



# 气体调压阀及分配 系统手册

实验室科研及特种气体应用专版（2016年版）

10年的坚持与追求卓越，我们为您提供全球最先进、最具有特性的流体控制元件产品。

更多产品资讯请及时与我们联系，我们乐意为您服务！

德騰國際集團有限公司（香港）  
达夫流体控制设备（重庆）有限公司  
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高瞻远瞩  
勇于超越

# About Us

## A 企业简介 Introduction

重庆达夫流体设备有限公司成立于2010年，公司最初致力于世界主流仪表和阀门的推广应用，随后公司不断地扩大规模和产品范围，逐步牵手全球同行业处于领先地位的知名公司，使得公司逐渐成为一家专注于流体控制领域的高科技企业，主要致力于为汽摩、电子、航空航天、仪器仪表、石油、化工、电力、冶金等行业领域提供技术支持、设备供应、系统成套、工程项目安装调试等服务。

凭借多年从事进口工业品业务、客户、技术等资源积累，从2010年开始我们另辟新的业务领域，我们全心投入精力做工业品品牌推广、销售、管理，我们提供更具有竞争力的性价比服务，最前沿的高新技术产品。

2016年面临市场新的机遇与挑战；达夫流体再次做出新的调整，重塑“达夫流体”品牌，由原来的代理销售，转型自主技术创新，自主开发产品。当前国内各种制造、经验成本高涨的形势下，轻资产经营成为主流；OEM、ODM是当前的共识，达夫流体以湖南德腾研发中心为依托，进行自主研发、设计高品质的工业品，与美国、德国一些外历史悠久、经验丰富的加工工厂合作，用中国的设计语言、国外的制作工艺打造达夫工业品品牌新形象，我们保证以国外的产品质量、中国服务、中国品牌来为新老客户真诚服务。

我们秉承一贯扎实、稳健的品牌服务策略，以及时、全面的技术服务和强大、迅速的库存支援赢得广大客户的信任和支持，公司拥有一批经验丰富、基础扎实的销售及技术工程师，能为您提供全方位的整体解决方案和及时到位的服务，享受自动化科技带来的快捷和便利。期待新老客户更多支持与关照！

# 高分子包裹技术®

我们的高分子合成包裹过滤技术是与目前非常流行的分子筛原理相似，我们通常将这个包裹结构件称之为：“胶囊滤件”，胶囊滤件是由多种高分子材料精密合成，结构件通过与不锈钢或者其他材料配合组装成。

我们所有的调节器可以配置胶囊滤件来实现将介质中的微小杂质阻挡在调节器内腔与接口之间。我们的胶囊过滤技术如图所示设计，它紧紧包围着整个调节器内腔里的各个运动件，防止细微杂质进入从而影响调节器开启与关闭的效果，特别是保证关闭状态下的零泄漏密封性。胶囊滤件拥有非常大的环绕包围面积与介质接触，所以是不会影响流速，不容易被杂质堵死输入通道，非常可靠。

## 1. 侧流通道设计

所有被控介质不是直接从进口通过膜片进入内腔再到出口流出，而是先通过侧流通道进入低压腔的胶囊滤件，这种设计是避免过高压力对调节器的膜片、胶囊滤件损坏性直接冲击。

## 2. 多通径设计

因为每个调节器都有胶囊滤件优化设计配置，为了满足广泛的特性应用要求，保证各种流量要求，我们必须加大介质输入流量，介质与胶囊滤件的接触面积。所以我们通过在圆柱型喷射件上外边开通多个微型喷嘴来满足更大流量要求，或通过减少微型喷嘴口减少流量的要求。因为有接触面的保证，所以不会影响流速。

## 3. 聚四氟乙烯阀座设计

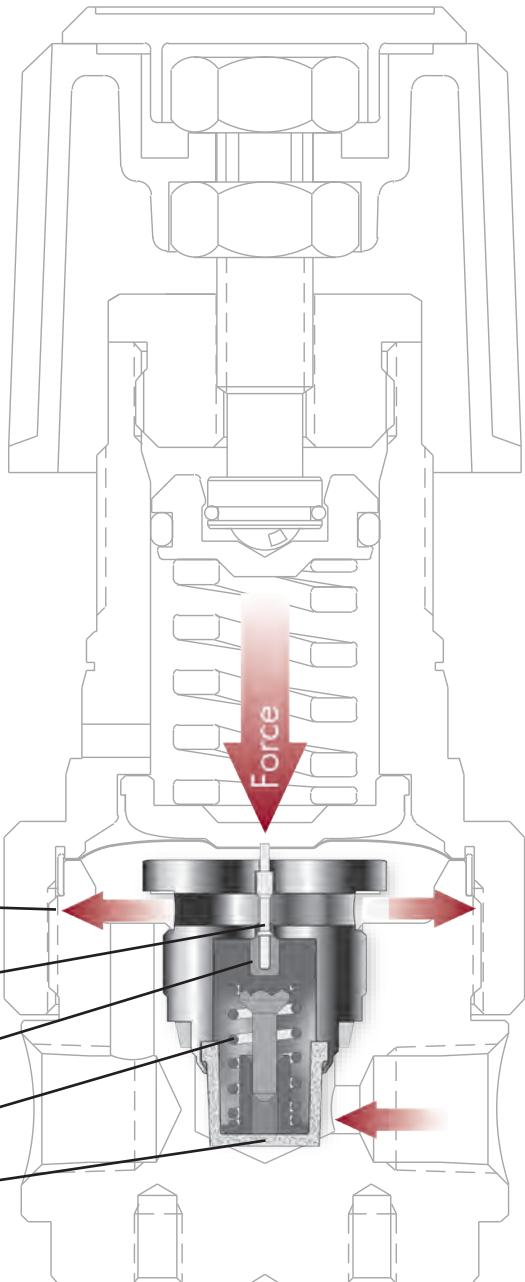
标配阀座材料是高密度聚四氟乙烯，聚四氟乙烯是一种惰性材料，与高纯度气体不会发生反应，也不会被腐蚀。此外，聚四氟乙烯的物理特性并保留了它拥有的密封性能，能满足压力在3000PSI工况下广泛的温度范围应用，当然也可以选择PCTFE材质作为阀座与胶囊滤件的配合，应用温度范围更广，压力可以提升至：4500PSI。

## 4. 高负载边际弹簧设置

弹簧的作用是关闭阀的独立流通的介质压力。我们创新的胶囊滤件技术利用高强度的、宽边际的弹簧保证调节器的气密性，保证在所有条件下进行零泄漏密封。

## 5. 10μm过滤配置

我们所有的调压阀可以配置胶囊滤件来实现将介质中的微小杂质阻挡在调压阀内腔与接口之间。我们的胶囊过滤技术如图所示设计，它紧紧包围着整个调压阀内腔里的各个运动件，防止细微杂质进入从而影响调压阀开启与关闭的效果，特别是保证关闭状态下的零泄漏密封性。胶囊滤件拥有非常大的环绕包围面积与介质接触，所以是不会影响流速，不容易被杂质堵死输入通道，非常可靠。

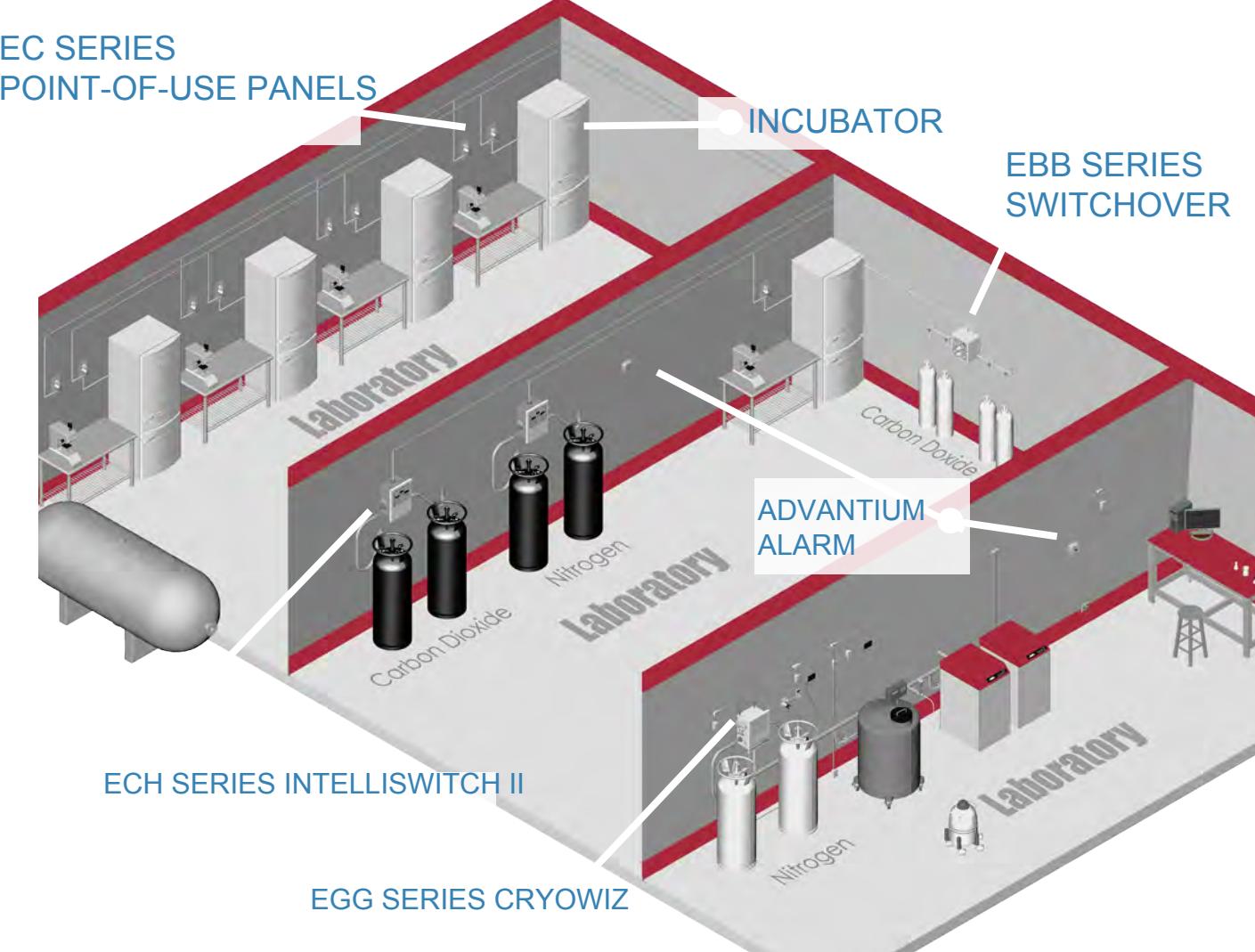


## 低温与恒温实验装备

Technologies for growth and preservation are the foundation of modern life science research and production.

For smaller incubator installations, a pressure differential switchover such as the EBB Series AutoSwitch ensures an adequate supply of carbon dioxide or nitrogen from high pressure cylinders without interruption. For larger installations, the ECH Series IntelliSwitch II optimizes supply from liquid sources while offering real-time monitoring through an on-board webserver with e-mail notifications. EC Series Point-of-Use Panels provide final line regulation at the instrument.

The EGG Series CryoWiz safely delivers a seamless supply of cryogenic liquid nitrogen to freezers with minimal temperature change. When used with 57V Series vacuum-jacketed headers and hoses, the CryoWiz significantly reduces flash loss even in on-demand applications. In addition to an on-board webserver with e-mail alerts, the CryoWiz integrates with alarms such as the Advantium 1.



## Dafuflow实验室系统应用



### EGG Series CryoWiz

20

The EGG Series CryoWiz delivers a continuous supply of liquid nitrogen by switching between a primary and secondary source automatically with minimal temperature change. The CryoWiz is ideal for applications such as cryopreservation, environmental chambers, and cryogenic research.



### ECH Series IntelliSwitch I

The IntelliSwitch II offers continuous pressure and flow control from liquid or high pressure cylinders. The ECH Series also features proprietary onboard web server technology for remote monitoring.



### EBB Series AutoSwitch

34

The EBB Series AutoSwitch is a continuous gas delivery system for high purity gas service that automatically changes cylinder or bank priority from the primary source to a reserve supply without transmitting pressure fluctuations to the use line



### EC Series Point-of-Use

50

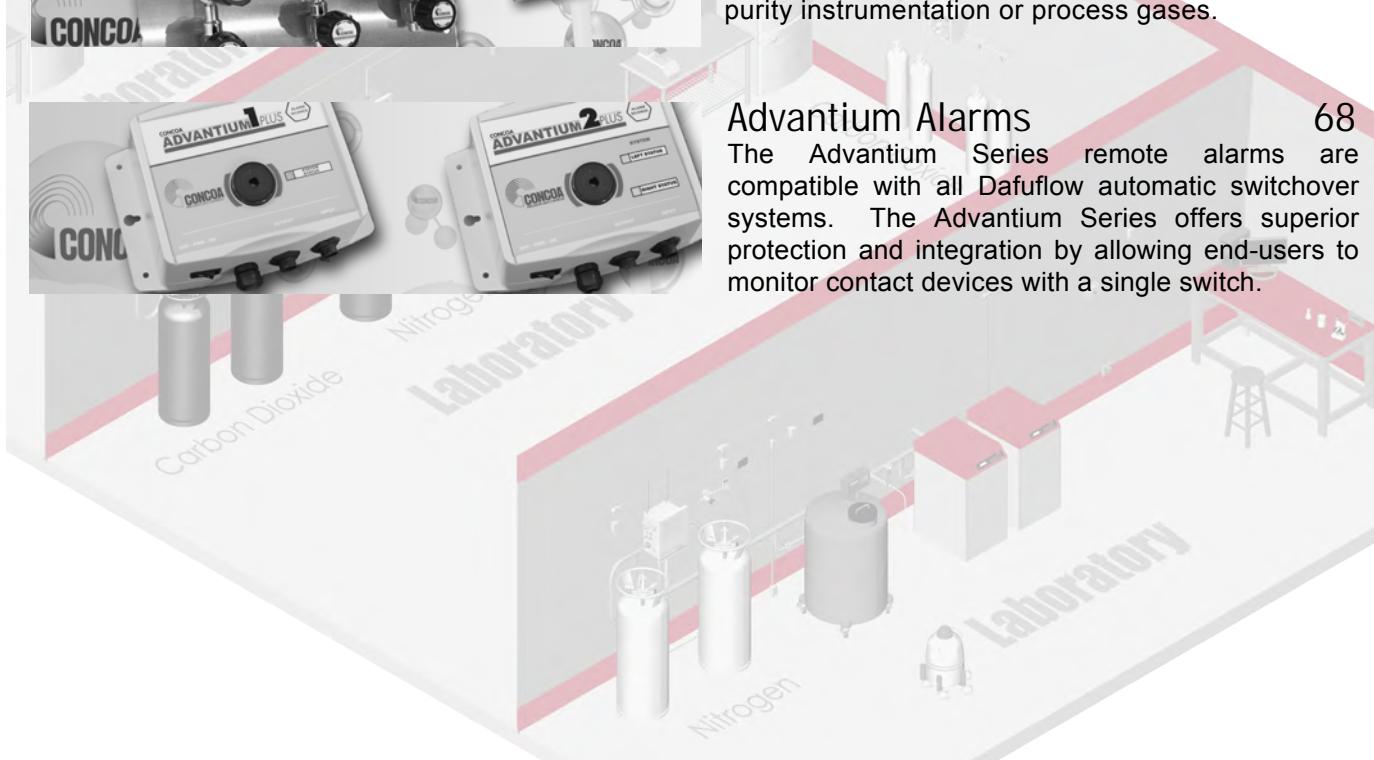
The EC Series Point-of-Use Panels provide a modular design to mount and locate COO Series regulators at the point of use for high purity instrumentation or process gases.



### Advantium Alarms

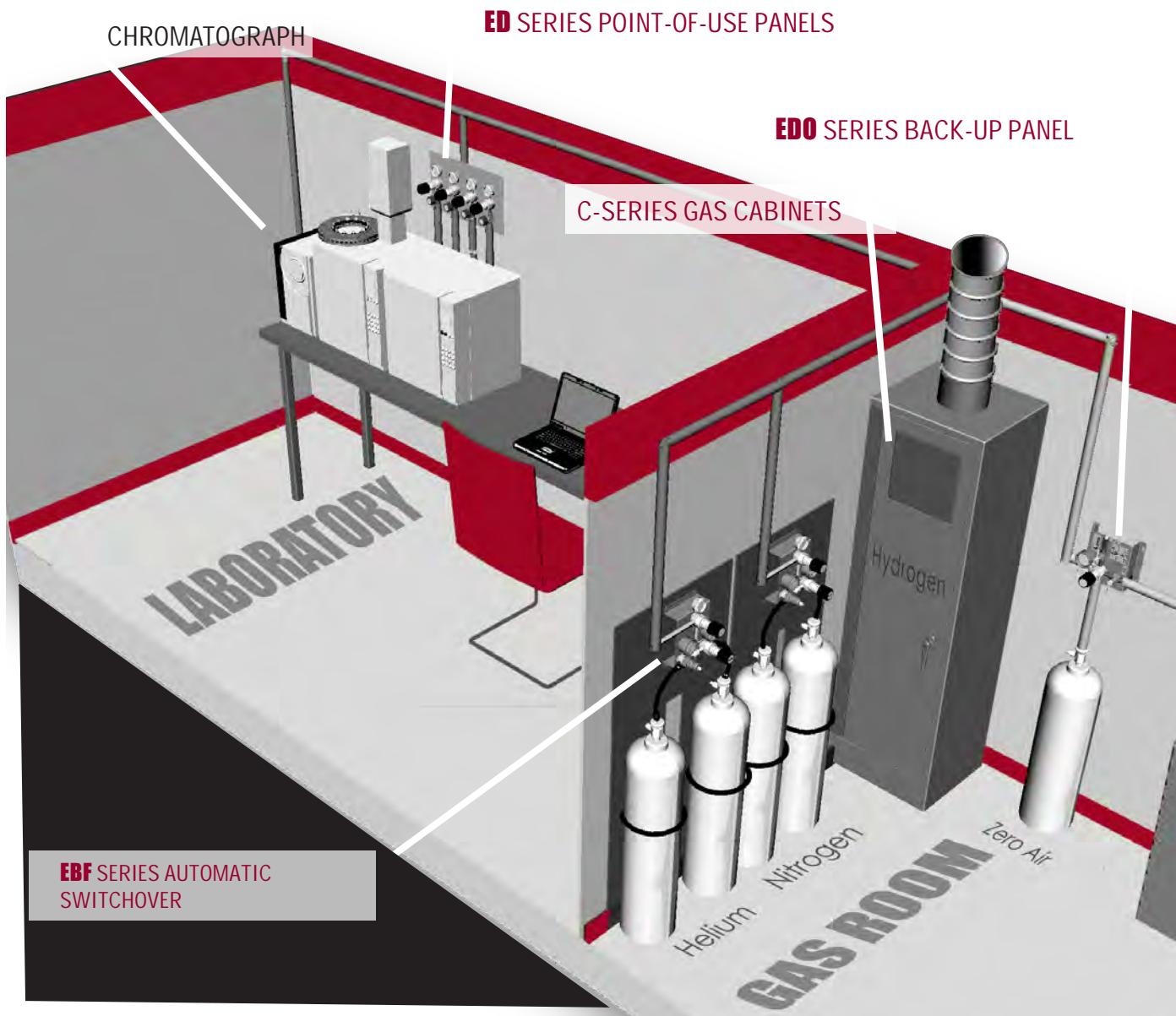
68

The Advantium Series remote alarms are compatible with all Dafuflow automatic switchover systems. The Advantium Series offers superior protection and integration by allowing end-users to monitor contact devices with a single switch.



