

LC Series

Cryogenic Container, Gaseous Withdrawal Regulators

The LC Series Regulators are specially designed for use on the gaseous withdrawal port of cryogenic liquid containers. These metal diaphragm, single-stage regulators are ideal for applications requiring both high flow and diffusion resistant pressure regulation.

These LC Regulators have been specially designed to accept a maximum inlet pressure of 3000 psig, allowing them to be used on high pressure compressed gas cylinders as well. In addition to the high inlet pressure feature, new higher delivery pressure ranges of 350 psig and 500 psig are available for special laser cutting applications.



LC Regulator

Standard Features

- Specially Designed for Gaseous Withdrawal from Cryogenic Liquid Containers.
- High Pressure Regulator Design accepts inlet pressures up to 3000 psig allowing it to be used on high pressure cylinders as well as liquid containers.
- High Flow Capacity capable of flow rates in excess of 1500 scfh.
- Stainless Steel Diaphragm minimizes diffusion of air into regulator and eliminates "offgasing" associated with elastomeric diaphragms, thus maintaining gas purity.
- Tamper proof, self-seating internal relief valve protects regulator from overpressurization.
- Filter in Seat Assembly traps foreign matter, extends regulator life and reduces maintenance.

Optional Features

- Diaphragm Seal Outlet Valve provides for flow shut-off while maintaining gas purity (Valve may reduce regulator flow capacity).

Specifications

Maximum Inlet Pressure: 3000 psig
 Delivery Pressure Range: See Table I
 Delivery Pressure Gauge: See Table I
 Gauge Size: 2½" Dial
 Flow Coefficient: $C_v = 0.36$
 Inlet Connection:
 CGA 320, 540 or 580 as ordered
 Outlet Connection: ¼" NPT female
 Internal Relief Valve:
 Self Re-seating 600 psig
 Approximate Weight: 4 lbs
 Optional Diaphragm Valve:
 See Model SG5460N (Page 137)

Materials of Construction

Body: Forged Brass
 Diaphragm: Type 316 Stainless Steel
 Gauge and Bonnet: Brass
 Other Metal Parts Exposed to Gas:
 Brass and Stainless Steel
 Seat and Seals: Teflon®
 Optional Diaphragm Valve:
 See Model SG5460N (Page 137)

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

Table I

Part No.	Delivery Pressure (psig)	
	Range	Gauge
LC125-(CGA)	10–125	0–200
LC350-(CGA)	20–350	0–500
LC500-(CGA)	20–500	0–600

Where "(CGA)" is indicated above, insert appropriate Compressed Gas Association connection number to complete the part number. Example: LC500-580. Order by complete part number.

Optional Equipment

Equipment	Part No.
Diaphragm Seal Outlet Valve (installed)	SG5460N-i