



400 Series Regulators

401 SERIES

The 401 Series regulators are intended for primary pressure control of non-corrosive, high purity or liquefied gases, or for applications where minor fluctuations in outlet pressure due to diminishing inlet supply can be tolerated.

- Single Stage
- Chrome-Plated Brass Barstock Body
- Six Port Configuration
- 316L Stainless Steel Diaphragm

Typical Applications

Bulk gas distribution systems

Gas and liquid chromatography

High purity carrier gases

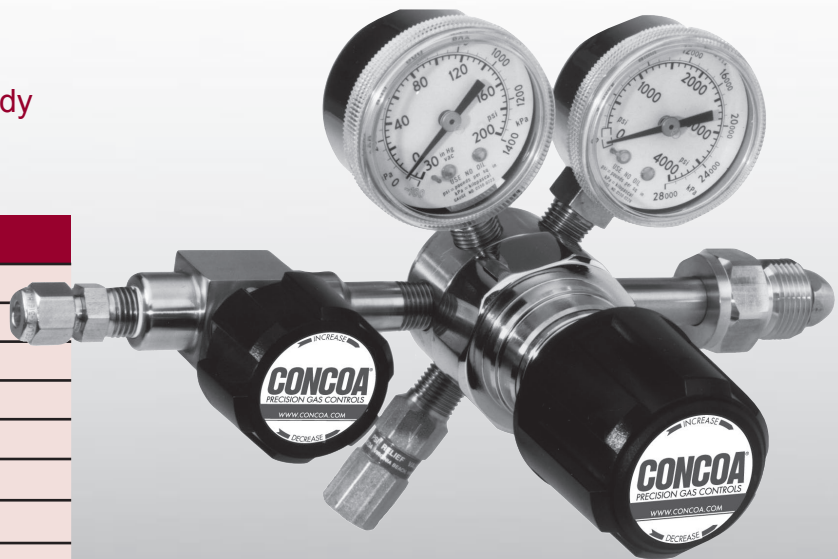
Zero, span, and calibration gases

High purity chamber pressurization

Liquefied hydrocarbon gas control

Control of cryogenic gases

EPA protocol standards



401 7331-580 shown

Features

Metal-to-Metal Diaphragm Seal

No possibility of gas contamination

CAPSULE® Seat

Increased serviceability and life

Chrome-plated Brass Barstock Body

Smooth surface finish

Front Panel-Mountable

Easy installation

10 Micron Filtration in Both Stages

Fail-safe seat performance

Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)

Broad range of applications

Pipe Away Relief Valve

Safely vents exhaust gases

Materials

Body

Chrome-plated brass barstock

Bonnet

Chrome-plated brass barstock

Seat

PTFE

PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option

Filter

10 micron sintered bronze

Diaphragm

316L stainless steel

Internal Seals

PTFE

Specifications

Maximum Inlet Pressure

3000 PSIG (210 BAR)
3500 PSIG (240 BAR) optional
4500 PSIG (310 BAR) optional

Temperature Range

-40°F to 140°F (-40°C to 60°C)

Gauges

2" (53mm) diameter chrome-plated

Ports

1/4" FPT

Helium Leak Integrity

1 x 10⁻⁹ scc/sec

Cv

0.1

See page 202 for flow curves

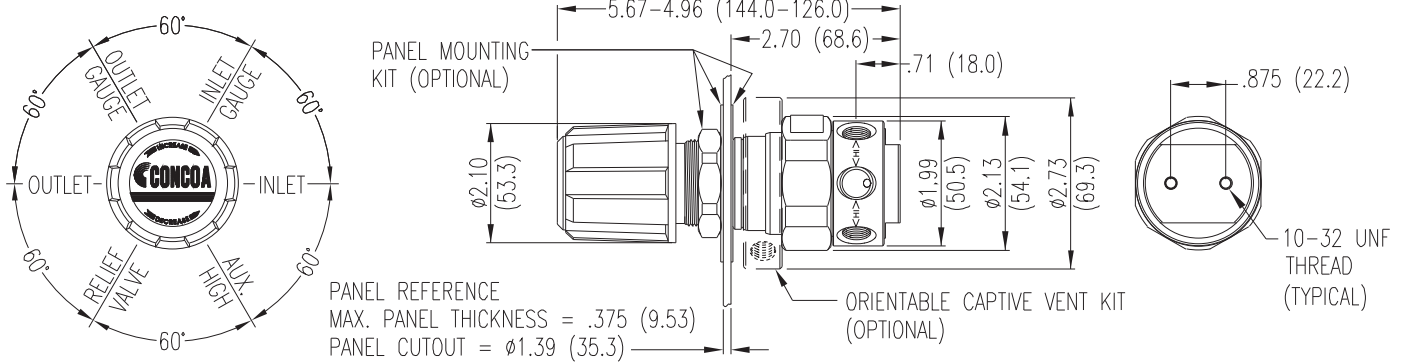
Weight (401 7331-580)

3.99 lbs. (1.81 kg)

400 Series Regulators



Installation Dimensions



Ordering Information

401	A	B	C	D	-CON	Options	
Series 401	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/ Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)*	30"-0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
	3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fitting	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	D: Deep purge*
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4" tube fitting	6: Mirror image (PSIG/kPa gauges)	TF6: 3/8" tube	H: Protocol switchover station with alarm (110/220 VAC)
	5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/ 0-70 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4" MPT	7: Mirror image (BAR/PSIG gauges)	M06: 6mm tube	M: Protocol station
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	8: 0-6000 PSIG/ 0-400 BAR*	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	Q: Protocol purge station*
	A: 0-15 PSIG (0-1 BAR)*	0-30 PSIG/ 0-2 BAR***	G: 0-4000 PSIG/ 0-275 BAR†	6: 1/8" tube fitting			*Not available with 4500 PSIG (310 BAR) max inlet pressure
	*Not available with 4500 PSIG (310 BAR) maximum inlet pressure		*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®	7: 3/8" tube fitting			
	**Standard assembly does not include relief valve			8: Diaphragm valve 1/8" tube fitting			
	*** With redline for acetylene use.		†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®	9: Diaphragm valve 1/4" FPT			
				A: 3/8" BSP RH fitting			
				B: Diaphragm valve 3/8" fitting			
				C: 3/8" BSP LH fitting			
				D: 6mm brass hose barb (not available if A=4 or 5)			
				G: 1/8" stainless steel tube fitting			
				H: 1/4" stainless steel tube fitting			
				M: 6mm tube fitting			
				S: Diaphragm valve 6mm tube fitting			

Related Options

Order No.	Description
550 0002	Panel mount kit
550 0001	Captured vent kit
476 0002	Helium Leak certification



Regulator Flow Curves

Flow Curves for 302, 304, 305, 307, 322, 324, 327, 401, 402, 408, 420, 422, 426, 427, 428, 429 Series