## 色谱分析应用

Modern chemical and forensic research relies on gas chromatography to separate compounds for further analysis. The EBF and EBG Series Switchovers provide an uninterrupted supply of traditional inert carrier gases such as nitrogen or helium. C-Series gas cabinets allow safe and compliant use hydrogen in the laboratory. If the carrier gas is generated on site, a EDO Series Back-Up Panel can prevent supply interruption from planned or unplanned generator maintenance. ED Series Point of Use Panels, optionally including gas filters or flashback arrestors, offer high purity final line regulation in the laboratory.





## C-Series Gas Cabinets 18

The C-Series Gas Cabinets are designed to provide unparalleled protection to both the mounted gas supply systems and their attached gas cylinders.



## EBF Series Automatic Switchover 38

The EBF Series Automatic Switchover, available with or without Advantium 2 plus remote alarms, continuously supplies high purity gas from a primary and reserve bank of high pressure cylind



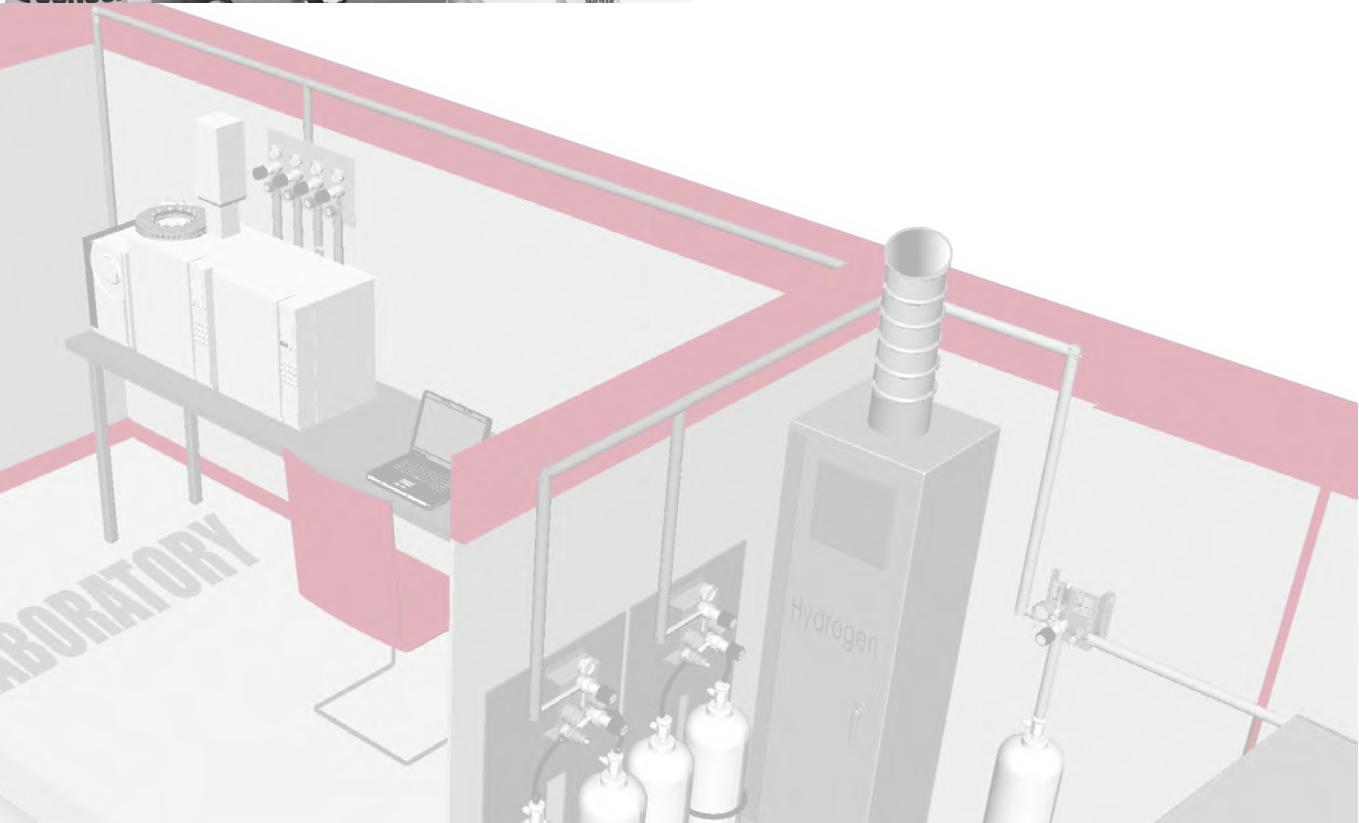
## EDO Series Back-Up Panel 48

The EDO Series Back-Up Panel automatically switches from a primary to a reserve supply without interrupting the flow of gas



## ED Series Point-of-Us 52

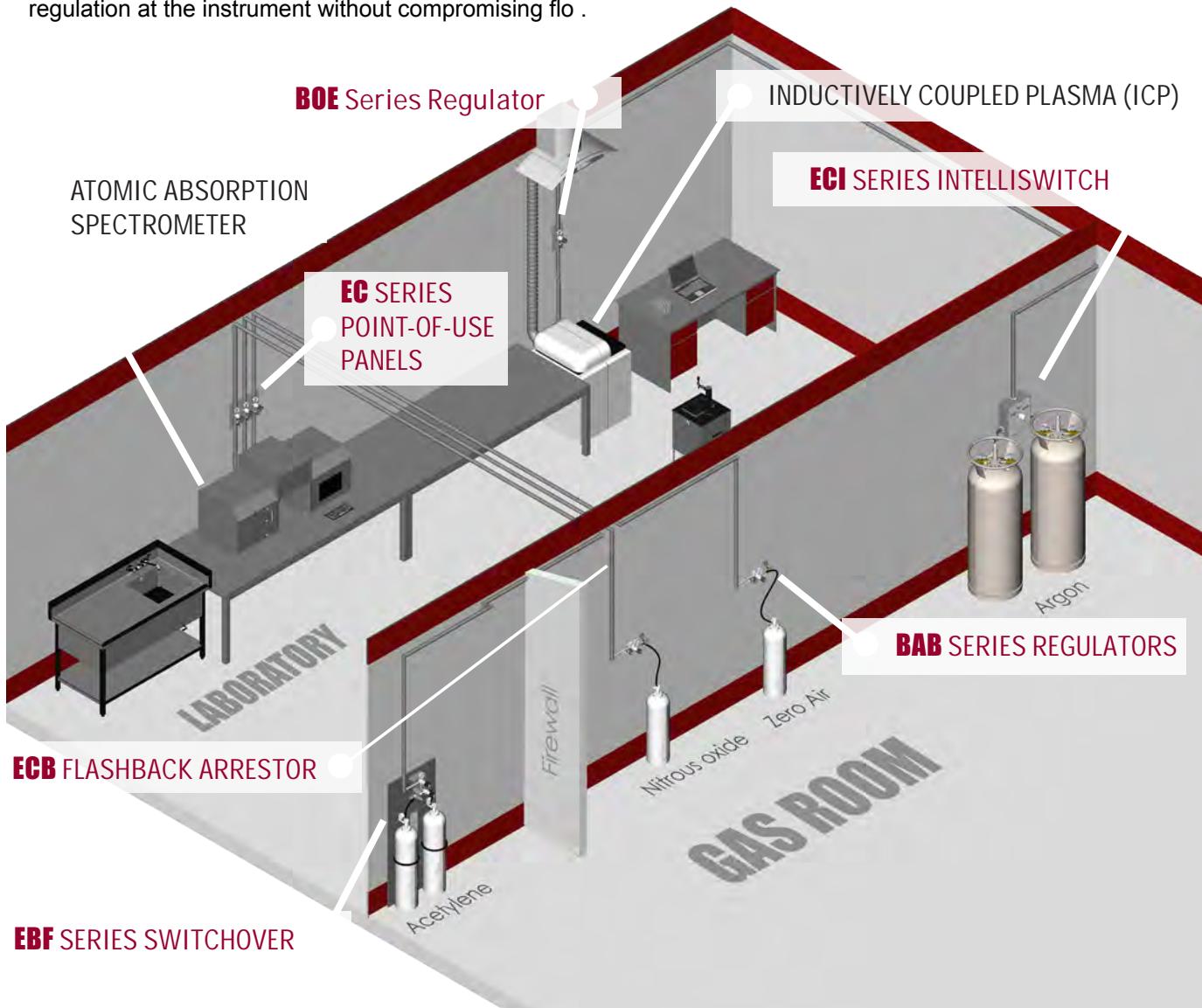
The ED Series Point-of-Use Panels provide a modular design to mount and locate DOO Series regulators at the point of use for the most demanding gas applications.



## 光谱、材料分析、电感耦合等离子质谱分析应用

Spectral and Materials Analysis&INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY

Methods for identification constitute the basis of chemical analysis. Installed in a safe area or outside, EBF Series Switchovers or 200 Series Regulators with Protocol Stations can supply Acetylene, Nitrous Oxide, Argon, or Zero Air for Atomic Absorption Spectroscopy (AAS). EC Series Point-of-Use Panels with ECB Series Flashback Arrestors allow safe use at the instrument itself. Inductively Coupled Plasma Mass Spectrometry (ICP-Mass Spec) requires a continuous, uninterrupted flow of Argon. A BOE Series Regulator provides precise pressure regulation at the instrument without compromising flow.



# Dafuflow Laboratory Systems



## **ECI** Series IntelliSwitch

26

The ECI Series IntelliSwitch is a fully-automatic computer controlled Universal Gas Management System typically used for several applications including ICP/ICP-Mass Spec carrier and support gases.



## **EBF** Series Automatic Switchover

38

The EBF Series Automatic Switchover, with or without Advantium 2 Plus remote alarms, continuously supply high purity gas from a primary and reserve bank of high pressure cylinders.



## **EC** Series Point-of-Use Panel

The EC Series Point-of-Use Panels provide a modular design to mount and locate COO Series regulators at the point of use for high purity instrumentation or process gases.



## **BOE** Series Regulator

148

The BOE 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.



## **BAB** Series Regulator

152

The BAB Series Regulators are intended for primary pressure control of non-corrosive, high purity or liquefied gases.



## Flashback Arrestors

176

The ECB Series Flashback Arrestors prevent the transmission of flame in the supply line and equipment of high purity gas systems.

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## 客户定制项目

该程序是以满足客户的特殊需求、个性要求定制；我们以高品质，特性化、快速反应交付为目标，实现客户愉悦的性价比购买体验，解决客户现实应用中的特别需要。

更多资讯可以直接来电159 2288 2829或邮件：sales@dafuflow.com

**第一步**   请您与我们销售工程师进行沟通，说明您期望的应用要求和效果，我们销售工程师会给您做方案图纸，并出具报价信息。

**第二步**   您审核并回签我们的方案图纸及报价文件，我们会根据您的订单提供具体图纸零件号，再做详细的零件报价以及货期。

**第三步**   一旦收到所有订单，我们会安排制作并做相关产品测试检验，直到所有零件以及组件测试合格，才许出厂发货。

**第四步**   所有产品测试合格后，我们在准备出货时提供所有产品适应介质及安装操作说明指引文件，并附在包装箱内。交付期跟交付产品的复杂程度有关，我们会尽快处理所有客户来的订单。

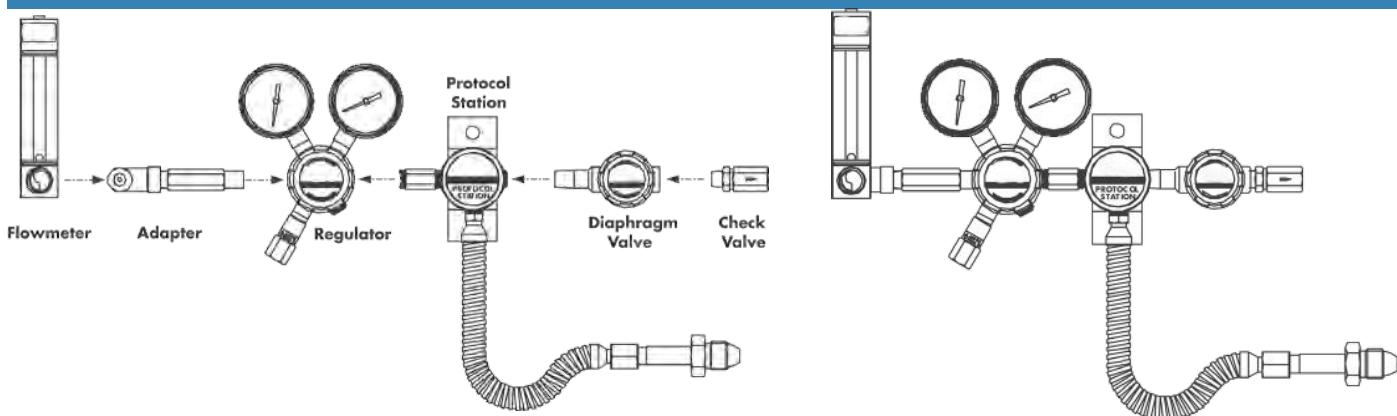
### 特点与优点

- 快速、简化的报价流程
- 快速制作与装配
- 完全测试泄漏和性能的完整性
- 通过ISO 9001认证的质量控制过程
- 气体服务和应用的具体解决方案
- 在设备配置中的完整的灵活性
- 客户提交的图纸和文件
- 有经验的工程师可供设计咨询

### 下图案例：自定义组件组件

- 调节器
- 流量计
- 单向阀与调节阀
- 隔膜阀与针阀
- 取样器和接头
- 分配器和接管
- 协议站

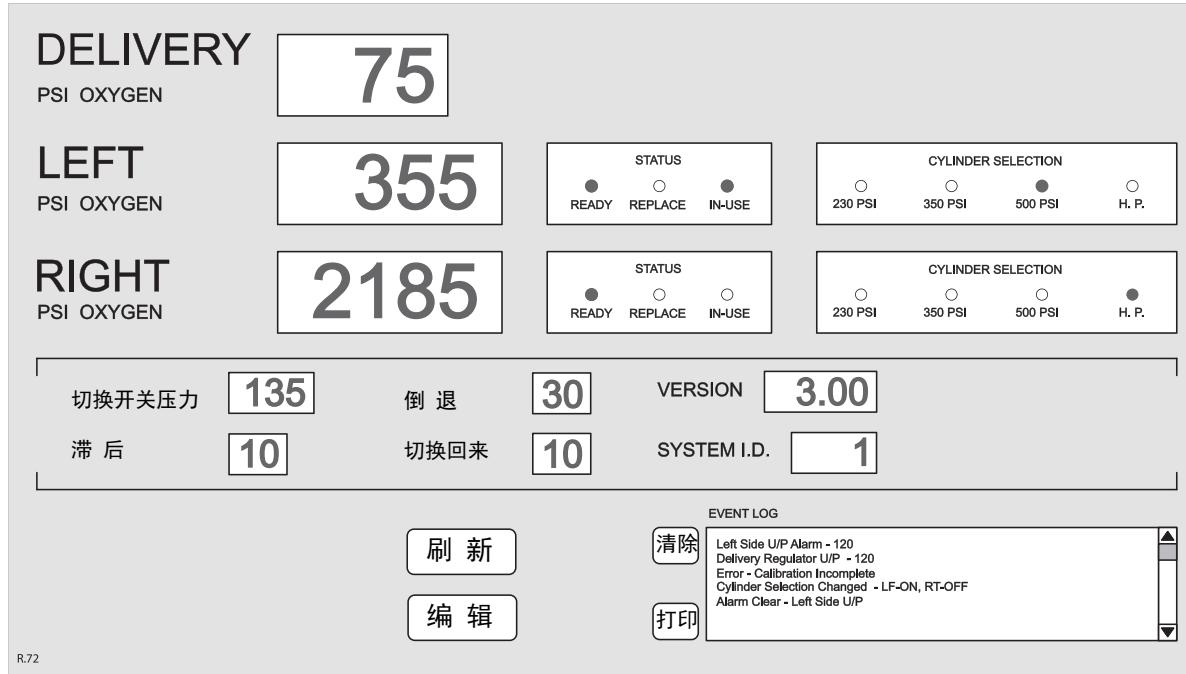
### 样品系统（案例图）



达夫革命性创新I-Link互联网及嵌入式编程技术，配合EGG快维系列、ECH系列智能开关II、EDB系列智能开关IIV，大流量充储应用。

这些创新技术允许用户远程监控和操作配置系统，这些都可以通过互联网操作嵌入式软件，包括发送邮件，设定警报、提示操作员等互动应用，当然这些都是设有管理授权权限配置。

## ECH Series IntelliSwitch II



此屏幕具有实时显示关键的读数和设置，如：

Inlet and delivery pressures 进口和输送压力

Bank status 储存状态

Selected gas source 选择气源

Alarm status 警报状态

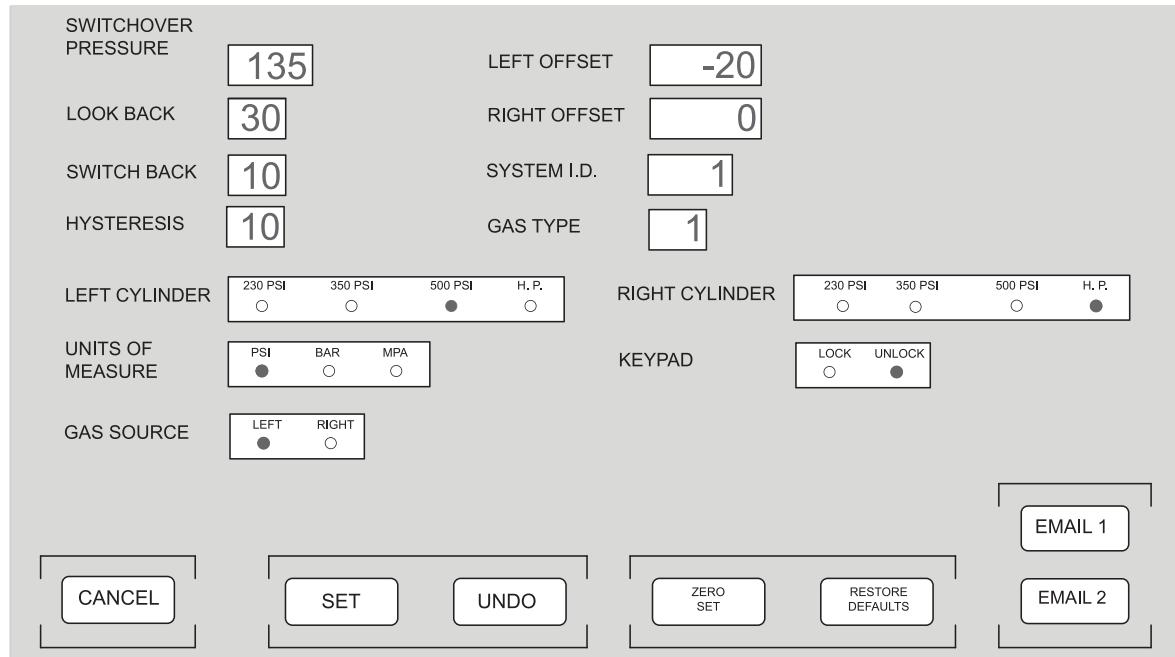
Switchover set point 开关切换设置点

Gas type and system I.D. 气种类型及系统I.D.

