

IR4000W Series

Single-Stage Pressure Regulator

Internally Threadless • Welded • Stainless Steel



Value Proposition:

With an inlet pressure up to 4,000 psig, Parker's IR4000 single-stage regulator offers high pressure capability with stable pressure control. This internally threadless and welded stainless steel series features a large, convoluted Hastelloy C-22® diaphragm that provides high corrosion resistance. Close tolerances and tight alignment of moving components minimizes hysteresis and improves 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
- Internally threadless design reduces particle generation; low internal volume reduces purge times
- Cleaned for O₂ service is standard
- Positive upward and downward stops increase cycle life by preventing over stroking of the diaphragm
- Selection of seat materials for media compatibility and temperature applications

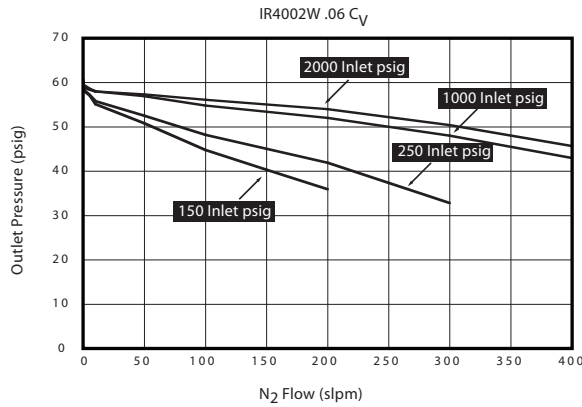
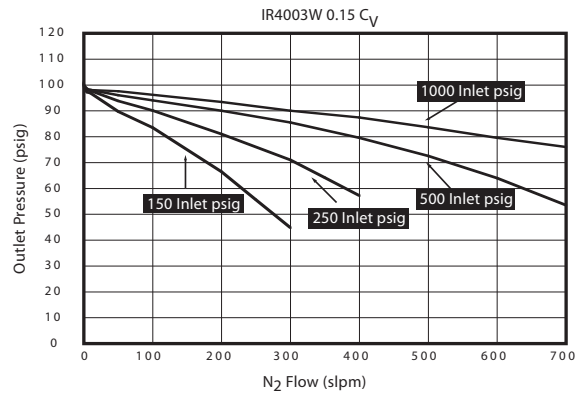
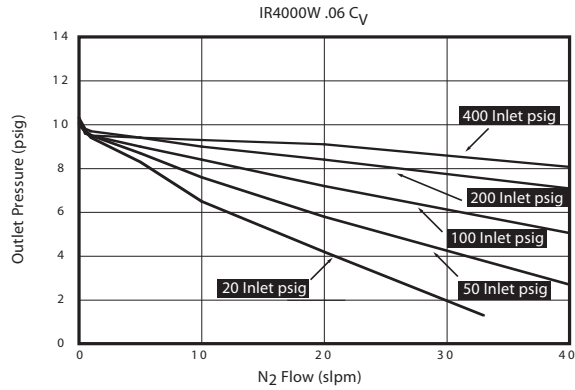


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IR4000W Series

Flow Curves

Additional flow curves available upon request



RANGE TABLE			
Basic Model	Max Inlet PSIG		
	0.06 C _V	0.02 C _V	0.15 C _V
IR4000W	400	400	400
IR4001W	4,000	4,000	1,250
IR4002W	4,000	4,000	1,250
IR4003W	4,000	4,000	4,000*
IR4004W	4,000	4,000	1,250
IR4005W	4,000	4,000	1,250
IR4015W	4,000	4,000	4,000*

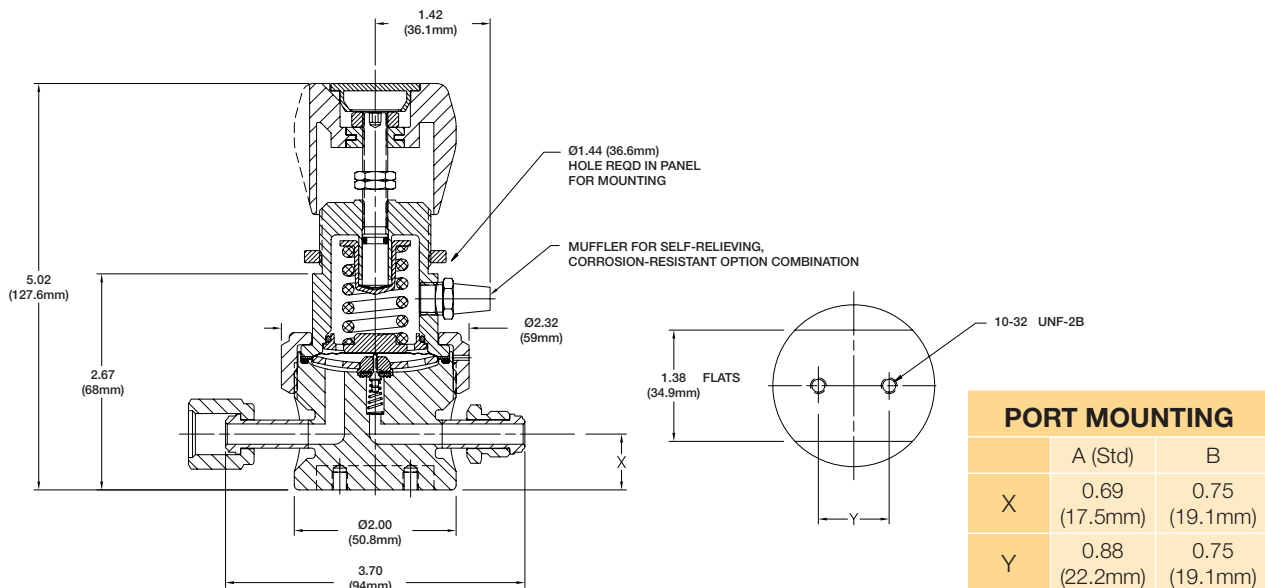
* 4,000 PSIG max inlet pressure for PCTFE seats only (HP option).
1,250 PSIG max inlet pressure for PEEK™ and Vespel® seats.

