



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.

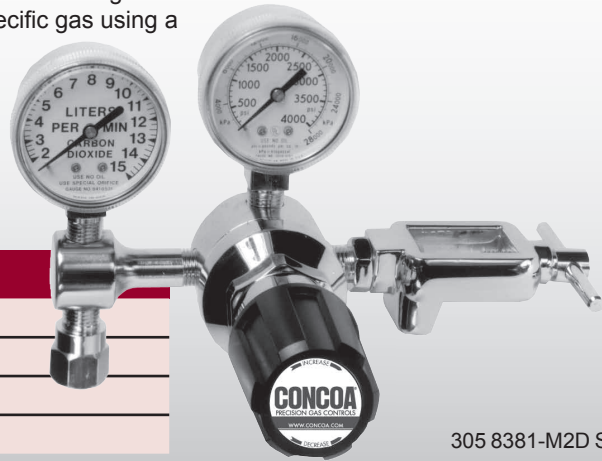
Custom Calibration

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

- 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 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

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

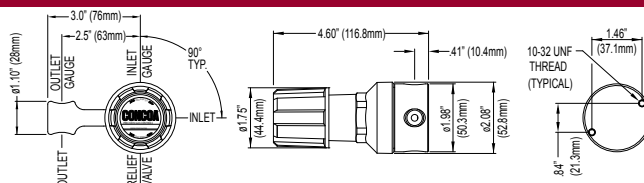
- Maximum Inlet Pressure**
3000 PSIG (210 BAR)
- Temperature Range**
-40°F to 140°F (-40°C to 60°C)
- Gauges**
2" (53mm) diameter chrome-plated brass
- Ports**
1/4" FPT
- Helium Leak Integrity**
1 x 10⁻⁸ scc/sec
- Cv**
0.1
See page 202 for flow curves
- Weight (305 8381-M2D)**
2.8 lbs. (1.29 kg)

CRN 0H5216.5R1

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 |
| | 1: 0-15 PSIG (0-1 BAR) | 0-30 PSIG/ 0-2 BAR | 0: None | 0: 1/4" FPT port | 0: Bare body | See inlet selection chart for limited CGA connections. DIN 477, BS 341 and others available. | 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" MPT | 1: Standard assembly (PSIG/kPa gauges) | | C: Protocol switchover station |
| | 3: 0-50 PSIG (0-3.5 BAR) | 0-100 PSIG/ 0-7 BAR | | 2: 1/4" tube fitting | 2: Standard assembly (BAR/PSIG gauges) | | E: 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" tube fitting | H: 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" MPT | J: 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" MPT | K: Protocol switchover alarm station with standard transducer for non hazardous environments | | | |
| | 8: 2-15 LPM Carbon Dioxide | 2-15 LPM flowgauge | 6: 1/8" tube fitting | M: Protocol station | | | |
| | 9: Custom calibration | Custom flowgauge | 7: 3/8" tube fitting | Q: Protocol purge station | | | |
| | | | 8: Medical DISS outlet | X: Protocol switchover alarm station with intrinsically safe transducer for hazardous environments | | | |
| | | | 9: 1/4" hose barb | | | | |
| | | | A: 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 | |

REGULATORS



Regulator Flow Curves

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