Status log 状态日志

# 互联网应用技术

## ECH Series IntelliSwitch II



**From this secure screen, the user can change functions such as:**

Switchover pressure

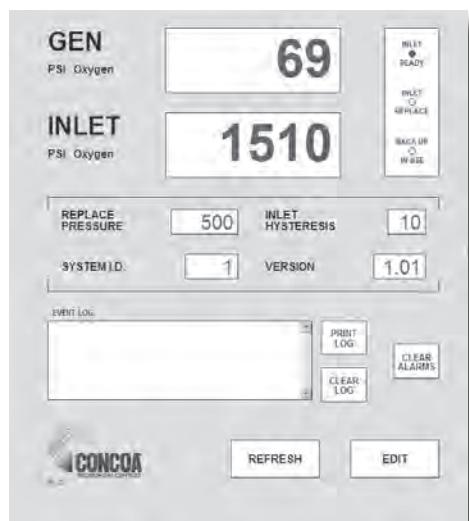
Look back and switchback times

Keypad lockout

Gas type and system ID

Transducer calibration

Units of measure



## EDB Series High Flow Backup

The web server STATUS screen depicted on the left is what appears first when the EDB Series High Flow Backup is accessed through the web server.

**This screen has real time display of critical readings and settings such as**

Primary pipeline or primary supply pressure

Reserve or backup supply pressure

Alarm status

Reserve or backup low replace alarm

Reserve or backup alarm set point

Gas type and system I.D.

Status log



## 调压阀选型指南

德腾公司对旗下所有产品线进行柔性设计，并创新利用精益生产模式；我们的产品线都设计成一个平台、模块，这些得益于德腾公司的设计管理团队在丰田汽车公司工作的多年经验，同一平台、模块的产品系列，我们有同一组件，或特殊组件共同构成，根据客户不同的特性需求，只要通过选择产品平台去配置不同特性要求，这样可以保证我们的规模化产品质量控制、成本控制、交付周期控制等优势。

这一创新管理模式同样使用在我们的电磁阀、过滤器、泵、传感器等产品领域。这些您可以在我们的这些产品资料里会寻找到这一特点。

客户根据下面的配置零件号矩阵表进行选择，同时结合下文的介质兼容性、腐蚀性进行配置选择，包括对流量的选择，如果您不习惯我们的选型零件号矩阵表，可以直接联系我们。

### 选择单级还是双级？

单级是调节一个压力输出，但允许细微的压力波动，而双级的是同样的执行功能，但双级调节一个恒定的输出压力，更精确。

### 氦气泄漏检测

我们所有的调压阀都经过出厂设计以及出厂的氦气泄漏检测，我们的调压阀泄漏率为： $1 \times 10^{-9} \text{ scc/sec}$ ，比其他品牌的泄漏要求更为严格，因为我们是专业做气体控制。

### 隔膜设计

隔膜是一个能改善泄漏率、提供净化的元件。我们通常有不锈钢隔膜、PTEF, PCTFE材质隔膜，根据介质的稳定性，兼容性，腐蚀性进行选择。

### 调压阀材质选择

### 气体管路连接

### 流量曲线图

### 特定应用

管件、流量以及特殊参数选择，根据每个项目的需求进行，包括加热，过滤净化等。

DBB Series DBB	A 输出压力	B 出口压力表	C 入口压力表	D 出口端配件	-CON 组件/表	Options 安装选项
	1: 0-15 PSIG (0-1 BAR)*	30'-0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT <b>B: Protocol alarm station (110/220 VAC)</b>
	2: 0-50 PSIG (0-3.5 BAR)	30'-0-100 PSIG/ -1-0-7 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	<b>TF2: 1/8" tube</b> <b>C: Protocol switchover station</b>
	3: 0-100 PSIG (0-7 BAR)	30'-0-200 PSIG/ -1-0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fitting	2: Cleanroom assembly (BAR/PSIG gauges)	<b>TF4: 1/4" tube</b> <b>D: Deep purge*</b>
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4" tube fitting	6: Mirror image (PSIG/kPa gauges)	<b>TF6: 3/8" tube</b> <b>H: Protocol switchover station with alarm (110/220 VAC)</b>
	5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/ 0-70 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4" MPT	7: Mirror image (BAR/PSIG gauges)	<b>M06: 6mm tube</b> <b>M: Protocol station</b>
	7: 0-150 PSIG (0-10 BAR)	30'-0-200 PSIG/ -1-0-14 BAR	8: 0-6000 PSIG*/ 0-405 BAR	5: Needle valve 1/4" MPT		<b>CGA DIN 477 BS 341</b> <b>Q: Protocol purge station*</b>
	*Not available with 4500 PSIG (310 BAR) maximum inlet pressure			6: 1/8" tube fitting		<b>R: SilcoNert™ 1020</b>
	**Standard assembly does not include relief valve			7: 3/8" tube fitting		<b>S: Stainless steel bonnet</b>
				8: Diaphragm valve 1/8" tube fitting		*Not available with 4500 PSIG (310 BAR) max inlet pressure
				9: Diaphragm valve 1/4" FPT		
				M: 6mm tube fitting		
					其他可选	

## 流量计选型指南

达夫的流量计分电子式、浮子式的；有气体质量流量计和玻璃浮子流量计。玻璃浮子流量计更为直观、低成本、操作简单等特性，电子流量计能实现自动化控制、精度更高、读数更直观，但价格相对来说昂贵、操作复杂。

选择流量计时需要确定量程范围，介质应用等，所以首先是计算所需量程，然后选择与介质接触材质的应用，连接方式，安装方式等。

流量计算方程式：

$$Q_{\text{air}} = K_{\text{gas}} \times Q_{\text{gas}}$$

$$K_{\text{gas}} = \sqrt{G \times \frac{T}{530} \times \frac{14.7}{P}}$$

$Q_{\text{air}}$  = Equivalent flow capacity of air at standard condition

$Q_{\text{gas}}$  = Maximum flow of metered gas (in SCFH or ml/min)

G = Specific gravity of metered gas (see table)

T = Absolute temperature ( $^{\circ}\text{F} + 460$ ) of metered gas at flow condition

P = Absolute pressure (PSIG + 14.7) of metered gas at flow condition

Using the equivalent air flow, select a tube size and float material from the selection. These two numbers, representing choices from the A column and the B column become the next two digits of the part number.

气体种类	比重
乙炔	0.9073
空气	1.0000
氨气Ammonia	0.5963
氩气Argon	1.3796
丁烷Butane	2.0854
二氧化碳Carbon Dioxide	1.5290
氯气Chlorine	2.4860
乙烷Ethane	1.0493
乙烯Ethylene	0.9749
氦气Helium	0.1380
氢气Hydrogen	0.0659
甲烷Methane	0.5544
氮气Nitrogen	0.9672
氧化亚氮Nitrous Oxide	1.5297
氧气Oxygen	1.1053
丙烷Propane	1.5620
二氧化硫Sulphur Dioxide	2.2638

EFE	A	B	C	D	-CON(X)
Series EFE	管径规格*	浮子材质*	其他材质配置	阀的配置	端部连接*
	1: 1	1: Glass	0: No frame* (fitting and float only)	0: No valve	000: 1/8" FPT
	2: 2	2: Sapphire	1: Black anodized aluminum†	1: Standard valve	TF2: 1/8" tube
	3: 3	3: 316L stainless steel	2: 316L stainless steel†	2: High-accuracy valve	TF4: 1/4" tube
	4: 4	4: Carbolloy			HB4: 1/4" hose barb
	5: 5				*For epdm/epr seals,
	6: 6				add "E" after the end
	7: 7				connection. For kalrez®
	8: 8				seals, add "K" after end
	9: 9				connection.

# 气体控制柜选型指南



## Ordering Instructions

Dafuflow C-Series Gas Cabinets are available with a variety of Dafuflow gas equipment configurations. For example, to order a single-cylinder cabinet system with a DAB Series regulator with an outlet pressure range of 0-50 PSIG (0-3.5 BAR), a 0-4000 PSIG (0-275 BAR) inlet pressure gauge, a diaphragm valve with a 1/4" compression tube fitting, PSIG/kPa pressure gauges, and a CGA 580 connection for Nitrogen service with Protocol Station, the part number would be:

**C1-DBB 2331-350M**

If ordering a 2-cylinder cabinet with EBG Series switchover with 200/170 PSIG (13.5/11.5 BAR) switching pressure with a 0-150 PSIG (0-8 BAR) line regulator for Hydrogen use with 36" (900mm) hoses, the part number would be:

**C2-EBG 4171-350**

Standard regulator  
part number selection

**C1-XXX XXX-XXX** One cylinder cabinet system for DOO, COO, and BOOSeries regulators with EBI Protocol Station systems.

Standard regulator/switchover  
part number selection

**C2-XXX XXX-XXX** Two cylinder cabinet system for use with EBF, EBG, EAE, ECO, EDO and EDB Series system, EBI Series Protocol Station systems, and with all DOO, COO, and BOO Series regulators.

**C3-XXX XXX-XXX** Three cylinder cabinet system for use with EBF, EBG, EAE, ECO, EDO and542 Series systems, EBI Series Protocol Station systems, and with all DOO, COO, and BOO Series

**C4-XXX XXX-XXX** Four cylinder cabinet system for use with EBF, EBG, EAE, ECO, EDO and EDB Series systems, EBI Series Protocol Station systems and with all DOO, COO, and BOO Series regulators.

## C系列气体控制柜

The Dafuflow C-Series Gas Cabinet Systems are designed to provide unparalleled protection to both the mounted gas supply system and their attached gas cylinders. Constructed with sturdy 11-gauge thick steel, the cabinets are built to meet international fire codes. Cabinets come pre-installed with a 165°F (73.8°C) sprinkler head near the exhaust vent. Cabinet doors and windows are made to close and latch automatically. The welded unibody construction and rigid cylinder brackets increase sturdiness of the cabinet in the event of fires or earthquakes.



**Cabinets come in one-, two-, three-, and four-cylinder models and can be assembled with the following:**

- Manifolds and Switchovers (C2, C3 and C4 series only):
- EAE Series SilcoNert™ 1020 Switchover
- EBF Series Switchover
- EBG Series Switchover
- ECO Series Switchover
- EDO Series Generator Back-Up Panel
- Protocol Stations (All C-Series):
- EBI Series Protocol Stations (purge, switchover and alarm series)
- Regulators (All C-Series):
- All DOO, COO, and 200 Series regulators

### Features

### Materials

### Specifications

#### All Welded 11-Gauge Steel Construction

Protects cylinders and valves from damage

#### Epoxy Painted

Tough, protective coating

#### Sprinkler Head

Isolated fire protection

#### Removable White Back Panel

Facilitates ease of maintenance

#### Adjustable Brackets

Allow for precise hose alignment

#### Automatic Closing Door and Window

Prevent unwanted access to cylinder and gas system

#### Ventilation Louvers

Provide cabinet interior with adequate air flow circulation

#### Enclosure

11-gauge, .119" (3.02mm) thick steel  
Epoxy paint, smooth inside, textured exterior  
Fire-rated window

#### Fasteners

Stainless steel

#### Exhaust Duct

6" (152.4mm) diameter  
3" (76.2mm) high

#### Sprinkler Head

165°F (73.8°C) activation point  
Beeswax coated

#### Adjustable Cylinder Brackets

Accommodates 7" (177.8mm) to 9" (228.6mm) diameter cylinders.  
Chain and strap included.

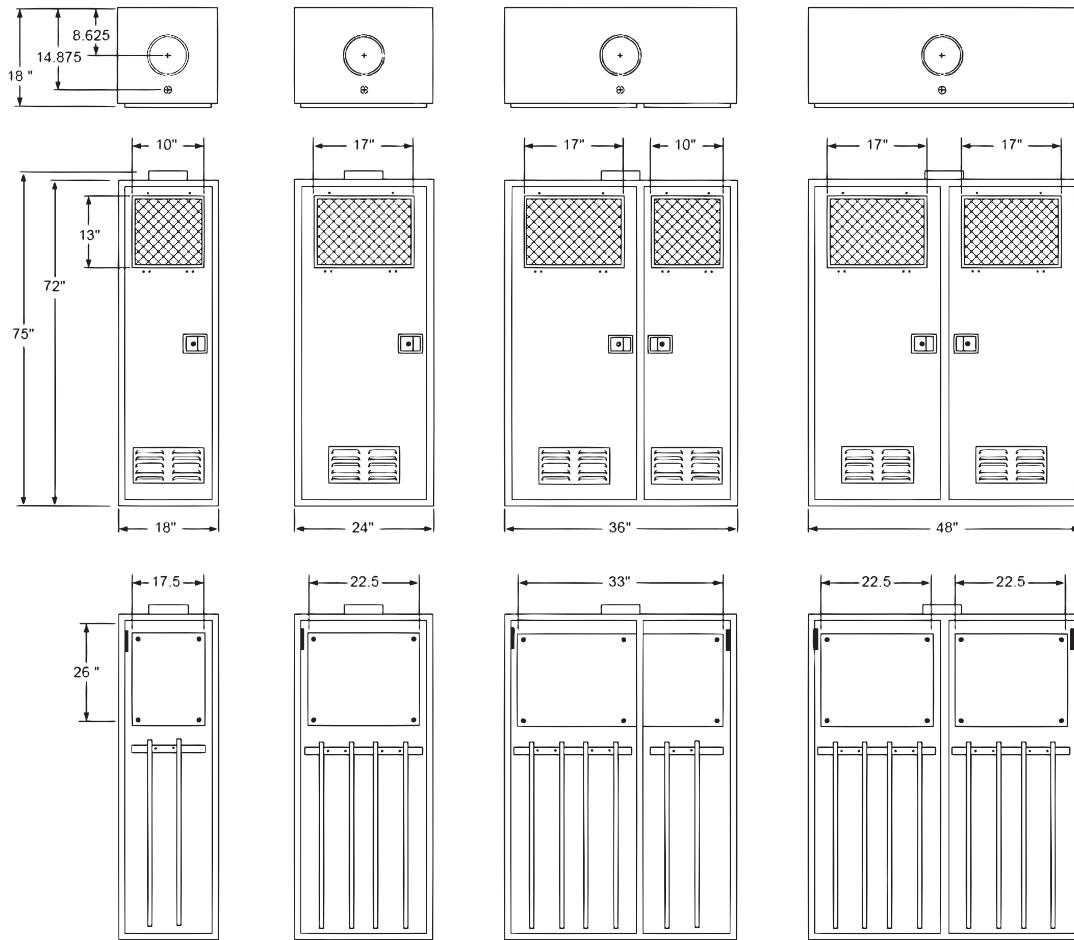
#### Window

1/4" thick clear wire glass

#### Empty Weight

C1: 250 lbs (113 kg)  
C2: 275 lbs (125 kg)  
C3: 375 lbs (170 kg)  
C4: 470 lbs (213 kg)

## C系列气体控制柜产品尺寸图



Cabinet	Cylinders	Regulator/Switchover Part Number	Description
<b>C</b>	<b>1:</b> One	<b>XXX XXXX-XXX</b>	One cylinder cabinet system for DOO, COO, and 200 Series regulators with EBI Protocol Station Systems.
	<b>2:</b> Two		Two cylinder cabinet system for use with EAE, EBF, EBG, ECO, and EDO Series systems, EBI Series Protocol Station systems, and with all DOO, COO, and BOO Series regulators.
	<b>3:</b> Three		Three cylinder cabinet system for use with EAE, EBF, EBG, ECO, EDO and EDB Series systems, EBI Series Protocol Station systems, and with all DOO, COO, and BOO Series regulators.
	<b>4:</b> Four		Four cylinder cabinet system for use with EAE, EBF, EBG, ECO, EDO and EDB Series systems, EBI Series Protocol Station systems and with all DOO, COO, and BOO Series regulators.

For example, to order a single-cylinder cabinet system with a DBB Series regulator with an outlet pressure range of 0-50 PSIG (0-3.5 BAR), a 0-4000 PSIG (0-275 BAR) inlet pressure gauge, a diaphragm valve with a 1/4" compression tube fitting, PSIG/kPa pressure gauges, and a CGA 350 connection for hydrogen service with Protocol Station, the part number would be: **C1-DBB2331-350M**. If ordering a 2-cylinder cabinet with a EBG Series switchover for hydrogen use, the part number would be: **C2-5274171-350**.

