



# 300 Series Regulators

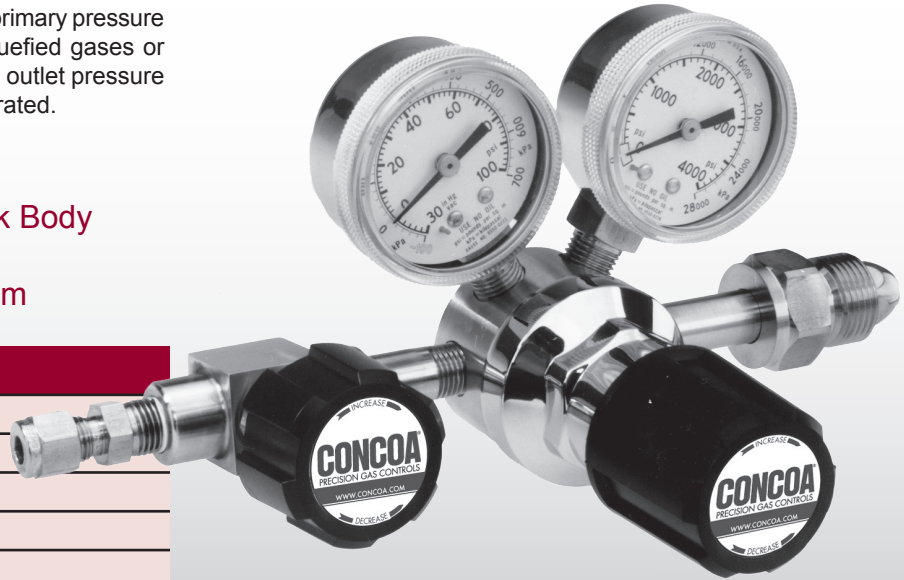
# 302 SERIES

The 302 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
- Four Port Configuration
- 316L Stainless Steel Diaphragm

## Typical Applications

- 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



302 2331-580 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolutd Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- Chrome-Plated Brass Barstock Body**  
Smooth surface finish
- Rear Panel-Mountable**  
Easy installation
- Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)**  
Broad range of applications

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated die-cast zinc
- 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

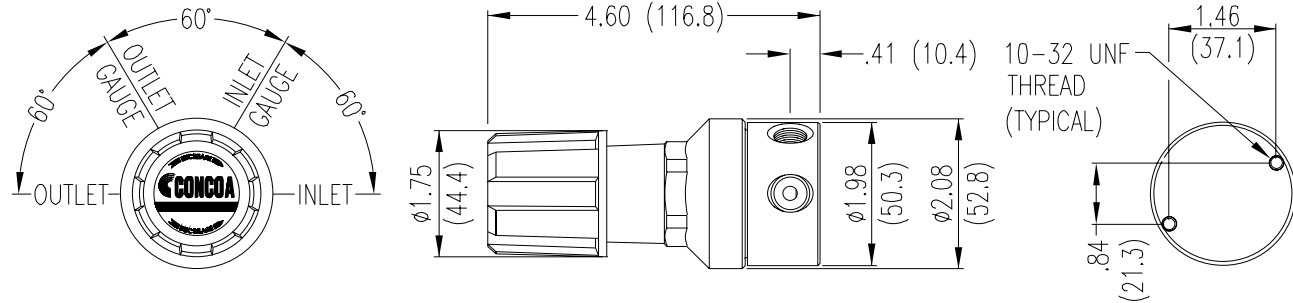
## Specifications

- 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 brass
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (302 2331-580)**  
3.1 lbs. (1.40 kg)

# 300 Series Regulators



## Installation Dimensions



## Ordering Information

302	A	B	C	D	-CON	Options	
Series 302	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" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT	<b>B:</b> Protocol alarm station (110/220 VAC)
	<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" MPT	<b>1:</b> Standard 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> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<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>TF6:</b> 3/8" tube	<b>M:</b> Protocol station
	<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" MPT		<b>M06:</b> 6mm tube	<b>Q:</b> Protocol purge station*
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>8:</b> 0-6000 PSIG/ 0-405 BAR*	<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	<b>T:</b> Tee purge*
	*Not available with 4500 PSIG (310 BAR) maximum inlet pressure		<b>G:</b> 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8" tube fitting			*Not available with 4500 PSIG (310 BAR) max inlet pressure
		*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®		<b>7:</b> 3/8" tube fitting			
		†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®		<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>A:</b> 3/8" BSP RH fitting			
				<b>B:</b> Diaphragm valve 3/8" tube 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			

## Related Options

Order No.	Description
835 0204	Rear Panel mount kit

300 SERIES



# 300 Series Regulators

# 304 SERIES

The 304 Series regulators are intended for secondary pressure control of non-corrosive, high purity or liquefied gases or as point of use pressure control in high purity gas distribution systems.

- Single Stage
- Chrome-Plated Brass Barstock Body
- Three 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
- Liquefied hydrocarbon gas control
- Control of cryogenic gases



304 3021-000 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolutd Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- Chrome-Plated Brass Barstock Body**  
Smooth surface finish
- Rear Panel-Mountable**  
Easy installation
- Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)**  
Broad range of applications
- 3000 PSIG (210 BAR) Inlet Pressure Rating**  
Safe use with high pressure cylinders

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
10 micron sintered bronze
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

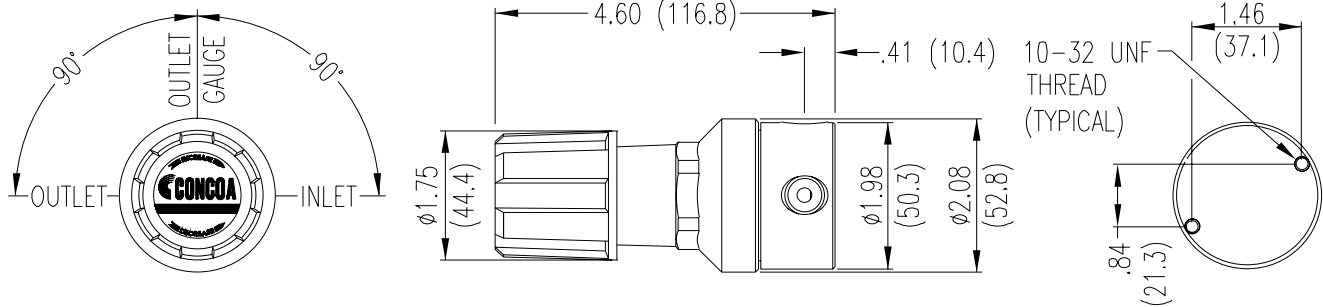
## Specifications

- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
2" (53mm) diameter chrome-plated brass
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (304 2021-000)**  
1.7 lbs. (0.78 kg)

# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

304	A	B	C	D	-CON	Options	
Series 304	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" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT	<b>M:</b> Protocol station
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR		<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	<b>Q:</b> Protocol purge station
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	
	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube	
	<b>5:</b> 0-500 PSIG (0-34 BAR)	0-1000 PSIG/ 0-70 BAR		<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube	
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>5:</b> Needle valve 1/4" MPT			
				<b>6:</b> 1/8" tube fitting			
				<b>7:</b> 3/8" tube fitting			
				<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>A:</b> 3/8" BSP RH fitting			
				<b>B:</b> Diaphragm valve 3/8" tube 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			

## Related Options

Order No.	Description
835 0204	Rear Panel mount kit



# 300 Series Regulators

# 305 SERIES

The 305 Series regulators are specifically designed for use in the medical laboratory for blood gases, laser gases, and other clinical gas applications where minor fluctuations in outlet pressure due to diminishing inlet supply pressure can be tolerated.

