

P203 Pressure Reducing Regulator

The P203 and P203H are available with a true monitor regulator, which acts independently of the main regulator. The monitor provides equivalent overpressure protection when compared to a standard two-regulator monitor setup. If one regulator fails, the other regulator provides control and overpressure protection.

Applications

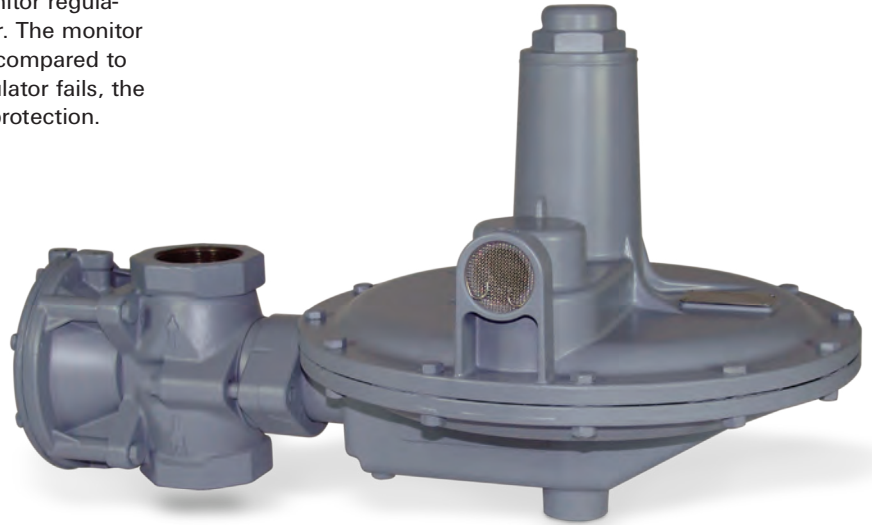
- Commercial / Industrial / Service
- Gas Engine Control
- Gate Applications

Features

- Integral Monitoring
- Fast Acting Minimizing Shock
- Internal Relief

Materials of Construction

Adjusting Screw	Aluminum
Body	Ductile Cast Iron
Bonnet	Aluminum
Closing Cap	Aluminum
Diaphragm	Nitrile
Lower Casing	Aluminum
Molded Seat Assembly	Nitrile
Orifice	Aluminum
Upper/Lower Spring Seat	Aluminum
Flange	Ductile Cast Iron



Specifications

Maximum Inlet	See Table 1 - P200	
Maximum Emergency Outlet	15 PSIG	
Port Sizes	1.5 NPT	
	1.5 NPT x 2 NPT	
	2 NPT	
Orifice Sizes	1/4"	
	3/8"	
	1/2"	
	3/4"	
	1"	
	1-3/16"	
End Connections	NPT	
	125 FF Flange	2" Iron Units Only
Temperature Range	-20 °F to 180 °F	
	-29 °C to 82 °C	
Approx. Weight	30 lbs. (11.8 kg)	

P203 Integral Monitor Data

Type	Control Spring Part Number and Color	Outlet Pressure Range	
		WC or PSIG	mBAR
P203	655-697-002, Brown	2 - 4.5" W.C.	5 - 11 mBAR
	655-697-003, Red	3.5- 6.5" W.C.	9 - 16 mBAR
	655-697-004, Black	5 - 9" W.C.	12 - 22 mBAR
	655-697-005, White	8.5 - 18" W.C.	21 - 45 mBAR
	655-697-006, Dark Green	14 - 30" W.C.	35 - 75 mBAR
P203H	655-697-007, Dark Blue	1 - 2 PSI	69 - 138 mBAR
	655-697-008, Orange	1.5 - 3.25 PSI	103 - 224 mBAR