### Cabinets Installed Distribution Equipment

Option	Order Number	Description
C1	HCE 2001	One cylinder cabinet
C2	HCE 2002	Two cylinder cabinet
C3	HCE 2003	Three cylinder cabinet
C4	HCE 2004	Four cylinder cabinet

## 低温处理系统快维™

达夫的快维™分配器，能提供持续输送液氮介质的低温应用装置，当然包括其他流体介质的低温分配加注应用。该装置保证从一级到二级压力转换过程，没有过热、导热情况出现，该装置通过对各元件的隔热工艺处理、温度传感器、热风旁路疏通等特殊创新设计，保证整个过程的介质温度几乎没有变化，该装置是超低温应用（超低温保存、转储、加注）的理想选择。

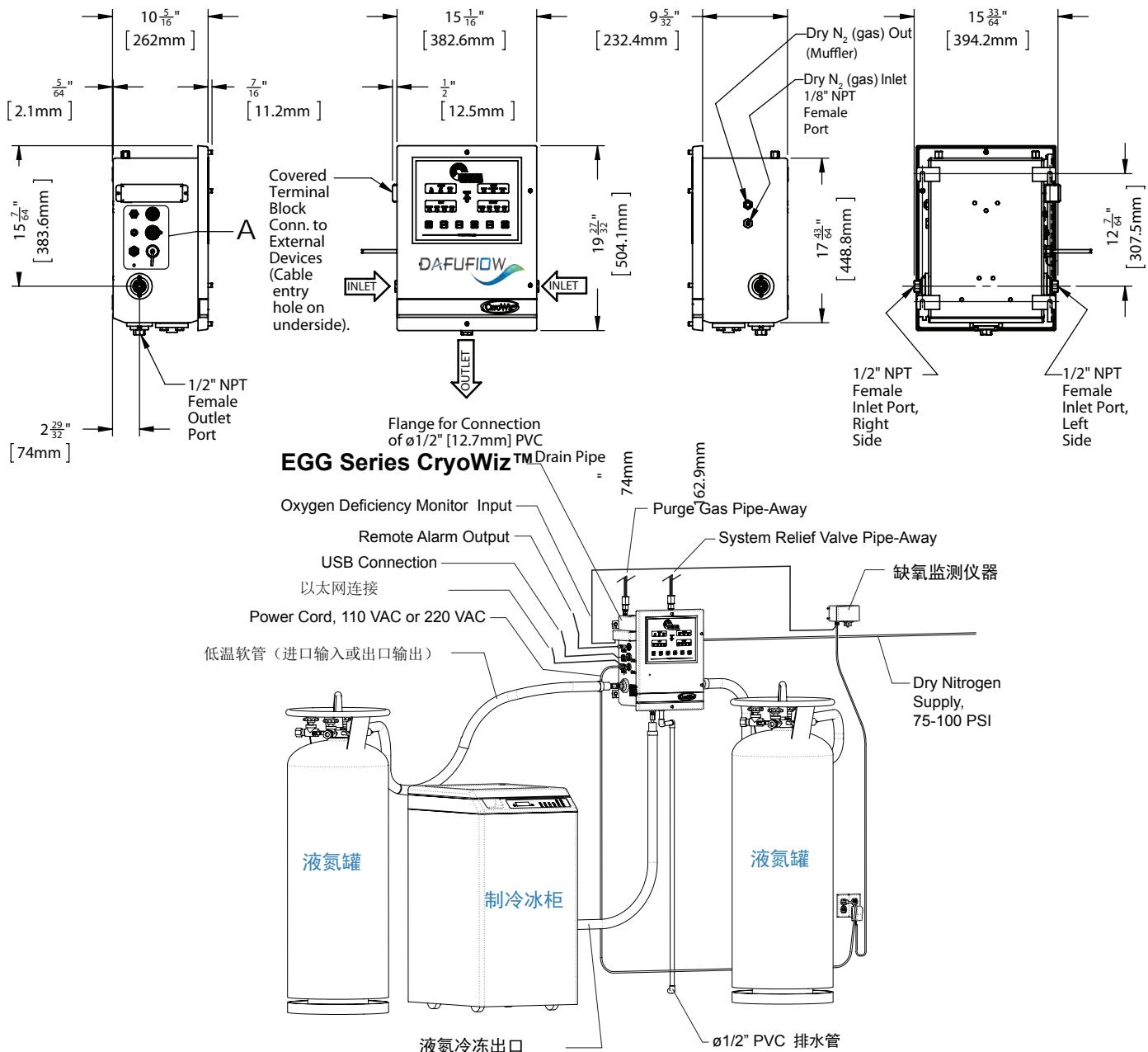
### 典型应用领域

- 冷冻储存
- 制冷控制（冰柜、冷库）
- 环境温度控制
- 低温气相色谱法
- 超低温研究



特征	材料 (配置)	技术规格
自动计算控制 保证持续有效供应隔离 开关设置 减小流体动态损失多通道供应冷藏设备 热风通道设计 消除动态损失 紧凑型NEMA 12防护设计 微型、简易安装 远程控制 USB和太网连接通讯 24000事件日期和日志 缺氧继电器连接 OSHA安全 声光报警设置 机载应急监测 远程报警设置 Advantium 1 PLUS Advantium 2 PLUS Advantium 8	外壳防护等级 Powder coated NEMA 12 内 部 锻造铜材 低温安全阀 35 PSIG (2.4 BAR) 50 PSIG (3.5 BAR) optional 1/2" FPT 热风通道 1/2" FPT 最大进口压力 22 PSIG (1.5 BAR) 35 PSIG (2.4 BAR) optional 进口端连接 1/2" FPT 出口端连接 1/2" FPT 排泄端连接 1/2" PVC	报警输出 1或5千触点 NC 报警输入 缺氧传送 干氮气 (气态) 最大: 100 PSI (7bar) 最小: 75 PSI (5 bar) 进口端连接: 1/8"FNPT <small>*Required for pneumatics</small> 数据连接 USB (maintenance only) Ethernet (optional) 电 源 120 VAC or 220 VAC 设备重量 40 lbs (18 kg)

## Installation Information



## 产品选型

EGG	A	B	C	D	-E	FG
Series EGG	制冷剂	输出端连接	溢流阀 Relief Valve	电源配置	输入端连接	互联网配置 Web Server
	1: 氮气 Nitrogen	0: 1/2" FPT 1: CGA 295	0: 35 PSIG (2.4 BAR) 1: 50 PSIG (3.5 BAR)	2: 120 VAC 3: 220 VAC	0: 1/2" FPT 1: CGA 295	00: 有 01: 无

## Order No. Description

EG22series	真空软管和快接件
EHO COOD	缺氧监控仪

## EG22系列 低温护套型真空管及接头套件

EG22系列的低温接头及软管组件，保证管件的刚性的同时，管的外壁增加了多层隔热和吸气材料，同时真空结构设计更加有效保证热量泄漏，该管的真空间度达到 $1 \times 10^{-6}$ mm汞柱；该组件的泄漏量为 $1 \times 10^{-9}$ 毫升/秒（氦质谱仪测试）。

EG22系列组件与EGG的快维低温切换系统配合使用，能为连续转储的液氮提供一个稳定的低温运作过程。EG22系列采用真空软管与CGA295，用于安装和密封密封件的旋转端连接。

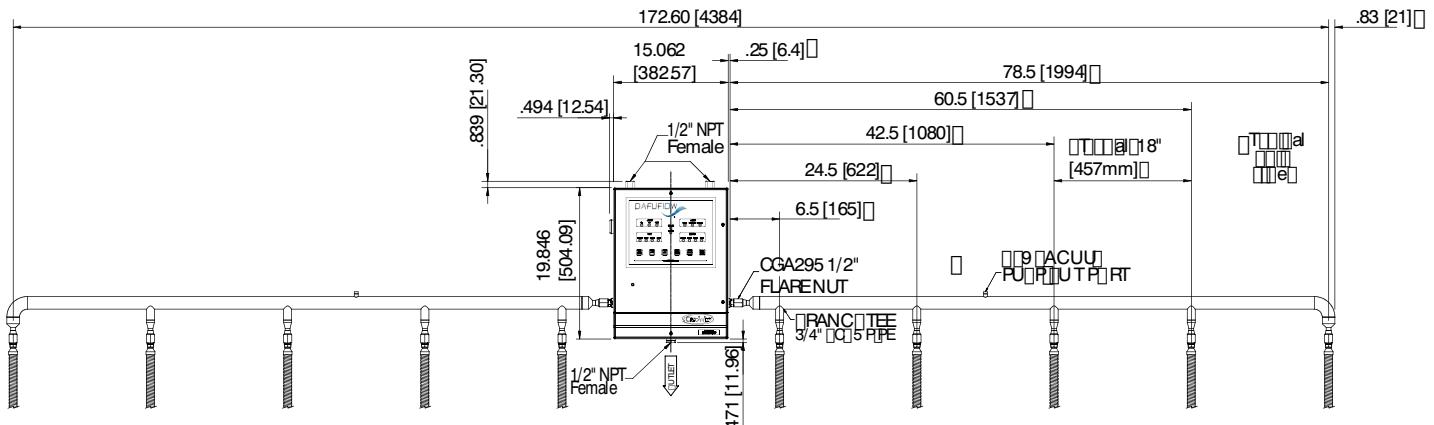


横截面显示真空软管

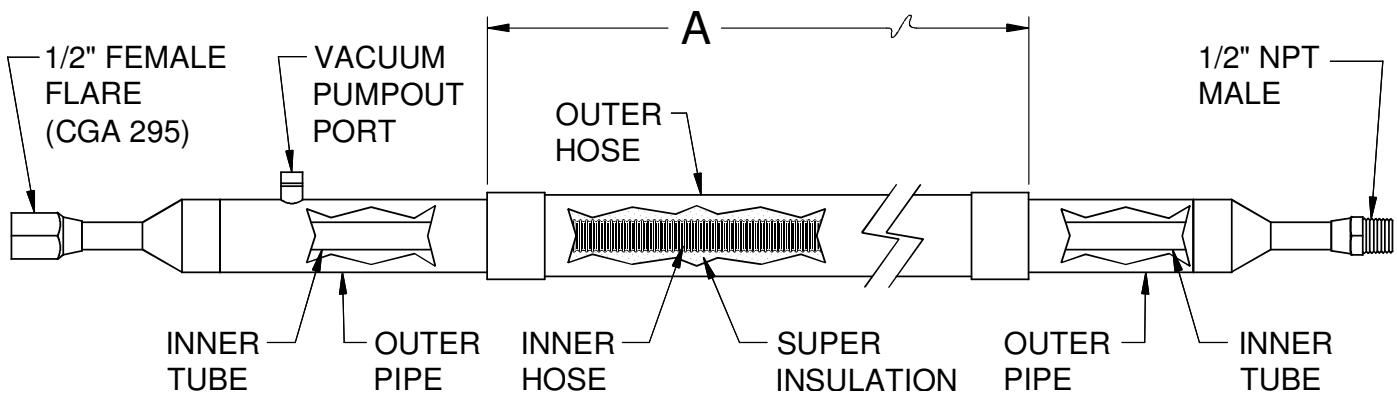
功能	材 料	技术规范
<p><b>1x10<sup>-6</sup>mm Hg真空间度</b> 低热导</p> <p><b>多层隔热处理</b> Prevents radiant and convective heat transfer</p> <p><b>1x10<sup>-9</sup> cc/sec 的泄漏率</b> (氦气测试) 保证性能的可靠性</p> <p><b>Rigid 304 Stainless Steel Pipe</b> 坚固的结构</p> <p><b>Active Getters</b> 延长使用寿命</p> <p><b>SV-9 Pump Out Port</b> 持续的适用性</p>	<p><b>Header</b></p> <p><b>Outer Pipe</b> 1 1/4" (37.75mm) 304 stainless steel</p> <p><b>Inner Tubing</b> 1/2" (12.7mm) .035 wall 304 stainless steel</p> <p><b>Fittings</b> 316L stainless steel barstock</p> <p><b>Hose</b></p> <p><b>Outer Braid</b> 304 stainless steel</p> <p><b>Inner Braid</b> 316L stainless steel</p> <p><b>Inner Core</b> 304 stainless steel</p>	<p><b>最大压力 (接头) MAWP (Header)</b> 150 PSIG (10 BAR)</p> <p><b>最大压力 (管子) MAWP (Hoses)</b> 115 PSIG (7.9 BAR) standard</p> <p><b>泄漏</b> 0.89 BTU per hour per foot (3.1 J per hour per mm)</p>

## Installation Dimensions

快维配套EG22接头组件系统



EG22低温管件



产品型号编码

EG22	A	B	C	D
Series EG22	定 位Orientation	分接口Stations	管类型	出口端连接
	A: 标准单排 (左或右) 18" (457mm) 间距	2: 2 Stations	A:没有软管(1/2" FPT port on header)	1: CGA 295 female
	B: 标准单排双头 (左和右) 18" (457mm) 间距	3: 3 Stations	B:没有软管 (CGA 295 male port on header)	
	C: 紧凑型单排 (左或右) 10" (254mm) 间距	4: 4 Stations	C: 36" (900mm)真空管护套 vacuum jacket	
	D: 紧凑型单排双头 (左和右) 10" (254毫米) 间距	5: 5 Stations	D:48" (1200mm)真空管护套 vacuum jacket	
			E: 72" (1800mm) 真空管护套vacuum jacket	

相关的选项

选项	Order Number	Description
排气歧管组件	EB12系列	Wall-mounted manifold designed to equalize liquid cylinder head pressure
真空护套管组件	EEA-BOOO	36" (900mm) Vacuum-jacketed cryogenic hose
	EEA-BOOA	48" (1200mm) Vacuum-jacketed cryogenic hose
	EEA-BOOB	75" (1900mm) Vacuum-jacketed cryogenic hose

## ECH系列智能开关II型

ECH系列的智能开关II型是创新的全自动切换、流体管理系统。智能开关II内部嵌入互联网服务技术、系统状态、事件日志、邮件发送报警等先进技术应用；可以通过远程监控对高压流体进行压力、流量控制。而且操作简单使用按键模式操作，降低软件逻辑操作难度。

特别适合于实验室分析、化工过程控制、仪器仪表配套等。能有效消除介质过程损耗，降低运行成本。

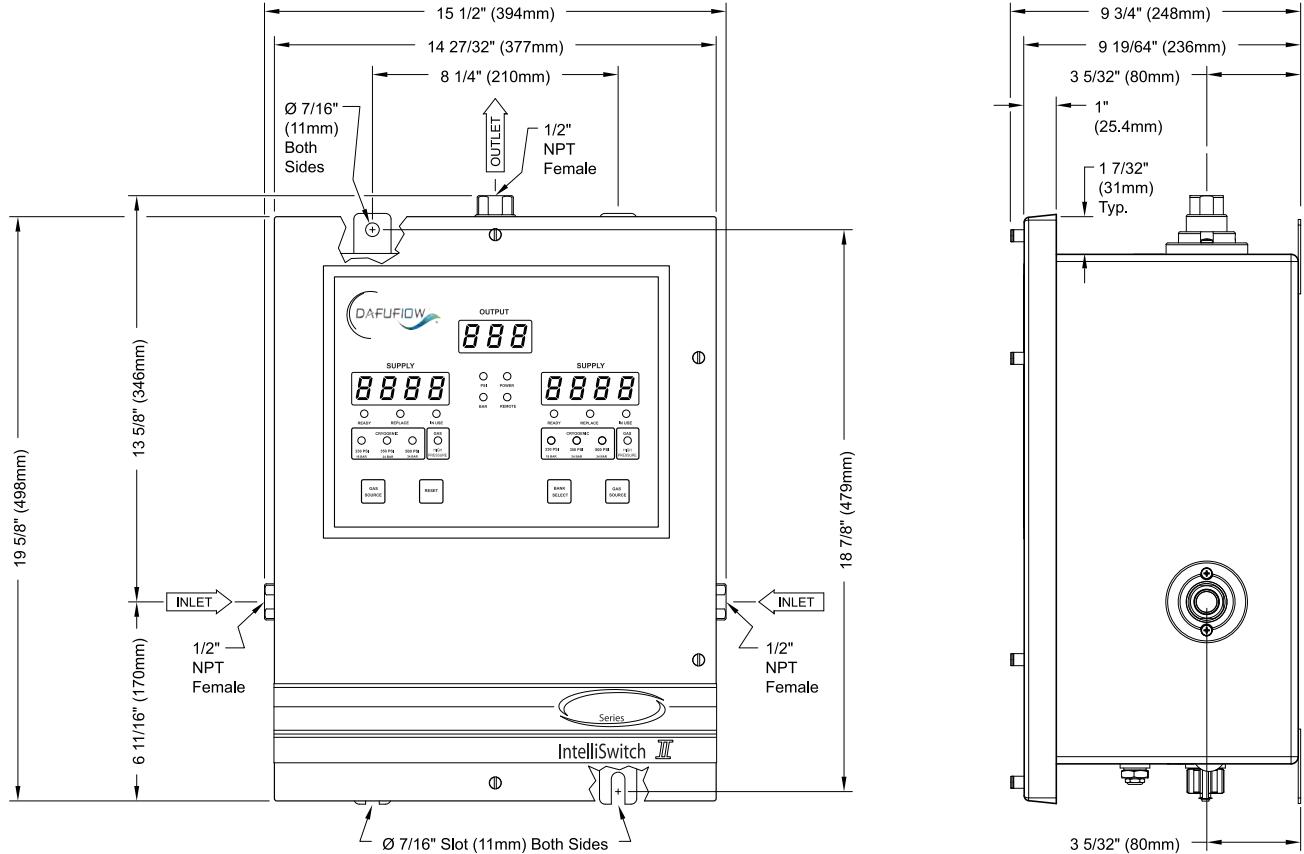
### 典型应用

- 高纯度、无腐蚀性、非易燃易爆类型气体
- 气相色谱和质谱标准类气体
- 感应耦合等离子体和感应耦合等离子体标准类气体
- 孵化器的二氧化碳和氮气
- 生物技术、制药和医疗气体系统
- 微批量转储
- 实验室、研究室或工厂的中央供气系统



功 能	材 质	技术规格
<p>精确控制 全自动分配控制技术</p> <p>远程和现场可调软件 使用远程监控技术进行灵活管控过程</p> <p>现场或远程源选择 瓶罐、高压等服务</p> <p>内嵌互联网服务器和远程软件 启用监视和控制功能</p> <p>低成本技术 减少浪费</p> <p>电子节油器 消除罐子的排气损失</p> <p>过程气体先导阀</p> <p>安装简单</p> <p>RS 232通信 提供远程监控</p> <p>NEMA 4防护外壳设计 可以安装在任何地方</p>	<p>调压阀和阀体 锻造铜材</p> <p>阀 杆 316L 不锈钢</p> <p>阀 座 PCTFE</p> <p>外 壳 碳钢粉末涂层型 NEMA 4级防护</p> <p>密 封 PTFE、PCTFE、Viton®</p>	<p>电源电压 24VDC 或 220VAC 电源（配有 1/2" 导线管接入）</p> <p>最大输入压力 3000 PSIG (210 BAR)</p> <p>温度范围 0°F to 140°F (-18°C to 60°C)</p> <p>流量系数 <math>Cv = 1.0</math></p> <p>过 滤 40 micron</p> <p>输入端连接 1/2" FPT</p> <p>输出端连接 1/2" FPT</p> <p>重 量 67 lbs. (30.4 kg)</p>

## 产品结构尺寸图



## 选型信息

ECH	A	1	C	D	-CON
Series ECH	Delivery Pressure	右侧连接	左侧连接	电源电压	管连接
3: 100 PSIG (7 BAR)	0: 1/2" FPT port		O: 1/2" FPT port	A12 120 VAC	
4: 150 PSIG (10 BAR)	1: 隔膜阀带36"(900mm)不锈钢管		A: 隔膜阀带36"(900mm)不锈钢管	A24 240 VAC	请按图示连接
5: 200 PSIG (14 BAR)	2: 隔膜阀带72"(1800mm)不锈钢管		B: 隔膜阀带72"(1800mm)不锈钢管		
	3: 歧管接头*		C: 歧管接头*		CGA DIN 477 BS 341 and others available.

