



200 Series Regulators

202 SERIES

The 202 Series regulators are intended for primary pressure control of non-corrosive, high purity or liquefied gases (up to grade 4.5) in applications where minor fluctuations in outlet pressure due to diminishing inlet supply pressure can be tolerated.

- Single Stage
- Chrome-Plated Forged Brass Body
- 316L Stainless Steel Diaphragm
- Five Port Configuration



202 1331-580 shown

Typical Applications

- Gas supply purging
- Gas system charging
- Fuel gas supply control
- Atomic absorption acetylene

Features

- CAPSULE® Seat**
Increased serviceability and life
- 316L Stainless Steel Diaphragm**
No inboard diffusion
- Forged Body**
Durable, long-lasting construction
- Field-Adjustable Pressure Limit**
Safeguard downstream equipment
- Large Convoluted Diaphragm**
Smooth pressure changes
- Standard Relief Valve**
Diaphragm and gauge protection
- Chrome-Plated Forged Brass Body**
Economical high purity design
- High Flow Capacity**
Supply multiple user locations
- Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-34 BAR)**
Broad range of applications

Materials

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

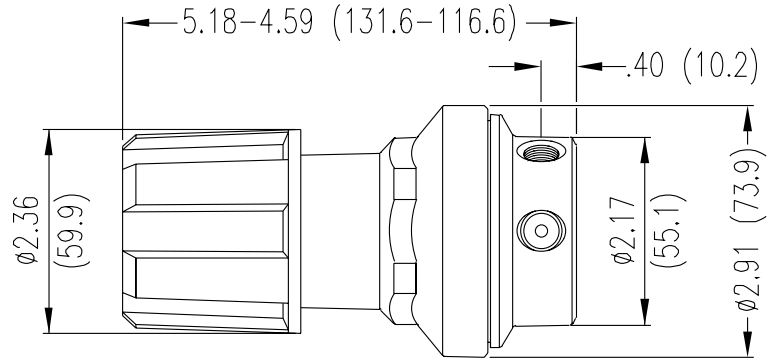
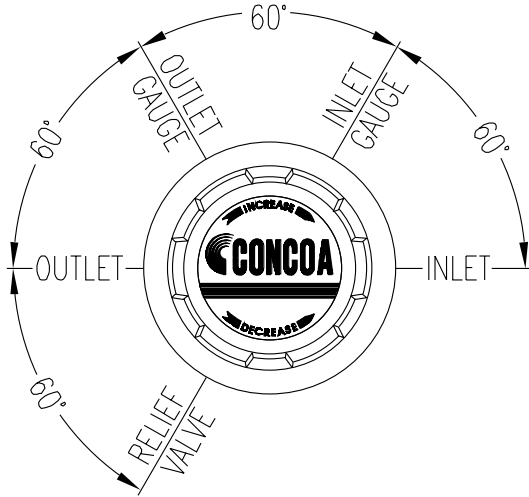
Specifications

- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauges**
2 1/2" (68mm) diameter chrome-plated brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁸ scc/sec
- Cv**
0.2
See page 193 for flow curves
- Weight (202 1331-580)**
3.8 lbs. (1.74 kg)

200 Series Regulators



Installation Dimensions



Ordering Information

202	A	B	C	D	-CON	Options	
Series 202	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
	2: 0-40 PSIG (0-3 BAR)	0-60 PSIG/ 0-4 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Standard assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
	3: 0-120 PSIG (0-8 BAR)	0-200 PSIG/ 0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fitting	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube	H: Protocol switchover station with alarm (110/220 VAC)
	4: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-400 PSIG/ 0-27 BAR	3: Diaphragm valve 1/4" tube fitting		TF6: 3/8" tube	M: Protocol station
	5: 0-15 (0-1 BAR)*	0-30 PSIG/ 0-2 BAR	9: 0-600 PSIG/ 0-42 BAR	4: Diaphragm valve 1/4" MPT		M06: 6mm tube	Q: Protocol purge station
	<i>*With redline for acetylene use</i>			5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	T: Tee purge
			6: 1/8" tube fitting				
			7: 3/8" tube fitting				
			8: Diaphragm valve 1/8" tube fitting				
			9: Diaphragm valve 1/4" FPT				
			A: 3/8" BSP RH fitting				
			B: Diaphragm valve 3/8" tube fitting				
			C: 3/8" BSP LH fitting				
			D: 6mm brass hose barb (Not available if A=4 or 5)				
			G: 1/8" stainless steel tube fitting				
			H: 1/4" stainless steel tube fitting				
			M: 6mm tube fitting				
			S: Diaphragm valve 6mm tube fitting				