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



Safety Guide and Installation and Operating Instructions available at
www.parker.com/veriflo

IR4000W Series

Ordering Information

Build an IR4000W Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

Contact factory for most up to date lead time information.

Blue = Configurations that have selections in blue may have an extended lead time and a minimum order quantity.

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Sample: **IR40 01 W K 3P X FS MMM A L**

Finished Order: **IR4001WK3PXFMMML**

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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

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Body Material

W = 316L Stainless Steel

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Flow Capacity

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

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Seat Material

K = PCTFE
 P = PEEK™
 V = Vespel®

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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.

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Outlet Gauge

Outlet Gauge	Basic Series
03 = 0 - 30 psig	IR4000W
OL = 0 - 60 psig	IR4001W
01 = 0 - 100 psig	IR4002W
2 = 0 - 200 psig	IR4003W
4 = 0 - 400 psig	IR4004W
6 = 0 - 600 psig	IR4005W
X = No Gauge	

Additional ranges available upon request

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Inlet Gauge

X = No Gauge
 30 = 3,000 psig
 4 = 400 psig with the 10 psig range
 20 = 2,000 psig with the 0.15 Cv option
 40 = 4,000 psig
Additional ranges available upon request

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Port Style

4T = 1/4" A-LOK®
 6T = 3/8" A-LOK®
 8T = 1/2" A-LOK®
 FS = 1/4" Face Seal
 FS8 = 1/2" Face Seal
 TS = 1/4" Tube Stub Standard only when configured as TSTS
 TS6 = 3/8" Tube Stub
 TS8 = 1/2" Tube Stub

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Port Style

M = Male
 F = Female
 I = Internal
 1/4" FSM Gauge Ports are standard.
 1/4" NPT Gauge Ports are standard for compression ends.
Any other Gauge Port Configuration may have an extended lead time.

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Port Mounting

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

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Optional Features

This section can have multiple options

C = Corrosion Resistant External Stainless Steel Cap
 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
 L = PTFE Backup O-ring PCTFE and PEEK™ Seats Only
 R = Relief Valve 4PB and 5P Only
 S = Self Relieving Temperature rating -40°F to 150°F (-40°C to 66°C)
 T = Hastelloy Trim Includes carrier and backup washer.
 HP = 4,000 psig Max Inlet Pressure For .15 Cv, IR4003 and IR4015 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.

Vent Muffler is standard for the Self-Relieving (S), Corrosion-Resistant (C) option combination.

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DISS CGA#

634, 716, 718, 724, or 728
 Do not exceed the rated pressure of the CGA connection.

IR4000W Series

Specifications

Materials of Construction	
Wetted	
Body	316L Stainless Steel
Compression Member	Inconel 625®
Diaphragm	Hastelloy C-22®
Poppet	Hastelloy C-276®
Poppet Spring	Inconel X-750®
Seat Options	PCTFE (std), Vespel® or PEEK™
Carrier Options	316L Stainless Steel (std) or Hastelloy C-22®
Washer Backup Options	316 Stainless Steel (std) or Hastelloy C-276®
O-ring Backup Options	FKM (std) or PTFE
Poppet Screen	Hastelloy C-22® (76 µm)
Self-Relieving Seat	PEEK™
Non-wetted	
Cap Options	Nickel Plated Brass (std) or Stainless Steel
Nut	Stainless Steel
Knob Options	ABS (std) (ambient temp) or Aluminum

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

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Functional Performance	
Design	
Burst Pressure	12,000 psig (828 barg)
Proof Pressure	6,000 psig (414 barg)
Flow Capacity	
C _V Options	C _V 0.06 (std), C _V 0.02, C _V 0.15
Leak Rate	
Internal	Inboard Test Method
External	≤ 4 x 10 ⁻⁸ cc/sec He
External	≤ 2 x 10 ⁻⁸ cc/sec He
Supply Pressure Effect	
0.02 C _V	0.23 psig/100 psig (0.016 barg/7 barg)
0.06 C _V	0.6 psig/100 psig (0.04 barg/7 barg)
0.15 C _V	1.5 psig/100 psig (0.1 barg/7 barg)
Internal Volume	
Internal Volume	4.0 cc without fittings
Approx. Weight	
Approx. Weight	1.5 lbs. (0.7 kg)
Operating Conditions	
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	Metal Knob required for temperatures above 150°F
PCTFE	-40°F to 150°F (-40°C to 66°C)
PEEK™	-40°F to 275°F (-40°C to 135°C)
Vespel®	-40°F to 500°F (-40°C to 260°C)
Self-Relieving Option	-40°F to 150°F (-40°C to 66°C)

OFFER OF SALE:

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