\* 见后面的歧管订单号信息

## 相关的选项

选项	订单号	规格描述
远程报警 Remote Alarm	Advantium Series	提供声光通讯进行远程监控瓶罐（见后具体参数）
排气歧管组件	EB22系列	壁挂式歧管设计平衡瓶罐接头压力
切换站	EAH AFBE	固定安全地切换两个瓶罐
自动开关控制板站	HCO GDCI	提供智能开关外壳
歧管板站	HCO GDCG	支持两个标准长度12" (304.8mm) 歧管扩展安装

## ECI系列智能开关系统

ECI系列智能开关是全自动气体管理系统，可以提供任何低温、高压气体连续转储供应控制管理，特别适用于：实验室的气相色谱仪、质谱仪、电感耦合等离子体用的高纯度气体（如：二氧化氮、氮）控制管理；智能开关里内嵌专业软件能减少浪费排气、充分利用微量剩余气体，以降低运营成本。

### 典型应用

高纯度、无腐蚀性、非易燃易爆类型气体

气相色谱和质谱标准类气体

感应耦合等离子体和感应耦合等离子体标准类气体

孵化器的二氧化碳和氮气

生物技术、制药和医疗气体系统

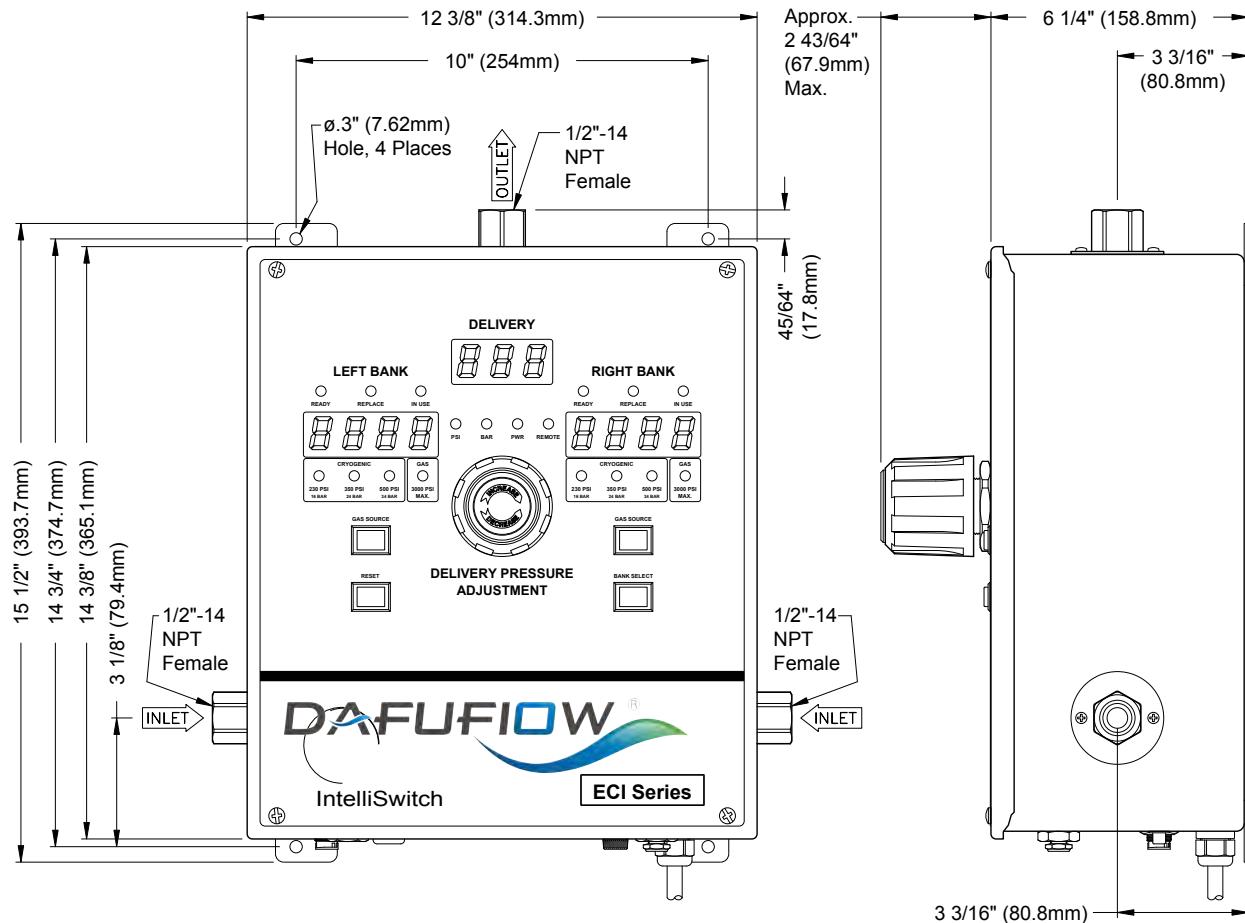
微批量转储

实验室、研究室或工厂的中央供气系统



功 能	材 质	技术规格
<p>精确控制 全自动分配控制技术 远程和现场可调软件 使用远程监控技术进行灵活管控过程 现场或远程源选择 瓶罐、高压等服务 内嵌互联网服务器和远程软件 启用监视和控制功能 低成本技术 减少浪费 电子节油器 Eliminates vent loss from 230 PSIG (15 BAR), 350 PSIG (24 BAR), or 500 PSIG (34 BAR) liquid cylinders 过程气体先导阀 安装简单 RS 232通信 NEMA 1、2防护外壳设计 仅适用于室内安装</p>	<p>调压阀和阀体 锻造铜材 阀 杆 316L不锈钢 阀 座 PCTFE 外 壳 碳钢粉末涂层型 NEMA 1、2级防护 密封材质 PTFE、PCTFE、Viton®</p>	<p>电源电压 110 or 220 VAC <b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) <b>Temperature Range</b> 0°F to 140°F (-18°C to 60°C) <b>Flow Capacity</b> <math>C_v = 1.0</math> <b>Filter</b> 40 micron <b>Inlet Connection</b> 1/2" FPT <b>Outlet Connection</b> 1/2" FPT <b>Weight</b> 67 lbs. (30.4 kg)</p>

## 产品结构尺寸图



## 选型信息

ECI	A	B	C	D	-XX	-CON
Series ECI	Outlet Pressure	右侧连接	左侧连接	电源电压	其他配置	管连接
2: 0-50 PSIG (0-1 BAR)	O: 1/2" FPT 端口连接		0: 1/2" FPT	2: 110 VAC	-0B: Standard	Please specify inlet connection (if applicable)
3: 0-100 PSIG (0-7 BAR)	A: 隔膜阀带36"(900mm)不锈钢管		1: Diaphragm valve with 36" (900mm) stainless flexible hose	3: 220 VAC	-0A: Tamper resistant option	CGA DIN 477 BS 341 and others available.
4: 0-150 PSIG (0-10 BAR)	B: 隔膜阀带72" (1800mm) 不锈钢管		2: 隔膜阀带72" (1800mm) 不锈钢管			
5: 0-200 PSIG (0-14 BAR)	C: Manifold connector*		3: Manifold connector*			

\*See pages 54-55 for manifold ordering information

## 相关的选项

选项	订货型号	规格描述
远程报警	Advantium Series	提供声光通讯进行远程监控瓶罐 (见后具体参数)
排气歧管组件	EB22系列	壁挂式歧管设计平衡瓶罐接头压力
切换站	EAH AFBE	固定安全地切换两个瓶罐
自动开关控制板站	HCO GDCI	提供智能开关外壳
歧管板站	HCO GDCG	支持两个标准长度12" (304.8mm) 歧管扩展安装

## EDB系列大流量补偿

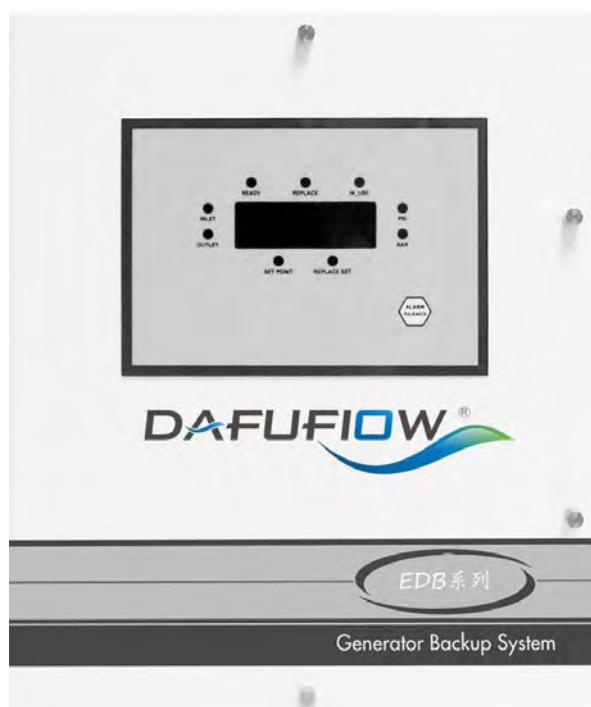
EDB系列大流量补偿备份器是一款“智能”设备；提供大流量气体发生器、零散灌装供应商管理系统。EDB系列补偿备份器当气体发生器突然断电或散装供气系统缺气情况下将自动激活备用电源进行补偿供气；对散装供气系统自动调配系统补偿继续供气。

EDB补偿备份器将这些特殊应用功能集成在微型处理器上，并配备创新的互联网技术，进行远程监控和控制，该设备的先进互联网技术系统不断监测管道压力和储罐的压力，通过特定编程压力值，能随时监控，提供备份补偿。

EDB补偿备份器适用于：氮气、空气、氦气、二氧化碳、氧化亚氮、氧气或氩气等介质应用领域，使用高纯度锻造铜材。

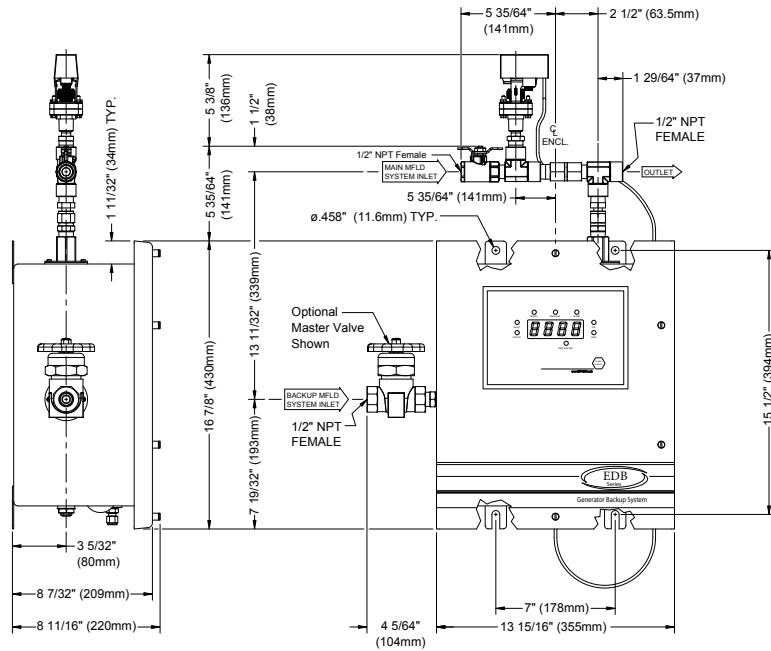
### 典型应用

提供零时、零散微量补偿备份  
空气、氮气、氧气发生器补偿备份  
气相色谱仪、火焰离子化检测器和  
质谱仪补偿备份  
临界实验室气藏  
提供恒温箱CO<sub>2</sub>补偿备份



功 能	材 质	技术规格
可编程备用压力 用户可以设置备份点压力值	调节器本体 黄铜棒料	最大输入压力 0-120 PSIG (0-8 BAR)
可编程备用低压报警 用户设置低备用报警点	阀 盖 镀铬压铸锌	0-250 PSIG (0-17 BAR)
内嵌互联网服务和远程监控软件 启用实时在线系统监控	阀 座 PCTFE	温度范围 0°F to 140°F (-18°C to 60°C)
<b>高纯度的成分</b> 用在高纯度系统	过滤器 专利40微米316目	压力显示 数显大屏幕
大流量	隔膜与调片 316L不锈钢	状态显示 多极发光LED
发生器和备份器上的加装止回阀 防止回流到发生器或备用瓶罐	CGA接头 黄铜棒料	泄漏率 (氦气检测) $1 \times 10^{-8} \text{ scc/sec}$
	止回阀密封 PTFE or Viton ®	调节压力范围 50-250 PSIG (3.5-17 BAR)
	外 壳 NEMA 12粉末涂层钢	Cv 1.0
		重 量 45 lbs. (20.45 kg)

## 产品结构尺寸图



## 技术规格

EDB	A	B	C	D	-CON	Stations
Series EDB	Delivery Pressure	Inlet Options	Internal Buzzer Audible Alarm	Voltage/Web Server Assembly Options	Gas Service Cylinder Connections	
	<b>3:</b> 0-120 PSIG (0-8 BAR)	<b>0:</b> 1/2" FPT	<b>0:</b> Without alarm	<b>2:</b> 120 VAC / without web server	<b>-000:</b> No cylinder connection	<b>0:</b> No hoses
	<b>5:</b> 0-250 PSIG (0-17 BAR)	<b>1:</b> Master valve 1/2" FPT	<b>1:</b> With alarm	<b>3:</b> 240 VAC / without web server	<b>-296:</b> Oxygen mixture >23.5%	<b>1:</b> 1 station
		<b>2:</b> Micromanifold without hoses		<b>4:</b> 120 VAC / with web server	<b>-320:</b> CO <sub>2</sub>	<b>2:</b> 2 stations
		<b>3:</b> Micromanifold with 36" (900mm) stainless flexible hoses		<b>5:</b> 240 VAC / with web server	<b>-326:</b> N <sub>2</sub> O	<b>3:</b> 3 stations
		<b>4:</b> Micromanifold with 72" (1800mm) stainless flexible hose			<b>-346:</b> Breathable air	<b>4:</b> 4 stations
		<b>5:</b> Master valve with micromanifold without hoses			<b>-EDO:</b> Oxygen	<b>5:</b> 5 stations
		<b>6:</b> Master valve with micromanifold with 36" (900mm) stainless flexible hose			<b>-580:</b> Inert (Argon, Helium, Nitrogen)	<b>6:</b> 6 stations
		<b>7:</b> Master valve with micromanifold with 72" (1800mm) stainless flexible hose			<b>-590:</b> Synthetic air (dry, zero grade, ultra zero grade)	<b>7:</b> 7 stations
		<b>C:</b> High flow manifold, single ro , without hoses			DIN 477	<b>8:</b> 8 stations
		<b>D:</b> High flow manifold, single ro , with 36" (900mm) stainless flexible hose			BS 341	
		<b>E:</b> High flow manifold, single ro , with 72" (1800mm) stainless flexible hose			and others available	
		<b>F:</b> High flow manifold, dual ro , without hoses				
		<b>G:</b> High flow manifold, dual ro , with 36" (900mm) stainless flexible hose				
		<b>H:</b> High flow manifold, dual ro , with 72" (1800mm) stainless flexible hose				

## EDD系列智能开关IIIV

EDD系列智能开关IIIV型是配有嵌入式互联网技术，可以实现远程监控、安全配置操作系统，能通过系统了解事件日志并通过发送邮件通知控制端用户。

EDD系列智能开关非常适用于气源压力超过400PSI (27.0bar) 的压力控制或切换分离操作系统。广泛的压力操作范围：100~2000PSI,可以根据系统输送要求，根据入口、出口压力的监控，EDD智能开关会自动切换选择合适的压力气瓶，提供一个可靠的、连续的供气系统。

