

DL Series

Pilot-Dome Loaded, Ultra High Flow Regulators

The DL Series regulator is designed for direct installation to cryogenic vaporizer systems to provide ultra high downstream flows while maintaining constant delivery pressure. This unique unibody design with integral porting eliminates the need for the pilot regulator thus eliminating numerous connections. The DL Series regulator is supplied entirely installed on a stainless steel panel providing for convenient, wall-mounted installation.

An ideal application area is laser delivery either from cryogenic or high pressure supply. Here, the low pressure drop at high flow rates maximize throughput in a laser cutting or welding application. The flow vs. pressure drop performance characteristic of the DL Series as compared to competitive brands can be viewed by the curve below.



DL Series Regulator

Standard Features

- High Flow Capacity allows flows in excess of 12,000 scfh of nitrogen at 400 psig inlet.
- Balanced Poppet (stem) minimizes effect of changes in inlet pressure on delivery pressure settings.
- Filter in Inlet traps foreign matter, extends regulator life and reduces maintenance.
- Extra Inlet Port allows connection to a purge regulator, pressure switch, purge valve or inlet pressure gauge.
- Overall Compact Design allows for easy installation in areas where space is a premium.

Optional Features

- High Pressure Version accepts inlet pressures up to 3000 psig allowing it to be used on high pressure cylinders.

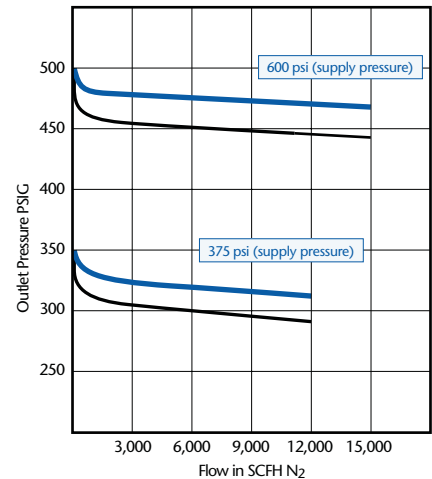
Specifications

Maximum Inlet Pressure: See Table I
 Delivery Pressure Range: See Table I
 Delivery Pressure Gauge: See Table I
 Filter: 40 micron
 Gauge Size: 2" Dial
 Operating Temperature Range: -40°F to 140°F
 Flow Coefficient: $C_v = 1.0$
 Inlet and Outlet Connections: 1/2" NPT female
 Approximate Weight: 8 lbs.
 Dimensions (with bracket): 10.8" x 5.5"

Materials of Construction

Body and Bonnets: Brass Bar Stock
 Gauge: Brass Internals with Drawn Steel Case
 Other Metal Parts Exposed to Gas: Type 316 Stainless Steel
 Seats: PCTFE
 Sensing Element:
 Pilot Regulator: Type 316 Stainless Steel Diaphragm
 Dome Regulator: Type 316 Stainless Steel Piston
 Seals: Viton®
 Wall Bracket: Stainless Steel

Assist-Shield Gas Equipment for Industrial Lasers – see pages 68–69 for additional information



ASGE – DL Series Regulators
Competitive Systems

Table I

Part No.	Inlet Pressure (psig)		Delivery Pressure (psig)	
	Maximum		Range	Gauge
DLB-0-500	1000		100–500	0–1000
DLBH-0-500	3000		100–500	0–1000