



# 400 Series Regulators

# 485 SERIES

The 485 Series regulator applications are wide and varied including high flow purging, non-corrosive process gas control, manifold and line regulation.

- Single Stage
- Ultra-High Flow
- Brass Barstock Body
- Six 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
High purity chamber pressurization
Liquefied hydrocarbon gas control
Control of cryogenic gases



485 3301-000 shown

## Features

**PTFE Diaphragm Seal**  
No possibility of gas contamination

**ISOFLOW Technology**  
Internal equalization provides constant delivery pressure at high flows

**Brass Barstock Body**  
Smooth surface finish

**Rear Panel-Mountable**  
Versatile system configuration

**Pressure Ranges 0-15 To 0-250 PSIG (0-1 to 0-17 BAR)**  
Broad range of applications

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

## Materials

**Body**  
Brass barstock

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

**Seat**  
PCTFE

**Filter**  
40 micron 316L 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 brass

**Ports**  
1/2" FPT (inlet/outlet)  
1/4" FPT (gauge/relief valve)

**Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec

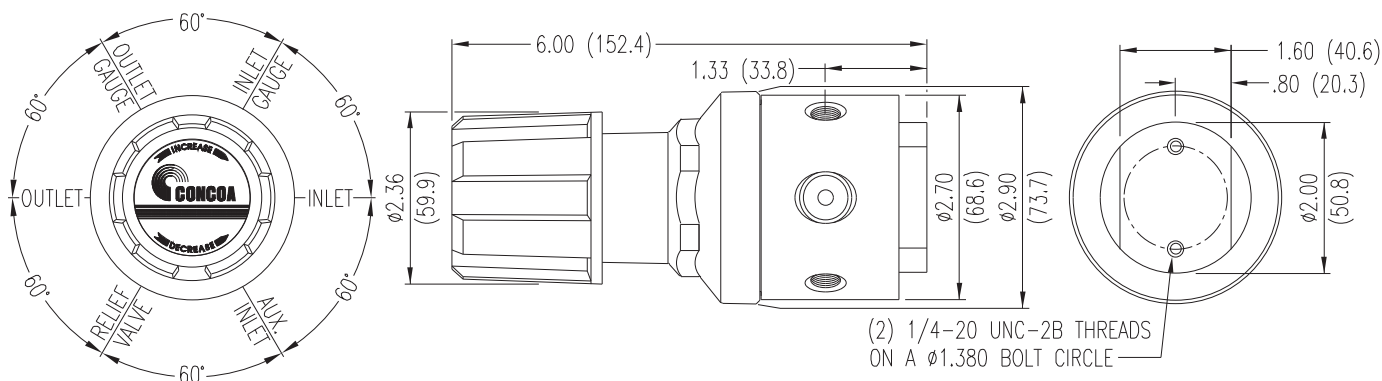
**Cv**  
1.0  
*See page 204 for flow curves*