200 SERIES



200 Series Regulators

205 SERIES

The 205 Series regulators are intended for secondary pressure control of non-corrosive, high purity or liquefied gases (up to grade 4.5) or as point of use pressure control in high purity gas distribution systems.

- Single Stage
- Chrome-Plated Forged Brass Body
- 316L Stainless Steel Diaphragm
- Four Port Configuration



205 3021-000 shown

Typical Applications

- Point-of-use laboratory systems
- Gas supply purging
- Liquefied hydrocarbon gas control
- Control of cryogenic gases
- Bulk gas distribution systems

Features

- CAPSULE® Seat**
Increased serviceability and life
- 316L Stainless Steel Diaphragm**
No inboard diffusion
- Forged Body**
Durable, long-lasting construction
- Field-Adjustable Pressure Limit**
Safeguard downstream equipment
- Large Convoluted Diaphragm**
Smooth pressure changes
- Standard Relief Valve**
Diaphragm and gauge protection
- Chrome-Plated Forged Brass Body**
Economical high purity design
- High Flow Capacity**
Supply multiple user locations
- 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 forged brass
- Bonnet**
Chrome-plated die-cast zinc
- Seat**
PTFE
- Filter**
10 micron sintered bronze
- Diaphragm**
316L stainless steel
- Internal Seals**
PTFE

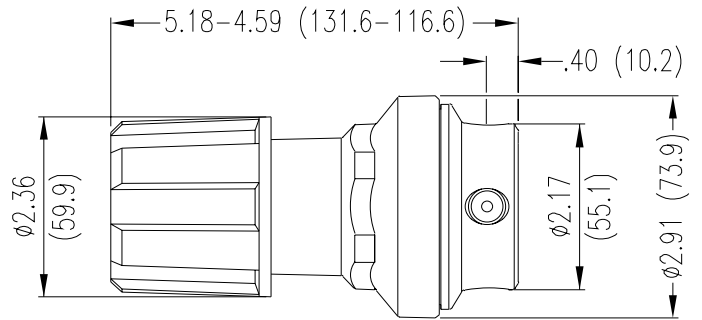
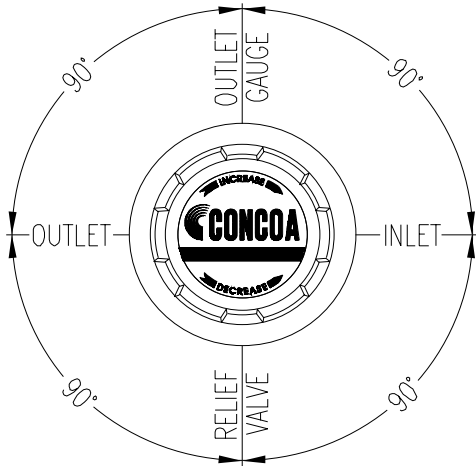
Specifications

- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauge**
2 1/2" (68mm) diameter chrome-plated brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁸ scc/sec
- Cv**
0.28
See page 192 for flow curves
- Weight (205 3021-000)**
3.2 lbs. (1.44 kg)

