

# Model LABD

## High Purity, Single-Stage, Chrome-Plated Regulators

These metal diaphragm single-stage regulators are specially designed for laboratory applications requiring both high reliability and diffusion resistance. They are recommended for high purity non-corrosive gases where inlet pressure does not vary greatly (such as liquefied gases), or where periodic readjustment of delivery pressure setting does not present a problem.



LABD Regulator

### Standard Features

- Stainless Steel Diaphragm minimizes diffusion of air into regulator and eliminates "off gassing" associated with elastomeric diaphragms, thus maintaining gas purity.
- High Purity Regulator Design permits vacuum purging of regulator.
- Diaphragm Seal Outlet Valve maintains gas purity.
- Chrome-Plated Surfaces provide polished appearance and ease of cleaning.
- Cartridge (Encapsulated) Seat Assembly provides for ease of maintenance and repair.
- Filter in Seat Assembly traps foreign matter, extends regulator life and reduces maintenance.

### Optional Features

- Relief Valve protects regulator components from the effects of overpressurization.

### Specifications

Maximum Inlet Pressure: See Table I

Inlet Pressure Gauge: See Table I

Delivery Pressure Range: See Table I

Delivery Pressure Gauge: See Table I

Filter: 10 micron

Gauge Size: 2" Dial

Operating Temp. Range: -40°F to 140°F

Flow Coefficient:

Regulator: Cv = 0.18

Outlet Valve: Cv = 0.17

Inlet Connection: CGA 296, 320, 326, 346, 350, 540, 580, 590, or 660 as ordered

Outlet Connection:

¼" NPT female (on outlet valve)

Optional Relief Valve Vent Connection:

¼" NPT male

Supply Pressure Effect: 1.0 psi per 100 psi

Approximate Weight: 3 lbs.

### Materials of Construction

Body: Chrome-Plated Brass Bar Stock

Gauges: Chrome-Plated Brass

Bonnet: Chrome-Plated Zinc

Filter: Nickel-Plated Sintered Bronze

Other Metal Parts Exposed to Gas:

Brass and Stainless Steel

Seat and Seals: Teflon® in Regulator

Diaphragm: Type 304 Stainless Steel

Outlet Valve:

Body: Nickel-Plated Brass Bar Stock

Seat: PCTFE

Diaphragm: Type 316L Stainless Steel

### Optional Equipment

Equipment	Part No.
Relief Valves:	
for LABD-x-15 Series	RV5573-25i
for LABD-x-50 Series	RV5573-90i
for LABD-x-125 Series	RV5573-150i
for LABD-x-250 Series	RV5573-300i

Table I

Part No.	Inlet Pressure			Delivery Pressure		
	Maximum (psig)	Gauge (dual scale) (psig)	Gauge (dual scale) (bar)	Range (psig)	Gauge (dual scale) (psig)	Gauge (dual scale) (bar)
LABD-3-15-(CGA)	3000	0-4000	0-275	2-15	-30" Hg-0-30	-1-0-2
LABD-3-50-(CGA)	3000	0-4000	0-275	4-50	-30" Hg-0-100	-1-0-7
LABD-3-125-(CGA)	3000	0-4000	0-275	10-125	-30" Hg-0-200	-1-0-14
LABD-3-250-(CGA)	3000	0-4000	0-275	20-250	0-400	0-27
LABD-2-15-(CGA)	800	0-1000	0-69	2-15	-30" Hg-0-30	-1-0-2
LABD-2-50-(CGA)	800	0-1000	0-69	4-50	-30" Hg-0-100	-1-0-7
LABD-2-125-(CGA)	800	0-1000	0-69	10-125	-30" Hg-0-200	-1-0-14
LABD-2-250-(CGA)	800	0-1000	0-69	20-250	0-400	0-27
LABD-1-15-(CGA)	300	0-400	0-27	2-15	-30" Hg-0-30	-1-0-2
LABD-1-50-(CGA)	300	0-400	0-27	4-50	-30" Hg-0-100	-1-0-7
LABD-1-125-(CGA)	300	0-400	0-27	10-125	-30" Hg-0-200	-1-0-14
LABD-1-250-(CGA)	300	0-400	0-27	20-250	0-400	0-27

Where "(CGA)" is indicated above, insert appropriate Compressed Gas Association connection number to complete the part number. Example: LABD-3-15-580. Order by complete part number.