

Model 8601

Mechanical Pressure Regulator

Model 8601 mechanical pressure regulators are compact, economical, high-precision supply pressure regulators. They are direct-acting, non-relieving units that provide bubble-tight shut-off on helium at 100 psi. These regulators are suitable for either line or panel mounting, feature a pressure gauge connection for easy monitoring, and include a replaceable stainless steel inlet filter element to ensure long-term reliability and performance.



Product Specifications

Performance

Capacity	The pressure regulator is ideal for use at up to a maximum of 1,000 sccm air
Max. Inlet Supply Pressure	150 psi (1,034 kPa)
Max. Working Temperature	Standard: 140°F (60°C), Optional: 350°F (177°C)
Total Pressure Drop	Minimum: 10 psi, Maximum: 150 psi
Connections	Standard: 1/8" NPT; Optional 1/4" NPT, 1/8" or 1/4" compression fitting, 1/4" ID hose adaptors
Standard Seals & Fittings	Brass w/Buna-N, Stainless Steel w/Viton fluoroelastomer
Fittings	1/8" FNPT or 1/4" FNPT
Dimensions	See Dimensions Figure

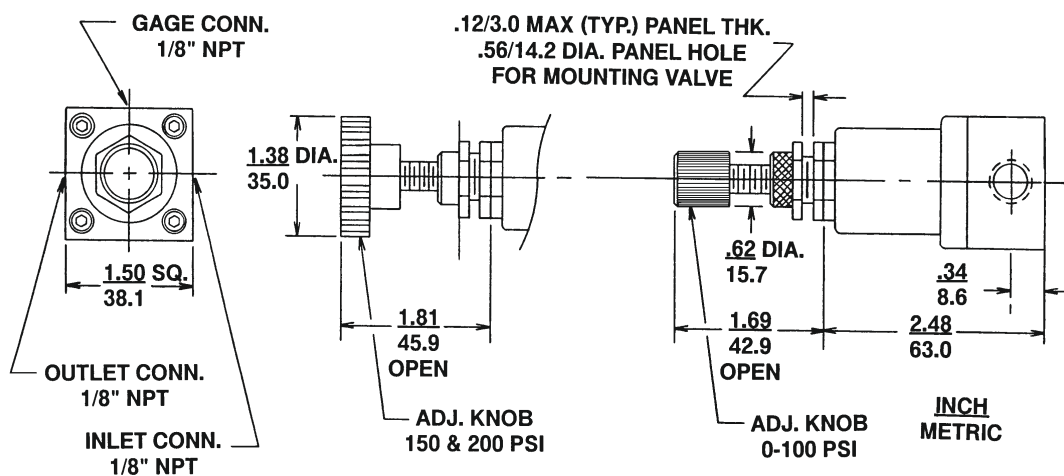
Typical Characteristics

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Drift	Less than 1% in first fifteen minutes to total of no more than 1.5% long term
Supply Pressure Effect	0 psi increase in supply will not change output more than 0.07 psi
Flow Regulation	From 3 sccm to 70 sccm helium, output pressure will not decrease more than: 0.08 psig (0-10, 0-30 psi Regulators) 0.10 psig (0-60 psi Regulators), 0.125 psig (0-100 psi Regulators), 0.15 psig (0-150 psi Regulators)
Ambient Temperature Effect	Standard 60 psi range, 0.020 psi/°F
Base Line Oscillation	.0025 psi
Valve Adjustment & Operating Range	Fifteen turns for 0-10, 0-30, 0-60, 0-100, 0-150 psig output range

Materials of Construction

Body	Standard: Aluminum; Optional: 316 Stainless Steel
Bonnet	Aluminum
Valve Seat	Standard: Brass; Optional 316 Stainless Steel
Valve Stem	316 Stainless Steel
Diaphragm	Reinforced Buna-N, Viton-A® fluoroelastomers
Range Spring	Music Wire, zinc plated
Filter	40 micron, 316L Sintered Stainless Steel with Viton fluoroelastomers or Buna retainer sleeve

Product Dimensions



Model Code

Code Description	Code Option	Option Description
I. Base Model Code	8601D	Pressure Regulator - Side Connections
II. Body Material - Wetted	1	Specific Gas and Range Required
	2	Stainless Steel
III. Diaphragm & Valve Seat Materials	A	Buna-N and Brass/Buna-N (Aluminum only)
	B	Viton and Brass/Viton (Aluminum only)
	C	Buna-N and Stainless Steel/Buna-N
	D	Viton and Stainless Steel/Viton
IV. Range	1	0-10 psi / 0-0.7 Bar
	2	0-30 psi / 0-2 Bar
	3	0-60 psi / 0-4 Bar
	4	0-100 psi / 0-7 Bar
	5	0-150 psi / 0-10 Bar
V. Connection Size & Type	A	1/8" NPT Female
	B	1/4" NPT Female
VI. Accessories	A	None
	B	Panel Mounting
	F	Gage Port Plugged

Sample Model Code

I	II	III	IV	V	VI
8601D	1	A	1	A	A

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START-UP SERVICE AND IN-SITU CALIBRATION

Brooks Instrument can provide start-up service prior to operation when required. For some process applications, where ISO-9001 Quality Certification is important, it is mandatory to verify and/or (re)calibrate the products periodically. In many cases this service can be provided under in-situ conditions, and the results will be traceable to the relevant international quality standards.

SEMINARS AND TRAINING

Brooks Instrument can provide customer seminars and dedicated training to engineers, end users, and maintenance persons. Please contact your nearest sales representative for more details. Due to Brooks Instrument's commitment to continuous improvement of our products, all specifications are subject to change without notice.



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