

HFR900 Series

High Flow Pressure Regulator



The HFR900 series was designed and engineered for use in those applications using high flow rates requiring a compact pressure regulator for control.



features

- ▶ “VeriClean”, Veriflo’s low sulfur high purity 316L Stainless Steel, which enhances electropolishing, and corrosion resistance.
- ▶ Also available in Brass bar stock.
- ▶ Simple construction makes maintenance easy.
- ▶ Self-contained, replaceable valve seat assembly.
- ▶ Over 20 years of proven reliability.

applications

- ▶ Fluid media: corrosive and non-corrosive gases.
- ▶ Point-of-use applications.
- ▶ Any high flow requirement with less than 500 psig supply pressure.



materials of construction

Wetted

Body “VeriClean”, Veriflo’s high purity type 316L Stainless Steel or Brass
Seat Assembly 316L Stainless Steel or Brass
Seal Teflon® and Viton® or Teflon® and Kalrez®
Diaphragm 316L Stainless Steel, Teflon® lined

Non-Wetted

Cap Nickel plated Brass or Brass
Knob (Black) ABS Plastic

operating conditions

Maximum supply pressure:
Viton Seal 500 psig (35 barg)
Kalrez Seal 200 psig (14 barg)
Outlet Pressures 1-30 psig (.06-2 barg)
2-75 psig (.1-5 barg)
5-150 psig (.3-10 barg)
Design burst pressure 1500 psig (103 barg)
Design proof pressure 1000 psig (69 barg)
Temperature -40°F to 165°F
(-40°C to 73°C)
Temperature (Brass) -40°F to 150°F
(-40°C to 66°C)

functional performance

Flow capacity $C_v = .85$
(SEMI Flow Coefficient Test# F-32-0998)
Design Leak Rate:
Outboard 2×10^{-8} scc/sec He
Inboard 2×10^{-9} scc/sec He
Supply pressure effect 4 psig per 100 psig
(.3 barg per 7 barg)

standard connections

1/4”, 3/8” or 1/2” Female pipe threads (NPT)
1/4”, 3/8” or 1/2” Compression fittings

internal volume

2.33 cu in (38 c.c.)

surface finishes

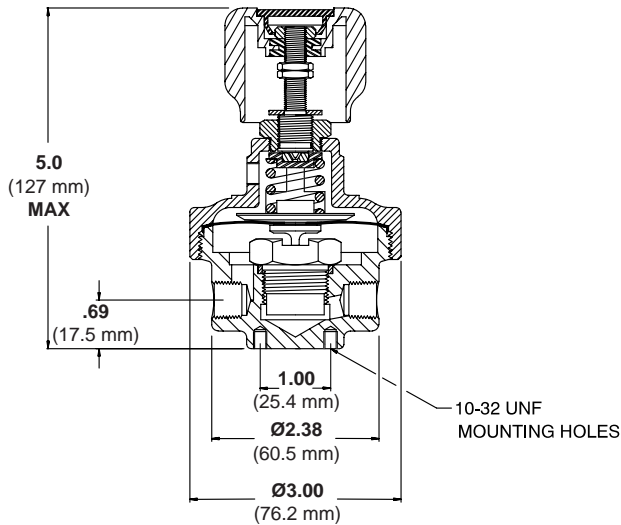
Standard Ra 15-20 micro inch
(.38 to .5 micro meter) or less

approximate weight

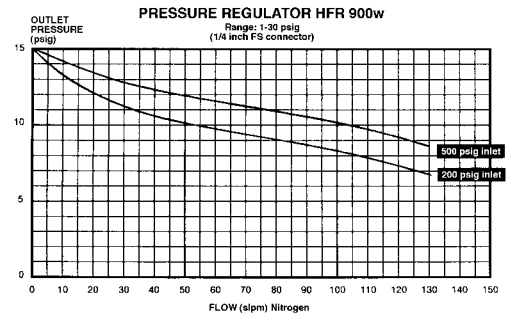
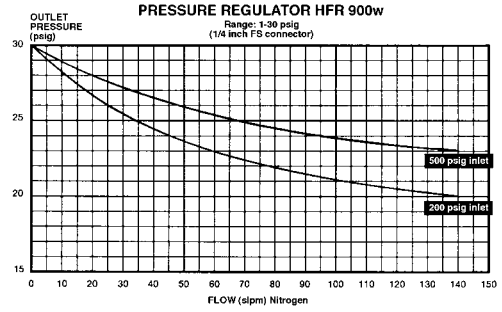
2.5 lbs. (1.2 kg)

