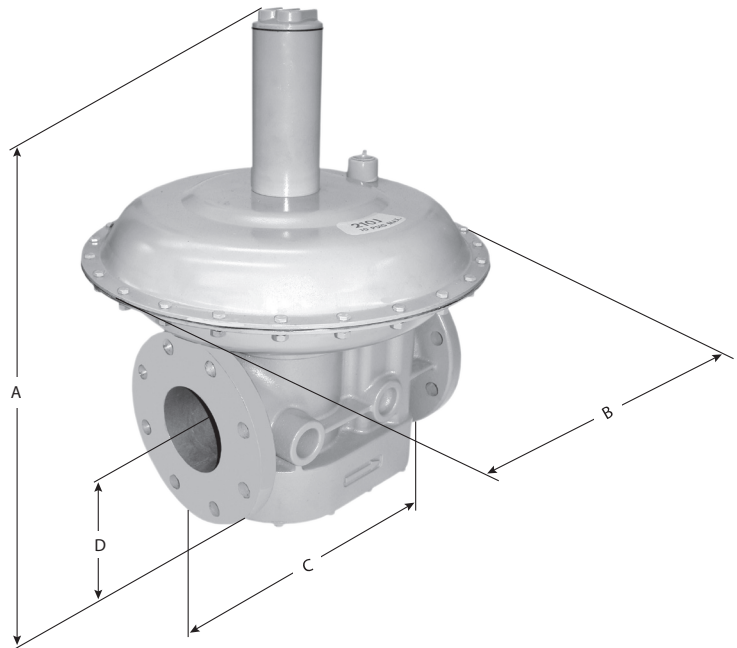
## Dimensions

Model	Pipe Size	Vent Connection	Swing Radius	Dimensions			
				A	B	C	D
210D	1", 1 1/4", 1 1/2"	3/8" NPT	5.4" (138 mm)	9" (228 mm)	7" (178 mm)	6" (152 mm)	2.4" (60 mm)
210E	1 1/2", 2"	1/2" NPT	8.3" (211 mm)	11.3" (286 mm)	9.1" (232 mm)	8" (203 mm)	2.9" (75 mm)
210G	2 1/2", 3"	3/4" NPT	11.9" (302 mm)	16.5" (419 mm)	13.5" (343 mm)	11.8" (300 mm)	4.6" (116 mm)
210J	4"	3/4" NPT	18.4" (467 mm)	24.3" (616 mm)	18" (457 mm)	13.8" (349 mm)	5.4" (138 mm)

**NOTE:** Dimensions are maximums and to be used only as an aid in designing clearance for the valve.  
Actual production dimensions may vary somewhat from those shown.

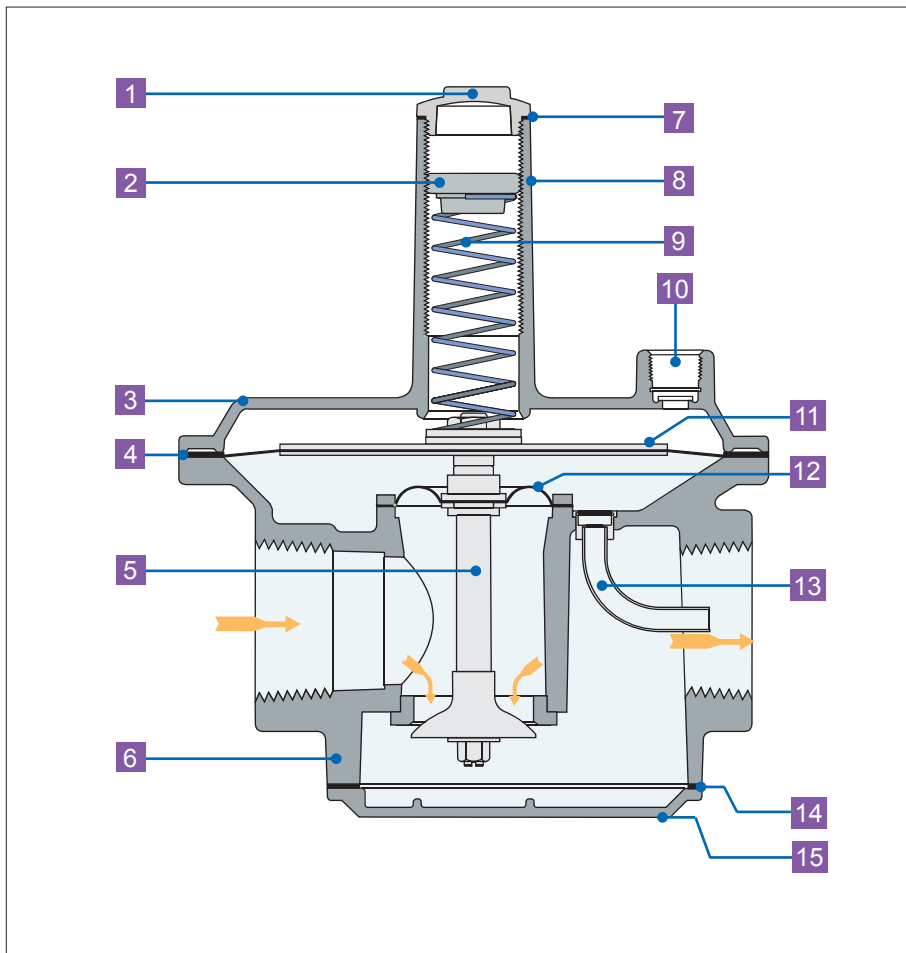


210D, 210E, 210G



210J

## 210 Balanced Valve Design



- 1 Welch Plug/Seal Cap
- 2 Vibration Resistant Adjusting Screw
- 3 Top Housing
- 4 Regulating Diaphragm
- 5 Stem & Valve
- 6 Bottom Housing
- 7 Seal Cap Gasket
- 8 Stack
- 9 Spring
- 10 Vent Connection
- 11 Diaphragm Plates
- 12 Balancing Diaphragm
- 13 Sensing Tube
- 14 Bottom Plate Gasket
- 15 Bottom Plate

**NOTE:** Diagrams are graphical representations only and may differ from actual product.