**Weight (485 3301-000)**  
5.85 lbs. (2.65 kg)

# 400 Series Regulators



## Installation Dimensions



REGULATORS

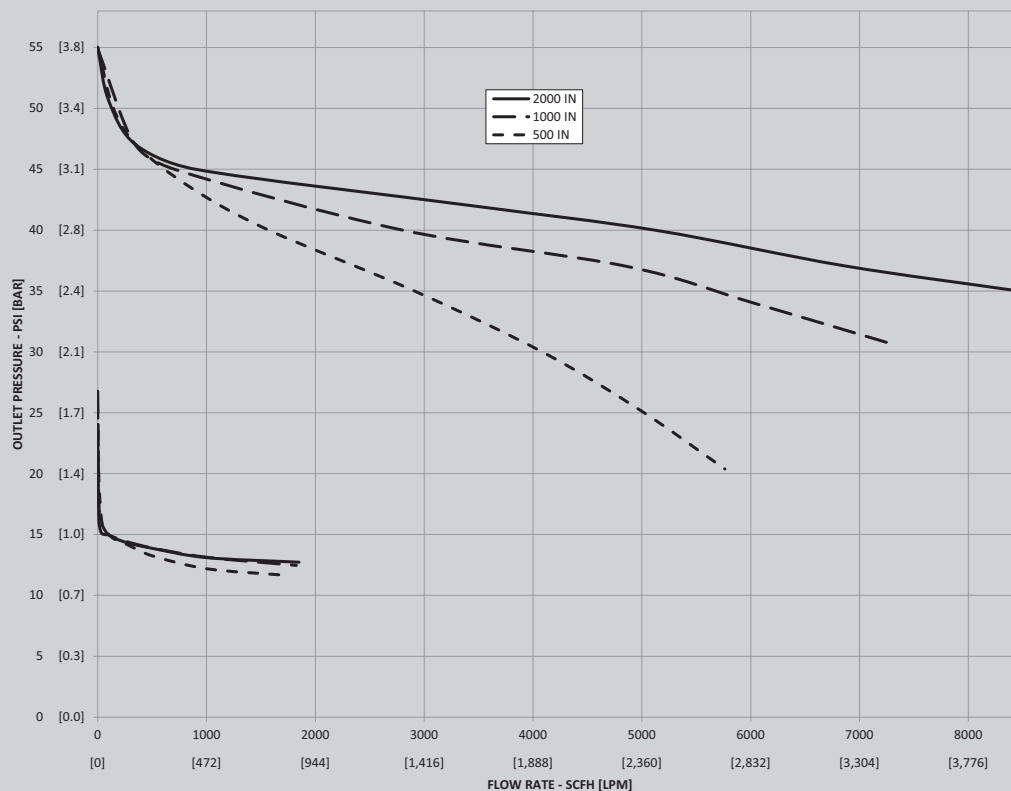
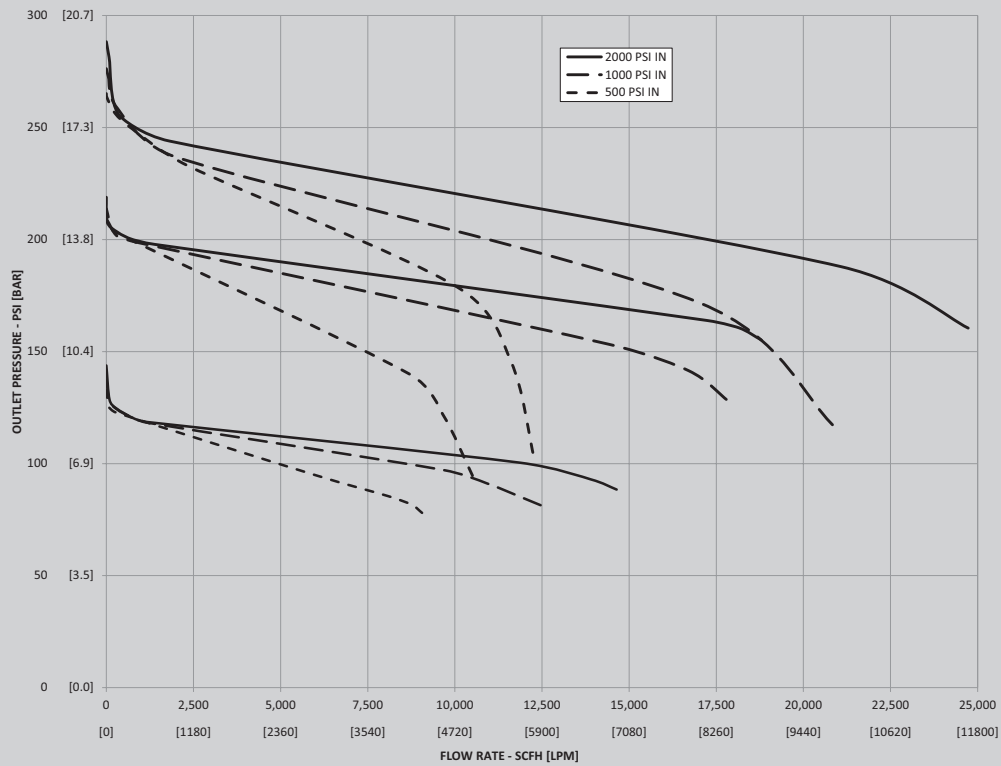
## Ordering Information

