

# Ultra-High-Purity Regulators

## For Noncorrosive Service

Models 3300 and 318

Brass regulators provide excellent service wherever precise high-pressure delivery of ultra-high-purity gases is needed. Brass construction protects gas purity and ensures long regulator service life. Single-stage design is recommended for use where inlet pressure does not vary greatly such as with liquefied gases, or where periodic readjustment of delivery pressure setting does not present a problem. Two-stage design provides constant delivery pressure with no need for periodic readjustment.



Model 318

### Benefits/Features

- Stainless steel diaphragm minimizes diffusion of air into regulator and eliminates off-gassing.
- Brass diaphragm-sealed outlet valve provides on/off flow control and helps maintain gas purity.
- Filter traps foreign matter, extends regulator life and reduces maintenance.
- Threaded bonnet allows for easy panel mounting.
- Threaded holes in rear of single-stage regulator allow for front panel mounting.

### Specifications

- Inlet Pressure:** 3000 psig (207 bar) maximum
- Operating Temperature Range:** -40°F to 140°F (-40°C to 60°C)
- Flow Coefficient:**
  - Single-stage: Cv = 0.06
  - Two-stage: Cv = 0.05
- Supply Pressure Effect:**
  - Single-stage: 1 psi per 100 psi (0.1 bar per 7 bar)
  - Two-stage: 0.04 psi per 100 psi (0.003 bar per 7 bar)
- Regulator Inlet Port:** 1/4" NPT Female
- Inlet Connection:** Specify CGA

- Outlet Connection:** 1/4" NPT Female and all other inlet/outlet configurations
- Gauge Size:** 2" (53 mm) face
- Weight:**
  - Single-stage design: 4 lbs. (1.8 kg)
  - Two-stage design: 5.5 lbs. (2.5 kg)

### Materials of Construction

- Body:** Brass
- Diaphragm:** 316 Stainless Steel
- Seats:** PCTFE
- Seals:** PTFE
- Bonnet:** Brass
- Gauges:** Brass

Model 3300, 318	Delivery Pressure Range		Delivery Pressure Gauge (dual scale)		Cylinder Pressure Gauge (dual scale)	
	psig	bar	psig	bar	psig	bar
<b>Brass</b>						
<b>Single-Stage</b>						
Q1-3300A-(*)	1 – 30	0.1 – 2	30" Vac – 0 – 60	-1 – 0 – 4	0 – 4000	0 – 276
Q1-3300B-(*)	2 – 75	0.1 – 5	30" Vac – 0 – 100	-1 – 0 – 7	0 – 4000	0 – 276
Q1-3300C-(*)	4 – 150	0.3 – 10	30" Vac – 0 – 200	-1 – 0 – 14	0 – 4000	0 – 276
Q1-3300D-(*)	7 – 300	0.5 – 21	0 – 400	0 – 28	0 – 4000	0 – 276
Q1-3300E-(*)	10 – 500	0.7 – 35	0 – 600	0 – 41	0 – 4000	0 – 276
<b>Two-Stage</b>						
Q1-318A-(*)	1 – 30	0.1 – 2	30" Vac – 0 – 60	-1 – 0 – 4	0 – 4000	0 – 276
Q1-318B-(*)	2 – 75	0.1 – 5	30" Vac – 0 – 100	-1 – 0 – 7	0 – 4000	0 – 276
Q1-318C-(*)	4 – 150	0.3 – 10	30" Vac – 0 – 200	-1 – 0 – 14	0 – 4000	0 – 276
Q1-318D-(*)	7 – 300	0.5 – 21	0 – 400	0 – 28	0 – 4000	0 – 276
Q1-318E-(*)	10 – 500	0.7 – 35	0 – 600	0 – 41	0 – 4000	0 – 276

\* Specify CGA. Other cylinder connections are available – please contact your Air Liquide representative.

- Options: Model No. Q1-HLRI helium leak rate certification
- Model No. Q1-CAPVENTBR captured venting configuration allows for complete capture when connected to vent line
- Model No. Q1-PMNCP chrome-plated panel mounting nut