

P50 & P50 NACE Filter Regulators

- Superior Regulation Characteristics
- Rugged, Corrosion-Resistant Construction
- Excellent Stability and Repeatability
- Integral, 40 micron, Self Cleaning Filter
- Non-Relieving and Relieving Available
- Standard Tapped Vent
- Soft Relief Seat on P50
- Several Mounting Options

The BelGAS General Purpose P50 & P50 NACE Filter Regulators are reliable precision units designed for use with actuators, positioners, instrumentation, and general purpose use in both standard environments (P50), and corrosive environments (P50 NACE). The P50 NACE complies with NACE material requirement MR0175 for sulfide stress cracking resistant metallic material for oil field equipment.

These BelGAS regulators are generally superior in regulated pressure vs. flow, forward-to-reverse flow offset, supply pressure sensitivity, repeatability and stability.

Ruggedly designed and constructed, the regulators have housings of diecast aluminum. The P50 Regulator is finished with vinyl paint (which resists scratching, weathering & other physical abuse), while the P50 NACE is finished with epoxy paint and includes a vent cap for added protection. Both models are pressure and leak tested prior to shipment from the factory.

The full flow gauge port is convenient for gauge installation and can also be used as an additional full flow outlet. The P50 regulators include a unique self-cleaning 40 micron nylon mesh filter (316 stainless steel in the P50 NACE) that can be easily removed.

Applications

- Pneumatic Controllers
- Valve Positioners
- Actuation
- Fuel Gas
- Compressed Air

P50 Part Matrix

P050	02				00	
	↑	↑	↑			Versions
	O					Standard
	N					NACE
	02					Output Range
		010				0-10 PSIG*
		035				0-35 PSIG
		060				0-60 PSIG
		120				0-120 PSIG
						Options
		00				Relieving
		0B				Non-relieving
		0F				5 Micron Filter & Relieving
		0K				Knob* & Relieving
		BF				Non-relieving & 5 M Filter
		BK				Non-relieving & Knob*
		CD				Non-relieving, 5 M Filter & Knob*
						Accessories
		O				None
		G				Gauge
					00	

*Not available in NACE

*P50 standard version only

The P50 NACE is available for use in corrosive environments.

This complies with NACE material requirement MR0175 for sulfide stress cracking resistant metallic material for oil field equipment.



Materials of Construction

	P50 Filter Regulator	P50 NACE Filter Regulator
Body	Diecast aluminum with vinyl paint	Diecast aluminum with epoxy paint
Adjusting Screw	Plated steel	Stainless steel
Trim	Plated steel, brass, acetal resin	Stainless steel, Neoprene, Fluoroelastomer
Diaphragm	Buna-N elastomer with polyester fabric	Fluoroelastomer with Polyester Fabric
Knob	Phenolic plastic (option)	
Spring	Music wire	Inconel

5 Micron Filter

Replaces the 40 micron filter supplied with the standard P50 for more complete air filtration.

The standard P50 will have a tapped vent, vinyl paint, 40 micron filter and low bleed. The standard P50N will have a tapped vent, epoxy paint, 40 micron filter and standard bleed.

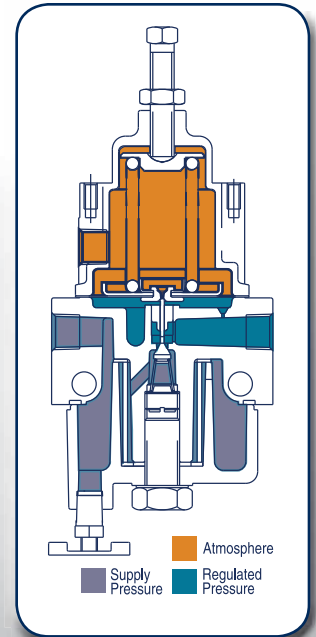
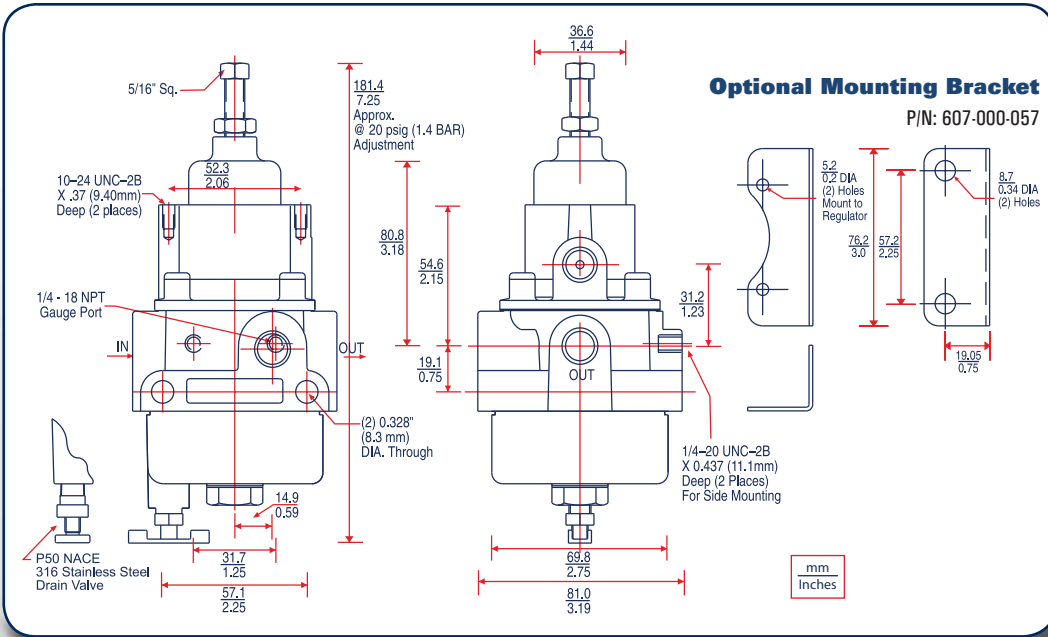
P50 Rebuild Kits

