

# 422 SERIES REGULATORS



The 422 Series, six-port, single stage regulators are intended for primary pressure control of ultra-high purity gases, including corrosive and toxic gases. They are ideal for applications that can tolerate minor fluctuations in outlet pressure due to diminishing inlet supply or applications where periodic readjustment of delivery pressure does not present a problem.

## Typical Applications

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



422 3331-01-580 shown

## Features

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

**316L Stainless Steel Barstock Body** provides increased corrosion resistance

**Cleanroom Assembly** eliminates contamination at installation

**Front and Rear Panel-Mountable** facilitates a variety of system configurations

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

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

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

## Materials and Specifications

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

**Body:** 316L stainless steel barstock

**Bonnet:** Chrome-plated brass barstock

**Gauges:** 2 in (50 mm) diameter stainless steel

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

**Filter:** 10-micron 316 stainless steel mesh

**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

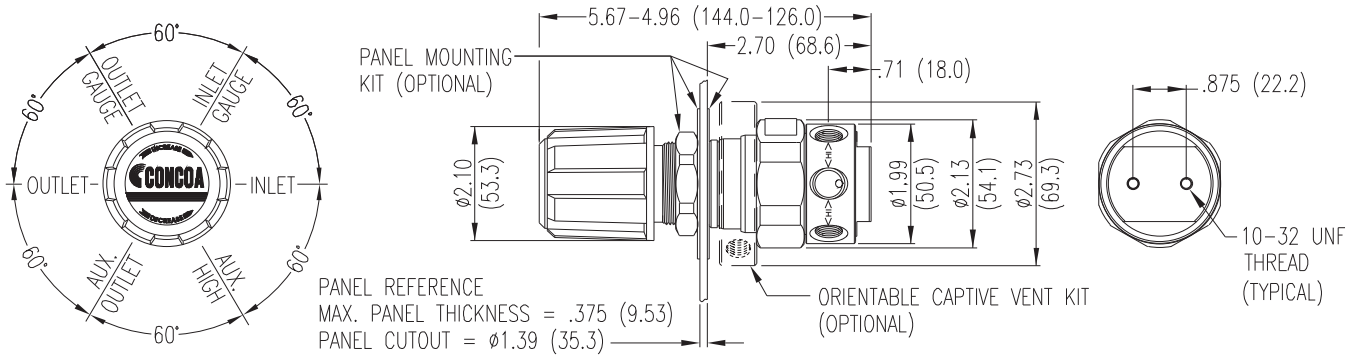
**Weight (422 3331-580):** 3.8 lbs. (1.73 kg)

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

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## Installation Dimensions



## Ordering Information

422	A	B	C	D	-CON	Options	
Series 422	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
	<i>*Not available with 4500 PSIG (310 BAR) maximum inlet pressure.</i>		G: 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
	<i>**Standard assembly does not include relief valve.</i>		<i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®.</i>	<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>S:</b> Stainless steel bonnet	
<b>M:</b> 6mm tube fitting						<b>X:</b> Protocol switchover alarm station with intrinsically safe transducer for hazardous environments	
		<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE.</i>	<b>S:</b> Diaphragm valve 6mm tube fitting			<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>	

## Related Options

Part No.	Description
550 0001	Captured Vent kit
550 0002	Panel Mount kit
476 0002	Helium Leak certification

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## Flow Curves for 422 Series