200 Series Regulators



Installation Dimensions



Ordering Information

205	A	B	C	D	-CON	Options	
Series 205	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	M: Protocol station
	2: 0-40 PSIG (0-3 BAR)	0-60 PSIG/ 0-4 BAR		1: 1/4" MPT	1: Standard assembly (PSIG/kPa gauges)	TF2: 1/8" tube	Q: Protocol purge station
	3: 0-120 PSIG (0-8 BAR)	0-200 PSIG/ 0-14 BAR		2: 1/4" tube fitting	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube	
	4: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		3: Diaphragm valve 1/4" tube fitting	6: Mirror image assembly (PSIG/kPa gauges)	TF6: 3/8" tube	
	5: 0-15 PSIG (0-1 BAR)*	0-30 PSIG/ 0-2 BAR		4: Diaphragm valve 1/4" MPT	7: Mirror image assembly (BAR/PSIG gauges)	M06: 6mm tube	
	<i>*With redline for acetylene use</i>			5: Needle valve 1/4" MPT			
				6: 1/8" tube fitting			
				7: 3/8" tube fitting			
				8: Diaphragm valve 1/8" tube fitting			
				9: Diaphragm valve 1/4" FPT			
				A: 3/8" BSP RH fitting			
				B: Diaphragm valve 3/8" tube fitting			
				C: 3/8" BSP LH fitting			
				D: 6mm brass hose barb (Not available if A=4 or 5)			
				G: 1/8" stainless steel tube fitting			
				H: 1/4" stainless steel tube fitting			
				M: 6mm tube fitting			
				S: Diaphragm valve 6mm tube fitting			

200 SERIES



200 Series Regulators

206 SERIES

The 206 Series regulators are intended for primary pressure control of gases supplied from cryogenic liquid cylinders.

- Single Stage
- Chrome-Plated Forged Brass Body
- 316L Stainless Steel Diaphragm
- Liquid Cylinder Regulator
- Four Port Configuration



206 3021-580 shown

Typical Applications

- Argon
- Nitrogen
- Oxygen
- Carbon dioxide
- Certain freons

Features

- CAPSULE® Seat**
Increased serviceability and life
- 316L Stainless Steel Diaphragm**
No inboard diffusion
- Forged Body**
Durable, long-lasting construction
- Field-Adjustable Pressure Limit**
Safeguard downstream equipment
- Large Convoluted Diaphragm**
Smooth pressure changes
- Standard Relief Valve**
Diaphragm and gauge protection
- Designed for Low Inlet Pressures**
Optimized flow with liquid cylinders
- Large CAPSULE® Seat**
Permits flow rates unobtainable with conventional regulators
- 3000 PSIG (210 BAR) Inlet Pressure Rating**
Safe use on high pressure cylinders

Materials

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

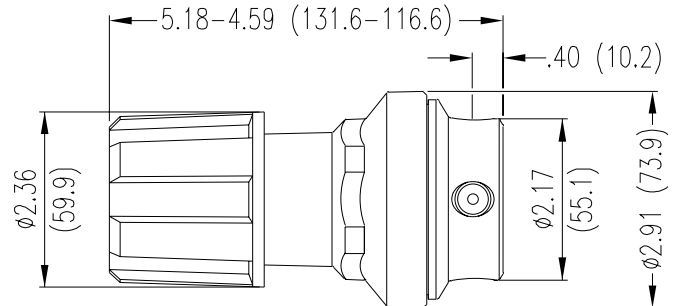
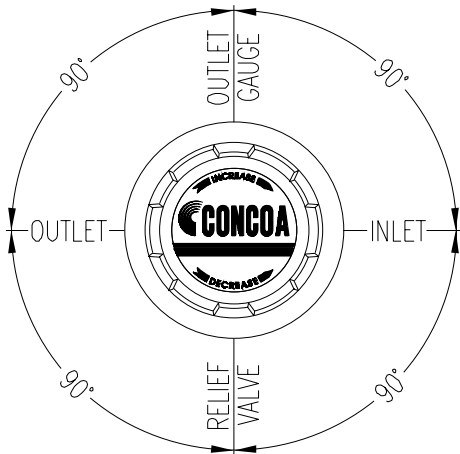
Specifications

- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauge**
2 1/2" (68mm) diameter chrome-plated brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁸ scc/sec
- Cv**
0.28
See page 192 for flow curves
- Weight (206 3021-580)**
3.5 lbs. (1.59 kg)

200 Series Regulators



Installation Dimensions



Ordering Information

206	A	B	C	D	-CON	Options	
Series 206	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
	2: 0-40 PSIG (0-3 BAR)	0-60 PSIG/ 0-4 BAR		1: 1/4" MPT	1: Standard assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
	3: 0-120 PSIG (0-8 BAR)	0-200 PSIG/ 0-14 BAR		2: 1/4" tube fitting	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube	H: Protocol switchover station with alarm (110/220 VAC)
	4: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		3: Diaphragm valve 1/4" tube fitting		TF6: 3/8" tube	M: Protocol station
				4: Diaphragm valve 1/4" MPT		M06: 6mm tube	Q: Protocol purge station
				5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	
				6: 1/8" tube fitting			
				7: 3/8" tube fitting			
				8: Diaphragm valve 1/8" tube fitting			
				9: Diaphragm valve 1/4" FPT			
				A: 3/8" BSP RH fitting			
				B: Diaphragm valve 3/8" tube fitting			
				C: 3/8" BSP LH fitting			
				D: 6mm brass hose barb (not available if A=4 or 5)			
				G: 1/8" stainless steel tube fitting			
				H: 1/4" stainless steel tube fitting			
				M: 6mm tube fitting			
				S: Diaphragm valve 6mm tube fitting			

200 SERIES

212 SERIES

The 212 Series regulators are intended for primary pressure control of non-corrosive, high purity or liquefied gases (up to grade 4.5) for applications requiring constant pressure control and delivery regardless of supply pressure variations.

- Dual Stage
- Chrome-Plated Forged Brass Body
- 316L Stainless Steel Diaphragm
- Five Port Configuration

Typical Applications

Argon
Nitrogen
Oxygen
Carbon dioxide
Certain freons



212 2331-580 shown

Features

- CAPSULE® Seat**
Increased serviceability and life
- 316L Stainless Steel Diaphragm**
No inboard diffusion
- Forged Body**
Durable, long-lasting construction
- Field-Adjustable Pressure Limit**
Safeguard downstream equipment
- Large Convoluted Diaphragm**
Smooth pressure changes
- Standard Relief Valve**
Diaphragm and gauge protection
- Chrome-Plated Forged Brass Body**
Economical high purity design
- High Flow Capacity**
Supply multiple user locations
- Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)**
Broad range of applications

Materials

- Body**
Chrome-plated forged brass
- Bonnet**
Chrome-plated die-cast zinc
- Seat**
PTFE
- PTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR)**
- Filter**
10 micron sintered bronze
- Diaphragm**
316L stainless steel
- Internal Seals**
PTFE

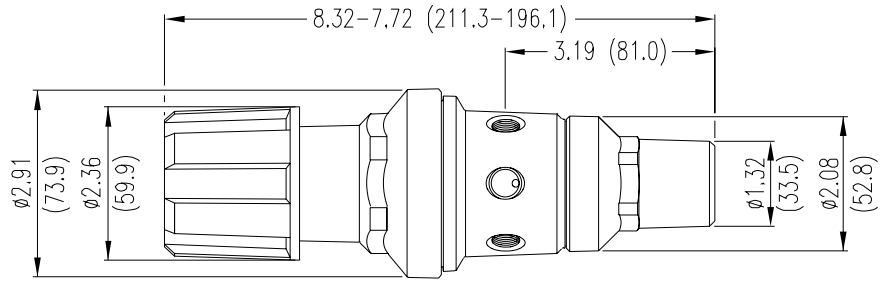
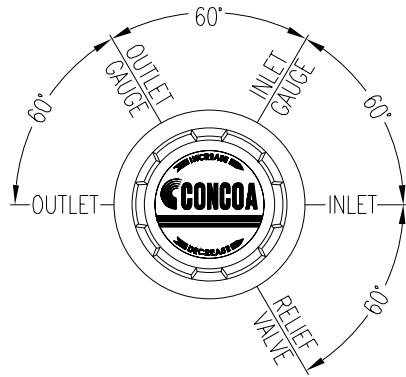
Specifications