Type	Control Spring Part Number and Color	Maximum Downstream Pressure with Integral Monitor in Operation		Maximum Flow Through Internal Relief Valve with Integral Monitor in Operation ¹		Monitor Spring Pressure Data				
		PSIG	mBAR	SCFH	Nm ³ /h	Monitor Spring Number & Color	Outlet Pressure Range		Number of Lower Spring Seats	
							WC or PSIG	mBAR		
P203	655-697-002, Brown	0.8	60	950	25.5	655-746-000, Green	0-5" WC	0-12	0	
	655-697-003, Red	0.8	60	1000	26.8		4-9.5" WC	10-24	1	
	655-697-004, Black						8-14" WC	20-35	2	
	655-697-005, White	1.4	100	1200	32.2	655-746-001, Red	8-12" WC	20-30	0	
		1.4	100	1350	36.2		10-20" WC	25-50	1	
		1.8	120	1600	42.9		655-746-002, Blue	11-21" WC	27-52	0
		2.2	150	1800	48.2		655-746-001, Red	14-28" WC	35-70	2
	655-697-006, Dark Green	2.8	190	1900	50.9	655-746-002, Blue	18-33" WC	45-82	1	
		3.0	210	2000	53.6	655-746-003, Silver	0.5-1.0 PSIG	34-69	0	
		3.0	210	2200	60.0	655-746-002, Blue	1.0-1.6 PSIG	69-110	2	
3.8		260	2200	60.0	655-746-003, Silver	0.75-1.6 PSIG	52-110	1		
P203H	655-697-007, Dark Blue	4.0	280	2500	67.0	655-746-003, Silver	1.25-2.25 PSIG	86-155	2	
		5.0	350	3000	80.4	655-746-003, Silver	1.25-3.25 PSIG	86-224	3	
	655-697-008, Orange	6.0	410	3000	80.4					

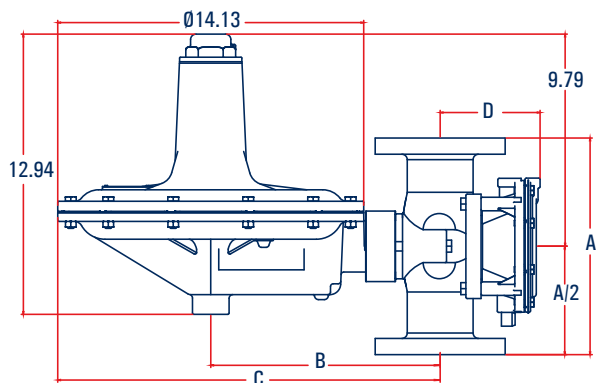
1. Flow of 0.6 specific gravity natural gas in SCFH at 60°F and 14.7 PSIA and Nm³/h at 0°C and 1.01325 BAR.

P203 Part Matrix

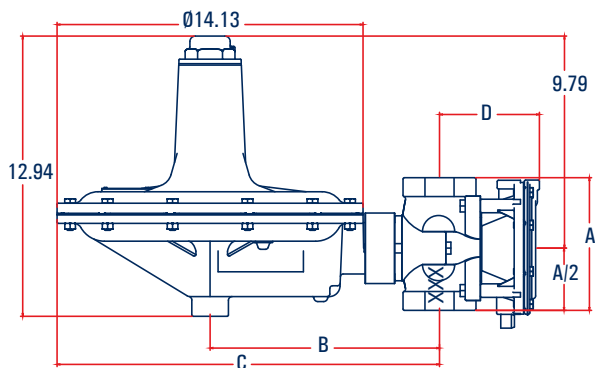
P203 Dimensions

Body Size	A		B	C	D	
Inches	NPT	125 FF Flange			NPT	125 FF Flange
1.5	6.13		11.03	18.09	4.18	
1.5 x 2	6.13		11.03	18.09	4.18	
2	6.13	10	10.59	17.66	4.61	4.61

