

# Tied-Diaphragm Regulators

## Ultra-High-Purity for Corrosive Service

### Model 217CP and 2172CP

Available in single or two-stage configurations, these regulators with cross purge assemblies are designed to resist attack from strong acid-forming gases. The cross purge assembly has three diaphragm packless valves and a check valve that are utilized during inert gas purging operations.

Single-stage design is recommended for use where inlet pressure does not vary greatly or where periodic manual readjustment of delivery pressure setting does not present a problem. Two-stage design is recommended for use where constant delivery pressure is desired.



### Benefits/Features

Diaphragm and poppet are mechanically linked to provide a positive shutoff.

Cross purge assembly provides an effective means to purge the CGA fitting and regulator during cylinder changeout.

Filter traps foreign matter, extends regulator life and reduces maintenance.

Threaded bonnet allows for 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:**  
217CP: Cv = 0.06  
2172CP: Cv = 0.05

**Supply Pressure Effect:**  
217CP: 2 psi per 100 psi (0.1 bar per 7 bar)  
2172CP: 0.06 psi per 100 psi  
(0.004 bar per 7 bar)

**Regulator Inlet Port:** 1/4" NPT Female  
**Inlet Connection:** Specify CGA

**Outlet Connection:** 1/4" NPT Female and all other configurations

**Gauge:** 2" (53 mm) face

**Weight:** 4.4 lbs. (1.9 kg)

### Materials of Construction

**Body:** 316 Stainless Steel

**Diaphragm:** 316 Stainless Steel

**Seats:** PCTFE

**Seals:** PTFE

**Bonnet:** 300 Stainless Steel

**Gauges:** Stainless steel

217CP, 2172CP Stainless Steel	Delivery Pressure Range		Delivery Pressure Gauge (dual scale)		Cylinder Pressure Gauge (dual scale)	
	psig	bar	psig	bar	psig	bar
<b>Single-Stage</b>						
Q1-217ACP-(*)	1 – 30	0.1 – 2	30" Vac – 0 – 60	-1 – 0 – 4	0 – 4000	0 – 276
Q1-217BCP-(*)	2 – 75	0.1 – 5	30" Vac – 0 – 100	-1 – 0 – 7	0 – 4000	0 – 276
Q1-217CCP-(*)	5 – 150	0.3 – 10	30" Vac – 0 – 200	-1 – 0 – 14	0 – 4000	0 – 276
<b>Two-Stage</b>						
Q1-2172ACP-(*)	1 – 30	0.1 – 2	30" Vac – 0 – 60	-1 – 0 – 4	0 – 4000	0 – 276
Q1-2172BCP-(*)	2 – 75	0.1 – 5	30" Vac – 0 – 100	-1 – 0 – 7	0 – 4000	0 – 276
Q1-2172CCP-(*)	5 – 150	0.3 – 10	30" Vac – 0 – 200	-1 – 0 – 14	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-PMNCP chrome-plated panel mounting nut