

1200B2 Series Service Regulators

Technical Bulletin



The 1200B2 Series pressure regulators are designed to control natural gas, air, nitrogen, carbon dioxide, propane vapor, and other non-corrosive gases in residential, light commercial, and small industrial applications.

General Information

Outlet pressures between 3.5" W.C. and 5 PSIG are available. Operating temperature range is -20°F to 150°F (-30°C to 65°C). Maximum flow rate is 2500 SCFH (70.8 m³/h).

All models conform to ANSI Code B109.4-1998, and CGA Service-Type Regulator Specification CAN/CGA-6.18-M95.

Features

- Variety of interchangeable orifices and spring ranges
- 90 Degree (Right Angle) or 180 Degree (Straight-Flow), Valve Body
- Wide range of valve body connection sizes

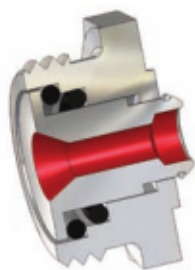
Options

Vent Elbow

The regulator vent opening should face downward (6 o'clock) to minimize the chance of blockage from ice and snow. If not possible, a 3/4" NPT plastic, 90° vent elbow (part number 78041P025) and separate protective screen (part number 70400P017) may be screwed into the vent to provide the necessary protection.

Elevation Compensation

The E.C. orifice is recommended for installations where the inlet pressure may vary over a wide range. The E.C. orifice is available in two sizes: 1/8" x 3/16" and 3/16". The capacities of these orifices are the same as the standard orifice of the same size.



Full Capacity Relief Valve

Full capacity internal relief valve standard on some models. (See Performance Graphs on page 8)

Splashguards

UV stabilized, weather-resistant, resin device that protects the vent screen from

Applications

Model Number	Description
1203B2	Basic regulator, non-relieving with 3/4" NPT vent.
1213B2	Basic regulator with full-capacity internal relief with 3/4" NPT vent.
1243B2	Basic regulator with full-capacity internal relief and overpressure shut-off and 3/4" NPT vent.
1253B2 w/ USSA	Basic regulator with full-capacity internal relief and overpressure underpressure, shut-off and 3/4" NPT vent.
1283B2	Basic regulator, non-relieving with overpressure shut-off and 3/4" NPT vent.
1293B2 w/ USSA	Basic regulator, non-relieving with overpressure, underpressure shut-off and 3/4" NPT vent.

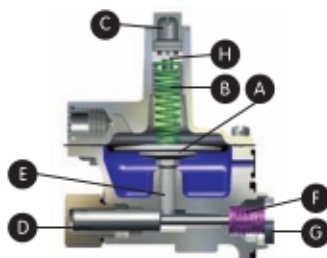
splashes while providing a large external vent opening to keep regulators working properly.

Safety Shutoff Devices

Overpressure Shutoff (OPSO) — Operates independently. The OPSO will shut off the gas supply in the event of a serious downstream pressure build-up. These are available in two pressure ranges on the Models 1243B2 and 1283B2.

Spring Range	Part Number
14" W.C. to 35" W.C.	71403P005
1 PSIG to 3 1/2 PSIG	71403P004

When the outlet pressure exceeds the OPSO set point, the pressure under the OPSO diaphragm (A) compresses the pressure spring (B) forcing the diaphragm stem (E) upwards and releasing plunger (D). This permits the shut-off spring (F) to force the shut-off disc (G) against the back side of the special double-ended orifice.



- | | |
|------------------------|-------------------|
| Ⓐ OPSO Diaphragm Plate | Ⓑ Pressure Spring |
| Ⓒ Cap | Ⓓ Plunger |
| Ⓔ Diaphragm Stem | Ⓕ Shut-off Spring |
| Ⓖ Shut-off Disc | Ⓗ Adjusting Screw |

Universal Safety Shutoff Assembly (USSA) — USSA protects the downstream piping from both over- and under-pressure conditions by shutting off the gas flow at the inlet side of the regulator orifice. Both Over- and under-pressure shut-off set points are adjustable depending on spring ranges selected

