

# IR4200 Series

Single Stage, General Purpose Pressure Regulator  
Internally Threadless, Brass



## Value Proposition:

The IR4200 Series regulator offers high pressure capability with an inlet pressure up to 4,000 psig. The large convoluted Hastelloy C-22<sup>®</sup> diaphragm provides stable pressure control over the operational range of the regulator.

Close tolerances and tight alignment of moving components minimize hysteresis and improve cycle life. Convoluted, Hastelloy C-22<sup>®</sup> diaphragm provides high corrosion resistance and increases cycle life.



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## Product Features:

- Unique compression member loads the seal to the body without requiring a threaded nozzle or additional seals to atmosphere
- Positive upward and downward stops increase cycle life by preventing over stroking of the diaphragm
- Internally threadless design reduces particle generation. Low internal volume reduces purge times
- Express Service Program available noted in *green italic print*
- Cleaned for O<sub>2</sub> service is standard

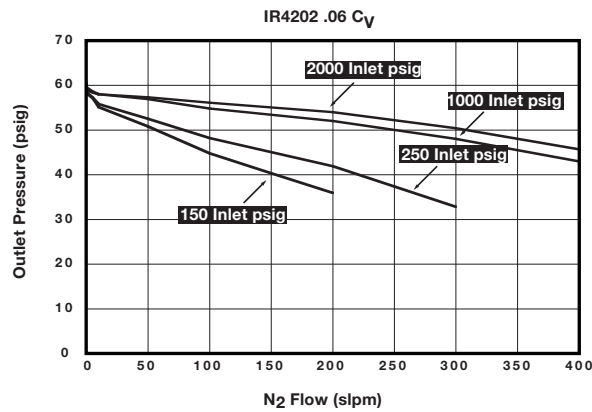
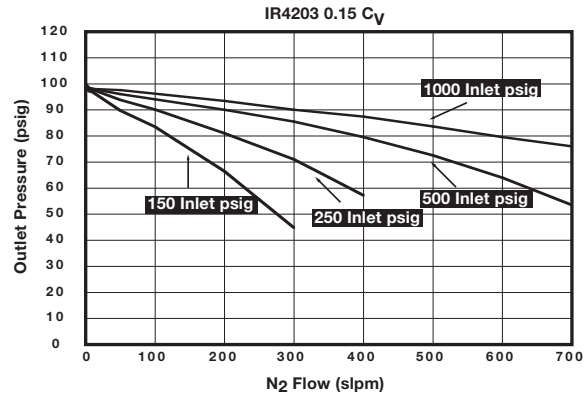
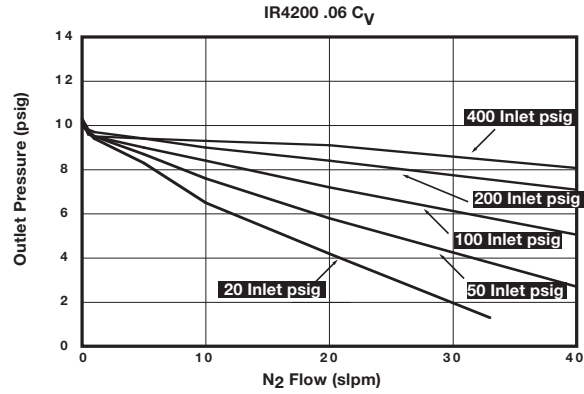


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# IR4200 SERIES

## Flow Curves

Additional flow curves available upon request



### RANGE TABLE

Basic Model	Max Inlet PSIG		
	0.06 C <sub>v</sub>	0.02 C <sub>v</sub>	0.15 C <sub>v</sub>
IR4200	400	400	400
IR4201	4000	4000	1250
IR4202	4000	4000	1250
IR4203	4000	4000	4000*
IR4204	4000	4000	1250
IR4205	4000	4000	1250
IR4215	4000	4000	4000*

