

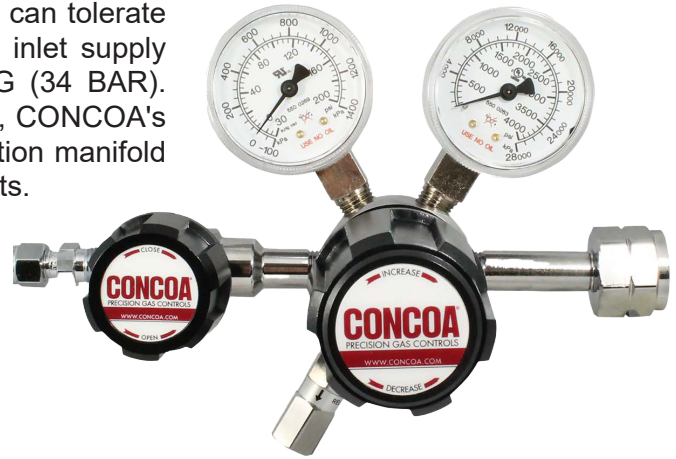
# 401 SERIES REGULATORS



The 401 Series regulators are intended for primary pressure control of non-corrosive, high purity, or liquefied gases (up to grade 5.5). These single stage regulators are suitable for applications that can tolerate minor fluctuations in outlet pressure due to diminishing inlet supply or where inlet pressure is constant or under 500 PSIG (34 BAR). Available with a variety of options installed at the factory, CONCOA's 401 Series regulators may be configured as a single station manifold with or without purge, low-pressure alarm, or multiple inlets.

## Typical Applications

- Bulk Gas Distribution Systems
- High Purity Carrier Gases
- Control of Cryogenic Gases
- Gas and Liquid Chromatography
- Zero, Span, and Calibration Gases
- High Purity Chamber Pressurization
- Liquefied Hydrocarbon Gas Control
- EPA Protocol Standards



401 3331-01-350 shown

## Features

**Metal-to-Metal Diaphragm Seal** prevents gas contamination

**Pipe Away Relief Valve** vents exhaust gases safely

**Cleanroom Assembly** mitigates contamination at installation

**CAPSULE® Seat Design** features integral 360° filtration in both stages

**Captured Vent Capable Bonnet** prohibits exposure in the unlikely event of diaphragm failure

**Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)** accommodates a broad range of applications

## Materials and Specifications

**Maximum Inlet Pressure (bare body):** 3000 PSIG (210 BAR); 3500 PSIG (240 BAR) optional; or 4500 PSIG (310 BAR) optional

**Body:** Chrome-plated brass barstock

**Bonnet:** Chrome-plated brass barstock

**Gauges:** 2 in (50 mm) diameter plated case

**Seat:** PTFE; PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option

**Filter:** 10-micron sintered bronze

**Temperature Range:** -40°F to 140°F (-40°C to 60°C)

**Diaphragm:** 316L stainless steel

**Cv:** 0.1 See *flow curves attached*

**Helium Leak Integrity:**  $1 \times 10^{-9}$  scc/sec

**Internal Seals:** PTFE

**Ports (bare body):** 1/4 in FNPT

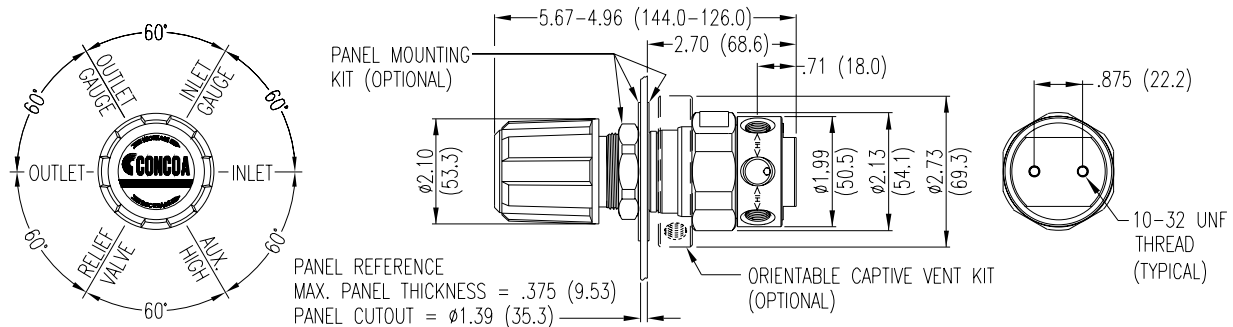
**Weight (401 3331-350):** 3.99 lbs. (1.81 kg)