- 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 1/2" (68mm) diameter chrome-plated brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁸ scc/sec
- Cv**
0.28
See page 192 for flow curves
- Weight (212 2331-580)**
5.1 lbs. (2.3 kg)

200 Series Regulators



Installation Dimensions



Ordering Information

212	A	B	C	D	-CON	Options	
Series 212	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
	2: 0-40 PSIG (0-3 BAR)	0-60 PSIG/ 0-4 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Standard assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
	3: 0-120 PSIG (0-8 BAR)	0-200 PSIG/ 0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fitting	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube	H: Protocol switchover station with alarm (110/220 VAC)
	4: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-400 PSIG/ 0-27 BAR	3: Diaphragm valve 1/4" tube fitting		TF6: 3/8" tube	M: Protocol station
	5: 0-15 PSIG (0-1 BAR)*	0-30 PSIG/ 0-2 BAR with redline for acetylene use	8: 0-6000 PSIG/ 0-405 BAR*	4: Diaphragm valve 1/4" MPT		M06: 6mm tube	Q: Protocol purge station
	* Not available with 4500 PSIG (310 BAR) Max Inlet		9: 0-600 PSIG/ 0-42 BAR	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	T: Tee purge
G: 0-4000 PSIG/ 0-275 BAR†			6: 1/8" tube fitting				
* Max inlet 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®			7: 3/8" tube fitting				
			8: Diaphragm valve 1/8" tube fitting				
†Maximum inlet pressure 3500 (240 BAR) with PCTFE seat CAPSULE®			9: Diaphragm valve 1/4" FPT				
			A: 3/8" BSP RH fitting				
B: Diaphragm valve 3/8" tube fitting							
C: 3/8" BSP LG fitting							
D: 6mm brass hose barb (not available if A=4 or 5)							
G: 1/8" stainless steel tube fitting							
H: 1/4" stainless steel tube fitting							
M: 6mm tube fitting							
S: Diaphragm valve 6mm tube fitting							

200 SERIES



200 Series Regulators

213 SERIES

The 213 Series regulators deliver non-corrosive, high purity or liquefied gases (up to grade 4.5) for applications requiring constant low pressure control and delivery regardless of supply pressure variations. With delivery pressures as low as 0.1 PSIG (7 mBAR) that can be adjusted in 0.05 to 0.1 PSIG (4 to 7 mBAR) increments in two delivery pressure ranges, the 213 satisfies any high purity application requiring atmospheric pressures below 5 PSIG (350 mBAR).

- Dual Stage
- Chrome-Plated Forged Brass Body
- 316L Stainless Steel Diaphragm
- Five Port Configuration

Typical Applications

Low pressure inert blanketing of chemicals and fuel tanks

Gas supply purging

Gas system charging

Fuel gas supply control

Calibration gas control



213 1331-580 shown

Features

CAPSULE® Seat

Increased serviceability and life

316L Stainless Steel Diaphragm

No inboard diffusion

Forged Body

Durable, long-lasting construction

Large Convoluted Diaphragm

Stable pressure control

Standard Relief Valve

Diaphragm and gauge protection

Chrome-Plated Forged Brass Body

High purity design

Substantial Flow Capacity at Low Outlet Pressure

Supply multiple user locations

Pressure Ranges 0.05-2.0 to 0.1-5.0 PSIG (4-140 mBAR to 7-350 mBAR)