USSA Shutoff Spring Ranges

Over Pressure Spring Ranges

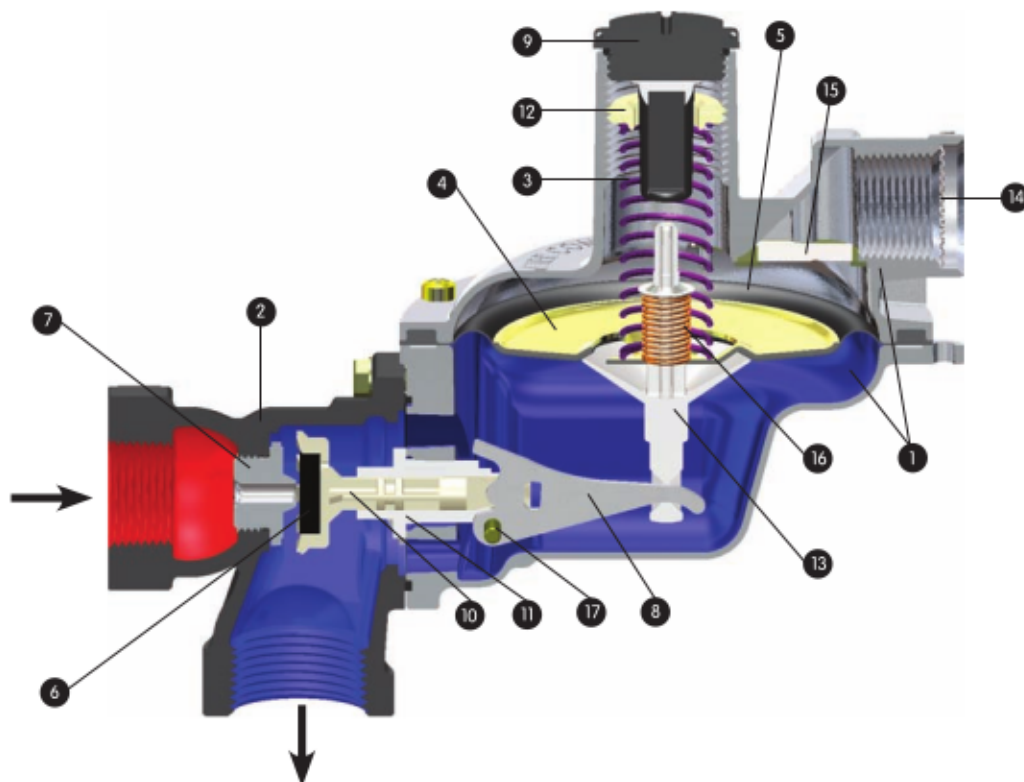
Spring Range	Part Number
7.5 - 24" W.C.	70017P123
20 - 32" W.C.	70017P124
24 - 44" W.C.	70017P125
40 - 84" W.C.	70017P126
3 - 5 PSIG	70017P127
4 - 7 PSIG	70017P128

Under Pressure Spring Ranges

Spring Range	Part Number
3 - 6" W.C.	70017P133
6 - 24" W.C.	70017P134
24 - 60" W.C.	70017P135

Pressure Taps

1/8" NPT inlet taps are available on 180° valve heads.



Material Specifications

- 1** Diaphragm Case - Precision die-cast aluminum with an exclusive seven-step advanced conversion coating, single-coat polyester primer and high solids polyurethane top coat.

- 2** Valve Body - Cast grey iron, undercoated, single coat polyester primer and high solids polyurethane top coat. Threads meet ANSI/ASME B1.20.1.

Available 180° valve body sizes:
 1/2" x 1/2", 1/2" x 3/4", 3/4" x 3/4",
 3/4" x 1" and 1" x 1" NPT or BSP-TR.

Available 90° valve body sizes:
 3/4" x 3/4", 3/4" x 1", 1" x 1" and
 1/2" x 1" NPT or BSP-TR.

- 3** Pressure Spring - Steel, zinc plated and yellow chromate. Color coded for identification.

Outlet Pressure	Color Code	Part Number
3.5" to 7" W.C.	Light Blue	70017P083
5" to 9" W.C.	Lavender	70017P084
6" to 15" W.C.	Light Grey	70017P088
18" W.C. to 2 PSIG	Light Green	70017P085
2 to 4 PSIG	Pink	70017P086
4 to 5 PSIG	Turquoise	70017P087

- 4** Diaphragm Plate - Steel, Electrogalvanized.

