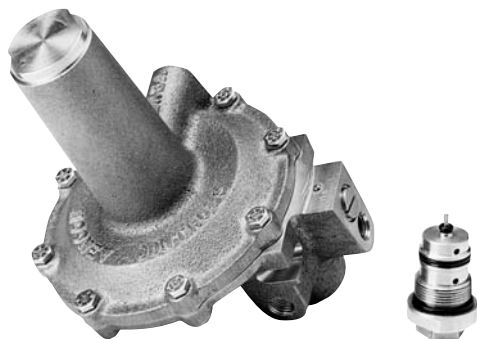
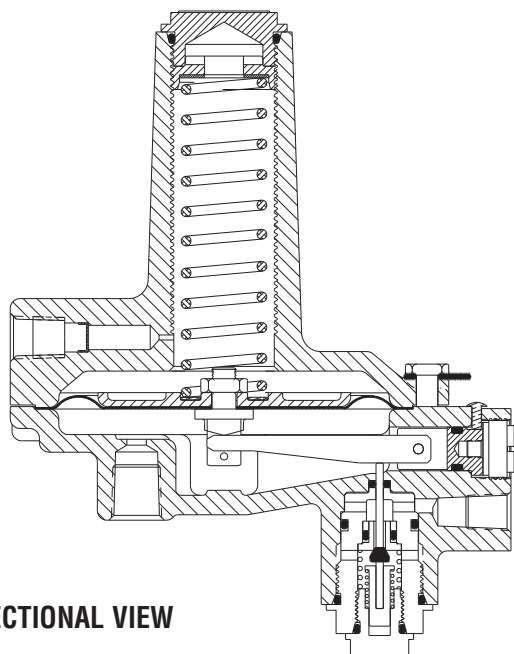


## Series 20L Pilot

Series 20L – Bronze  
Series 20L – Aluminum



**Series 20L Flowgrid® Pilot  
with Body Insert (Cartridge) Removed**



**SECTIONAL VIEW**

### FLOW COEFFICIENTS AND CONSTANTS

Series 20 Pilot			
	C1	MAX Cg	MAX CV
<b>0.15 Orifice (Standard)</b>	38	9.58	0.25
<b>0.17 Orifice (Optional)</b>	38	11.18	0.29

The Series 20L Flowgrid® Pilot is a pressure control regulator designed primarily for use as a control pilot with unloading type pilot systems for pressure reducing (PRV) and differential pressure (DPV) applications. The Series 20L Pilot is designed for both liquid and gas applications. The pilot is available in both bronze (Series 20L-B) and aluminum (Series 20L-A).

### SPECIFICATIONS

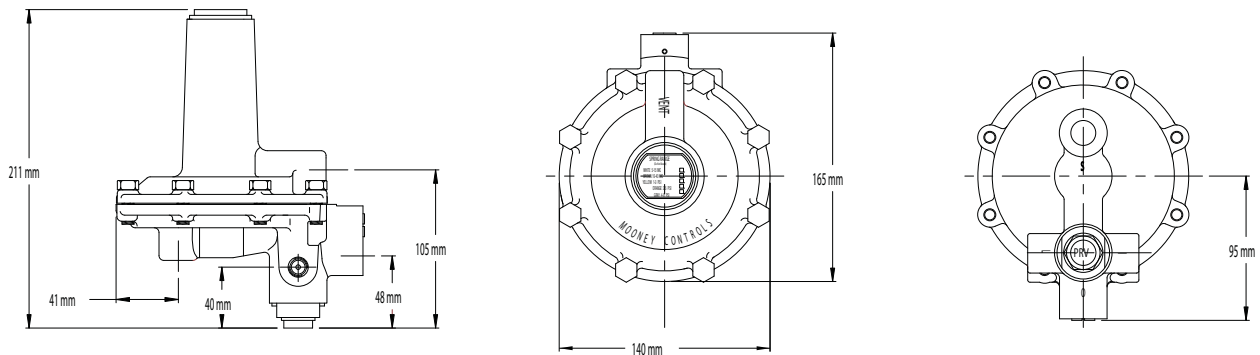
Body Material	Series 20L Bronze	Series 20L Aluminum
<b>Body Style</b>	Pressure Reducing (PRV)	Same
<b>Orifice Size</b>	0.15 Inches (Standard) 0.17 Inches (Optional)	Same
<b>Connections</b>	1/4" NPT Inlet, Outlet, & Loading 1/2" NPT Sense	Same
<b>Temperature - Nitrile Diaphragm &amp; O-rings</b>	Working -20°F to 150°F Emergency -40°F to 175°F	Same
<b>Maximum Static Inlet Pressure*</b>	1500 psig	750 psig
<b>Maximum Static Outlet Pressure*</b>	1500 psig	750 psig
<b>Maximum Static Loading Pressure*</b>	1500 psig	750 psig
<b>Maximum Operating Inlet Pressure</b>	750 psig	750 psig
<b>Maximum Operating Loading Pressure</b>	750 psig	750 psig
<b>Outlet Pressure</b>	750 psig	750 psig
<b>Max. Sensing Pressure</b>	300 psig	150 psig
<b>Maximum Spring Housing Pressure</b>	300 psig	150 psig
<b>Set Pressure Spring Ranges</b>	5 Inches W.C. to 8 psig (Five Springs- Refer to Page 2 for each Spring Range)	