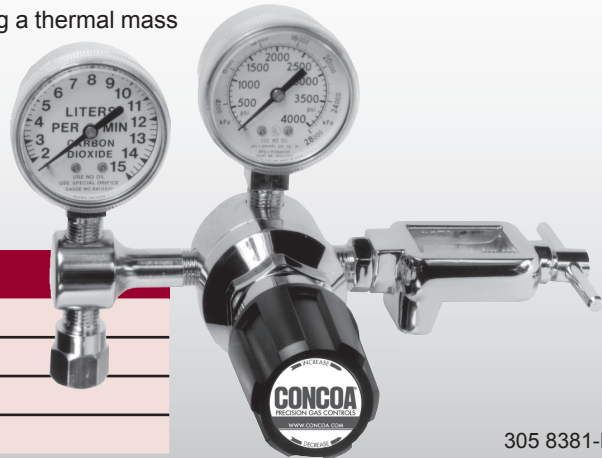
## Custom Calibration

In addition to a standard 2-15 LPM flowgauge for CO<sub>2</sub> in laser applications, CONCOA also offers a custom 2-15 LPM calibration for any non-corrosive gas or mixture. The outlet orifice is sized to the flow requirement for a specific gas using a thermal mass flowmeter.

- Single Stage
- Chrome-Plated Brass Barstock Body
- 316L Stainless Steel Diaphragm
- Custom Calibration

## Typical Applications

- Blood gases
- Laser gases
- Medical research
- University laboratories



305 8381-M2D

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convuluted Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
10 micron sintered bronze
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

## Specifications

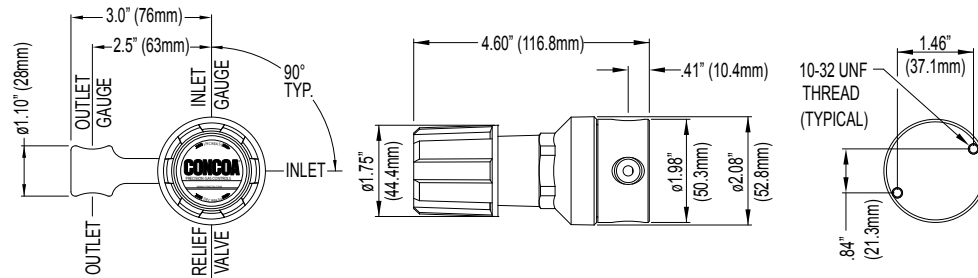
- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
2" (53mm) diameter chrome-plated brass
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (305 8381-M2D)**  
2.8 lbs. (1.29 kg)



# 300 Series Regulators



## Installation Dimensions



## Ordering Information

305	A	B	C	D	-CON	Options	
Series 305	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Connections	Installed Options
	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	<b>0:</b> None	<b>0:</b> 1/4" FPT port	<b>0:</b> Bare body	See inlet selection chart for limited CGA connections. DIN 477, BS 341 and others available.	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>2:</b> 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR	<b>3:</b> 0-4000 PSIG/ 0-275 BAR	<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)		<b>C:</b> Protocol switchover station
	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)		<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting			<b>M:</b> Protocol station
	<b>6:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		<b>4:</b> Diaphragm valve 1/4" MPT			<b>Q:</b> Protocol purge station
	<b>7:</b> 0-500 PSIG (0-34 BAR)	0-1000 PSIG/ 0-70 BAR		<b>5:</b> Needle valve 1/4" MPT			
	<b>8:</b> 2-15 LPM CO <sub>2</sub>	2-15 LPM flowgauge		<b>6:</b> 1/8" tube fitting			
	<b>9:</b> Custom calibration	Custom flowgauge		<b>7:</b> 3/8" tube fitting			
				<b>8:</b> Medical DISS outlet			
				<b>9:</b> 1/4" hose barb			
				<b>A:</b> 3/8" BSP RH fitting			

Gas Service	Inlet (CGA)		Outlet (Medical DISS)			
	Threaded	Yoke	Primary	DISS Part No.	Optional	DISS Part No.
Air	CGA 346	CGA 950	1160	830 5686	N/A	
Argon, Neon, Krypton, Xenon	CGA 580	CGA 985	N/A		N/A	
Carbon dioxide	CGA 320	CGA 940	1080	830 6042	N/A	
Carbon dioxide < 7% and oxygen	CGA 280	CGA 880	1200	830 6043	1020	830 6047
Carbon dioxide > 7% and oxygen	CGA 500	CGA 940	1080	830 6042	1020	830 6047
Clinical blood gas mixtures	CGA 500	CGA 973	1020	830 6046	1080	830 6042
Ethylene	CGA 350	CGA 900	1140	830 6049	N/A	
Helium	CGA 580	CGA 930	1060	830 6048	N/A	
Helium < 80% and oxygen	CGA 280	CGA 890	1180	830 6045	1020	830 6047
Helium > 80% and oxygen	CGA 500	CGA 930	1060	830 6048	1020	830 6047
Nitrogen	CGA 580	CGA 960	1120	830 6044	N/A	
Nitrogen and oxygen > 23.5%	CGA 280	CGA 890	2040		N/A	
Nitrous oxide	CGA 326	CGA 910	1040	830 4264	N/A	
Nitrous oxide 47.5% - 52.5% And oxygen	CGA 280	CGA 965	2020	830 6046	N/A	
Oxygen	CGA 540	CGA 870	1240	803 0051	N/A	
Xenon and oxygen > 20%	CGA 280	CGA 890	1020	830 6047	1180	
Non-flammable, noncorrosive gas mixtures labeled as drugs or medical devices without another connection assignment	CGA 500	CGA 973	1020	830 6047	N/A	

300 SERIES



# 300 Series Regulators

# 307 SERIES

The 307 Series regulators are intended for secondary pressure control of non-corrosive, high purity or liquefied gases or as point of use pressure control in high purity gas distribution systems.