	Kit Includes	Part Number
P50 Relieving	Includes: Dripwell gasket, pintle spring, washer, filter, diaphragm assemble, seat assembly.	971-177-000
P50 Non-Relieving	Includes: Dripwell gasket, pintle spring, washer, filter, diaphragm assemble, seat assembly.	971-124-000

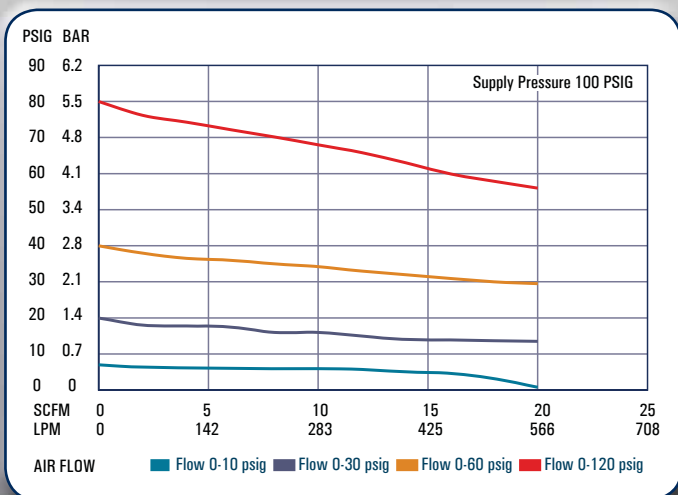
P50 & P50 Nace Specifications

	P50 Filter Regulator	P50 NACE Filter Regulator
Sensitivity	1" (25.4 mm) Water Column	1" (25.4 mm) Water Column
Flow Capacity	20 SCFM (565 LPM)	18 SCFM (510 LPM)
Effect of Supply Pressure variation (25 PSIG) on Outlet Pressure	< 0.2 PSIG (0.01 BAR)	< 0.2 PSIG (0.01 BAR)
Exhaust Capacity (5 PSIG above 20 PSIG set point)	0.1–0.45 SCFM Typical (2.8–12.7 LPM)	0.1–0.45 SCFM Typical (2.8–12.7 LPM)
Maximum Input/Supply Pressure	250 PSIG (17.2 BAR)	250 PSIG (17.2 BAR)
Maximum Emergency Outlet Pressure	150 PSIG	150 PSIG
Effect of Changes in Flow on Regulated Pressure (100 PSIG/6.9 BAR Supply)	4 PSIG (0.3 BAR) over flow 10 SCFM (283 LPM) (1/4 NPT, 20 PSIG / 1.4 BAR set point)	5 PSIG (0.3 BAR) over flow 10 SCFM (283 LPM) (1/4 NPT, 20 PSIG / 1.4 BAR set point)
Output Pressure Ranges	0-10 PSIG (0-0.7 BAR) 0-35 PSIG (0-2.4 BAR) 0-60 PSIG (0-4.1 BAR), 0-120 PSIG (0-8.3 BAR)	0-35 PSIG (0-2.4 BAR) 0-60 PSIG (0-4.1 BAR), 0-120 PSIG (0-8.3 BAR)
Temperature Range	0 to 160°F (-18 to 71°C)	-20 to 180°F (-29 to 82°C)
Total Air Consumption @ Maximum Output NACE Relieving Model Only	0 SCFH	Relieving: 6 SCFH (2.8 LPM) / Non-Relieving: 0 SCFH
Port Size	1/4 NPT	1/4 NPT
Size	3.19" X 3.19" X 7.25" (81 X 81 X 184 mm)	3.19" X 3.19" X 7.25" (81 X 81 X 184 mm)
Weight	1.81 lb (0.8 kg)	1.81 lb (0.8 kg)
Mounting	Pipe, Panel, Bracket or Thru Body Holes	Pipe, Panel, Bracket or Thru Body Holes

P50 & P50 Nace Dimensions



P50 Regulated Pressure vs. Flow



P50 NACE Regulated Pressure vs. Flow

