



# 400 Series Regulators

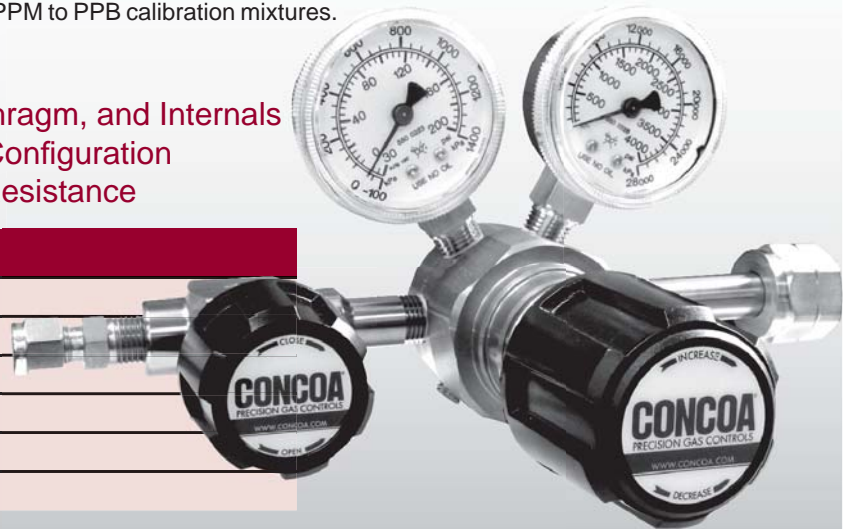
# 420 SERIES

The 420 Series SilcoNert® treated regulators are intended for pressure control of reactive or corrosive calibration mixtures or pure gases in applications where an extremely inert wetted finish is required. The proprietary non-reactive amorphous silicon finish is significantly more inert than 316L stainless steel and ideally suited for Hydrogen Sulfide, reduced Sulfur, Mercury and PPM to PPB calibration mixtures.

- Single Stage
- SilcoNert 2000 Barstock Body, Diaphragm, and Internals
- Six Port Configuration or Four Port Configuration
- Inert Surface Finish and Corrosion Resistance

## Typical Applications

- Reactive calibration standard
- Emissions monitoring
- Hydrogen sulfide PPM to PPB standards
- Mercury standards
- Sulfur mixtures
- Corrosive service



420 3331-330 shown

## Features

- Metal-to-Metal Diaphragm Seal**  
No possibility of gas contamination
- CAPSULE® Seat**  
Increased serviceability and life
- SilcoNert 2000 Barstock Body**  
Increased corrosion resistance
- Front and Rear Panel-Mountable**  
Versatile system configuration
- Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)**  
Broad range of applications

## Materials

- Body**  
SilcoNert 2000
- Bonnet**  
SilcoNert 2000
- Seat**  
PTFE
- Filter**  
SilcoNert 2000 10 micron mesh
- Diaphragm**  
Dursan®
- Internal Seals**  
PTFE

## Specifications

- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)  
4500 PSIG (310 BAR) optional
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauge**  
2" (53mm) diameter stainless steel
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-9</sup> scc/sec
- Cv**  
0.1 (Max outlet 50 PSIG/3.5 BAR or below)  
0.2 (Max outlet above 50 PSIG/3.5 BAR)  
*See page 202 for flow curves*
- Weight (420 3331-330)**  
3.8 lbs. (1.73 kg)

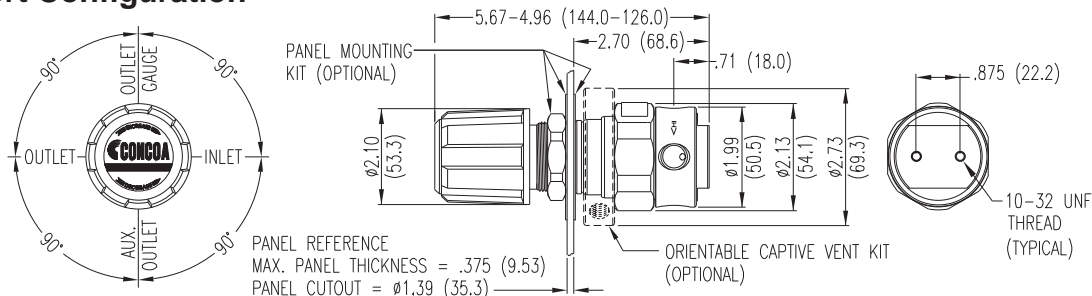
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# 400 Series Regulators

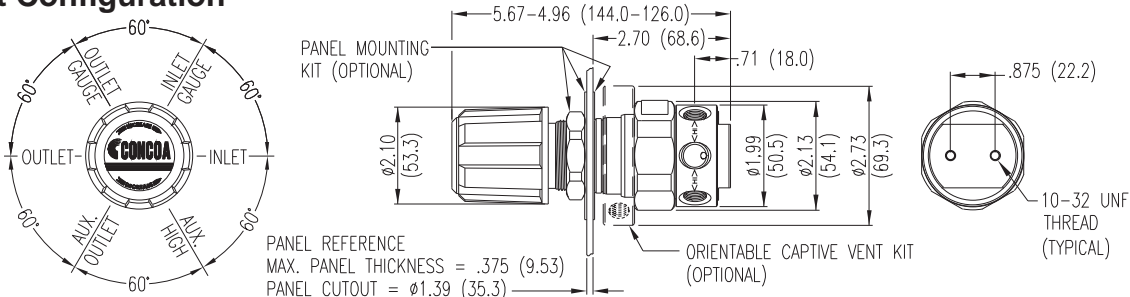


## Installation Dimensions

### Four Port Configuration



### Six Port Configuration



REGULATORS

## Ordering Information

420	A	B	C	D	-CON	Options	
Series	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections	Installed Options
420	<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" FPT port	<b>0:</b> Six-port bare body	<b>000:</b> 1/4" FPT	<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>2:</b> 1/4" tube fitting	<b>1:</b> Six-port 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>3:</b> Diaphragm valve 1/4" tube fitting	<b>2:</b> Six-port cleanroom assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" 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>6:</b> 1/8" tube fitting	<b>6:</b> Six-port mirror image (PSIG/kPa gauges)	<b>M06:</b> 6mm 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>8:</b> Diaphragm valve 1/8" FPT	<b>7:</b> Six-port mirror image (BAR/PSIG gauges)	CGA DIN 477 BS 341 and others available	<b>J:</b> Protocol alarm station with standard transducer for non hazardous environments
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR)	<b>8:</b> 0-6000 PSIG/ 0-415 BAR*	<b>9:</b> Diaphragm valve 1/4" FPT	<b>A:</b> Four-port bare body		<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>	<i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®</i>		<b>M:</b> 6mm tube fitting	<b>B:</b> Four-port cleanroom assembly (PSIG/kPa gauges)		<b>M:</b> Protocol station
				<b>S:</b> Diaphragm valve 6mm tube fitting	<b>C:</b> Four-port cleanroom assembly (BAR/PSIG)		<b>Q:</b> Protocol purge station*
					<b>D:</b> Four-port mirror image (PSIG/kPa gauges)		<b>X:</b> Protocol switchover alarm station with intrinsically safe transducer for hazardous environments
					<b>E:</b> Four-port mirror image (BAR/PSIG gauges)		<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>

## 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