- Single Stage
- Chrome-Plated Brass Barstock Body
- Four Port Configuration
- Real Inlet

## 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 gas



307 2031-580 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolutd Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- Chrome-Plated Brass Barstock Body**  
Smooth surface finish
- Rear Panel-Mountable**  
Easy installation
- Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)**  
Broad range of applications
- 3000 PSIG (210 BAR) Inlet Pressure Rating**  
Safe use with high pressure cylinders

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
10 micron sintered bronze
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

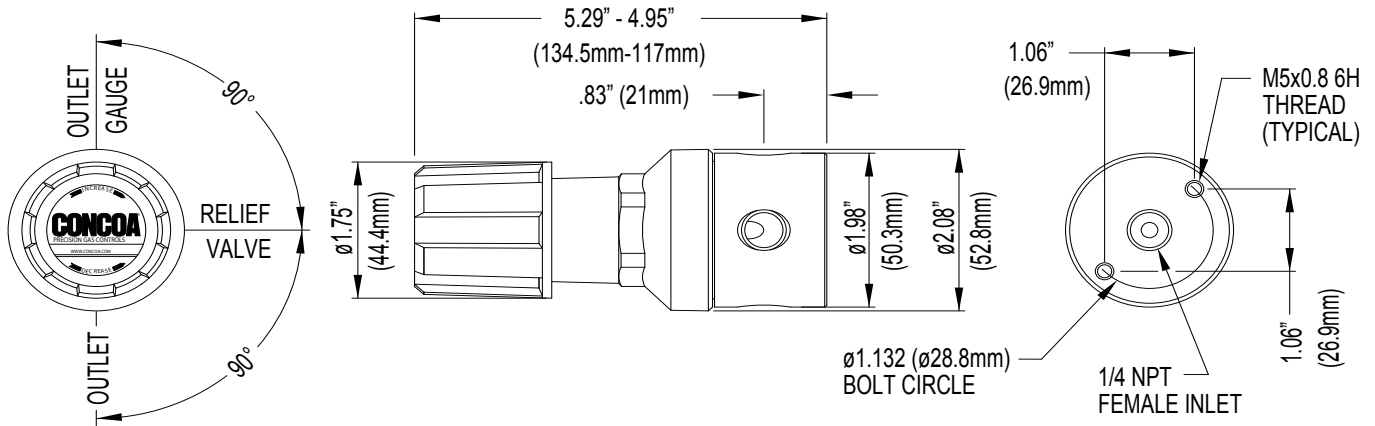
## Specifications

- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
2" (53mm) diameter chrome-plated brass
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (307 2031-580)**  
2.9 lbs. (1.29 kg)

# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

307	A	B	C	D	-CON	Options	
Series 307	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	<b>0:</b> None	<b>0:</b> 1/4" FPT port	<b>0:</b> Bare body	<b>M00:</b> 1/4" FPT	None
	<b>2:</b> 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR		<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	
	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	
	<b>4:</b> 0-150 PSIG (0-10 BAR)	0-200 PSIG/ 0-14 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube	
	<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube	
	<b>6:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	
	<b>8:</b> 2-15 LPM CO <sub>2</sub>	2-15 LPM flowgauge		<b>6:</b> 1/8" tube fitting			
	<b>9:</b> Custom calibration	Custom flowgauge		<b>7:</b> 3/8" tube fitting			
				<b>8:</b> DISS outlet			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>A:</b> 3/8" BSP RH fitting			
				<b>B:</b> Diaphragm valve 1/8" tube fitting			
				<b>M:</b> 6mm tube fitting			
				<b>S:</b> Diaphragm valve 6mm tube fitting			

## Related Options

Order No.	Description
835 0204	Rear Panel mount kit
476 0002	Helium Leak certification





# 300 Series Regulators

# 308 SERIES

The 308 Series regulators are specifically designed to prevent freeze-up problems associated with high flows of carbon dioxide and nitrous oxide. As CO<sub>2</sub> or N<sub>2</sub>O passes through a regulator seat, dry ice can form if the flow is too high, causing the regulator to freeze up.

- Single Stage
- Chrome-Plated Brass Barstock Body
- 316L Stainless Steel Diaphragm
- Electrically Heated
- NEMA 4

## Typical Applications

- Chemical storage blanketing
- Anaerobic chambers
- Inert gas purging
- Atomic absorption oxidizer gas
- Semiconductor reactor furnace
- Inductively coupled plasma systems
- pH control



308 3301-330 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolutd Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- Three 50-Watt Heaters**  
Maintain gas flow up to 350 SCFH (165 LPM)
- 316L Stainless Steel Diaphragm**  
Unaffected by low temperatures
- NEMA 4 Housing**  
For either indoor or outdoor use

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated brass barstock
- Seat**  
PTFE
- Filter**  
10 micron sintered bronze
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE
- Electrical Housing**  
NEMA 4

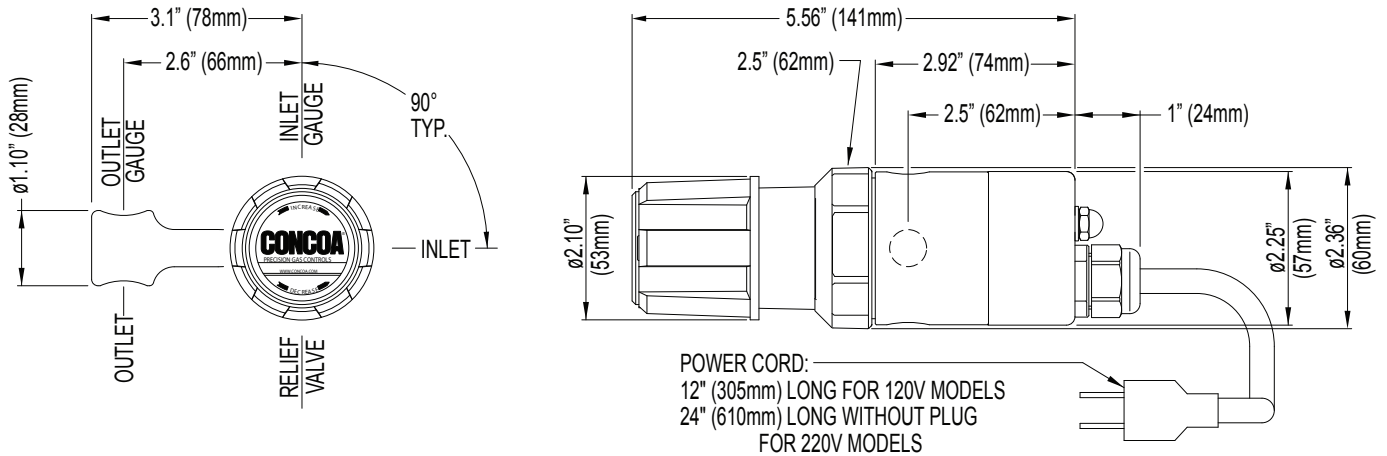
## Specifications

- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range (Thermostat)**  
95°F to 120°F (35°C to 49°C)
- Heaters**  
3 @ 50 watts each (110 or 220 VAC)
- Gauges**  
2" (53mm) diameter chrome-plated brass
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 191 for flow curves*
- Weight (308 3301-330)**  
5.4 lbs. (2.45 kg)

# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

308	A	B	C	D	-CON	Options	
Series 308	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	<b>0:</b> None	<b>0:</b> 1/4" FPT port	<b>0:</b> Bare body 110 VAC	<b>000:</b> 1/4" FPT	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>2:</b> 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR	<b>3:</b> 0-4000 PSIG/ 0-275 BAR	<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly 110 VAC (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	<b>C:</b> Protocol switchover station
	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Bare body 220 VAC*	<b>TF4:</b> 1/4" tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting	<b>3:</b> Standard assembly 220 VAC* (PSIG/kPa gauges)	<b>TF6:</b> 3/8" tube	<b>M:</b> Protocol station
	<b>7:</b> 0-175 PSIG (0-12 BAR)	0-400 PSIG/ 0-27 BAR		<b>4:</b> Diaphragm valve 1/4" MPT	<b>4:</b> Standard assembly 110 VAC (BAR/PSIG gauges)	<b>M06:</b> 6mm tube	<b>Q:</b> Protocol purge station
				<b>5:</b> Needle valve 1/4" MPT	<b>5:</b> Standard assembly 220 VAC (BAR/PSIG gauges)*	CGA DIN 477 BS 341 and others available	
				<b>6:</b> 1/8" tube fitting	*220 volt models are CE marked		
				<b>7:</b> 3/8" tube fitting			
				<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>A:</b> 3/8" BSP RH fitting			
				<b>M:</b> 6mm tube fitting			
				<b>S:</b> Diaphragm valve 6mm tube fitting			



# 300 Series Regulators

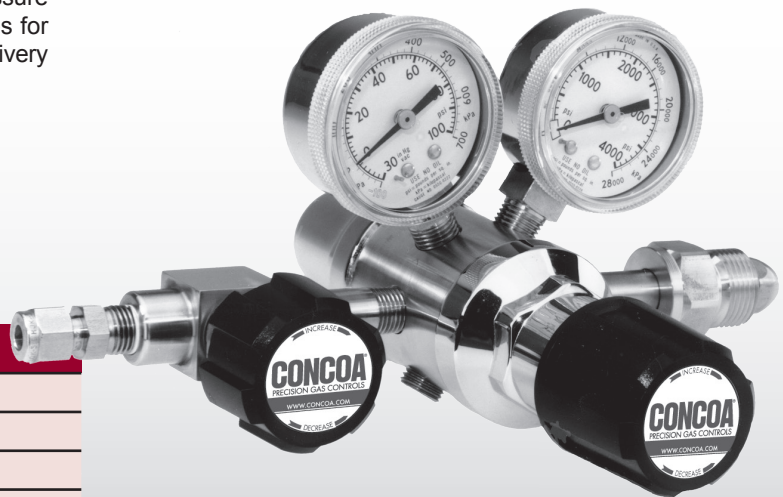
# 312 SERIES

The 312 Series regulators are intended for primary pressure control of non-corrosive, high purity or liquefied gases for applications requiring constant pressure control and delivery regardless of supply pressure variations.

- Dual Stage
- Chrome-Plated Brass Barstock Body
- Four Port Configuration
- 316L Stainless Steel Diaphragm

## Typical Applications

- EPA Protocol gases
- Gas and liquid chromatography
- High purity carrier gases
- Zero, span, and calibration gases
- High purity chamber pressurization



312 2331-580 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convoluted Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- Chrome-Plated Brass Barstock Body**  
Smooth surface finish
- 10 Micron Filtration in Both Stages**  
Fail-safe seat performance
- Pressure Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)**  
Broad range of applications

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated die-cast zinc
- 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

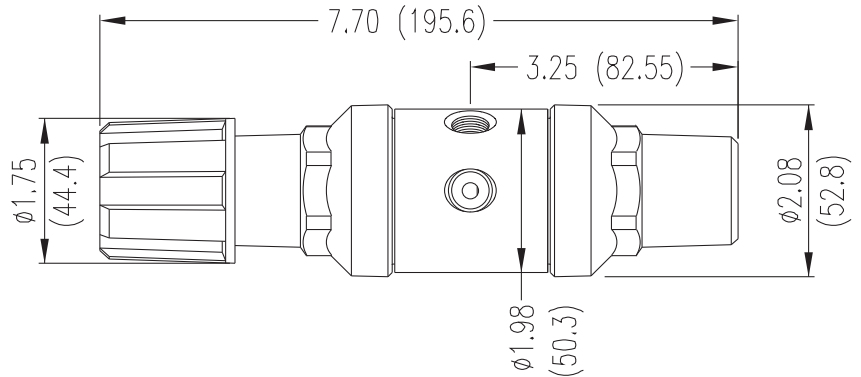
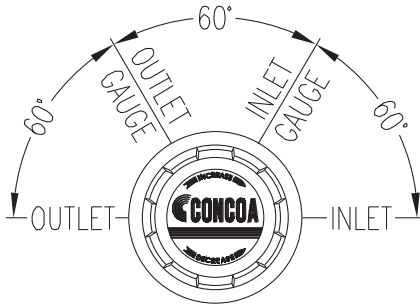
- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)  
3500 PSIG (240 BAR) optional  
4500 PSIG (310 BAR) optional
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
2" (53mm) diameter chrome-plated brass
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (312 2331-580)**  
4.4 lbs. (1.98 kg)

Conforms to CGA E-4 Standard for Pressure Regulators  
CRN OH 5216.5R1

# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

312	A	B	C	D	-CON	Options	
Series 312	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" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT	<b>B:</b> Protocol alarm station (110/220 VAC)
	<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" MPT	<b>1:</b> Standard 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> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<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>TF6:</b> 3/8" tube	<b>M:</b> Protocol station
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>7:</b> 0-400 PSIG/ 0-27 BAR	<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube	<b>Q:</b> Protocol purge station*
			<b>8:</b> 0-6000 PSIG/ 0-405 BAR*	<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	<b>T:</b> Tee purge*
			G: 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8" tube fitting			<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>
			<i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®</i>	<b>7:</b> 3/8" tube fitting			
			<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</i>	<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>A:</b> 3/8" BSP RH fitting			
				<b>B:</b> Diaphragm valve 3/8" tube 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			