485	A		B	C	D	-CON	Options
Series 485	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections	Installed Options
	1: 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/-1-0-2 BAR	0: None	0: 1/2" FPT port	0: Bare body	000: 1/2" FPT	B: Protocol alarm station (110/220 VAC)
	2: 0-40 PSIG (0-3 BAR)	30"-0-60 PSIG/-1-0-4 BAR	3: 0-4000 PSIG/0-275 BAR	1: 1/2" tube fitting	1: Standard assembly (PSIG/kPa gauges)	TF8: 1/2" tube	C: Protocol switchover station
	3: 0-120 PSIG (0-8 BAR)	30"-0-200 PSIG/-1-0-14 BAR	5: 0-1000 PSIG/0-70 BAR	5: Needle valve 1/4" MPT	2: Standard assembly (BAR/PSIG gauges)	M12: 12mm 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/0-28 BAR	P: 12mm tube fitting	6: Mirror image (PSIG/kPa gauges)	CGA DIN 477 BS 341 and others available	M: Protocol station
	5: 0-250 PSIG (0-17 BAR)	0-400 PSIG/0-27 BAR	7: 0-200 PSIG/0-17 BAR		7: Mirror image (BAR/PSIG gauges)		
		9: 0-600 PSIG/0-42 BAR					



# Regulator Flow Curves

## Flow Curves for 483, 484, 485, 486 Series





# 400 Series Regulators

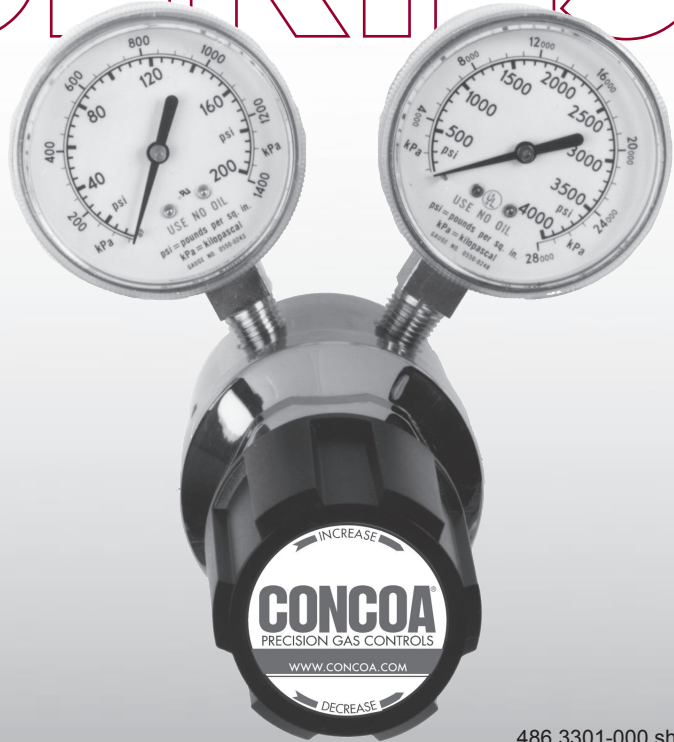
# 486 SERIES

The 486 Series regulator applications are wide and varied including high flow purging, semiconductor CDA and bulk gas supply, modified atmosphere packaging, pharmaceutical processing, manifold and line regulation.