**Conformances:** Cleanliness meets or exceeds CGA G-4.1; PED 2014/68/EU; ANSI/ASME B40.1; CRN OH5216

# 401 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
	<b>1:</b> 0-15 PSIG (0-1 BAR)*	30"-0-30 PSIG/ -1-0-2 BAR	<b>0:</b> None	<b>0:</b> 1/4" FNPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FNPT	<b>B:</b> Protocol alarm station with pressure switch gauges
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	<b>3:</b> 0-4000 PSIG/ 0-275 BAR	<b>1:</b> 1/4" MNPT	<b>1:</b> Cleanroom assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	<b>C:</b> Protocol switchover station
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>5:</b> 0-1000 PSIG/ 0-70 BAR	<b>2:</b> 1/4" tube fitting	<b>2:</b> Cleanroom assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	<b>D:</b> Deep purge*
	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	<b>6:</b> 0-300 PSIG/ 0-21 BAR	<b>3:</b> Diaphragm valve 1/4" tube fitting	<b>6:</b> Mirror image (PSIG/kPa gauges)	<b>TF6:</b> 3/8" tube	<b>E:</b> Protocol alarm station with intrinsically safe transducer for hazardous environments
	<b>5:</b> 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/ 0-70 BAR	<b>7:</b> 0-400 PSIG/ 0-27 BAR	<b>4:</b> Diaphragm valve 1/4" MNPT	<b>7:</b> Mirror image (BAR/PSIG gauges)	<b>M06:</b> 6mm tube	<b>H:</b> Protocol switchover alarm station with pressure switch gauges
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>8:</b> 0-6000 PSIG/ 0-400 BAR*	<b>5:</b> Needle valve 1/4" MNPT		<b>CGA DIN 477 BS 341 and others available.</b>	<b>J:</b> Protocol alarm station with standard transducer for non-hazardous environments
	<b>A:</b> 0-15 PSIG (0-1 BAR)*	0-30 PSIG/ 0-2 BAR***	<b>G:</b> 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8" tube fitting			<b>K:</b> Protocol switchover alarm station with standard transducer for non-hazardous environments
				<b>7:</b> 3/8" tube fitting			<b>M:</b> Protocol station
				<b>8:</b> Diaphragm valve 1/8" tube fitting			<b>Q:</b> Protocol purge station*
				<b>9:</b> Diaphragm valve 1/4" FNPT			<b>X:</b> Protocol switchover alarm station with intrinsically safe transducer for hazardous environments
				<b>A:</b> 3/8" BSP RH fitting			
				<b>B:</b> Diaphragm valve 3/8" fitting			
				<b>C:</b> 3/8" BSP LH fitting			
				<b>D:</b> 6mm brass hose barb (not available if A=4 or 5)			
				<b>G:</b> 1/8" stainless steel tube fitting			
				<b>H:</b> 1/4" stainless steel tube fitting			
				<b>M:</b> 6mm tube fitting			
				<b>S:</b> Diaphragm valve 6mm tube fitting			
							<b>*Not available with 4500 PSIG (310 BAR) max inlet pressure.</b>

\*Not available with 4500 PSIG (310 BAR) maximum inlet pressure.

\*\*Standard assembly does not include relief valve.

\*\*\* With redline for acetylene use.

\*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®.

†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE.

## Related Options

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

# 401 SERIES REGULATORS



## Flow Curves for 401 Series