- 5** Diaphragm - Nylon fabric reinforced Buna N.

- 6** Seat Disc - Buna N; 60, 70 (std.) or 80 durometer rating.

- 7** Orifice Valve - High strength, corrosion resistant aluminum.

Orifice Size	Standard Part Number	Part Number with OPSO
5/16"	72494P022	72751P013
1/4"	72494P043	72751P023
3/16"	72494P042	72751P022
1/8"	72494P040	72751P021

- 8** Lever - Stamped aluminum.

- 9** Seal Plug - Minlon.

- 10** Plunger Valve - Minlon.

- 11** Plunger Guide - Delrin.

- 12** Pressure Adjustment Screw - Minlon.

- 13** Relief Valve Stem - Kepital.

- 14** Vent Screen - Stainless Steel - All models are designed with a removable weather and bug-proof stainless steel screen to resist freeze-ups and to exclude foreign matter. The vent is threaded 3/4" NPT (BSP-TR threads available). A vent line can be added to carry gas away to a safe outside location and away from any opening(s) in the building.

- 15** Vent Valve - Stainless Steel with Electrogalvanized steel retainer.

- 16** Relief Valve Spring - Steel. Zinc plated and yellow chromate. Non-adjustable color coded for identification. Standard set point of 8" W.C. above outlet set pressure of 7" W.C. Standard set point of 1.8 PSIG above outlet set pressure of 2 PSIG. Standard set point of 3 PSIG above outlet set pressure of 5 PSIG.

- 17** Lever Pin - Carbon steel, zinc plated and yellow chromate.

1200B2 Series Regulator Capacity Performance

1/2" Outlet Set Point 7.0" W.C. at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P084. Outlet pressure variance not to exceed +2" -1" W.C. from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
1 (0.07)	—	160 (4.5)	160 (4.5)	170 (4.8)
2 (0.14)	—	160 (4.5)	180 (5.1)	230 (6.5)
3 (0.21)	140 (4.0)	160 (4.5)	180 (5.1)	230 (6.5)
5 (0.35)	170 (4.8)	180 (5.1)	190 (5.4)	290 (8.2)
10 (0.69)	210 (5.9)	240 (6.8)	260 (7.4)	360 (10.2)
15 (1.04)	210 (5.9)	270 (7.6)	300 (8.5)	350 (9.9)
25 (1.73)	270 (7.6)	320 (9.1)	330 (9.3)	380 (10.8)
35 (2.42)	270 (7.6)	350 (9.9)	420 (11.9)	530 (15.0)
50 (3.45)	270 (7.6)	470 (13.3)	490 (13.9)	—
60 (4.14)	280 (7.9)	540 (15.3)	560 (15.9)	—
75 (5.18)	330 (9.3)	660 (18.7)	—	—
100 (6.90)	510 (14.4)	660 (18.7)	—	—
125 (8.63)	530 (15.0)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

3/4" Outlet Set Point 7.0" W.C. at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P084. Outlet pressure variance not to exceed +2" -1" W.C. from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
1 (0.07)	—	175 (5.0)	225 (6.4)	225 (6.4)
2 (0.14)	—	225 (6.4)	400 (11.3)	375 (10.6)
3 (0.21)	175 (5.0)	275 (7.8)	450 (12.7)	500 (14.2)
5 (0.35)	200 (5.7)	350 (9.9)	650 (18.4)	700 (19.8)
10 (0.69)	300 (8.5)	600 (17.0)	950 (26.9)	1100 (31.1)
15 (1.04)	325 (9.2)	800 (22.7)	1100 (31.1)	1400 (39.6)
25 (1.73)	475 (13.5)	1100 (31.1)	1400 (39.6)	1800 (51.0)
35 (2.42)	600 (17.0)	1400 (39.6)	2200 (62.3)	2500 (70.8)
50 (3.45)	700 (19.8)	1800 (51.0)	2200 (62.3)	—
60 (4.14)	700 (19.8)	2100 (59.5)	2200 (62.3)	—
75 (5.18)	750 (21.2)	2200 (62.3)	—	—
100 (6.90)	1100 (31.1)	2200 (62.3)	—	—
125 (8.63)	1100 (31.1)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