- Single Stage
- Ultra-High Flow
- 316L Stainless Steel Barstock Body
- Six 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
High purity chamber pressurization
Liquefied hydrocarbon gas control
Control of cryogenic gases



486 3301-000 shown

## Features

**PTFE Diaphragm Seal**  
No possibility of gas contamination

**ISOFLOW Technology**  
Internal equalization provides constant delivery pressure at high flows

**316L Stainless Steel Barstock Body**  
Smooth surface finish

**Rear Panel-Mountable**  
Versatile system configuration

**Pressure Ranges 0-15 To 0-250 PSIG (0-1 to 0-17 BAR)**  
Broad range of applications

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

## Materials

**Body**  
316L stainless steel barstock

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

**Seat**  
PCTFE

**Filter**  
40 micron 316L 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 stainless steel

**Ports**  
1/2" FPT (inlet/outlet)  
1/4" FPT (gauges/relief valve)

**Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec

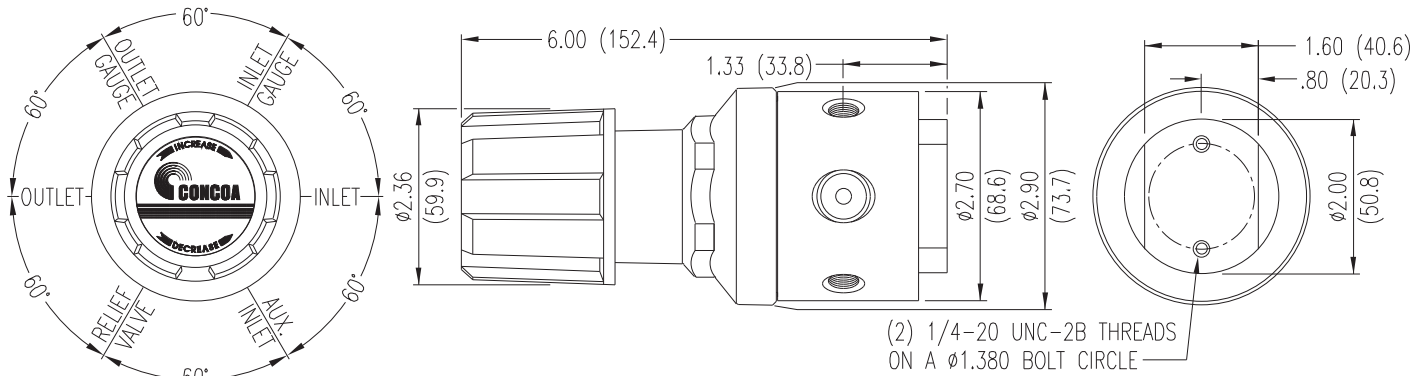
**Cv**  
1.0  
*See page 204 for flow curves*

**Weight (486 3301-000)**  
5.06 lbs. (2.30 kg)

# 400 Series Regulators



## Installation Dimensions



REGULATORS

## Ordering Information

486	A		B	C	D	-CON	Options
Series 486	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> 1/2" FPT Port	<b>0:</b> Bare body	<b>000:</b> 1/2" FPT	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>2:</b> 0-40 PSIG (0-3 BAR)	30"-0-60 PSIG/ -1-0-4 BAR)	<b>3:</b> 0-4000 PSIG/ 0-275 BAR	<b>1:</b> 1/2" tube fitting	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF8:</b> 1/2" tube	<b>C:</b> Protocol switchover station
	<b>3:</b> 0-120 PSIG (0-8 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>5:</b> 0-1000 PSIG/ 0-70 BAR	<b>5:</b> Needle valve 1/4" MPT	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>M12:</b> 12mm tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<b>4:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR	<b>6:</b> 0-400 PSIG/ 0-28 BAR	<b>P:</b> 12mm tube fitting	<b>6:</b> Mirror image (PSIG/kPa gauges)	CGA DIN 477 BS 341 and others available	<b>M:</b> Protocol station
	<b>5:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	<b>7:</b> 0-200 PSIG/ 0-14 BAR		<b>7:</b> Mirror image (BAR/PSIG gauges)		
		<b>9:</b> 0-600 PSIG/ 0-42 BAR					



# Regulator Flow Curves

## Flow Curves for 483, 484, 485, 486 Series