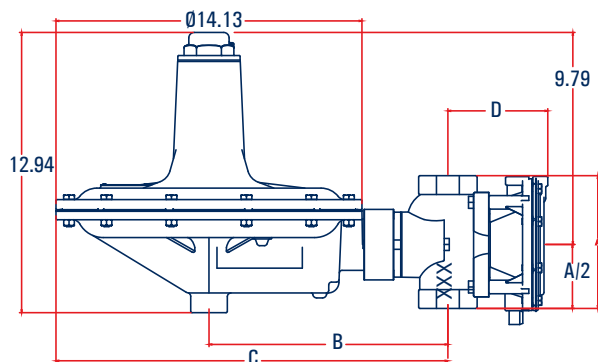
P203 2" NPT 125FF



P203 2" NPT



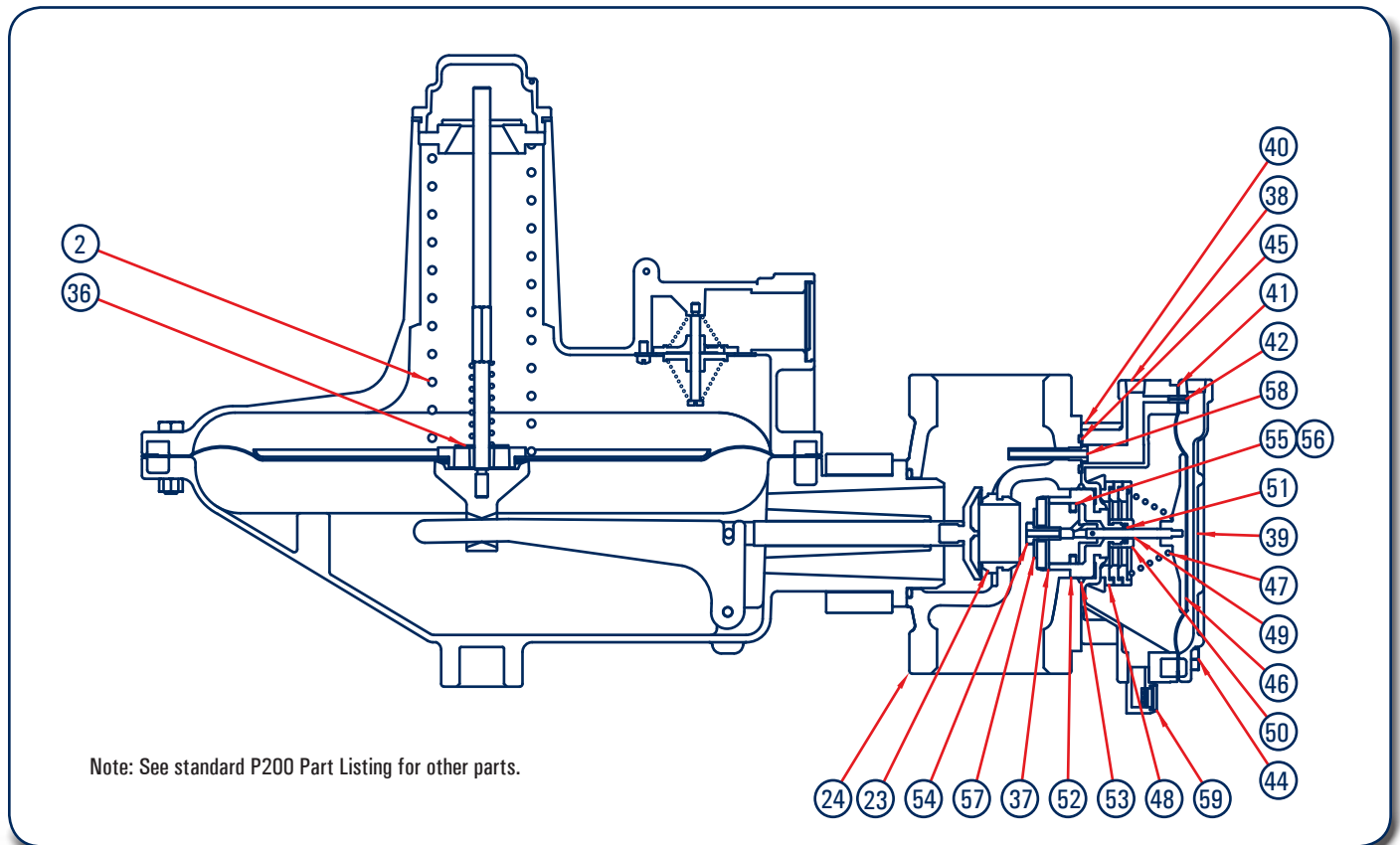
P203 1-1/2" NPT



P203		Version		
O		Normal		
H		High Pressure		
P		External Pressure Registration		
		Port Size		
14		1.5 NPT		
15		1.5 x 2 NPT		
16		2		
		Spring Range		
		PSIG		
		BAR		
04		2 - 4.5" WC	0.005 - 0.011	O or P Version Only
06		3.5 - 6.5" WC	0.009 - 0.016	
09		5 - 9" WC	0.012 - 0.022	
18		8.5 - 18" WC	0.021 - 0.045	
30		14 - 30" WC	0.035 - 0.075	H or P Version Only
02		1 - 2 PSIG	0.069 - 0.138	
03		1.5 - 3.25 PSIG	0.103 - 0.220	
		Special Construction		
0		None		P Only
3		Stem O-Ring		
4		Stem Seal O-Ring with Wiper Ring		
5		Stem O-Ring with 125FF		
6		Stem Seal O-Ring with Wiper Ring with 125FF		
E		125 FF (2" Cast Iron only) - 10"		
		Orifice		
4		1/4"		
6		3/8"		
8		1/2"		
B		3/4"		
D		1"		
F		1-3/16"		
		Port Orientation		
1		Up (Standard)		
2		Down		
3		Right		
4		Left		
		Bonnet Vent Orientation		
C		12 O'Clock		
D		3 O'Clock (Standard)		
E		6 O'Clock		
F		9 O'Clock		
		Monitor Ranges		
G0		0-5" WC	(with 2 - 4.5" WC Only)	O or P Version Only
G1		4 - 9.5" WC	(with 3.5 - 6.5 or 5 - 9" WC Only)	
G2		8 - 14" WC		
R0		8 - 12" WC	(with 8.5 - 18" WC Only)	
R1		10 - 20" WC		
R2		14 - 28" WC	(with 14 - 30" WC Only)	
B0		11 - 21" WC	(with 8.5 - 18" WC Only)	
B1		18 - 33" WC	(with 14 - 30" WC Only)	
S0		0.5 - 1 PSIG		H or P Version Only