1200B2 Series Regulator Capacity Performance

1" Outlet

Set Point 7.0" W.C.
at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P084. Outlet pressure variance not to exceed +2" -1" W.C. from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
1 (0.07)	—	175 (5.0)	225 (6.4)	225 (6.4)
2 (0.14)	—	225 (6.4)	400 (11.3)	375 (10.6)
3 (0.21)	175 (5.0)	275 (7.8)	475 (13.5)	500 (14.2)
5 (0.35)	200 (5.7)	350 (9.9)	650 (18.4)	750 (21.2)
10 (0.69)	300 (8.5)	600 (17.0)	1000 (28.3)	1200 (34.0)
15 (1.04)	350 (9.9)	800 (22.7)	1400 (39.6)	1600 (45.3)
25 (1.73)	475 (13.5)	1100 (31.1)	2000 (56.6)	2500 (70.8)
35 (2.42)	600 (17.0)	1400 (39.6)	2500 (70.8)	2500 (70.8)
50 (3.45)	700 (19.8)	1800 (51.0)	2500 (70.8)	2500 (70.8)
60 (4.14)	800 (22.7)	2100 (59.5)	2500 (70.8)	2500 (70.8)
75 (5.18)	900 (25.5)	2500 (70.8)	2500 (70.8)	—
100 (6.90)	1400 (39.6)	2500 (70.8)	—	—
125 (8.63)	1600 (45.3)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

1/2" Outlet

Set Point 2 PSIG
at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P085. Outlet pressure variance not to exceed +/- 10% W.C. from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
3 (0.21)	100 (2.8)	140 (4.0)	170 (4.8)	190 (5.4)
5 (0.35)	150 (4.2)	180 (5.1)	200 (5.7)	250 (7.1)
10 (0.69)	220 (6.2)	280 (7.9)	310 (8.8)	400 (11.3)
15 (1.04)	260 (7.4)	340 (9.6)	420 (11.9)	520 (14.7)
25 (1.73)	340 (9.6)	430 (12.2)	530 (15.0)	670 (19.0)
35 (2.42)	420 (11.9)	550 (15.6)	630 (17.8)	890 (25.2)
50 (3.45)	500 (14.2)	700 (19.8)	780 (22.1)	960 (27.2)
60 (4.14)	500 (14.2)	700 (19.8)	830 (23.5)	1060 (30.0)
75 (5.18)	580 (16.4)	900 (25.5)	1000 (28.3)	1150 (32.6)
100 (6.90)	730 (20.7)	980 (27.8)	—	—
125 (8.63)	860 (24.4)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

1200B2 Series Regulator Capacity Performance

3/4" Outlet Set Point 2 PSIG at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P085. Outlet pressure variance not to exceed +/- 10% from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
3 (0.21)	75 (2.1)	100 (2.8)	150 (4.2)	150 (4.2)
5 (0.35)	125 (3.5)	175 (5.0)	225 (6.4)	250 (7.1)
10 (0.69)	175 (5.0)	250 (7.1)	350 (9.9)	375 (10.6)
15 (1.04)	225 (6.4)	350 (9.9)	475 (13.5)	500 (14.2)
25 (1.73)	325 (9.2)	475 (13.5)	650 (18.4)	750 (21.2)
35 (2.42)	350 (9.9)	600 (17.0)	850 (24.1)	1000 (28.3)
50 (3.45)	475 (13.5)	700 (19.8)	1100 (31.1)	1200 (34.0)
60 (4.14)	600 (17.0)	850 (24.1)	1200 (34.0)	1400 (39.6)
75 (5.18)	700 (19.8)	1000 (28.3)	1400 (39.6)	1800 (51.0)
100 (6.90)	900 (25.5)	1300 (36.8)	—	—
125 (8.63)	1000 (28.3)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

