

# 305 SERIES REGULATORS



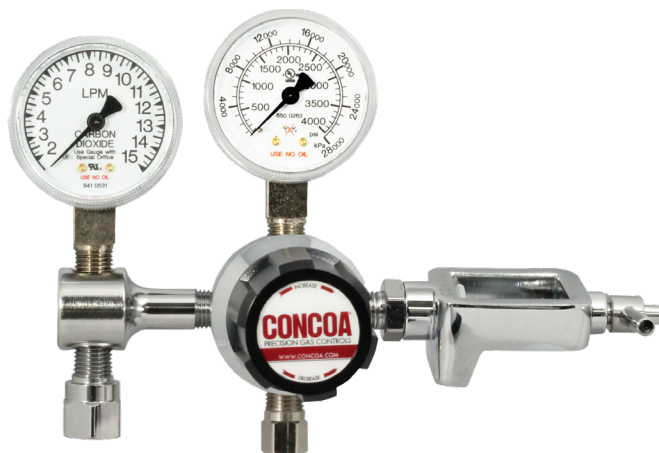
The 305 Series single stage regulators are specifically designed for use in the medical laboratory for blood gases, laser gases, and other clinical gas applications where minor fluctuations in outlet pressure due to diminishing inlet supply pressure can be tolerated.

## Custom Calibration

In addition to a standard 2-15 LPM flowgauge for Carbon Dioxide 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.

## Typical Applications

- Blood Gases
- Laser Gases
- Medical Research
- University Laboratories



3058381-01-M2D shown

## Features

**CAPSULE® Seat** increases serviceability and life

**Convuluted Diaphragm** provides smooth pressure changes

**Low Wetted Surface Area** minimizes purge requirements

**316L Stainless Steel Diaphragm** prevents inboard diffusion

**Pressure Delivery Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)** facilitates a broad range of applications

**Optional 2-15 LPM Flowgauge Calibrated for Carbon Dioxide or User-Specified Gas** ensures accurate measurement

## Materials and Specifications

**Maximum Inlet Pressure (bare body):** 3000 PSIG (210 BAR)

**Body:** Chrome-plated brass barstock

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

**Gauges:** 2 in (50 mm) diameter plated case

**Seat:** PTFE

**Filter:** 10-micron sintered bronze

**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 x 10<sup>-8</sup> scc/sec

**Internal Seals:** PTFE

**Ports (bare body):** 1/4 in FNPT

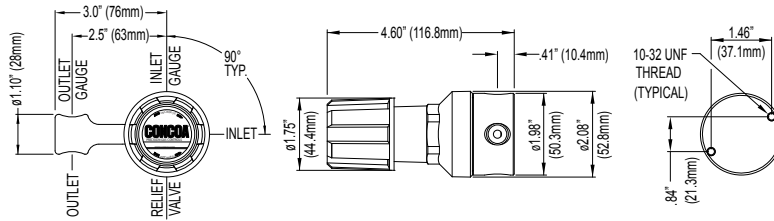
**Weight (305 8381-M2D):** 2.8 lbs. (1.3 kg)

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

# 305 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
	1: 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-2 BAR	0: None	0: 1/4 in FPT port	0: Bare body	See inlet selection chart for limited CGA connections.  DIN 477, BS 341 and others available.	<b>B:</b> Protocol alarm station with pressure switch gauges
	2: 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4 in MPT	1: Standard assembly (PSIG/kPa gauges)		<b>C:</b> Protocol switchover station
	3: 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		2: 1/4 in tube fitting	2: Standard assembly (BAR/PSIG gauges)		<b>E:</b> Protocol alarm station with intrinsically safe transducer for hazardous environments
	5: 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		3: Diaphragm valve 1/4 in tube fitting			<b>H:</b> Protocol switchover alarm station with pressure switch gauges
	6: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		4: Diaphragm valve 1/4 in MPT			<b>J:</b> Protocol alarm station with standard transducer for non-hazardous environments
	7: 0-500 PSIG (0-34 BAR)	0-1000 PSIG/ 0-70 BAR		5: Needle valve 1/4 in MPT			<b>K:</b> Protocol switchover alarm station with standard transducer for non-hazardous environments
	8: 2-15 LPM Carbon Dioxide	2-15 LPM flowgauge		6: 1/8 in tube fitting			<b>M:</b> Protocol station
	9: Custom calibration	Custom flowgauge		7: 3/8 in tube fitting			<b>Q:</b> Protocol purge station
				8: Medical DISS outlet			<b>X:</b> Protocol switchover alarm station with intrinsically safe transducer for hazardous environments
				9: 1/4 in hose barb			
				A: 3/8 in 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	



# Regulator Flow Curves

## Flow Curves for 302, 304, 305, 307, 322, 324, 327, 401, 402, 408, 420, 422, 426, 427, 428, 429 Series

