

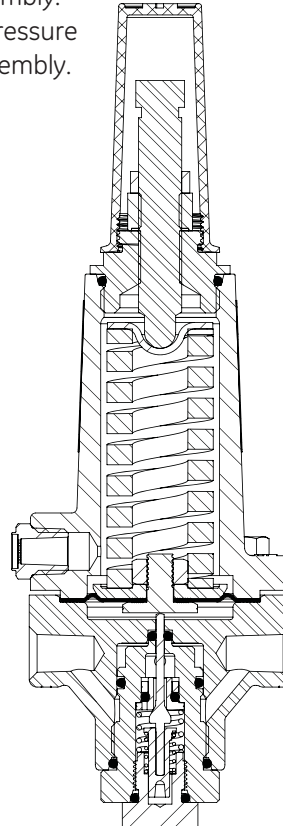
Mooney* Series 20H & 20HS Flowgrid* Pilots

The Series 20H and 20HS Flowgrid Pilot is a high pressure version of the Series 20 pilot designed for set points between 200-900 psig. Both the high pressure and low pressure constructions share all the same parts except for a high pressure diaphragm assembly. The Series 20 and 20S pilot can be converted to the high pressure version simply by adding the high pressure diaphragm assembly.

Specifications

Body Style	Pressure Reducing Valve (PRV) & Back Pressure Valve (BPV)
Orifice Size	0.15 inches (standard) 0.17 inches (optional)
Connections	1/4" NPTF
Temperature Nitrile Diaphragm & O-rings	Working -20°F to 150°F Emergency -40°F to 200°F
Temperature Viton Diaphragm & O-rings	30° F to 200°F
Maximum Inlet Pressure	1500 psig
Maximum Loading Pressure	1500 psig
Maximum Outlet Pressure	1500 psig
Maximum Emergency Sensing Pressure	1000 psig
Maximum Spring Housing Pressure	1000 psig
Set Pressure Range	200-520 psig 400-900 psig

** Anytime the Flowgrid Pilot or Valve is exposed to pressures in excess of its rating it should be inspected for damage.



Sectional View



Series 20H Flowgrid Pilot

Flow Coefficients and Constants

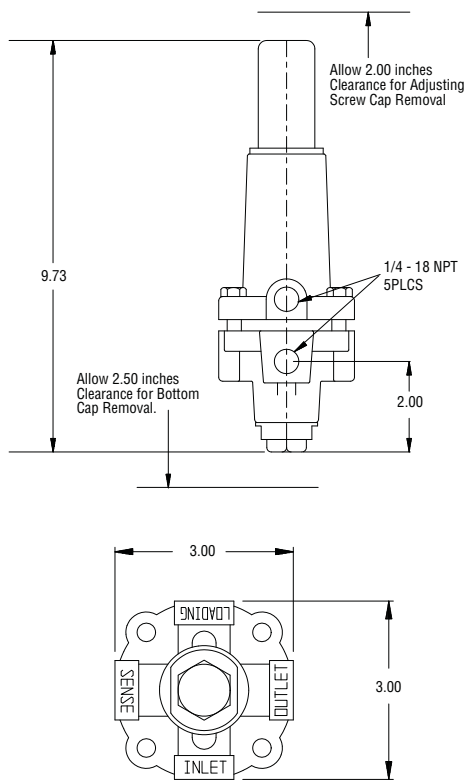
Series 20/20S/20H/20HS Pilots			
	C_1	MAX C_g	MAX C_v
0.15 Orifice (standard)	38	9.58	0.25
0.17 Orifice (optional)	38	11.18	0.29

Materials of Construction

Body & Spring Housing	Forged Brass or 304 Stainless Steel
Body Insert & Closing Cap	Brass or 304 Stainless Steel
Orifice	304 Stainless Steel or Delrin
Plug & Stem	Nitrile/304 Stainless Steel Viton/304 Stainless Steel 304 Stainless Steel
Diaphragm	Nitrile/Nylon or Viton/Nylon
O-rings	Nitrile or Viton



Dimensions



Trim Options

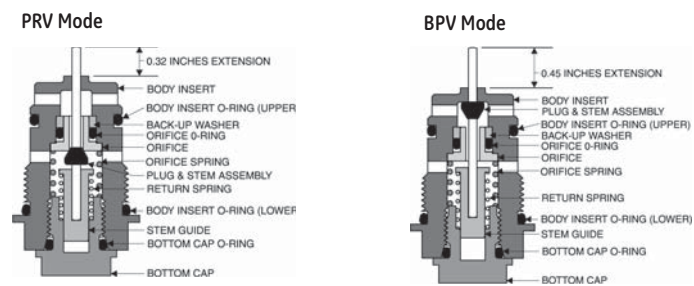
All Series 20 Pilots			
Internal Trim	Std. Construction	Option 1	Option 2
Orifice	304 Stainless	304 Stainless	Delrin
Plug/Stem	Nitrile/304 SST	Viton/304 SST	304 Stainless
Diaphragm	Nitrile/Nylon	Viton/Nylon	Nitrile/Nylon
O-ring	Nitrile	Viton	Nitrile

Stock Numbers

Series 20 H Pilot (Brass)	Spring Color	PRV Stock	BPV Stock	Weight
200-520	Black	FP-41	FP-47	6 lbs
400-900	White/Green	FP-42	FP-48	6 lbs

Series 20HS Pilot (Stainless)	Spring Color	PRV Stock	BPV Stock	Weight
200-520	Black	FP-49	FP-55	6 lbs
400-900	White/Green	FP-50	FP-56	6 lbs

Cartridge Sectional View



NOTE: The difference between PRV and BPV Modes is that the Pilot Stem is inverted and the control action is reversed.

Pilot Performance

Series 20 Pilot		Pressure Reducing Mode Restrictor Set at 4			Back Pressure Mode Restrictor Set at 4	
Spring Range	Color	Lock-up (psi)	Droop (psi) @ Max. Capacity ¹	Boost @ Constant Flow (psi) ³	Build up (psi) for Max. Capacity ²	Lock-up (psi)
200-520	Black	10.0	4.00	1.50	+5.0 ³	-3.0
400-900	White/Green	20.0	8.00	1.50	+12.0 ³	-5.0

1. Constant Inlet Pressure (P_1).

2. Per 100 psi decrease in inlet pressure (P_1).

3. ST/Delrin trim required.

Sense point recommendations: Sense point should be at least 8-10 pipe diameters away from the regulator and away from turbulence causing objects such as valves, tees, elbows, and reducers. Pipeline gas velocity at the sense point should be less than 100 ft/sec (30 m/s).



GE Oil & Gas
 2822 S. 1030 West
 Salt Lake City, UT 84119
 P: +1 801.487.2224
 F: +1 801.487.2597

Visit us online at:
www.ge.com/energy

© 2011 General Electric Company
 All Rights Reserved
 *Denotes a trademark of General Electric Company