1" Outlet Set Point 2 PSIG at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P085. Outlet pressure variance not to exceed +/-10% from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
3 (0.21)	75 (2.1)	125 (3.5)	150 (4.2)	150 (4.2)
5 (0.35)	125 (3.5)	175 (5.0)	225 (6.4)	250 (7.1)
10 (0.69)	175 (5.0)	250 (7.1)	325 (9.2)	375 (10.6)
15 (1.04)	225 (6.4)	325 (9.2)	400 (11.3)	400 (11.3)
25 (1.73)	300 (8.5)	425 (12.0)	600 (17.0)	600 (17.0)
35 (2.42)	375 (10.6)	500 (14.2)	750 (21.2)	900 (25.5)
50 (3.45)	475 (13.5)	700 (19.8)	1000 (28.3)	1100 (31.1)
60 (4.14)	550 (15.6)	800 (22.7)	1100 (31.1)	1200 (34.0)
75 (5.18)	650 (18.4)	1000 (28.3)	1400 (39.6)	1400 (39.6)
100 (6.90)	1000 (28.3)	1400 (39.6)	—	—
125 (8.63)	1000 (28.3)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

1200B2 Series Regulator Capacity Performance

1/2" Outlet

Set Point 5 PSIG

at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P087. Outlet pressure variance not to exceed +/-10% from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
10 (0.69)	225 (6.4)	375 (10.6)	475 (13.5)	650 (18.4)
15 (1.04)	300 (8.5)	500 (14.2)	650 (18.4)	850 (24.1)
25 (1.73)	400 (11.3)	750 (21.2)	950 (26.9)	1300 (36.8)
35 (2.42)	500 (14.2)	950 (26.9)	1200 (34.0)	1600 (45.3)
50 (3.45)	650 (18.4)	1300 (36.8)	1600 (45.3)	2300 (65.1)
60 (4.14)	750 (21.2)	1400 (39.6)	1800 (51.0)	2500 (70.8)
75 (5.18)	950 (26.9)	1700 (48.1)	2100 (59.5)	2500 (70.8)
100 (6.90)	1200 (34.0)	2200 (62.3)	—	—
125 (8.63)	1500 (42.5)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

3/4" Outlet

Set Point 5 PSIG

at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F and 14.7 PSIA. Pressure spring 70017P087. Outlet pressure variance not to exceed +/-10% from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
10 (0.69)	225 (6.4)	325 (9.2)	375 (10.6)	550 (15.6)
15 (1.04)	300 (8.5)	450 (12.7)	525 (14.9)	850 (24.1)
25 (1.73)	375 (10.6)	600 (17.0)	700 (19.8)	1200 (34.0)
35 (2.42)	500 (14.2)	750 (21.2)	900 (25.5)	1500 (42.5)
50 (3.45)	650 (18.4)	900 (25.5)	1100 (31.1)	2000 (56.6)
60 (4.14)	700 (19.8)	1000 (28.3)	1800 (51.0)	2300 (65.1)
75 (5.18)	900 (25.5)	1200 (34.0)	2100 (59.5)	2500 (70.8)
100 (6.90)	1000 (28.3)	2100 (59.5)	—	—
125 (8.63)	1200 (34.0)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

1200B2 Series Regulator Capacity Performance

1" Outlet

Set Point 5 PSIG
at 50 SCFH

SCFH 0.60 specific gravity gas @ 60°F
and 14.7 PSIA. Pressure spring 70017P087.
Outlet pressure variance not to exceed
+/-10% from set point, horizontal position.

1200B2 Series Regulator Capacity SCFH (m³/h)

Inlet PSIG (bar)	1/8" Orifice	3/16" Orifice	1/4" Orifice	5/16" Orifice
10 (0.69)	225 (6.4)	375 (10.6)	475 (13.5)	650 (18.4)
15 (1.04)	300 (8.5)	500 (14.2)	650 (18.4)	850 (24.1)
25 (1.73)	400 (11.3)	750 (21.2)	950 (26.9)	1300 (36.8)
35 (2.42)	500 (14.2)	950 (26.9)	1200 (34.0)	1600 (45.3)
50 (3.45)	650 (18.4)	1300 (36.8)	1600 (45.3)	2300 (65.1)
60 (4.14)	750 (21.2)	1400 (39.6)	1800 (51.0)	2500 (70.8)
75 (5.18)	950 (26.9)	1700 (48.1)	2100 (59.5)	2500 (70.8)
100 (6.90)	1200 (34.0)	2200 (62.3)	—	—
125 (8.63)	1500 (42.5)	—	—	—

For optimum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.