Excellent pressure control in 0.05 to 0.1 PSIG (4 to 7 mBAR) increments

3000 and 4500 PSIG (210 and 405 BAR) Inlet Pressure Rating

Safe use with high pressure cylinders

Materials

Body

Chrome-plated forged brass

Bonnet

Chrome-plated die-cast zinc

Seat

PTFE

Filter

10 micron sintered bronze

Diaphragm

316L stainless steel

Internal Seals

PTFE

PCTFE with 4500 PSIG (310 BAR) inlet

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

Inlet: 2 1/2" (68mm) diameter chrome-plated brass

Outlet: 2 1/2" (68mm) diameter steel case with brass connection

Ports

1/4" FPT

Helium Leak Integrity

1 x 10⁻⁸ scc/sec

Cv

0.1

See page 194 for flow curves

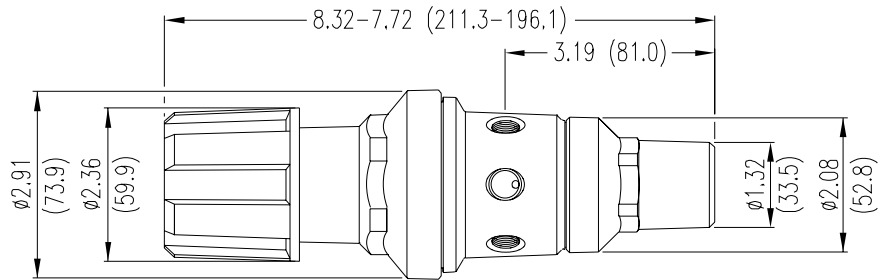
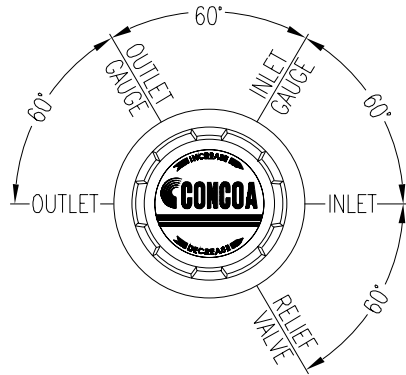
Weight (213 1331-580)

5.1 lbs. (2.3 kg)

200 Series Regulators



Installation Dimensions



Ordering Information

213	A	B	C	D	-CON	Options	
Series 213	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	1: 0-2 PSIG (0-0.1 BAR)	0-5 PSIG/ 0-0.3 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
	2: 0-5 PSIG (0-0.3 BAR)	0-10 PSIG/ 0-0.6 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Standard assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
			5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fitting	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube	H: Protocol switchover station with alarm (110/220 VAC)
			6: 0-400 PSIG/ 0-27 BAR	3: Diaphragm valve 1/4" tube fitting		TF6: 3/8" tube	M: Protocol station
			9: 0-600 PSIG/ 0-42 BAR	5: Needle valve 1/4" MPT		CGA 477 DIN 477 BS 341 and others available	Q: Protocol purge station
		<i>* Max inlet 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®</i>	6: 1/8" tube fitting	6: 1/8" tube fitting			T: Tee purge
			7: 3/8" tube fitting	7: 3/8" tube fitting			
			8: Diaphragm valve 1/8" tube fitting	8: Diaphragm valve 1/8" tube fitting			
			9: Diaphragm valve 1/4" FPT	9: Diaphragm valve 1/4" FPT			
			A: 3/8" BSP RH fitting	A: 3/8" BSP RH fitting			
			B: Diaphragm valve 3/8" tube fitting	B: Diaphragm valve 3/8" tube fitting			
			C: 3/8" BSP LG fitting	C: 3/8" BSP LG fitting			
			D: 6mm brass hose barb (not available if A=4 or 5)	D: 6mm brass hose barb (not available if A=4 or 5)			
			G: 1/8" stainless steel tube fitting	G: 1/8" stainless steel tube fitting			
			H: 1/4" stainless steel tube fitting	H: 1/4" stainless steel tube fitting			
			M: 6mm tube fitting	M: 6mm tube fitting			
			S: Diaphragm valve 6mm tube fitting	S: Diaphragm valve 6mm tube fitting			

200 SERIES