

730-067-01

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).

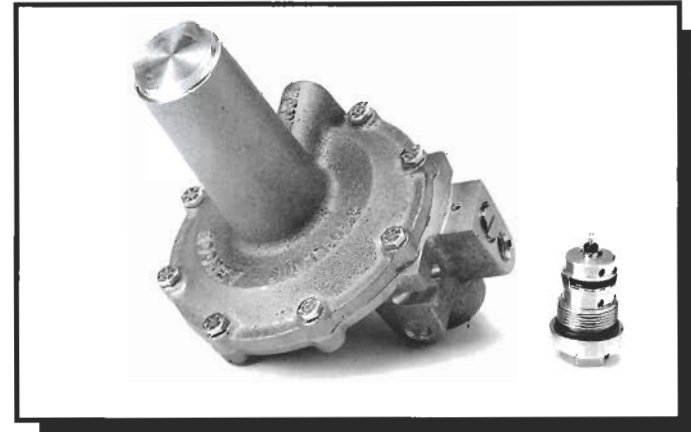
**SPECIFICATIONS**

BODY MATERIAL	SERIES 20 L (BRONZE)	SERIES 20 L (ALUMINUM)
BODY STYLE	PRESSURE REDUCING (PRV)	SAME
ORIFICE SIZE	0.15 INCHES (STANDARD) 0.17 INCHES (OPTIONAL)	SAME
CONNECTIONS	1/4" NPT INLET, OUTLET & LOADING 1/2" NPT SENSE	SAME
TEMPERATURE - NITRILE DIAPHRAGM & O-RINGS	WORKING -20 F TO 150 F EMERGENCY -40 F TO 175 F	SAME
MAXIMUM STATIC INLET PRESSURE *	1500 PSIG	750 PSIG
MAXIMUM STATIC OUTLET PRESSURE *	1500 PSIG	750 PSIG
MAXIMUM STATIC LOADING PRESSURE *	1500 PSIG	750 PSIG
MAXIMUM OPERATING INLET PRESSURE	750 PSIG	750 PSIG
MAXIMUM OPERATING LOADING PRESSURE	750 PSIG	750 PSIG
OUTLET PRESSURE	750 PSIG	750 PSIG
MAXIMUM SENSING PRESSURE	300 PSIG	150 PSIG
MAXIMUM SPRING HOUSING PRESSURE	300 PSIG	150 PSIG
SET PRESSURE SPRING RANGES	5 INCHES W.C. TO 8 PSIG (FIVE SPRINGS - REFER TO PAGE TWO 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.

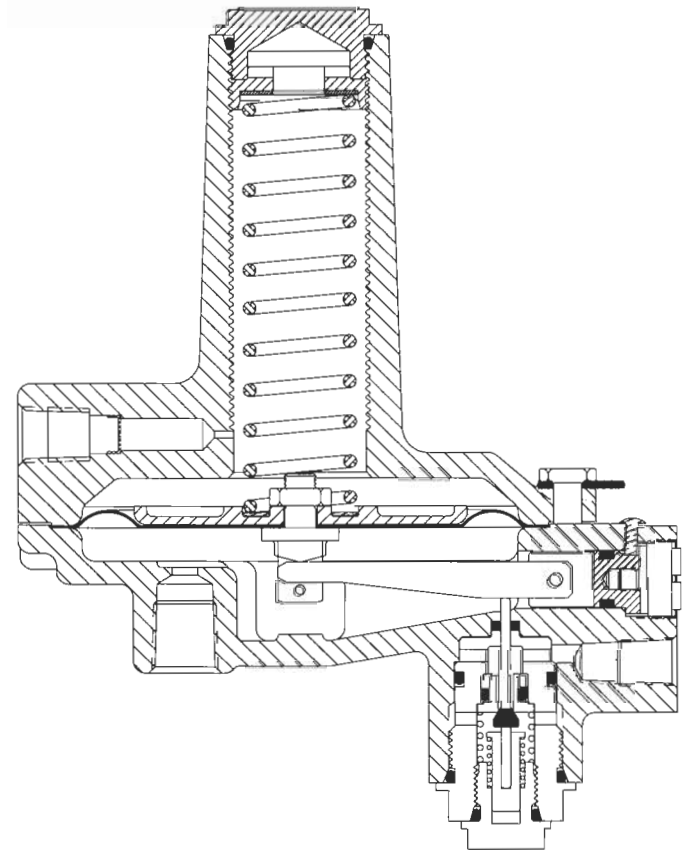
**STANDARD CONSTRUCTION MATERIALS**

BODY & SPRING HOUSING	CAST MANGANESE BRONZE OR CAST A356-T6 ALUMINUM
BODY INSERT & CLOSING CAP	BRASS OR 6061T-6 ALUMINUM
ORIFICE	303 STAINLESS STEEL
PLUG & STEM	NITRILE/303 STAINLESS STEEL
LEVER	ZINC PLATED CARBON STEEL
PIVOT	BRASS OR ALUMINUM (ANODIZED)
VENT ORIFICE	303 STAINLESS STEEL
DIAPHRAGM	NITRILE/NYLON
O-RINGS	NITRILE