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

### MATERIALS OF CONSTRUCTION

<b>Body &amp; Spring Housing</b>	Cast Manganese Bronze or Cast A356-T6 Aluminum
<b>Body Insert &amp; Closing Cap</b>	Brass or 6061T-6 Aluminum
<b>Orifice</b>	303 Stainless Steel/Delrin
<b>Plug &amp; Stem</b>	Nitrile/303 Stainless Steel/Viton/330 SST
<b>Lever</b>	Zinc Plated Carbon Steel
<b>Pivot</b>	Brass or Aluminum (Anodized)
<b>Vent Orifice</b>	303 - Stainless Steel
<b>Diaphragm</b>	Nitrile/Nylon
<b>O-Rings</b>	Nitrile/Viton

## DIMENSIONS

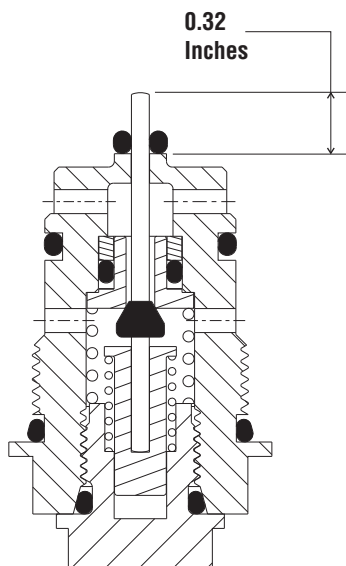


## PILOT PERFORMANCE

SERIES 20 Pilot		Pressure Reducing Mode Restrictor set at 4		
Spring Range	Color	Lock-up (psi)	Droop (psi) @ MAX Capacity	Boost @ Constant Flow (psi)
5 Inches W.C. – 15 Inches W.C.	White	1.0 Inches W.C.	0.5 Inches W.C.	0.7 Inches W.C.
10 Inches W.C. – 40 Inches W.C.	Brown	2.0 Inches W.C.	2.0 Inches W.C.	0.7 Inches W.C.
1 – 3 psi	Yellow	0.2 psig	0.15 psig	0.025 psig
2 – 5 psi	Orange	0.35 psig	0.25 psig	0.025 psig
4 – 8 psi	Gray	0.5 psig	0.30 psig	0.025 psig

1. Inlet Pressure ( $P_1$ ) Constant.
2. Per 100 psi decrease in inlet pressure ( $P_1$ ).

## CARTRIDGE SECTIONAL VIEW



### Pressure Reducing (PRV) Mode

\* The Series 20L may not be used in the Back Pressure (BPV/Relief) Mode to control the Flowgrid® Valve because the Series 20L Pilot set point range is below the minimum differential required to open the Flowgrid® Valve.

### Mooney Dresser, Inc.

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## TRIM OPTIONS

All Series 20L Pilots		
Internal Trim	Std. Construction	Option
Orifice	303 Stainless (0.15 Standard Orifice)	303 Stainless (0.17 Orifice)
Plug/Stem	Nitrile/303 SST	Nitrile/303 SST
Diaphragm	Nitrite/Nylon	Nitrile/Nylon
O-Ring	Nitrile	Nitrile

## STOCK NUMBERS

Series 20L Pilot (Bronze)	Spring Color	PRV Stock	Weight
5 In. W.C. – 15 In. W.C.	White	FP-100	9 lbs
10 In. W.C. – 40 In. W.C.	Brown	FP-101	9 lbs
1 – 3 psi	Yellow	FP-102	9 lbs
2 – 5 psi	Orange	FP-103	9 lbs
4 – 8 psi	Gray	FP-104	9 lbs
Series 20L (Aluminum)			
5 In. W.C. – 15 In. W.C.	White	FP-59	4 lbs
10 In. W.C. – 40 In. W.C.	Brown	FP-26	4 lbs
1 – 3 psi	Yellow	FP-107	4 lbs
2 – 5 psi	Orange	FP-108	4 lbs
4 – 8 psi	Gray	FP-109	4 lbs



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