1200B2 Series Regulator Relief Performance

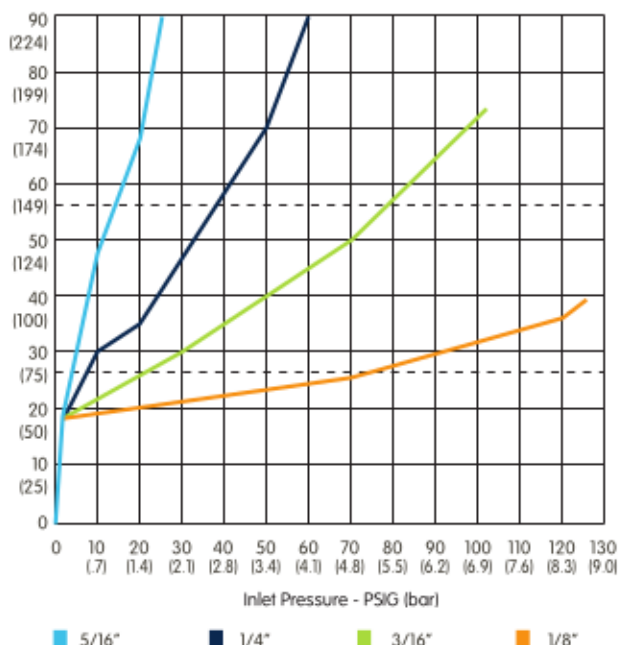
Relief Valve Test Method

There are several methods of measuring the relief performance of a regulator.
The worst case scenario will occur when the lever is disconnected. The data presented
in the tables below represent this condition.

Outlet Pressure Relative to Inlet Pressure

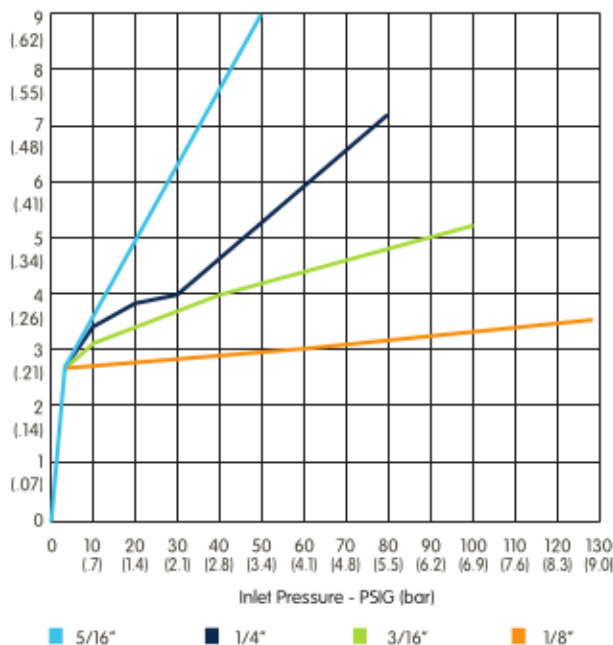
3/4" Screened Vent – No Vent Pipe
Set Pressure 7" W.C.

Outlet Pressure - Inches W.C. (mbar)



3/4" Screened Vent – No Vent Pipe
Set Pressure 2 PSIG

Outlet Pressure - PSIG (bar)



1200B2 Series Service Regulators - Other Technical Data

Full-Open Regulator Relief Capacity

For sizing downstream relief valves, use the following formulas to determine the regulator full-open capacity:

Critical flow rates Sub-critical flows

$$Q = 0.5 C \times \frac{P_1}{\sqrt{G}} \quad Q = C \times \frac{\sqrt{P_2 h}}{\sqrt{G}}$$

Critical flow occurs when the absolute outlet pressure is less than about 1/2 of the absolute inlet pressure.