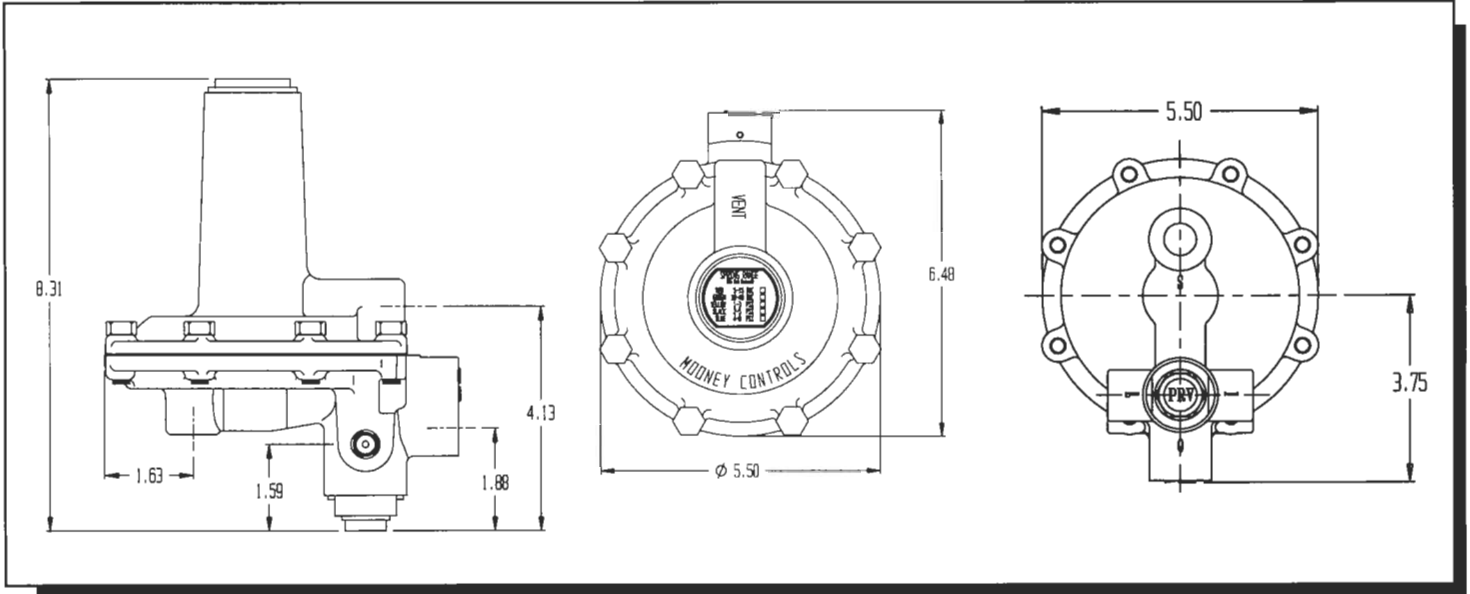
The Series 20L **FLOWGRID™** Pilot with Body Insert (Cartridge) removed.

**SECTIONAL VIEW**



**FLOW COEFFICIENTS AND CONSTANTS**

SERIES 20 PILOT			
	C1	MAX Cg	MAX Cv
0.15 ORIFICE (STANDARD)	38	9.58	0.25
0.17 ORIFICE (OPTIONAL)	38	11.18	0.29



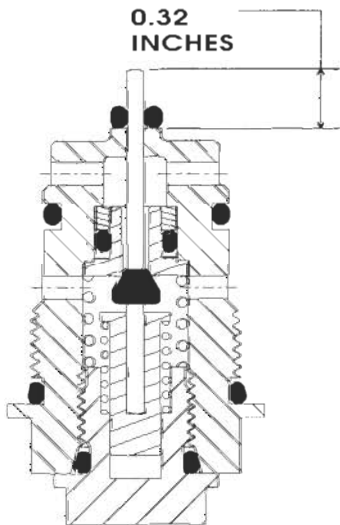
**PILOT PERFORMANCE**

MOONEY CONTROLS SERIES 20 PILOT		PRESSURE REDUCING MODE RESTRICTOR SET AT 4		
SPRING RANGE	COLOR	LOCK-UP (PSI)	DROOP (PSI) @ MAX CAPACITY ①	BOOST @ CONSTANT FLOW (PSI) ②
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 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	.5 PSIG	0.30 PSIG	0.025 PSIG

① INLETPRESSURE (P<sub>1</sub>) CONSTANT.

② PER 100psi decrease in inlet pressure (P<sub>1</sub>)

**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.

**TRIM OPTIONS**

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	NITRILE/NYLON	NITRILE/NYLON
O-RING	NITRILE	NITRILE

**STOCK NUMBERS**

SERIES 20L PILOT (BRONZE)	SPRING COLOR	PRV STOCK NO.	WEIGHT
5 INCHES W.C. - 15 INCHES W.C	WHITE	FP-100	9 lbs
10 INCHES W.C. - 40 INCHES 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 PILOT (ALUMINUM)	SPRING COLOR	PRV STOCK NO.	WEIGHT
5 INCHES W.C. - 15 INCHES W.C	WHITE	FP-105	4 lbs
10 INCHES W.C. - 40 INCHES W.C	BROWN	FP-106	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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