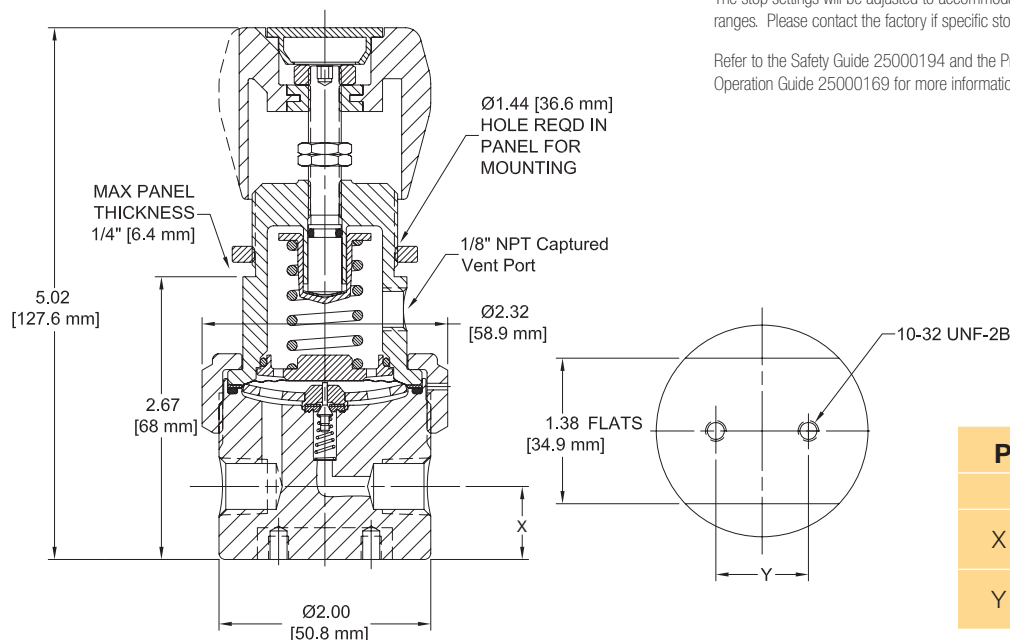
\* 4000 PSIG max inlet pressure for PCTFE seats only (HP option).  
1250 PSIG max inlet pressure for PEEK and Vespeal seats.

When setting the delivery pressure, ensure that the maximum outlet pressure of the regulator is not exceeded for any operating condition including increases in delivery pressure due to flow shutoff and supply pressure effect. Supply pressure effect will result in a significant rise in outlet pressure as the inlet pressure decreases.

The stop settings will be adjusted to accommodate typical inlet and outlet pressure ranges. Please contact the factory if specific stop settings are required.

Refer to the Safety Guide 25000194 and the Pressure Regulators Installation and Operation Guide 25000169 for more information.

## Dimensional Drawing



### PORT MOUNTING

	A	B (Std)
X	0.69 (17.5mm)	0.75 (19.1mm)
Y	0.88 (22.2mm)	0.75 (19.1mm)

Safety Guide and Installation and Operating Instructions available at

[www.parker.com/veriflo](http://www.parker.com/veriflo)

# IR4200 SERIES

## Ordering Information

Build an IR4200 Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

**Color Explanations:** Black = Standard Lead Time Configurations  
 Blue = Extended Lead Time Configurations  
 Green *Italic* = Express Service Program (ESP)

For an explanation of Ordering options please reference literature 25000275 at [www.parker.com/veriflo](http://www.parker.com/veriflo)



Sample: **IR42 02 B K 4P 01 30 4 B S 580**

Finished Order: **IR4202BK4P01304BS580**



### Basic Series

Range	Outlet Gauge
00 = 0 - 10 psig	0 - 30 psig
01 = 1 - 30 psig	0 - 60 psig
02 = 2 - 60 psig	0 - 100 psig
03 = 3 - 100 psig	0 - 200 psig
15 = 5 - 150 psig	0 - 200 psig
04 = 10 - 250 psig	0 - 400 psig
05 = 20 - 500 psig	0 - 600 psig



### Body Material

B = Brass



### Flow Capacity

= 0.06 Cv Standard  
 1 = 0.02 Cv  
 2 = 0.15 Cv



### Seat Material

K = PCTFE



### Porting

2P = 2 Ports No X required for gauges, inlet & outlet ports only  
 3P = 3 Ports One X for gauge port  
 4P = 4 Ports Two X's for gauge ports  
 4PB = 4 Ports One X for gauge port  
 5P = 5 Ports Two X's for gauge ports  
 See Regulator Porting Guide for additional options and port layouts

Note: Ports may be plugged for NPT threaded product.