- Q Maximum capacity of regulator
- C Orifice constant (see table below)
- P₁ Inlet absolute pressure (PSIA)
- P₂ Outlet absolute pressure (PSIA)
- h Differential pressure
- G Specific gravity of gas

Orifice Constants

Orifice	C
1/8"	20
3/16"	46
1/4"	80
5/16"	150

Maximum Recommended Inlet Pressure

Orifice Size	Inlet Pressure (PSIG)
1/8"	125
3/16"	125
1/4"	125
5/16"	100

This is the maximum inlet the regulator should operate at to insure complete lockup at no-flow conditions.

Other Gas Capacities

To determine the capacity of these regulators for gases other than natural gas, multiply the values within the capacity tables by a Specific Gravity Conversion Factor (F_g). The table below lists this factor for some of the more common gases.

Gas Type	Specific Gravity	Conversion Factor (F _g)
Air	1.00	0.77
Butane	2.01	0.55
Carbon Dioxide	1.52	0.63
Nitrogen	0.97	0.79
Propane	1.53	0.63

To calculate the Conversion Factor for other gases:

$$(F_g) = \sqrt{\frac{\text{Specific gravity of gas on which the capacity table is based}}{\text{Specific gravity of gas being used}}}$$

Example: If using propane and only having tables based on natural gas, the Specific Gravity Conversion Factor is :

$$(F_g) = \sqrt{\frac{\text{Specific gravity of natural gas (0.6)}}{\text{Specific gravity of propane (1.53)}}}$$

$$(F_g) = \sqrt{\frac{0.60}{1.53}}$$

$$(F_g) = 0.626$$

Regulator Pressure Rating

125 PSIG = Maximum recommended inlet pressure for normal service.

Maximum recommended pressure may vary with orifice size.

175 PSIG = Maximum inlet pressure for abnormal or emergency service, without causing damage to regulator case.

5 PSIG = Maximum outlet pressure for normal service.

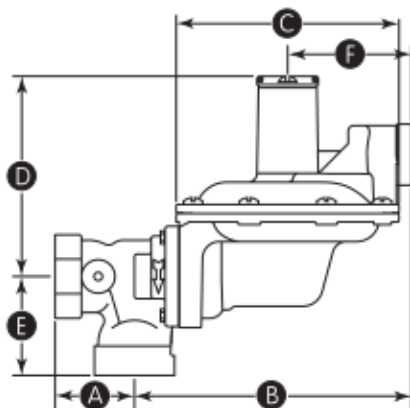
10 PSIG = Maximum outlet pressure which can be contained by pressure carrying components (no flange leakage to atmosphere except for normal relief action).

If regulator is subjected to these conditions, it should be removed from service.

50 PSIG = Maximum outlet pressure for abnormal service without damage to internal components. **If regulator is subjected to these conditions, it should be removed from service.**

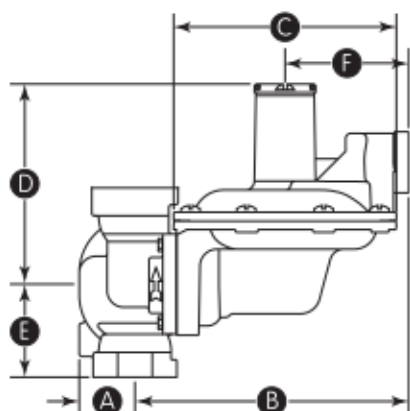
1200B2 Series Service Regulator Dimensions

Model 1203B2 and 1213B2 - 90°



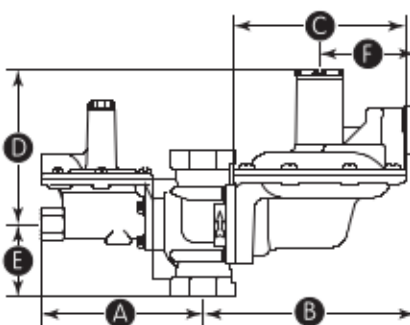
Inlet	Outlet	A	B	C	D	E	F
1/2"	1"	1-13/16" 46.0 mm	6-1/4" 158.8 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/4" 57.2 mm	2-13/16" 71.4 mm
3/4"	3/4"	1-13/16" 46.0 mm	6-1/4" 158.8 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/4" 57.2 mm	2-13/16" 71.4 mm
3/4"	1"	1-13/16" 46.0 mm	6-1/4" 158.8 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/4" 57.2 mm	2-13/16" 71.4 mm
1"	1"	1-13/16" 46.0 mm	6-1/4" 158.8 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/4" 57.2 mm	2-13/16" 71.4 mm