# 300 Series Regulators

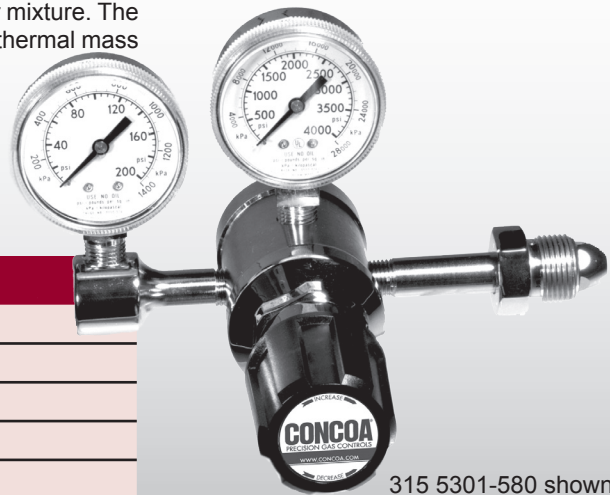
# 315 SERIES

The 315 Series regulators are specifically designed for use in the medical laboratory for blood gases, laser gases, and other clinical gas applications requiring constant pressure control and delivery regardless of supply pressure variations.

## Custom Calibration

In addition to a standard 2-15 LPM flowgauge for CO<sub>2</sub> in laser applications, CONCOA also offers a custom 2-15 LPM calibration for any non-corrosive gas or mixture. The outlet orifice is sized to the flow requirement for a specific gas using a thermal mass flowmeter.

- Dual Stage
- Chrome-Plated Brass Barstock Body
- 316L Stainless Steel Diaphragm
- Custom Calibration



315 5301-580 shown

## Typical Applications

- Blood gases
- Laser gases
- Medical research
- Pharmaceutical manufacturing
- University laboratories

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolute Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
10 micron sintered bronze
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

## Specifications

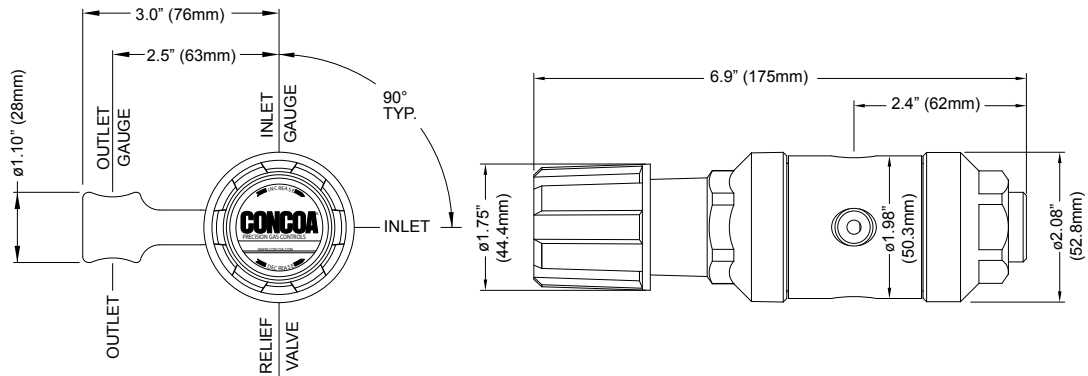
- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
2" (53mm) diameter chrome-plated brass
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (315 5301-580)**  
4.2 lbs. (1.90 kg)



# 300 Series Regulators



## Installation Dimensions



## Ordering Information

315	A	B	C	D	-CON	Options	
Series 315	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Connections	Installed Options
	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	<b>0:</b> None	<b>0:</b> 1/4" FPT port	<b>0:</b> Bare body	See inlet selection chart for limited CGA connections. DIN 477, BS 341 and others available.	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>2:</b> 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR	<b>3:</b> 0-4000 PSIG/ 0-275 BAR	<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)		<b>C:</b> Protocol switchover station
	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)		<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting			<b>M:</b> Protocol station
	<b>6:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		<b>4:</b> Diaphragm valve 1/4" MPT			<b>Q:</b> Protocol purge station
	<b>7:</b> 0-500 PSIG (0-34 BAR)	0-1000 PSIG/ 0-70 BAR		<b>5:</b> Needle valve 1/4" MPT			
	<b>8:</b> 2-15 LPM CO <sub>2</sub>	2-15 LPM flowgauge		<b>6:</b> 1/8" tube fitting			
	<b>9:</b> Custom calibration	Custom flowgauge		<b>7:</b> 3/8" tube fitting			
				<b>8:</b> Medical DISS outlet			
				<b>9:</b> 1/4" hose barb			
				<b>A:</b> 3/8" BSP RH fitting			

Gas Service	Inlet (Threaded)	Inlet (Yoke)	Outlet (Medical DISS)			
			Primary	DISS Part No.	Optional	DISS Part No.
Air	CGA 346	CGA 950	1160	830 5686	N/A	
Argon, Neon, Krypton, Xenon	CGA 580	CGA 985	N/A		N/A	
Carbon dioxide	CGA 320	CGA 940	1080	830 6042	N/A	
Carbon dioxide < 7% and oxygen	CGA 280	CGA 880	1200	830 6043	1020	830 6047
Carbon dioxide > 7% and oxygen	CGA 500	CGA 940	1080	830 6042	1020	830 6047
Clinical blood gas mixtures	CGA 500	CGA 973	1020	830 6046	1080	830 6042
Ethylene	CGA 350	CGA 900	1140	830 6049	N/A	
Helium	CGA 580	CGA 930	1060	830 6048	N/A	
Helium < 80% and oxygen	CGA 280	CGA 890	1180	830 6045	1020	830 6047
Helium > 80% and oxygen	CGA 500	CGA 930	1060	830 6048	1020	830 6047
Nitrogen	CGA 580	CGA 960	1120	830 6044	N/A	
Nitrogen and oxygen > 23.5%	CGA 280	CGA 890	2040		N/A	
Nitrous oxide	CGA 326	CGA 910	1040	830 4264	N/A	
Nitrous oxide 47.5% - 52.5% and oxygen	CGA 280	CGA 965	2020	830 6046	N/A	
Oxygen	CGA 540	CGA 870	1240	803 0051	N/A	
Xenon and oxygen > 20%	CGA 280	CGA 890	1020	830 6047	1180	
Non-flammable, noncorrosive gas mixtures labeled as drugs or medical devices without another connection assignment	CGA 500	CGA 973	1020	830 6047	N/A	