B2		1.0 - 1.6 PSIG	(with 1 - 2" PSIG Only)	
S1		0.75 - 1.6 PSIG	(with 1.5 - 3.25" PSIG Only)	
S2		1.25 - 2.25 PSIG	(with 1.5 - 3.25" PSIG Only)	
S3		1.25 - 3.25 PSIG	(with 1.5 - 3.25" PSIG Only)	

P203 Regulator Rebuild Kits

	Kit Includes	Part Number
P203	Main Regulator - Diaphragm, disk holder assembly, cap gasket and body/lower casing O-ring. Monitor - disk holder assembly, diaphragm, pilot tube O-ring, piston guide O-rings, piston ring, and piston assembly O-ring	971-203-000

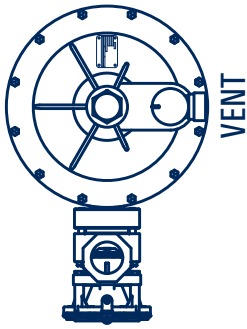


Note: See standard P200 Part Listing for other parts.

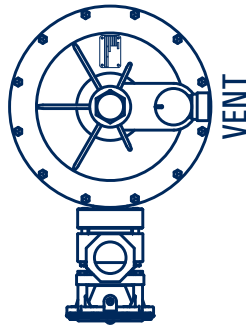
Item	Description	Qty.	Part Number
2	Range Spring - Normal (0)	1	See Table
	2" - 4.5" WC - Brown, Plated Steel	1	655-697-002
	3.5" - 6.5" WC - Red Plated Steel	1	655-697-003
	5" - 9" WC - Black, Plated Steel	1	655-697-004
	8.5" - 18" WC - Gray, Plated Steel	1	655-697-005
	14" - 30" WC - Dark Green, Plated Steel	1	655-697-006
	Range Spring - High (H)		
	1 - 2 PSI - Dark Blue, Plated Steel	1	655-697-007
	1.5 - 3.25 PSI - Orange, Plated Steel	1	655-697-008
23	Orifices		
	1/4" Aluminum	1	688-061-000
	3/8" Aluminum	1	688-061-001
	1/2" Aluminum	1	688-061-002
	3/4" Aluminum	1	688-061-003
	1" Aluminum	1	688-061-004
24	Body		
	Iron 2" NPT	1	664-384-000
	Iron 1.5" x 2" NPT	1	664-396-001
	Iron 1.5" NPT	1	664-396-000
	Iron 2" NPT, 125 FF	1	664-385-000