Model 1203B2 and 1213B2 - 180°



Inlet	Outlet	A	B	C	D	E	F
1/2"	1/2"	1-1/4" 31.8 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm
1/2"	3/4"	1-1/4" 31.8 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm
3/4"	3/4"	1-1/4" 31.8 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm
3/4"	1"	1-1/4" 31.8 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm
1"	1"	1-1/4" 31.8 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm

Model 1243B2 and 1283B2

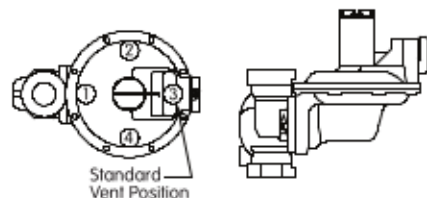


Inlet	Outlet	A	B	C	D	E	F
3/4"	3/4"	4-3/4" 120.6 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm
3/4"	1"	4-3/4" 120.6 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm
1"	1"	4-3/4" 120.6 mm	6-3/16" 157.2 mm	5" 127.0 mm	4-1/2" 114.3 mm	2-1/8" 54.0 mm	2-13/16" 71.4 mm

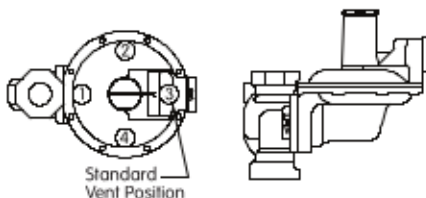
Regulator Assembly Positions

180° Models

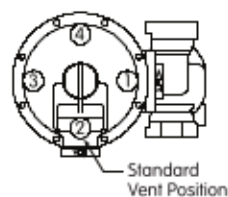
Valve Head Position "A"



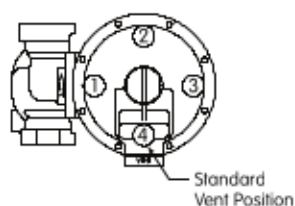
Valve Head Position "B"



Valve Head Position "C"



Valve Head Position "D"



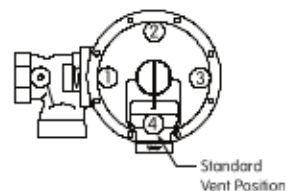
AC-250 Meter with 1200B2 Regulator

Example of Regulator Assembly Position

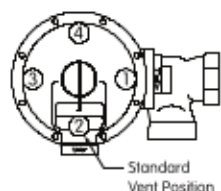
In the photo above the 1213B2 Regulator shown has an 180 degree valve head in Position "C" (Flow upward) with the vent in position 2 (Looking down). This would be assembly position C2.

90° Models

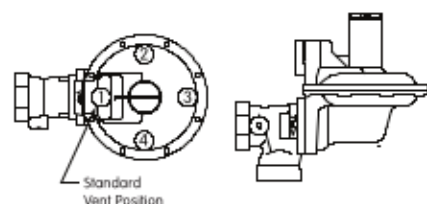
Valve Head Position "A"



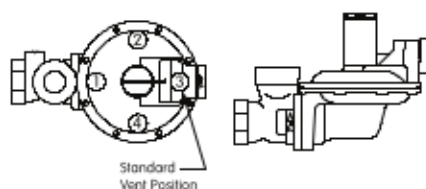
Valve Head Position "B"



Valve Head Position "C"



Valve Head Position "D"



Ordering Information

- 1 Model number
- 2 Size of inlet and outlet
- 3 Inlet pressure, PSIG (bar)
- 4 Outlet pressure, inches W.C. (mbar) or PSIG (bar)
- 5 Flow, SCFH (m3/h)
- 6 Kind and specific gravity of gas
- 7 Orifice size
- 8 Regulator assembly position number
- 9 Possible variation in inlet pressure for E.C. Orifice models
Maximum ____ PSIG (bar)
Minimum ____ PSIG (bar)

Shipping Weight

28 lbs/carton of eight regulators