该系统操作简单，只需要简单的按键输入操作。

### 典型应用

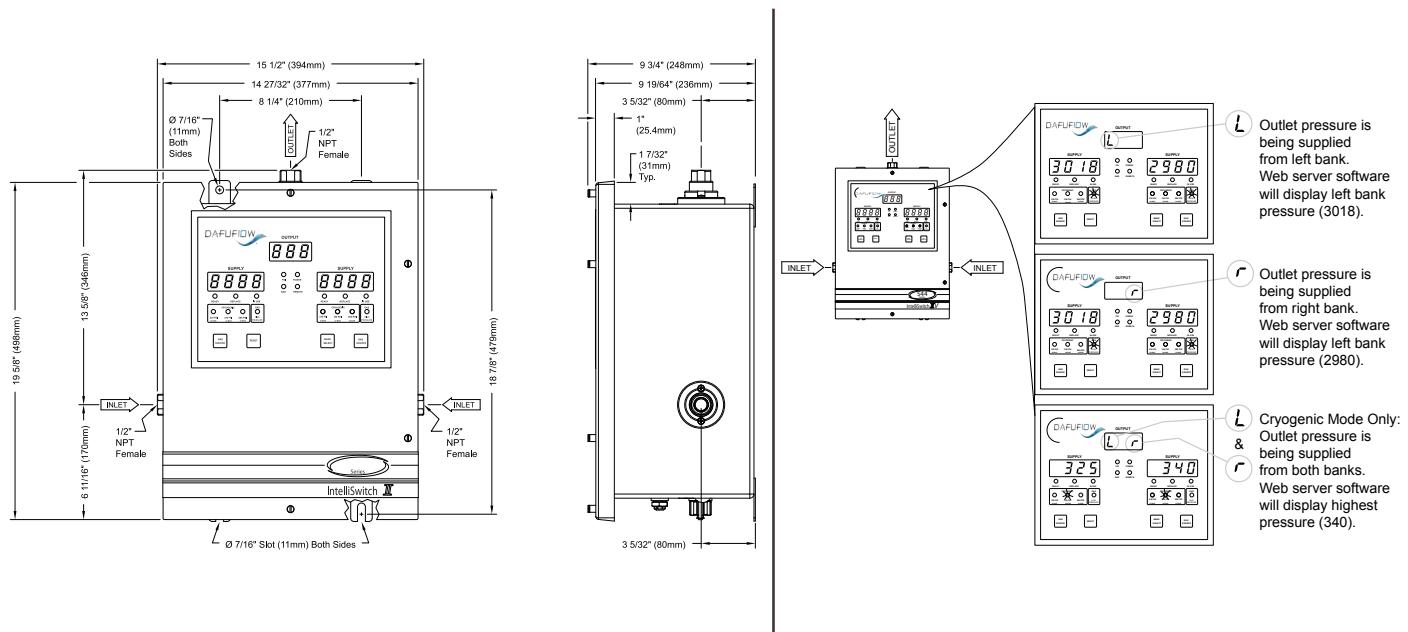
- 高压配送气体系统
- 航空航天系统测试
- 氦气测漏试验
- 混合燃料研究分析与加工
- 高压空气系统
- 气动阀门工厂检测



EDD系列  
IntelliSwitch IIIV

功 能	材 质	技术规格
<p><b>精确控制</b> 全自动分配控制技术</p> <p><b>远程和现场内嵌软件</b> 使用远程监控技术进行灵活管控过程</p> <p><b>现场或远程源选择</b> 瓶罐、高压等服务</p> <p><b>内嵌互联网服务器和远程软件</b> 启用监控和控制功能</p> <p><b>低成本技术</b> 减少浪费</p> <p><b>电子节油器</b> 消除罐子的排气损失</p> <p><b>过程气体先导阀</b> 安装简单</p> <p>RS 232通信 提供远程监控</p> <p>NEMA 4防护外壳设计</p>	<p><b>调压阀和阀体</b> 锻造铜材</p> <p><b>阀 杆</b> 316L 不锈钢</p> <p><b>阀 座</b> PCTFE</p> <p><b>密 封</b> PTFE、PCTFE、Viton®</p> <p><b>外 壳</b> 碳钢粉末涂层型 NEMA 4级防护</p>	<p><b>电源配置</b> 24VDC或220VAC电源 (配有1/2" 导线管接入)</p> <p><b>最大输入压力</b> 3000 PSIG (210 BAR) 4500 PSIG (310 BAR)*</p> <p><b>温度范围</b> 0°F to 140°F (-18°C to 60°C)</p> <p><b>流 量 (Cv)</b> Cv = 1.0</p> <p><b>过 滤</b> 40 micron</p> <p><b>输入端连接</b> 1/2" FPT</p> <p><b>输出端连接</b> 1/2" FPT</p> <p><b>重 量</b> 67 lbs. (30.4 kg)</p> <p>* 先导型工作方式。</p>

## 产品结构尺寸图



## 产品选型（仅供参考, 以工厂交付为准）

544	A	B	C	D	-CON
Series 544	Maximum Inlet Pressure/ Assembly	Right Side Connection	Left Side Connection	Factory Preset Switchover Pressure (field adjustable)	Hose
	<b>A:</b> 3000 PSIG (210 BAR)/ 120 VAC	<b>0:</b> 1/2" FPT port	<b>0:</b> 1/2" FPT port	<b>1:</b> 100 PSIG (7 BAR)	<b>B:</b> 1100 PSIG (75 BAR)
	<b>B:</b> 3000 PSIG (210 BAR)/ 240 VAC	<b>1:</b> Diaphragm valves with 36" (900mm) stainless flexible hose	<b>1:</b> Diaphragm valves with 36" (900mm) stainless flexible hose	<b>2:</b> 200 PSIG (14 BAR)	<b>C:</b> 1200 PSIG (82 BAR)
	<b>H:</b> 4500 PSIG (310 BAR)/ 120 VAC	<b>2:</b> Diaphragm valves with 72" (1800mm) stainless flexible hose	<b>2:</b> Diaphragm valves with 72" (1800mm) stainless flexible hose	<b>3:</b> 300 PSIG (21 BAR)	<b>D:</b> 1300 PSIG (89 BAR)
	<b>J:</b> 4500 PSIG (310 BAR)/ 240 VAC	<b>3:</b> Manifold connector*	<b>3:</b> Manifold connector*	<b>4:</b> 400 PSIG (27 BAR)	<b>E:</b> 1400 PSIG (96 BAR)
*See pages 54-55 for manifold ordering information					
<b>5:</b> 500 PSIG (34 BAR) <b>F:</b> 1500 PSIG (100 BAR)					
<b>6:</b> 600 PSIG (42 BAR) <b>G:</b> 1600 PSIG (110 BAR)					
<b>7:</b> 700 PSIG (48 BAR) <b>H:</b> 1700 PSIG (117 BAR)					
<b>8:</b> 800 PSIG (55 BAR) <b>J:</b> 1800 PSIG (124 BAR)					
<b>9:</b> 900 PSIG (62 BAR) <b>K:</b> 1900 PSIG (131 BAR)					

## 技术规格

Option	Order Number	Description
Remote Alarm	Advantium Series	Provides audible and visible notification of a depleted supply bank to a remote location (See pgs. 68-71)
Vent Manifold Kit	EB12 series	Wall-mounted manifold designed to equalize liquid cylinder head pressure
Switchover Station	518 1625	Safely mount and secure any switchover and two cylinders
AutoSwitch Floor Stand	830 7439	Support IntelliSwitch enclosure
Manifold Floor Stand	830 7437	Supports two standard length 12" (304.8mm) manifold extensions installed consecutively

## EAE系列阳极化镀晶自动切换器

EAE系列阳极化镀晶自动切换器是一种自动切换系统设备，能提供反应性、腐蚀性或高纯度气体配送任务，特别适用于仪器校准、过程控制。该系列自动切换器配套专利无定型硅材质，具有极高的化学稳定性，耐腐蚀性比316LSS还强，它表面光洁度极高。EAE系列阳极化镀晶自动切换器还可以选择调节器与其配套使用，保持恒定的下游压力。

### 典型应用

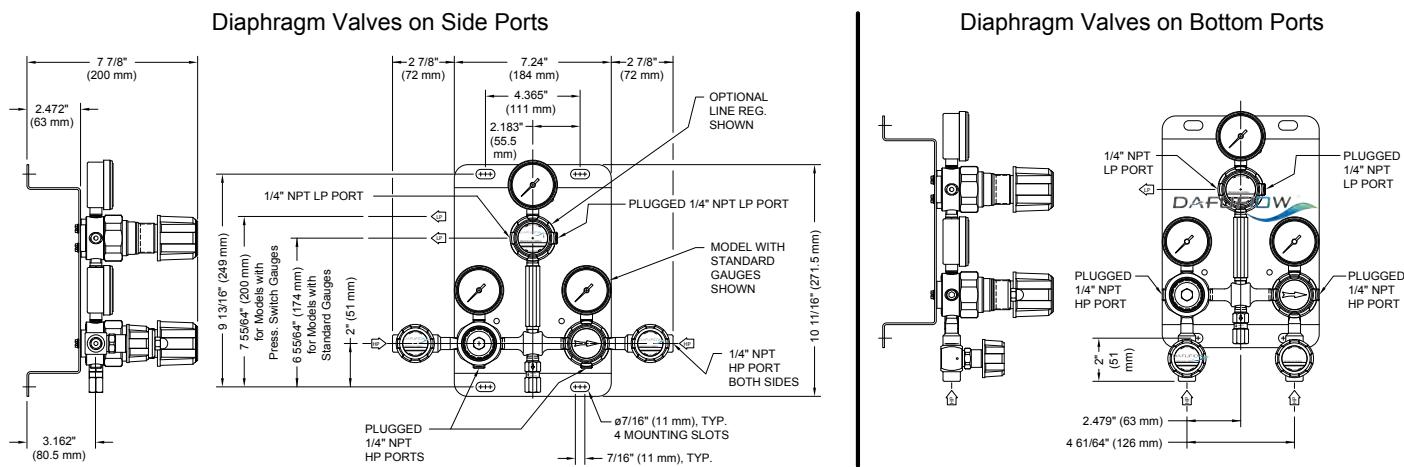
- 灵活的校准标准
- 排放物监测
- H<sub>2</sub>S和硫换算校验标
- 汞校验标准
- 低硫含量油气控制
- 腐蚀性其他
- 超高纯度仪器用气



EAE DAAA图示显示配置：  
可选真空软管和远程警报器.

功 能	材 质	技术规格
<p>DOO系列不锈钢材质调压阀 包裹专利技术 金属-金属膜片密封 气体无污染设计 用户操作优化设计 旋钮开关气罐 单向阀设置与进口密封处 防止污染和回流 可选在线安装式调节器 保证切换过程中压力稳定 可选远程报警 与Advantium系统集成</p>	<p><b>Bodies</b> SilcoNert 1020</p> <p><b>Bonnet</b> Chrome-plated brass barstock</p> <p><b>Diaphragms</b> SilcoNert 1020</p> <p><b>Seats</b> PTFE PCTFE with 4500 PSIG (310 BAR) inlet</p> <p><b>Filters</b> &lt; 10 micron SilcoNert 1020 mesh</p> <p><b>Internal Seals</b> PTFE</p>	<p><b>最大输入压力</b> 3000 PSIG (210 BAR)</p> <p><b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)</p> <p><b>压力表</b> 2" (53mm) diameter stainless steel (bourdon tube not treated)</p> <p><b>输出端连接</b> 1/4" MPT (without line regulator) 1/4" FPT (with line regulator)</p> <p><b>氦气测漏值</b> <math>1 \times 10^{-8}</math> scc/sec</p> <p><b>Cv</b> 0.1</p> <p><b>重量</b> 8.25 lbs. (3.71 kg)</p>

## 产品结构尺寸图



## 产品结构尺寸图

EAE	A	B	C	D	-CON
Series EAE	Switching Pressure (Priority R/L)	Inlet Connection	Line Regulator Assembly		Installed Options
4: 200/170 PSIG (13.5/11.5 BAR)	0: 1/4" FPT ports	0: None	1: 0-4000 PSIG/0-28,000 kPa gauges no alarm capability		Please specify inlet connection (if applicable)
5: 500/470 PSIG (33.8/31.8 BAR)	1: 36" (900mm) stainless steel flexible hoses	1: 0-15 PSIG (0-1 BAR)	2: 0-280 BAR/4000 PSIG gauges no alarm capability		CGA DIN 477 BS 341 and others available
8: 300/270 PSIG (21/18 BAR)	3: 24" (600mm) stainless steel flexible hoses	2: 0-50 PSIG (0-3.5 BAR)	4: 0-280 BAR/4000 PSIG gauges with pressure switches† and remote alarm (110/220 VAC)		
	4: Diaphragm valves with 1/4" FPT port	3: 0-100 PSIG (0-7 BAR)	8: 0-280 BAR/4000 PSIG gauges with pressure switches† and without remote alarm		
	5: Diaphragm valves with 36" (900mm) hoses	4: 0-250 PSIG (0-17 BAR)	†Intrinsic safety barriers are required for flammable gas service or for use in hazardous environments.		
	7: Diaphragm valves with 24" (600mm) hoses	5: 0-400 PSIG (0-27 BAR)			
	A: 24" (600mm) stainless steel flexible hoses with diaphragm valve	7: 0-150 PSIG (0-10 BAR)			

## EBB系列自动开关

EBB系列自动开关是一款提供高纯度气体连续输送系统的智能设备；通常在实验室或气体加工厂里使用。根据供应源气罐的压力变化来合理分配利用气罐的储备气体输送任务，减少人工切换时间，气体浪费。此系列产品可以选配内部压力开关、警报灯、远程警示信息等配置。

### 典型应用

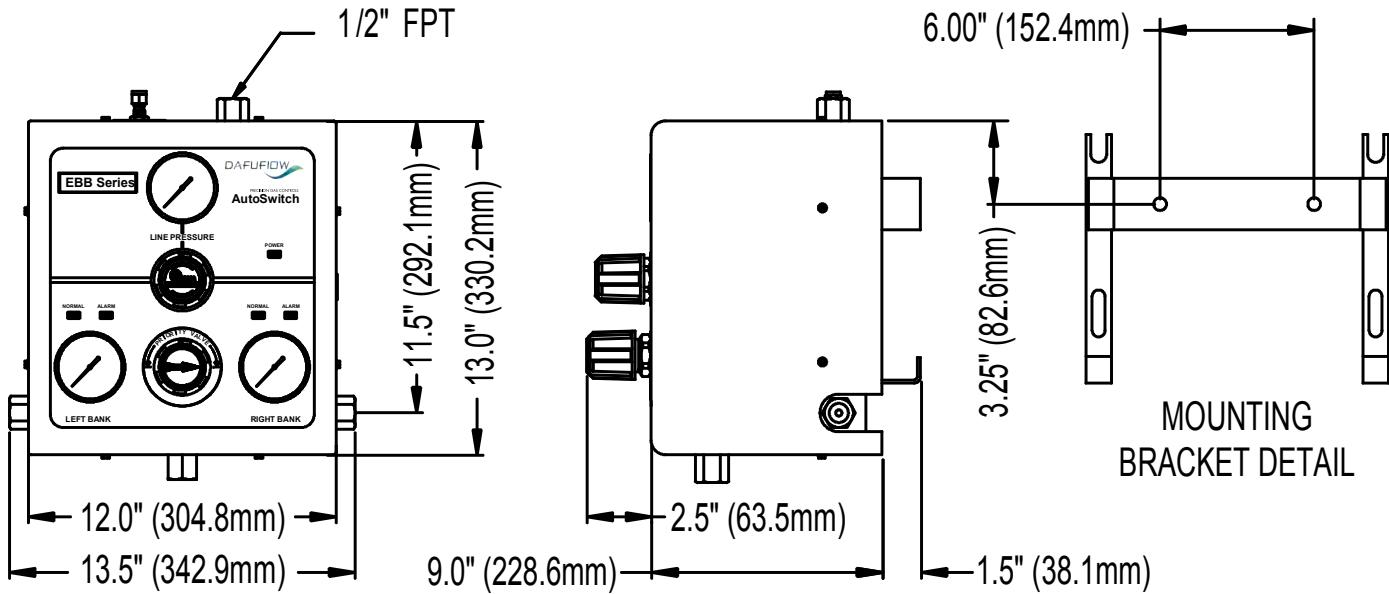
- 高纯度无腐蚀性气体供应
- 气相色谱仪供应气体
- 氢气和气体可燃气体
- 单纯气体或混合性工艺气体供应
- 生物技术、制药用气体系统
- 实验室、研究机构或工厂的中央供气系统



EBB 3004 shown

功 能	材 质	技术规格
DOO系列不锈钢材质调压阀 包裹™专利技术	先导阀 锻造铜材	最大工作压力 3000 PSIG (210 BAR)
金属-金属膜片密封 气体无污染设计	在线式调压阀 锻造铜材	温度范围 -40°F to 140°F (-40°C to 60°C)
线性压力调整输出 稳定的管路压力变化	膜 片 316L不锈钢	在 100 PSIG (7 BAR)下的最大流量 600 SCFH (283 LPM)
调节管路压力 可现场调节管路压力	附 件 丙烯酸粉末涂层钢	流量系数Cv 0.1
用户操作优化设计 旋钮开关气罐	管接头和过滤器 316L不锈钢	输入端连接 1/2" FPT
内部集成 安装方便	内部阀座和密封 PTFE	输出端连接 1/4" 不锈钢压缩管
可选远程报警 与Advantium系统集成 Advantium 8 监控4个系统	压 力 表 铜、不锈钢	<b>Relief Valve</b> 出口端连接 1/2" FPT
安全防护 适用于易燃易爆气体， 适用区域： Class 1, Div. 1, Group A, B, C, or D	压 力 开关 (可选) 现场设置与进口表处， 触点 (设定下面设置点)	氦气测漏值 $1 \times 10^{-8} \text{ SCC/sec}$
	单向阀 铜材和Viton	重 量 40 lbs. (18 kg)