Item	Description	Qty.	Part Number
P203 Monitor Parts Only - See P200 for other Parts			
36	Relief Restriction	1	662-237-000
37	Disk Holder Assembly	1	822-044-000
38	Pipe Plug	1-2	639-000-054
39	Monitor Spring Case	1	604-264-000
40	Monitor Lower Case	1	629-237-000
41	Diaphragm	1	618-101-000
42	Roll Pin	1	635-074-000
43	Cap Screw	4	648-466-008
44	Cap Screw	8	648-466-000
45	O-ring	1	649-000-185
46	Diaphragm Plate	1	638-079-000
47	Monitor Springs		
	Green Spring (See Monitor Data Table)	1	655-746-000
	Red Spring (See Monitor Data Table)	1	655-746-001
	Blue Spring (See Monitor Data Table)	1	655-746-002
	Silver Spring (See Monitor Data Table)	1	655-746-003
48	Lower Spring Seat (See Monitor Data Table)	0-3	650-178-000
49	Piston Assembly	1	809-237-000
50	O-ring Retainer	1	643-206-000
51	Piston Assembly O-ring	1	649-000-001
52	Piston Guide	1	626-112-000
53	Piston Guide O-ring	1	649-309-003
54	Disk Holder Screw	1	648-545-000
55	Piston Ring Expander	1	644-062-000
56	Piston Ring	1	644-063-000
57	Washer	1	662-236-002
58	Pilot Tube	1	660-082-000
59	Vent Assembly	1	836-004-000

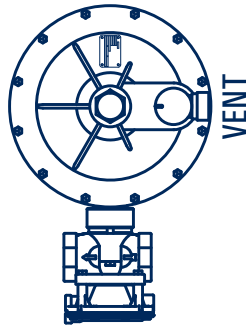
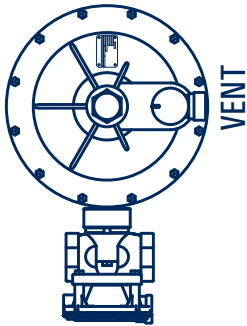
P203 Port Orientation (Ordering Matrix Digit "12")



UP - CODE 1 STANDARD

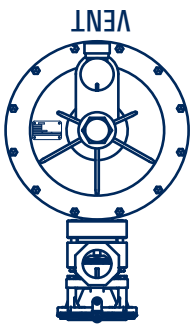


DOWN - CODE 2

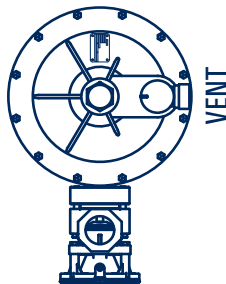


* Port orientation is based on the body's "Out" port location in relation to the top view of the regulator.

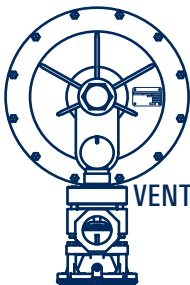
P203 Bonnet Vent Orientation (Ordering Matrix Digit "13")



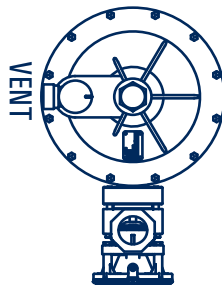
12 - CODE C



3 - CODE D STANDARD



6 - CODE E



9 - CODE F