300 SERIES



# 300 Series Regulators

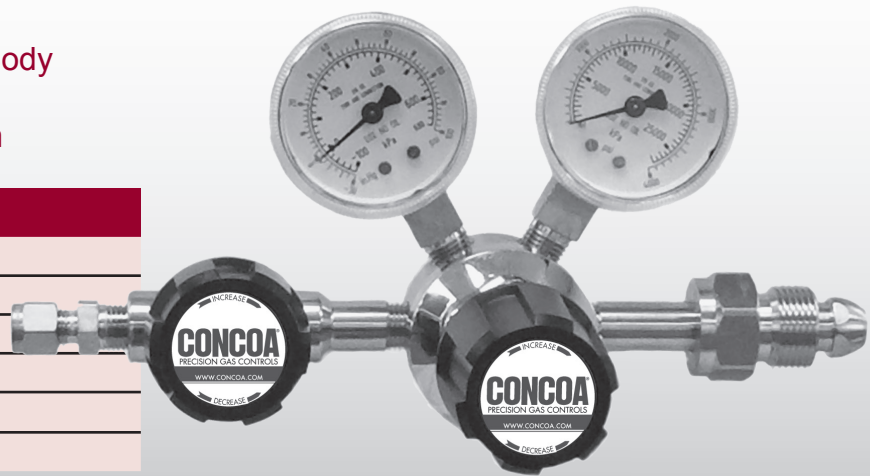
# 322 SERIES

The 322 Series regulators are intended for primary pressure control of ultrahigh purity and corrosive gases in applications where minor fluctuations in outlet pressure due to diminishing inlet supply can be tolerated.

- Single Stage
- 316L Stainless Steel Barstock Body
- Four Port Configuration
- 316L Stainless Steel Diaphragm

## Typical Applications

- 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



322 2331-580 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolute Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- 316L Stainless Steel Barstock Body**  
Increased corrosion resistance
- Rear Panel-Mountable**  
Easy installation
- Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-35 BAR)**  
Broad range of applications

## Materials

- Body**  
316L stainless steel barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE  
PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option
- Filter**  
Patented 10 micron 316 mesh
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

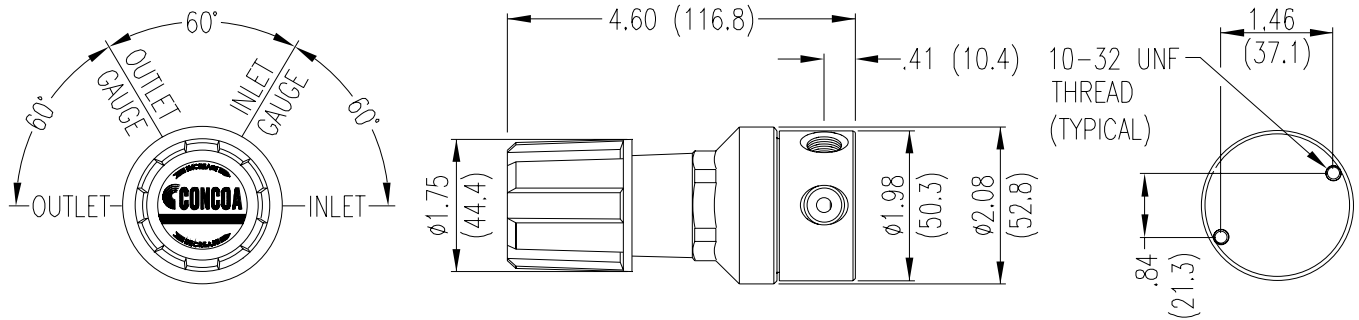
## Specifications

- 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 brass case  
Stainless steel internals
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (322 2331-580)**  
3.0 lbs. (1.34 kg)

# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

322	A	B	C	D	-CON	Options	
Series 322	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" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	<b>3:</b> 0-4000 PSIG/ 0-310 BAR	<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	<b>C:</b> Protocol switchover station
	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-14 BAR	<b>6:</b> 0-300 PSIG/ 0-21 BAR	<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<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" MPT		<b>M06:</b> 6mm tube	<b>M:</b> Protocol station
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>8:</b> 0-6000 PSIG/ 0-405 BAR*	<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	<b>Q:</b> Protocol purge station* <b>T:</b> Tee purge*
	<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" tube fitting			<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>
		<i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®</i>		<b>7:</b> 3/8" tube fitting			
		<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</i>		<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>M:</b> 6mm tube fitting			
				<b>S:</b> Diaphragm valve 6mm tube fitting			

## Related Options

Order No.	Description
835 0204	Rear Panel mount kit



# 300 Series Regulators

# 324 SERIES

The 324 Series regulators are intended for secondary pressure control of ultra high purity and corrosive gases or as point of use pressure control in ultrahigh purity gas distribution systems.

- Single Stage
- 316L Stainless Steel Barstock Body
- Three Port Configuration
- 316L Stainless Steel Diaphragm

## Typical Applications

- Bulk gas distribution systems
- Gas and liquid chromatography
- Ultra-high purity carrier gases
- Zero, span, and calibration gases
- Liquefied hydrocarbon gas control
- Control of cryogenic gases



324 3021-000 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolute Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- 316L Stainless Steel Barstock Body**  
Increased corrosion resistance
- Rear Panel-Mountable**  
Easy installation
- Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)**  
Broad range of applications
- 3000 PSIG (210 BAR) Inlet Pressure Rating**  
Safe use with high pressure cylinders

## Materials

- Body**  
316L stainless steel barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
Patented 10 micron 316 mesh
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

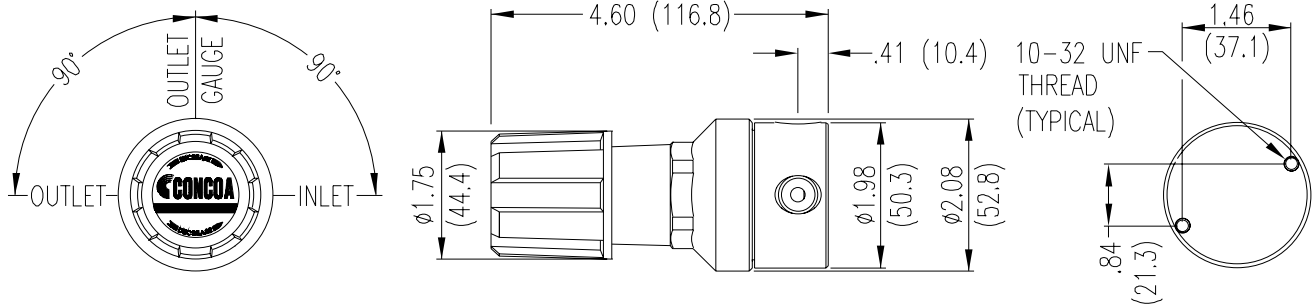
## Specifications

- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauge**  
2" (53mm) diameter  
Chrome-plated case  
Stainless steel internals
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (324 2021-000)**  
2.4 lbs. (1.09 kg)

# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

324	A	B	C	D	-CON	Options	
Series 324	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" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT	<b>M:</b> Protocol station
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR		<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	<b>Q:</b> Protocol purge station
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	
	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube	
	<b>5:</b> 0-500 PSIG (0-34 BAR)	0-1000 PSIG/ 0-70 BAR		<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube	
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>5:</b> Needle valve 1/4" MPT			
				<b>6:</b> 1/8" tube fitting			
				<b>7:</b> 3/8" tube fitting			
				<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>M:</b> 6mm tube fitting			
				<b>S:</b> Diaphragm valve 6mm tube fitting			

## Related Options

Order No.	Description
835 0204	Rear Panel mount kit





# 300 Series Regulators

# 325 SERIES

The 325 Series regulators are specifically designed for use with non-corrosive gases in lecture bottles. The incorporation of our smallest CAPSULE® allows excellent pressure regulation over the useful pressure range of a lecture bottle.

- Single Stage
- Chrome-Plated Brass Barstock Body
- 316L Stainless Steel Diaphragm
- Lecture Bottle Regulator

## Typical Applications

- University classrooms
- University laboratories
- Chemical research
- Pharmaceutical manufacturing



325 3351-170 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolutd Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- Chrome-Plated Brass Barstock Body**  
Smooth surface finish
- Low Droop**  
Stable outlet pressure
- 1 1/2" (38.1mm) Pressure Gauges**  
Small envelope

## Materials

- Body**  
Chrome-plated brass barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
10 micron sintered bronze
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

## Specifications

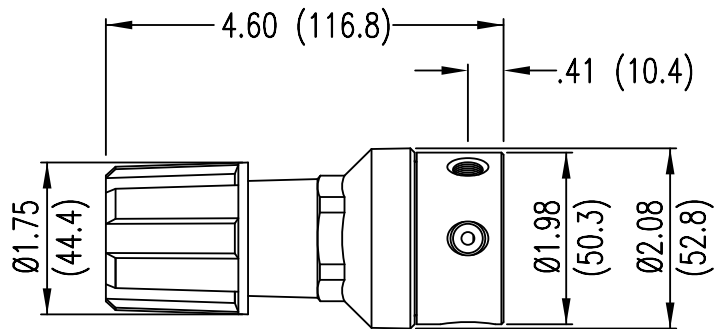
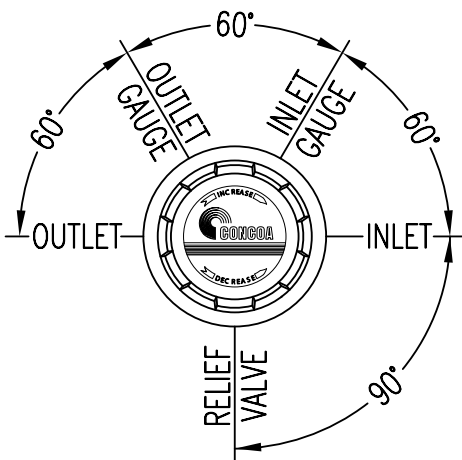
- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
1 1/2" (38.1mm) diameter  
chrome-plated brass
- Ports**  
1/8" FPT (1/4" FPT relief valve)
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.02  
*See page 191 for flow curves*
- Weight (325 3351-170)**  
2.0 lbs. (0.89 kg)

# 300 Series Regulators



## Installation Dimensions

300 SERIES



## Ordering Information

325	A	B	C	D	-CON	Options	
Series 325	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	<b>0:</b> None	<b>0:</b> 1/8" FPT port	<b>0:</b> Bare body	<b>-000:</b> 1/8" FPT	None
	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR	<b>3:</b> 0-4000 PSIG/ 0-275 BAR	<b>1:</b> 1/4" MPT <b>5:</b> Needle valve 1/8" MPT	<b>1:</b> Standard assembly (PSI/kPa gauges)	<b>-110:</b> CGA 110 <b>-170:</b> CGA 170 <b>-180:</b> CGA 180	



# 300 Series Regulators

# 327 SERIES

The 327 Series regulators are intended for secondary pressure control of non-corrosive, high purity or liquefied gases or as a point of use pressure control in high purity gas distribution systems.

- Single Stage
- 316L Stainless Steel Barstock Body
- Four Port Configuration
- Real Inlet

## 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 gas



327 1032-M1L shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convolutd Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- Stainless Steel Barstock Body**  
Increased corrosion resistance
- Rear Panel-Mountable**  
Easy installation
- Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)**  
Broad range of applications
- 3000 PSIG (210 BAR) Inlet Pressure Rating**  
Safe use with high pressure cylinders

## Materials

- Body**  
316L stainless steel barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
Patented 10 micron stainless steel mesh
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

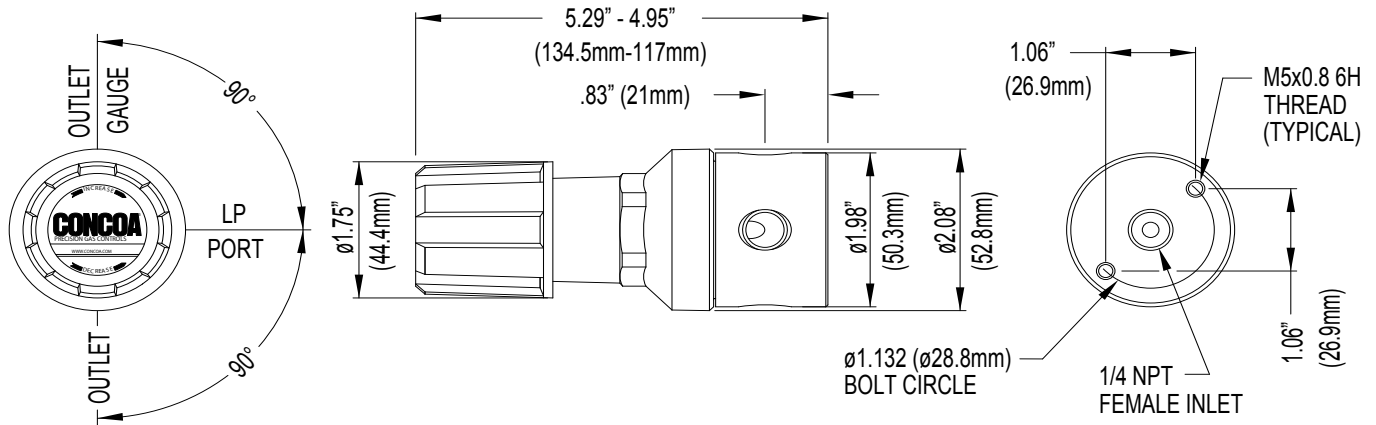
## Specifications

- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauges**  
2" (53mm) diameter  
Chrome-plated brass case  
Stainless steel internals
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (327 1031-M1L)**  
2.9 lbs. (1.29 kg)

# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

327	A	B	C	D	-CON	Options	
Series 327	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	<b>0:</b> None	<b>0:</b> 1/4" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT	None
	<b>2:</b> 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR		<b>1:</b> 1/4" MPT	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	
	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		<b>2:</b> 1/4" tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	
	<b>4:</b> 0-150 PSIG (0-10 BAR)	0-200 PSIG/ 0-14 BAR		<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube	
	<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube	
	<b>6:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	
				<b>6:</b> 1/8" tube fitting			
				<b>7:</b> 3/8" tube fitting			
				<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>M:</b> 6mm tube fitting			
				<b>S:</b> Diaphragm valve 6mm tube fitting			

## Related Options

Order No.	Description
835 0204	Rear Panel mount kit
476 0002	Helium Leak certification



# 300 Series Regulators

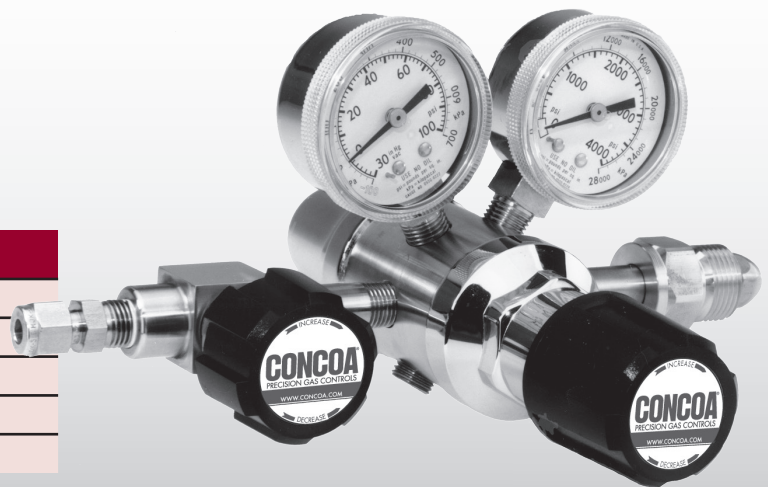
# 332 SERIES

The 332 Series regulators are intended for primary pressure control of ultra high purity or corrosive gases for applications requiring constant pressure control and delivery regardless of supply pressure variations.

- Dual Stage
- 316L Stainless Steel Barstock Body
- Four Port Configuration
- 316L Stainless Steel Diaphragm

## Typical Applications

- EPA Protocol gases
- Gas and liquid chromatography
- High purity carrier and gases
- Zero, span, and calibration gases
- High purity chamber pressurization



332 2331-580 shown

## Features

- CAPSULE® Seat**  
Increased serviceability and life
- 316L Stainless Steel Diaphragm**  
No inboard diffusion
- Low Wetted Surface Area**  
Minimal purge requirements
- Field-Adjustable Pressure Limit**  
Safeguard downstream equipment
- Convuluted Diaphragm**  
Smooth pressure changes
- Compact Design**  
Easily transported and integrated into systems
- 316L Stainless Steel Barstock Body**  
Increased corrosion resistance
- 10 Micron Filtration in Both Stages**  
Fail-safe seat performance
- Pressure Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)**  
Broad range of applications

## Materials

- Body**  
316L stainless steel barstock
- Bonnet**  
Chrome-plated die-cast zinc
- Seat**  
PTFE
- Filter**  
Patented 10 micron 316 mesh
- Diaphragm**  
316L stainless steel
- 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)
- Gauges**  
2" (53mm) diameter  
Chrome-plated case  
Stainless steel internals
- Ports**  
1/4" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
0.1  
*See page 188 for flow curves*
- Weight (332 2331-580)**  
4.2 lbs. (1.91 kg)

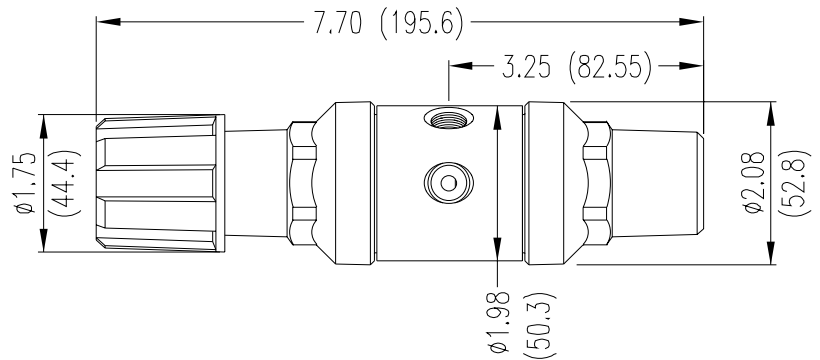
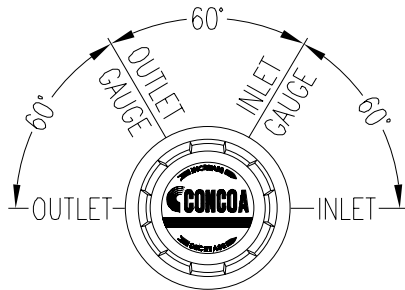
Conforms to CGA E-4 Standard for Pressure Regulators  
CRN OH 5216.5R1



# 300 Series Regulators



## Installation Dimensions



300 SERIES

## Ordering Information

332	A	B	C	D	-CON	Options	
Series 332	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" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>2:</b> 0-50 PSIG (0-2 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	<b>3:</b> 0-4000 PSIG/ 0-278 BAR	<b>1:</b> 1/4" MPT	<b>1:</b> Standard 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> Standard assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<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>TF6:</b> 3/8" tube	<b>M:</b> Protocol station
	<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" MPT		<b>M06:</b> 6mm tube	<b>Q:</b> Protocol purge station*
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>8:</b> 0-6000 PSIG/ 0-405 BAR*	<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	<b>T:</b> Tee purge*
			<b>G:</b> 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8" tube fitting			<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>
			<i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®</i>	<b>7:</b> 3/8" tube fitting			
				<b>8:</b> Diaphragm valve 1/8" tube fitting			
				<b>9:</b> Diaphragm valve 1/4" FPT			
			<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</i>	<b>M:</b> 6mm tube fitting			
				<b>S:</b> Diaphragm valve 6mm tube fitting			