## 产品结构尺寸图



EBB	A	B	C	D	-CON	Options
Series EBB	Outlet Pressure	Inlet Connection	Cylinders/Side	Assembly	Hose	
	2: 0-50 PSIG (0-3.5 BAR)	0: 1/2" FPT	0: No inlet connection**	1: Without alarm capability	Please specify inlet connection (if applicable)	<b>C:</b> Compact manifold extensions
	3: 0-100 PSIG (0-7 BAR)	1: Brass manifolds with 36" (900mm) stainless steel flexible hoses at each station	1: One cylinder	4: With alarm capability* (alarm sold separately)	CGA DIN 477 BS 341 and others available	
	4: 0-200 PSIG (0-14 BAR)	3: Diaphragm valves with 36" (900mm) stainless steel flexible hoses*	2: Two cylinders	*Intrinsic safety barriers are required for flammable gas service or for use in hazardous environments.		
	5: 0-350 PSIG (0-24 BAR)	4: Brass manifolds with 24" (600mm) stainless steel flexible hoses at each station	3: Three cylinders			
	7: 0-150 PSIG (0-10 BAR)	5: Chrome-plated brass manifolds with 36" (900mm) stainless steel flexible hoses at each station	4: Four cylinders			
	6: 1/2" FPT with captured vent		5: Five cylinders			
	7: Chrome-plated brass manifolds with 24" (600mm) stainless steel flexible hoses at each station		6: Six cylinders			
	9: Diaphragm valves with 72" (1800mm) stainless steel hoses*		7: Seven cylinders			
	*One cylinder/side only		8: Eight cylinders			
	9: Nine cylinders		9: Nine cylinders			
	0: Ten cylinders**		0: Ten cylinders**			
	A: Eleven cylinders		A: Eleven cylinders			
	B: Twelve cylinders		B: Twelve cylinders			
	C: Thirteen cylinders		C: Thirteen cylinders			
	D: Fourteen cylinders		D: Fourteen cylinders			
	E: Fifteen cylinders		E: Fifteen cylinders			
	** If manifold option is selected in B, 0 = ten cylinders					

## EBC系列自动开关

EBC系列自动开关是一款提供高纯度气体连续输送系统的智能设备；通常在实验室或气体加工厂里使用。根据供应源气罐的压力变化来合理分配利用气罐的储备气体输送任务，减少人工切换时间，气体浪费。该系列产品可以选配内部压力开关、警报灯、远程警示信息等配置。

### 典型应用

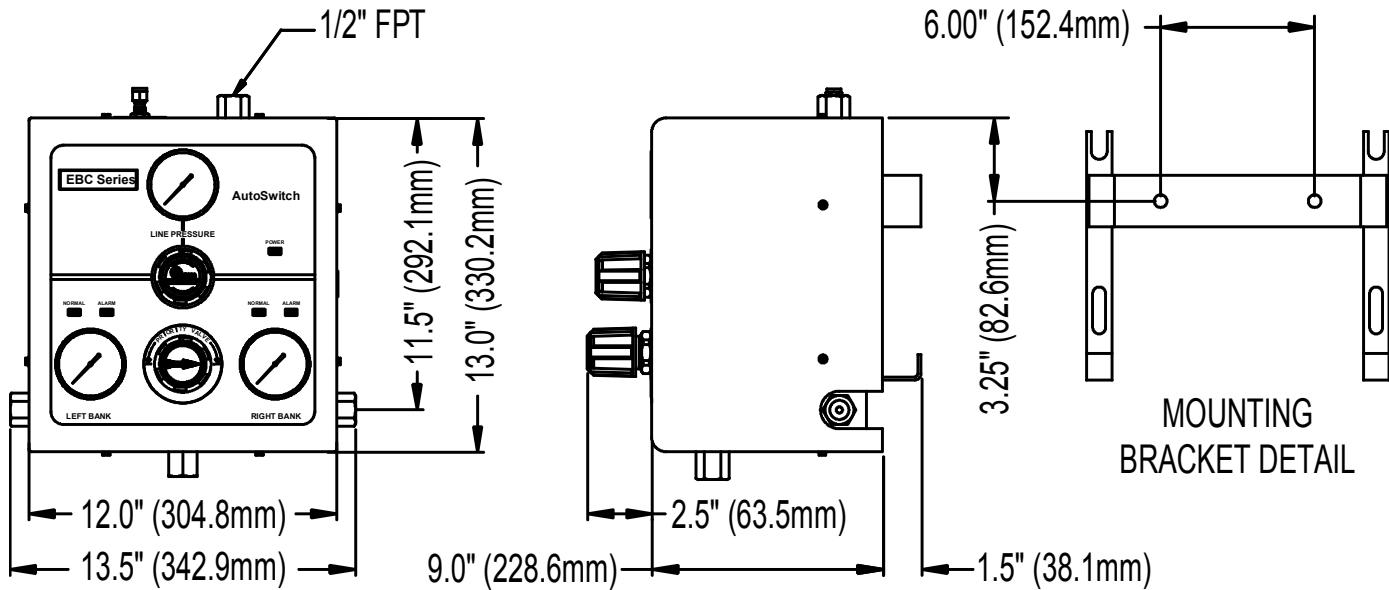
- 高纯度无腐蚀性气体供应
- 气相色谱仪供应气体
- 氢气和气体可燃气体
- 单纯气体或混合性工艺气体供应
- 生物技术、制药用气体系统
- 实验室、研究机构或工厂的中央供气系统



EBC 3004 shown

功 能	材 质	技术规格
<p>DOO系列不锈钢材质调压阀 包裹™专利技术</p> <p>金属-金属膜片密封 气体无污染设计</p> <p>线性压力调整输出 稳定的管路压力变化</p> <p>调节管路压力 可现场调节管路压力</p> <p>用户操作优化设计 旋钮开关气罐</p> <p>内部集成 安装方便</p> <p>可选远程报警 与Advantium系统集成 Advantium 8 监控4个系统</p> <p>安全防护 适用于易燃易爆气体， 适用区域： Class 1, Div. 1, Group A, B, C, or D</p>	<p>先导阀 316L不锈钢</p> <p>在线式调压阀 316L不锈钢</p> <p>膜 片 316L不锈钢</p> <p>附 件 丙烯酸粉末涂层钢</p> <p>管接头和过滤器 316L不锈钢</p> <p>内部阀座和密封 PTFE</p> <p>压力表 316L不锈钢</p> <p>压力开关（可选） 现场设置与进口表处， 触点（设定下面设置点）</p> <p>单向阀 铜材和Viton</p>	<p>最大工作压力 3000 PSIG (210 BAR)</p> <p>温度范围 -40°F to 140°F (-40°C to 60°C)</p> <p>在 100 PSIG (7 BAR)下的最大流量 600 SCFH (283 LPM)</p> <p>流量系数Cv 0.1</p> <p>输入端连接 1/2" FPT</p> <p>输出端连接 1/4" 不锈钢压缩管</p> <p><b>Relief Valve</b> 出口端连接 1/2" FPT</p> <p>氦气测漏值 <math>1 \times 10^{-8}</math> scc/sec</p> <p>重量 40 lbs. (18 kg)</p>

## 产品结构尺寸图



## Ordering Information

EBC	A	B	C	D	-CON	Options
Series EBC	Outlet Pressure	Inlet Connection	Cylinders/Side	Assembly	Hose	
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	<b>0:</b> 1/2" FPT for non-toxic gases	<b>0:</b> No inlet connection**	<b>1:</b> Without alarm capability	Please specify inlet connection (if applicable)	<b>C:</b> Compact manifold extensions
	<b>3:</b> 0-100 PSIG (0-7 BAR)	<b>1:</b> Stainless steel manifolds for non-toxic gases with 36" (900mm) flexible hoses at each statio	<b>1:</b> One cylinder	<b>4:</b> With alarm capability* (alarm sold separately)	CGA DIN 477 BS 341 And others Available	
	<b>4:</b> 0-200 PSIG (0-14 BAR)	<b>3:</b> Diaphragm valves for non-toxic gases with Two 36" (900mm) flexible hoses	<b>2:</b> Two cylinders			
	<b>5:</b> 0-350 PSIG (0-24 BAR)	<b>4:</b> Stainless steel manifolds for non-toxic gases with 24" (600mm) flexible hoses at each statio	<b>3:</b> Three cylinders	*Intrinsic safety barriers are required for flammable gas service or for use in hazardous environments.		
	<b>7:</b> 0-150 PSIG (0-10 BAR)	<b>5:</b> Stainless steel manifolds for toxic gases with 36" (900mm) stainless steel flexible hoses at each statio †	<b>4:</b> Four cylinders			
		<b>6:</b> 1/2" FPT with captured vent	<b>5:</b> Five cylinders			
		<b>7:</b> Stainless steel manifolds for toxic gases with 24" (600mm) flexible hoses at each statio †	<b>6:</b> Six cylinders			
		<b>8:</b> Diaphragm valves for toxic gases with 36" (900mm) flexible hoses †	<b>7:</b> Seven cylinders			
		<b>9:</b> Diaphragm valves with 72" (1800mm) stainless steel hoses*	<b>8:</b> Eight cylinders			
	*One cylinder/side only †Includes captured vent		<b>9:</b> Nine cylinders			
			<b>0:</b> Ten cylinders**			
			<b>A:</b> Eleven cylinders			
			<b>B:</b> Twelve cylinders			
			<b>C:</b> Thirteen cylinders			
			<b>D:</b> Fourteen cylinders			
			<b>E:</b> Fifteen cylinders			
	** If manifold option is selected in B, 0 = ten cylinders					

## EBF系列自动开关

EBF系列切换器是一种为高纯度、无腐蚀性其他连续供应系统配套的自动化设备。该系统适用于两个气罐或两个以上气罐输送气体，系统配有柔性软管、模块化岐管及各种连接件，同时为了系统保持一个恒定的压力，提供一个在线式安装的调节器。

### 典型应用

- 超高纯度气体
- 气相色谱仪介质气体
- AA级乙炔
- 有CO<sub>2</sub>和N<sub>2</sub>的细胞培养孵化器
- 纯气体和混合气体处理
- 实验室、研究机构或工厂制造过程的中央供气系统

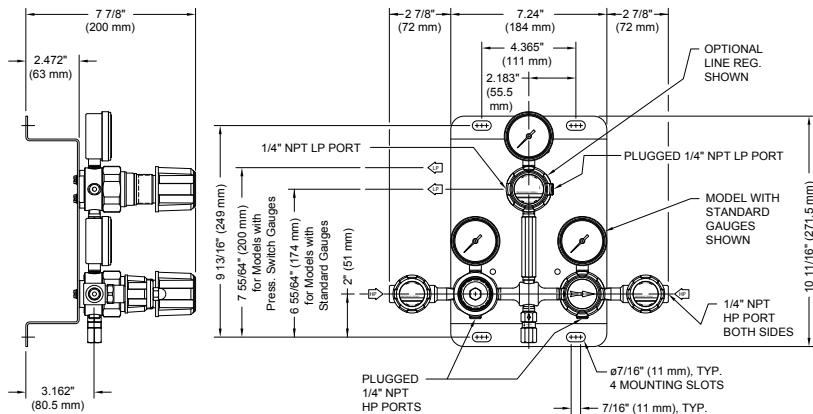


图示：EBF DAAA型可选配软管和警报系统

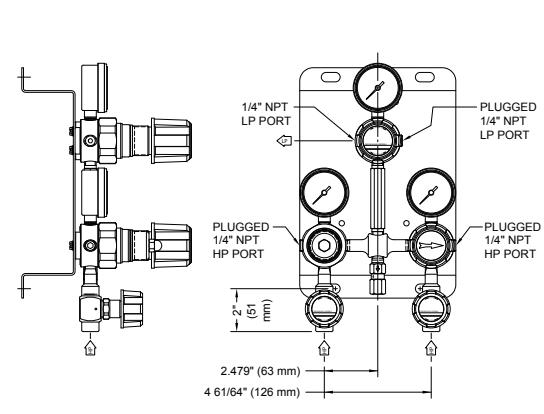
功 能	材 质	技术规格
<b>DOO Series Brass Barstock Regulators</b> CAPSULE® seat	<b>Bodies</b> Brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 4500 PSIG (310 BAR) optional
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Diaphragms</b> 316L stainless steel	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>User-Friendly</b> One knob switches cylinder priority	<b>Seats</b> PTFE PCTFE with 4500 PSIG (310 BAR) inlet	<b>Gauges</b> 2" (53mm) diameter brass
<b>Check Valves in Hose Inlet Glands</b> Prevents contamination and back flow	<b>Filters</b> 10 micron sintered bronze	<b>Outlet Connection</b> 1/4" MPT (without line regulator) 1/4" FPT (with line regulator)
<b>Compatible with Maniflex Manifold</b> Multiple cylinders per side	<b>Internal Seals</b> PTFE	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Optional Line Regulator</b> Stable line pressure during change over		<b>Cv</b> 0.1
<b>Optional Remote Alarm</b> Easy integration with Advantium system CE marked 220 volt alarm		<b>Weight</b> 8.25 lbs. (3.71 kg)
<b>Optional Purge Valves</b> Allows purging after cylinder change over		
<b>Optional Outlet Valve</b> Allows isolation of pipeline		

## Installation Information

### Diaphragm Valves on Side Ports



### Diaphragm Valves on Bottom Ports



## Ordering Information

EBF	A	B	C	D	-CON	Optional
Series EBF	Switching Pressure (Priority R/L)	Inlet Connection	Line Regulator	Assembly	Hose	
1: 125/105 PSIG* (8.4/7.1 BAR)	0: 1/4" FPT ports		0: None	1: 0-4000 PSIG/0-28,000 kPa gauges no alarm capability*	Please specify inlet connection (if applicable)	<b>A:</b> Outlet valve
2: 70/50 PSIG* (4.8/3.5 BAR)	1: 36" (900mm) stainless steel flexible hose		1: 0-15 PSIG (0-1 BAR)	2: 0-275 BAR/0-4000 PSIG gauges no alarm capability*		<b>B:</b> Outlet valve and purge valve
3: 100/75 PSIG (6.8/5.1 BAR)	2: Manifold connectors*		2: 0-50 PSIG (0-3.5 BAR)	4: 0-275 BAR/0-4000 PSIG with pressure switches and remote alarm (110/220 VAC)*†	CGA DIN 477 BS 341 and others available	<b>V:</b> Purge valves
4: 200/170 PSIG (13.5/11.5 BAR)	3: 24" (600mm) stainless steel flexible hose		3: 0-100 PSIG (0-7 BAR)	5: 0-40 BAR/0-600 PSIG gauges no alarm capability		
5: 500/470 PSIG (33.8/31.8 BAR)	4: Diaphragm valves with 1/4" FPT port		4: 0-250 PSIG (0-17 BAR)	7: 0-40 BAR/0-600 PSIG with pressure switches and remote alarm (110/220 VAC)†		
7: 150/130 PSIG (10.1/8.8 BAR)	5: Diaphragm valves with 36" (900mm) hoses		5: 0-400 PSIG (0-27 BAR)	8: 0-275 BAR/0-4000 PSIG* with pressure switches and without remote alarm†		
8: 300/270 PSIG (20.3/22.3 BAR)	6: Diaphragm valves with manifold connectors*		7: 0-150 PSIG (0-10 BAR)	9: 0-40 BAR/0-600 PSIG with pressure switches and without remote alarm		
*Not available with 4500 PSIG (310 BAR) inlet		7: Diaphragm valves with 24" (600mm) hoses	A: 0-15 PSIG (0-1 BAR) redline for acetylene	*0-6000 PSIG/405 BAR gauges with 4500 PSIG (310 BAR) maximum inlet option		
Note: switching pressure must be higher than line regulator pressure selected in column C.		8: 36" (900mm) stainless steel flexible hoses and 4500 PSIG (310 BAR) maximum inlet pressure		†Intrinsic safety barriers are required for flammable gas service or for use in hazardous environments.		
		9: 1/4" FPT ports and 4500 PSIG (310 BAR) maximum inlet pressure				
		A: 36" (900mm) stainless steel flexible hoses with flashback arresto for acetylene				
		B: 36" (900mm) stainless steel flexible hoses with flashback arresto for acetylene and with diaphragm valve				
		C: Compact manifold connector*				
		D: Diaphragm valves with compact manifold connectors*				

\*See pages 54-55 for manifold ordering information

## EBF LC系列自动开关

EBF LC系列自动切换器是一种以低温气源连续输送高纯度气体和备份高压气罐的自动切换装置。该装置系统附带的选项有高压侧的柔性软管或多个连接器连接气罐，低温端有3个开关选项配带3个安全阀设置，限制流量和压力。

### 典型应用

低流量排放；  
单电感耦合等离子体质谱（电感耦合）氩装置；  
细胞培养箱。

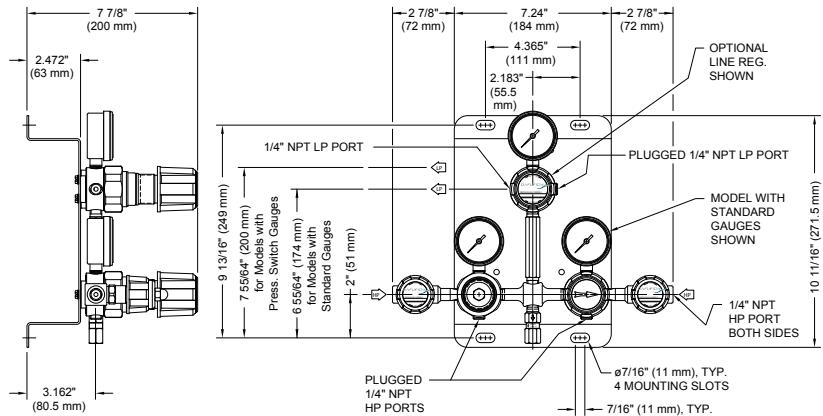


EBF LC C03B shown with attached flexible hoses. Available with optional remote alarm.