HFR900 Series

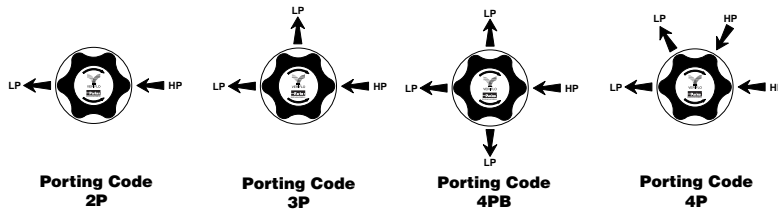
Cross Sectional Drawing



Flow Curves



Porting Configuration

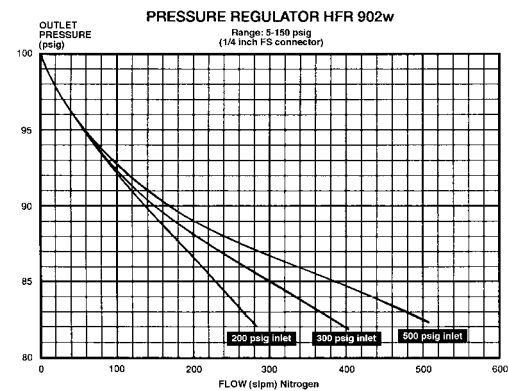
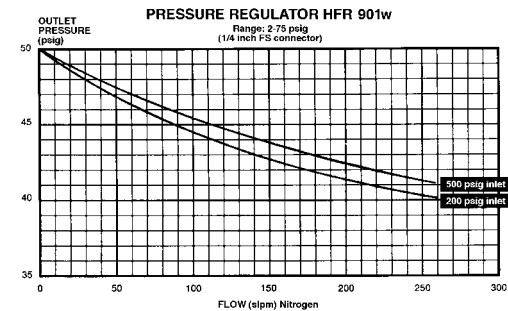


Ordering Information

| | | | | | | | | | |
|-------------------------------|------------------------|---|----|----|---|---|---|----|---------------------------------|
| BASIC SERIES | HFR900 | S | 4P | 03 | 6 | 4 | V | PM | OPTIONAL FEATURES |
| HFR900 | = 1-30 psig | | | | | | | | DO = Dome Loaded |
| HFR901 | = 2-75 psig | | | | | | | | PM = Panel Mount |
| HFR902 | = 5-150 psig | | | | | | | | R = Relief Valve |
| MATERIALS | | | | | | | | | SEAL MATERIAL |
| B | = Brass | | | | | | | | K = Kalrez® (200 psig max) |
| S | = 316L Stainless Steel | | | | | | | | V = Viton® (500 psig max) |
| PORTING | | | | | | | | | PORT STYLE |
| 2P | = 2 Ports | | | | | | | | 4 = 1/4" NPTF |
| 3P | = 3 Ports | | | | | | | | 6 = 3/8" NPTF |
| 4P | = 4 Ports | | | | | | | | 8 = 1/2" NPTF |
| 4PB | = 4 Ports | | | | | | | | 4T = 1/4" Compression Fittings* |
| | | | | | | | | | 6T = 3/8" Compression Fittings* |
| | | | | | | | | | 8T = 1/2" Compression Fittings* |
| REGULATOR OUTLET GAUGE | | | | | | | | | REGULATOR INLET GAUGE |
| 03 | = 0-30 psig | | | | | | | | 4 = 0-400 psig |
| 01 | = 0-100 psig | | | | | | | | 6 = 0-600 psig |
| 2 | = 0-200 psig | | | | | | | | X = No Gauge |
| X | = No Gauge | | | | | | | | |

* Compression fittings are threaded and are inclusive of nuts and ferrules.

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