

# 302 SERIES REGULATORS



The 302 Series single stage regulators are intended for primary pressure control of non-corrosive, high purity, or liquefied gases. Due to the pressure rise associated with high pressure cylinder depletion, CONCOA recommends single stage regulators for primary pressure control of cylinders filled under 500 PSIG (34 BAR) and in applications that can tolerate minor fluctuations in outlet pressure due to diminishing inlet supply or where inlet pressure is constant.

## Typical Applications

- Control of Cryogenic Gases
- Gas and Liquid Chromatography
- High Purity Carrier Gases
- Zero, Span, and Calibration Gases
- High Purity Chamber Pressurization
- Liquefied Hydrocarbon Gas Control



3023331-01-580 shown

## Features

**CAPSULE® Seat** increases serviceability and life

**316L Stainless Steel Diaphragm** prevents inboard diffusion

**Low Wetted Surface Area** minimizes purge requirements

**Field-Adjustable Pressure Limit** safeguards downstream equipment

**Convoluting Diaphragm** provides smooth pressure changes

**Rear Panel-Mountable** allows easy installation

**Compact Design** permits easy transport and system integration

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

## Materials and Specifications

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

**Body:** Chrome-plated brass barstock

**Bonnet:** Chrome-plated die-cast zinc

**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:**  $1 \times 10^{-8}$  scc/sec

**Internal Seals:** PTFE

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

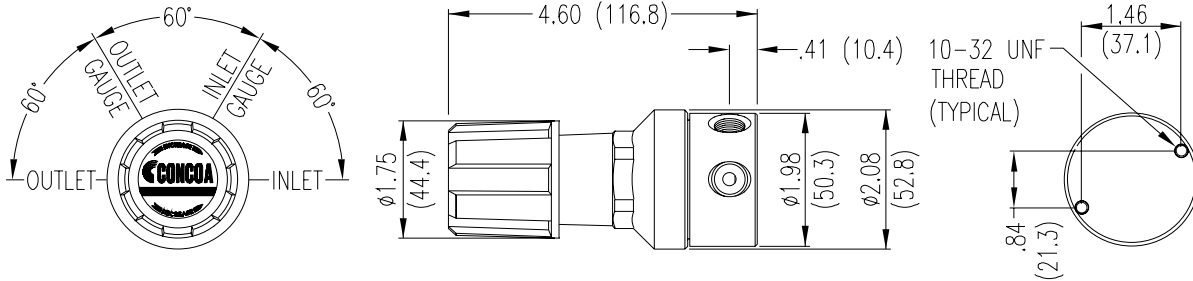
**Weight (302 2331-580):** 3.1 lbs. (1.4 kg)

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

# 302 SERIES REGULATORS



## Installation Dimensions



## Ordering Information

302	A	B	C	D	-CON	Options	
Series	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
302	<b>1:</b> 0-15 PSIG (0-1 BAR)*	30 in-0-30 PSIG/ -1-0-2 BAR	<b>0:</b> None	<b>0:</b> 1/4 in FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4 in FPT	<b>B:</b> Protocol alarm station with pressure switch gauges
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30 in-0-100 PSIG/ -1-0-7 BAR	<b>3:</b> 0-4000 PSIG/ 0-275 BAR	<b>1:</b> 1/4 in MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8 in tube	<b>C:</b> Protocol switchover station
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30 in-0-200 PSIG/ -1-0-14 BAR	<b>5:</b> 0-1000 PSIG/ 0-70 BAR	<b>2:</b> 1/4 in tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4 in tube	<b>E:</b> Protocol alarm station with intrinsically safe transducer for hazardous environments
	<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 in tube fitting		<b>TF6:</b> 3/8 in tube	<b>H:</b> Protocol switchover alarm station with pressure switch gauges
	<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 in MPT		<b>M06:</b> 6 mm tube	<b>J:</b> Protocol alarm station with standard transducer for non-hazardous environments
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30 in-0-200 PSIG/ -1-0-14 BAR	<b>8:</b> 0-6000 PSIG/ 0-415 BAR*	<b>5:</b> Needle valve 1/4 in MPT		CGA DIN 477 BS 341 and others available	<b>K:</b> Protocol switchover alarm station with standard transducer for non-hazardous environments
	<i>*Not available with 4500 PSIG (310 BAR) maximum inlet pressure</i>		<b>G:</b> 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8 in tube fitting			<b>M:</b> Protocol station
		<i>†Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®</i>		<b>7:</b> 3/8 in tube fitting			<b>Q:</b> Protocol purge station*
		<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE Seat CAPSULE®</i>		<b>8:</b> Diaphragm valve 1/8 in tube fitting			<b>T:</b> Tee purge*
				<b>9:</b> Diaphragm valve 1/4 in FPT			<b>X:</b> Protocol switchover alarm station with intrinsically safe transducer for hazardous environments
				<b>A:</b> 3/8 in BSP RH fitting			<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>
				<b>B:</b> Diaphragm valve 3/8 in tube fitting			
				<b>C:</b> 3/8 in BSP LH fitting			
				<b>D:</b> 6 mm brass hose barb (not available if A=4 or 5)			
				<b>G:</b> 1/8 in stainless steel tube fitting			
				<b>H:</b> 1/4 in stainless steel tube fitting			
				<b>M:</b> 6 mm tube fitting			
				<b>S:</b> Diaphragm valve 6 mm tube fitting			

## Related Options

Part No.	Description
835 0204	Rear panel mount kit



# Regulator Flow Curves

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