### Outlet Gauge

Outlet Gauge	Basic Series
03 = 0 - 30 psig	IR4200
OL = 0 - 60 psig	IR4201
01 = 0 - 100 psig	IR4202
2 = 0 - 200 psig	IR4203
4 = 0 - 400 psig	IR4204
6 = 0 - 600 psig	IR4205
X = No Gauge	

Additional ranges available upon request



### Inlet Gauge

X = No Gauge  
 30 = 3000 psig Standard  
 4 = 400 psig with the 10 psig range  
 20 = 2000 psig with the 0.15 Cv option  
 40 = 4000 psig  
 Additional ranges available upon request



### Port Style

2 = 1/8" NPT Female  
 4 = 1/4" NPT Female  
 6 = 3/8" NPT Female  
 4T = 1/4" A-LOK®  
 6T = 3/8" A-LOK®  
 All Gauge ports are 1/4" NPT Female



### Port Mounting

A = 0.69 (17.5mm) port height w/0.88 (22.2mm) mounting  
 B = 0.75 (19.1mm) port height w/0.75 (19.1mm) mounting (Standard)



### Optional Features

This section can have multiple options

- B = True Ported Body No plugs
- D = Dome Loaded Not available with G or M options
- G = Tamper Proof Not available with D or M options
- M = Metal Knob (Black) Not available with D or G options
- N = Nickel Plate
- R = Relief Valve 4PB and 5P Only
- S = Self Relieving
- V = Outlet Valve NV17SB44MF
- HP = 4000 psig Max Inlet Pressure For .15 Cv, IR4203 and IR4215 with PCTFE seats only

Note: Panel Mount Option:  
 Order Panel Nut Ring p/n: 41900363 as a separate line item.  
 Vent Muffler Option:  
 Order Vent Muffler p/n: 46600581 as a separate line item.



### CGA#

320, 330, 350, 510, 580 or 590  
 Do not exceed the rated pressure of the CGA connection.

# IR4200 Series

## Specifications

Materials of Construction	
<b>Wetted</b>	
Body Options	Brass (std) or Nickel Plated Brass
Compression Member	Inconel 625®
Diaphragm	Hastelloy C-22®
Poppet	Phosphor Bronze
Poppet Spring	Inconel X750®
Seat	PCTFE
Carrier	316L Stainless Steel
Washer Back-up	Phosphor Bronze
O-ring Back-up	FKM
Inlet Screen / Filter	Copper and Phosphor Bronze
Self Relieving Seat	PEEK™
<b>Non-wetted</b>	
Cap	Nickel Plated Brass
Nut	Nickel Plated Brass
Knob Options	ABS (std) (ambient temp) or Aluminum

For additional information on materials of construction, functional performance and operating conditions, please see Regulator Technical Bulletin.

Functional Performance	
<b>Design</b>	
Burst Pressure	12,000 psig (828 barg)
Proof Pressure	6,000 psig (414 barg)
<b>Flow Capacity</b>	
C <sub>V</sub> Options	C <sub>V</sub> 0.06 (std), C <sub>V</sub> 0.02, C <sub>V</sub> 0.15
<b>Leak Rate</b>	
Internal	Bubble Tight
External	Bubble Tight
<b>Supply Pressure Effect</b>	
<i>Based upon C<sub>V</sub> Option</i>	
0.02 C <sub>V</sub>	0.23 psig/100 psig (0.016 barg/7 barg)
0.06 C <sub>V</sub>	0.6 psig/100 psig (0.04 barg/7 barg)
0.15 C <sub>V</sub>	1.5 psig/100 psig (0.1 barg/7 barg)
<b>Internal Volume</b>	4.0 cc without fittings
<b>Approx. Weight</b>	1.5 lbs. (0.7 kg)
<b>Operating Conditions</b>	
Maximum Inlet	Refer to Range Table for specific information
Outlet Options	0-10 psig (.7 barg), 1-30 psig (2 barg), 2-60 psig (4 barg), 3-100 psig (7 barg), 5-150 psig (10 barg), 10-250 psig (17 barg), 20-500 psig (35 barg)
Temperature	-40°F to 150°F (-40°C to 66°C)

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