



Resonator Gas Supply

601 Series Regulator

The 601 Series Dual-stage Regulator was designed with beam-mode quality in mind. The 601 offers M² technology that virtually eliminates atmospheric contamination during a cylinder change. Low level moisture and hydrocarbon contents yield a more stable emission and higher resonator efficiencies which makes the 601 Series the right choice.

Advanced Features

- *Machined Brass Barstock Body*
Smooth surface finish
- *Low Wetted Surface Area*
Minimal purge requirements
- *Convuluted 316L Diaphragm*
No inboard diffusion
- *Optional Integral Purge*
Eliminates atmospheric contamination
- *10-Micron Filtration in Both Stages*
Reduces particle contamination
- *Optional CGA Check Valve*
Minimizes atmosphere exposure
- *Optional Pressure Cycle Purge*
Eliminates dead-space contaminate
- *Capsule Seat*
Increase serviceability and life



601-23M4 shown

Applications

Laser Pure Resonator Gases

Helium
Nitrogen
Carbon Dioxide

Laser Mixed Resonator Gases

Three gas premix
Four gas premix
Five gas premix

Laser Purging Gases

Zero Air
Nitrogen

Maintenance Gases

Nitrogen

Materials

Body

Machined brass barstock

Bonnet

Chrome-plated die cast zinc

Seat

PTFE

Filter

10-micron sintered bronze

Diaphragm

316L stainless steel

Internal Seals

PTFE

Specifications

Maximum Inlet Pressure

3,000 PSIG (210 BAR)
4,500 PSIG (310 BAR)

Temperature Range

-40 to 140°F (-40 to 60°C)

Gauges

2" diameter dual scale

Ports

¼" FPT

Helium Leak Integrity

1 x 10⁻⁸ scc/sec

Cv

0.1

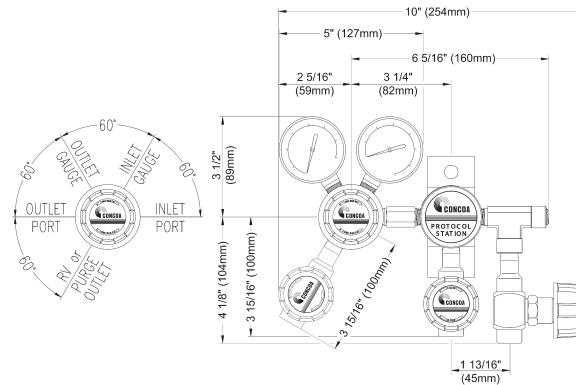
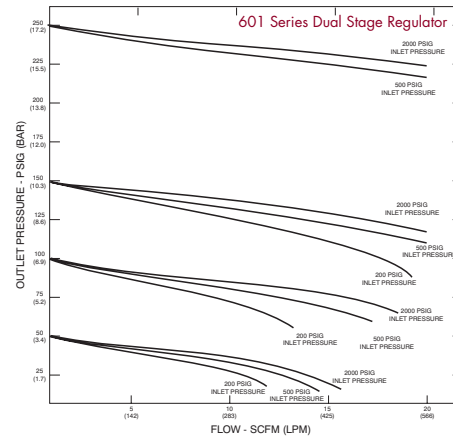
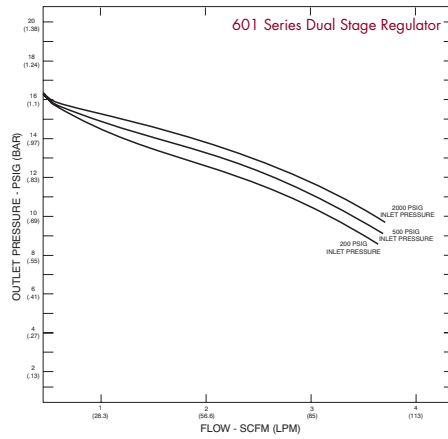
Weight

4.8 lbs. (2.16 kg)

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Flow Performance Curves



Shown with optional purge and laser gas switchover station.

Ordering Information

| 601 Series | A | B | C | D | Inlet | Options | |
|------------|-----------------|--------------------------------|-----------------------------|--|---|-------------------------------|-----------------------------------|
| 601 | Outlet Pressure | Outlet Gauge | Inlet Gauge | Outlet Assemblies | Assembly/Gauges | Inlet Connections | Installed Options |
| | 1: 0-50 PSIG | 0-100 PSI | 0: None | 0: 1/4" FPT Port | 0: Bare Body | 000: 1/4" FPT | A: Laser Gas Station Alarm (110V) |
| | 2: 0-100 PSIG | 0-200 PSI | 3: 0-4000 PSI | 1: 1/4" MPT | 1: Standard Assembly (PSI/kPa Gauges) | TF2: 1/8" Tube | C: Laser Gas Switchover Station |
| | 3: 0-150 PSIG | 0-200 PSI | 8: 0-6000 PSI* | 2: 1/4" Tube Fitting | 2: Standard Assembly (BAR/PSI Gauges) | TF4: 1/4" Tube | M: Laser Gas Station |
| | 4: 0-250 PSIG | 0-400 PSI | *Alarm option not available | 6: 1/8" Tube Fitting | 3: Integral Purge (PSI/kPa Gauges) | TF6: 3/8" Tube | N: Regulator CGA Check Valve |
| | | 7: 3/8" BSP Right hand Fitting | | 4: Integral Purge (BAR/PSI Gauges) | M06: 6mm Tube | P: Inlet Pressure Cycle Purge | |
| | | A: 3/8" BSP Right hand Fitting | | 5: Integral Purge with Fitting* (PSI/kPa Gauges) | CGA DIN 477 BS 341 and others available | | |
| | | M: 6mm Tube Fitting | | 6: Integral Purge with Fitting* (BAR/PSI Gauges) | | | |
| | | | | | *Fitting matches outlet assembly | | |