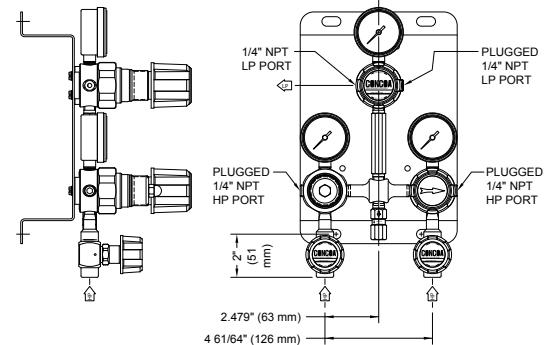
功能	材质	技术规格
<p><b>Three Matched Switching Pressures</b> 120 PSIG (8 BAR) for 230, 350, or 500 PSIG (15, 24, or 34 BAR) relief liquid cylinders</p> <p>200 PSIG (14 BAR) for 350 or 500 PSIG (24 or 34 BAR) relief liquid cylinders</p> <p>300 PSIG (21 BAR) for 500 PSIG (34 BAR) relief liquid cylinders</p> <p><b>DOO Series Brass Barstock Regulators</b> CAPSULE® seat</p> <p><b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination</p> <p><b>Check Valves in Hose Inlet Glands</b> Prevents contamination and back flow</p> <p><b>Optional Line Regulator</b> Stable line pressure during change over</p> <p><b>Optional Remote Alarm</b> Easy integration with Advantium system</p> <p><b>Optional Purge Valves</b> Allows purging after cylinder change over</p>	<p><b>Bodies</b> Brass barstock</p> <p><b>Diaphragms</b> 316L stainless steel</p> <p><b>Seats</b> PTFE PCTFE with 4500 PSIG (310 BAR) inlet</p> <p><b>Filters</b> 10 micron sintered bronze</p> <p><b>Internal Seals</b> PTFE</p>	<p><b>Right Side Liquid Cylinder</b> 500 PSIG (34.5 BAR) maximum inlet pressure</p> <p><b>Left Side High Pressure Cylinder</b> 3000 PSIG (210 BAR) maximum inlet pressure</p> <p><b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)</p> <p><b>Gauges</b> 2" (53mm) diameter brass</p> <p><b>Outlet Connection</b> 1/4" MPT (without line regulator) 1/4" FPT (with line regulator)</p> <p><b>Helium Leak Integrity</b> <math>1 \times 10^{-8}</math> scc/sec</p> <p><b>Cv</b> 0.1</p> <p><b>Weight</b> 8.25 lbs. (3.71 kg)</p> <p><b>Maximum Flow (Single Cryogenic Liquid Nitrogen Cylinder)</b> 250 SCFH (118 SLPM) at 120 PSIG (8 BAR) inlet 300 SCFH (141 SLPM) at 200 PSIG (14 BAR) inlet 300 SCFH (141 SLPM) at 300 PSIG (21 BAR) inlet</p> <p><i>Flow can be significantly less depending on liquid cylinder condition and duty cycle.</i></p>

## 产品结构尺寸图

Diaphragm Valves on Side Ports



Diaphragm Valves on Bottom Ports



## Ordering Information

EBF LC	A	B	C	D	-CON	Options
Series EBF LC	Switching Pressure	Inlet Connection	Line Regulator Assembly		Hose	
A: 120 PSIG (8 BAR)	0: 1/4" FPT ports		0: None	A: 0-600 PSIG/0-4200 kPa right side gauge 0-4000 PSI/0-28,000 kPa left side gauge No alarm capability	Please specify inlet connection (if applicable)	A: Outlet valve
B: 200 PSIG (14 BAR)	1: 36" (900mm) stainless steel flexible hoses	1: 0-15 PSIG (0-1 BAR)	B: 0-42 BAR/0-600 PSIG right side pressure switch gauge 0-275 BAR/0-4000 PSIG left side pressure switch gauge and remote alarm (110/220 VAC)	CGA DIN 477 BS 341 and others available	B: Outlet valve and purge valve	
C: 300 PSIG (21 BAR)	2: Manifold connectors*	2: 0-50 PSIG (0-3.5 BAR)	C: 0-42 BAR/0-600 PSIG right side pressure switch gauge 0-275 BAR/0-4000 PSIG left side pressure switch gauge and no alarm	V: Purge valves		
Note: switching pressure must be higher than line regulator pressure selected in column C.		3: 24" (600mm) stainless steel flexible hoses	3: 0-100 PSIG (0-7 BAR)			
		4: Diaphragm valves with 1/4" FPT port	4: 0-250 PSIG (0-17 BAR)			
		5: Diaphragm valves with 36" (900mm) hoses	7: 0-150 PSIG (0-10 BAR)			
		6: Diaphragm valves with manifold connectors*				
		7: Diaphragm valves with 24" (600mm) hoses				
		C: Compact manifold connectors*				
		D: Diaphragm valves with compact manifold connectors*				
*See pages 54-55 for manifold ordering information						

## EBG系列自动开关

EBG系列切换器是一种为高纯度、无腐蚀性其他连续供应系统配套的自动化设备。该系统适用于两个气罐或两个以上气罐输送气体，系统配有柔性软管、模块化岐管及各种连接件，同时为了系统保持一个恒定的压力，提供一个在线式安装的调节器。



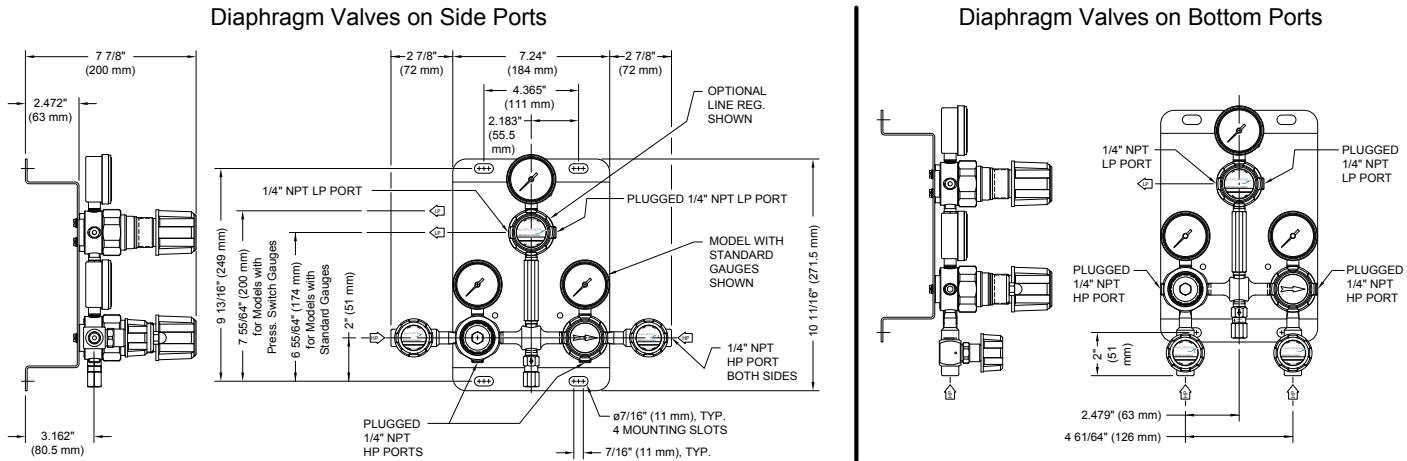
图示：EBG DAAA型带软管，可选警报功能

### 典型应用

- 超高纯气体
- 研究级纯气体
- 气相色谱载体和支撑气体
- 纯气体和混合处理气体
- 腐蚀性气体
- 氨
- 硫化氢

功 能	材 质	技术规格
<b>DOO Series Stainless Steel Regulators</b> CAPSULE® seat	<b>Bodies</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 4500 PSIG (310 BAR) optional
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Diaphragms</b> 316L stainless steel	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>User-Friendly Priority Valve</b> One knob switches cylinder priority	<b>Seats</b> PTFE PCTFE with 4500 PSIG (310 BAR) inlet	<b>Gauges</b> 2" (53mm) diameter stainless steel
<b>Check Valves in Inlet Gland</b> Prevents contamination and back flow	<b>Filters</b> Patented 10 micron 316 mesh	<b>Outlet Connection</b> 1/4" MPT (without line regulator) 1/4" FPT (with line regulator)
<b>Compatible with Maniflex Manifold</b> Multiple cylinders per side	<b>Internal Seals</b> PTFE	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Optional Line Regulator</b> Stable line pressure during change over		<b>Cv</b> 0.1
<b>Optional Remote Alarm</b> Easy integration with Advantium system		<b>Weight</b> 8.25 lbs. (3.71 kg)
<b>Optional Purge Valves</b> Allows purging after cylinder change over		
<b>Optional Outlet Valve</b> Allows isolation of pipeline		

## 产品结构尺寸图



## 产品选型（仅供参考，以工厂交付为准）

EBG	A	B	C	D	-CON	Options
Series EBG	Switching Pressure (Priority R/L)	Inlet Connection	Line Regulator Assembly		Hose	
	<b>1:</b> 125/105 PSIG (8.4/7.1 BAR)*	<b>0:</b> 1/4" FPT ports	<b>0:</b> None	<b>1:</b> 0-4000 PSIG/0-28,000 kPa gauges* no alarm capability	Please specify inlet connection (if applicable)	<b>A:</b> Outlet valve
	<b>2:</b> 70/50 PSIG (4.8/3.5 BAR)*	<b>1:</b> 36" (900mm) stainless steel flexible hoses	<b>1:</b> 0-15 PSIG (01 BAR)	<b>2:</b> 0-275 BAR/0-4000 PSIG gauges* no alarm capability	CGA DIN 477 BS 341 and others available	<b>B:</b> Outlet valve and purge valve
	<b>3:</b> 100/75 PSIG (6.8/5.1 BAR)	<b>2:</b> Manifold connectors*	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	<b>4:</b> 0-275 BAR/0-4000 PSIG* with pressure switches <sup>†</sup> and remote alarm (110/220 VAC)		<b>C:</b> Outlet valve and stainless steel bonnets
	<b>4:</b> 200/170 PSIG (13.5/11.5 BAR)	<b>3:</b> 24" (600mm) stainless steel flexible hoses	<b>3:</b> 0-100 PSIG (0-7 BAR)	<b>5:</b> 0-42 BAR/0-600 PSIG gauges no alarm capability		<b>D:</b> Outlet valve purge valve and stainless steel bonnets
	<b>5:</b> 500/470 PSIG (33.8/31.8 BAR)	<b>4:</b> Diaphragm valves with 1/4" FPT port	<b>4:</b> 0-250 PSIG (0-17 BAR)	<b>7:</b> 0-42 BAR/0-600 PSIG with pressure switches <sup>†</sup> and remote alarm (110/220 VAC)		<b>S:</b> Stainless steel bonnets
	<b>7:</b> 150/130 PSIG (10.1/130 BAR)	<b>5:</b> Diaphragm valves with 36" (900mm) hoses	<b>5:</b> 0-400 PSIG (0-27 BAR)	<b>8:</b> 0-275 BAR/0-4000 PSIG* with pressure switches <sup>†</sup> and without remote alarm		<b>V:</b> Purge valves
	<b>8:</b> 300/270 PSIG (20.3/22.3 BAR)	<b>6:</b> Diaphragm valves with manifold connectors*	<b>7:</b> 0-150 PSIG (0-10 BAR)	<b>9:</b> 0-42 BAR/0-4000 PSIG with pressure switches and without remote alarm		<b>W:</b> Stainless steel bonnets and purge valve

\*Not available with 4500 PSIG (310 BAR) inlet

NOTE: Switching pressure must be higher than line regulator pressure selected in column C.

**7:** Diaphragm valves with 24" (600mm) hoses

**8:** 36" (900mm) stainless steel flexible hoses and 4500 PSIG (310 BAR) maximum inlet pressure

**9:** 1/4" FPT ports and 4500 PSIG (310 BAR) maximum inlet pressure

**C:** Compact manifold connectors\*

**D:** Diaphragm valves with compact manifold connectors\*

\*See pages 54-55 for manifold ordering information

\*0-6000 PSIG/405 BAR gauges with 4500 PSIG (310 BAR) maximum inlet option

<sup>†</sup>Intrinsic safety barriers are required for flammable gas service or for use in hazardous environments.

## ECO系列自动开关

ECO系列自动切换器是一款理想的自动化切换系统设备。适用于航天、零部件循环试验、过程在线测试、及试验设备的气动控制系统。该切换器提供非腐蚀性气体不间断供应，特别是高压下的非腐蚀性、非氧化性气体。系统自带多个入口配置，并可以提供稳定的在线供应压力：3500 PSI (240bar)。对于高纯度氮气、氦气、氩气或氢气的供应，该系统最大压力可以达到：6000PSI(405bar)。

### 典型应用

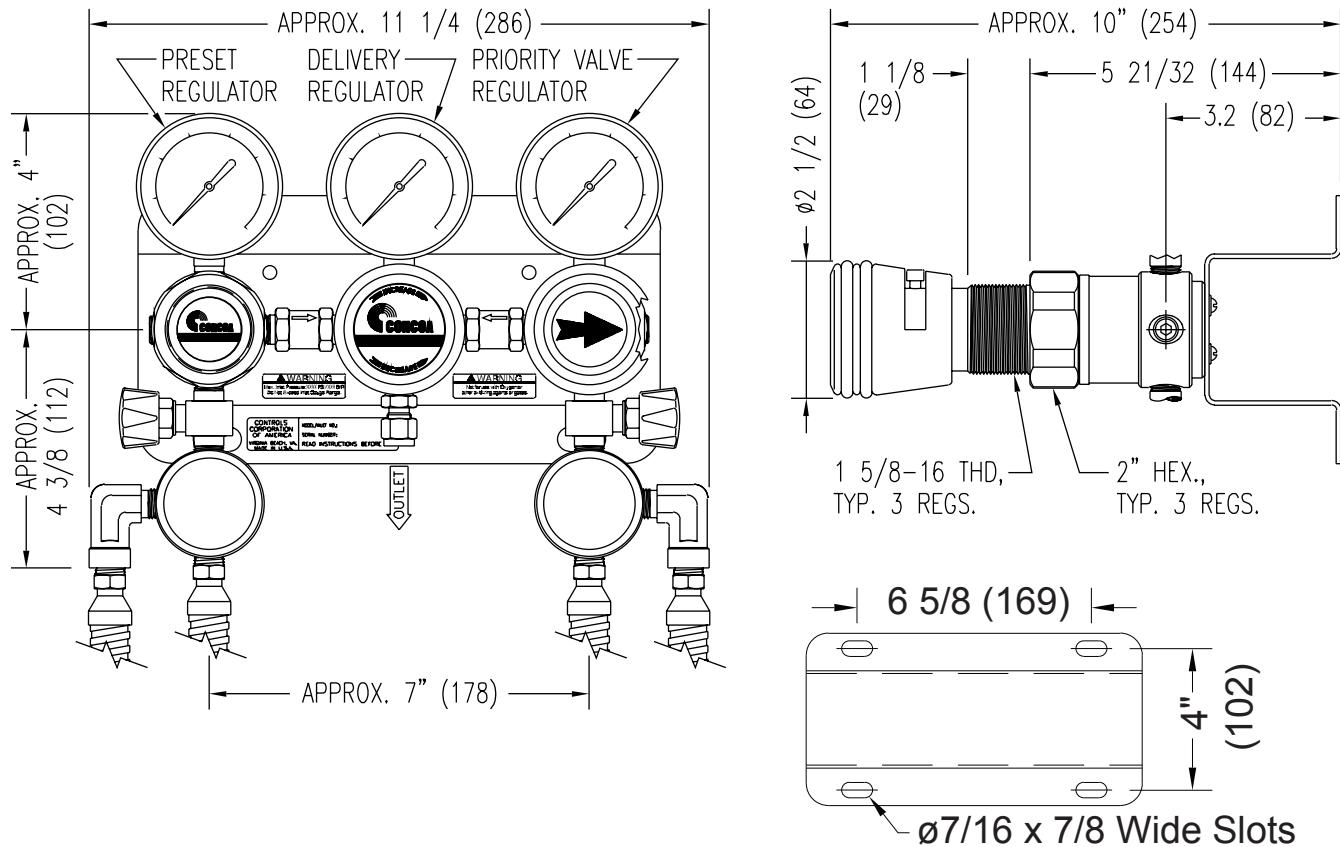
- 高压力气体输送系统
- 航空航天循环测试
- 部件氦泄漏试验
- 实验室燃烧研究
- 合成燃料研究和工厂过程
- 高压氢
- 高压空气系统
- 工厂气动供应



图示：ECO AAAB型

功 能	材 质	技术规格
<b>DIB Series Brass Barstock Regulators</b> Safely controls inlet pressures to 6000 PSIG (405 BAR)	<b>Bodies</b> Chrome-plated brass barstock	<b>Inlet Pressures Available</b> 3000 PSIG (207 BAR) 4500 PSIG (310 BAR) 6000 PSIG (414 BAR)
<b>User-Friendly</b> One knob switches cylinder priority	<b>Cartridges</b> Brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Check Valves in Hose Inlet Glands</b> Prevents contamination and back flow	<b>Seats</b> Arlon®(PEEK) switchover regulator PCTFE line regulator	<b>Gauges</b> 2 1/2" (68mm) diameter chrome-plated brass (non-pressure switch models) 2 1/2" (68mm) diameter stainless steel (pressure switch models)
<b>Line Regulator</b> Stable line pressure up to 3500 PSIG (240 BAR) during change over	<b>Filters</b> 10 micron sintered bronze	<b>Outlet Connection</b> 1/4" compression tube fitting
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Internal Seals</b> Viton®	<b>Cv</b> 0.1
<b>Optional Remote Alarm</b> Easy integration with Advantium system CE marked 220 volt alarm	<b>Weight</b> 22.5 lbs. (10.2 kg)	
	<b>Not for O<sub>2</sub></b>	

## 产品结构尺寸图



## 产品选型（仅供参考，以工厂交付为准）

ECO	A	B	C	D	-CON
Series ECO	Delivery Pressure	Max Inlet Pressure	Inlet Gauges	Inlet Connection	Assembly/Gauges
	<b>1:</b> 1000 PSIG (70 BAR)	<b>1:</b> 3000 PSIG (210 BAR)	4000 PSIG/275 BAR	<b>0:</b> 1/4" FPT port	<b>2:</b> PSIG/BAR gauges with no alarm capability
	<b>2:</b> 1500 PSIG (100 BAR)	<b>2:</b> 4500 PSIG (310 BAR)	6000 PSIG/414 BAR	<b>1:</b> Two needle valves with two 36" (900mm) flexible hoses (one station per side)	<b>4:</b> PSIG/BAR gauges with pressure switches <sup>†</sup> and remote alarm (110/220 VAC)
	<b>3:</b> 2500 PSIG (170 BAR)	<b>3:</b> 6000 PSIG (405 BAR)	10,000 PSIG/700 BAR	<b>2:</b> Two needle valves with four 36" (900mm) flexible hoses (two stations per side)	†Intrinsic safety barriers are required for flammable gas service or for use in hazardous environments.
	<b>4:</b> 3500 PSIG (240 BAR)			<b>3:</b> Manifold connectors 3000 PSIG (210 BAR) inlet only*	CGA DIN 477 BS 341 and others available
				*See pages 54-55 for manifold ordering information	Not for use in Oxygen service

## ECG系列GL型自动切换器

ECG系列GL型是一款高纯度气体连续供气自动系统装置，从低温液罐到高压储备气罐切换，保证不会因为更换钢瓶罐而导致使用管线上的压力波动。

### 典型应用

低温高纯气供给

电感耦合等离子体和电感耦合等离子体质谱使用气体孵化器二氧化碳和氮的中央供应系统

低温工艺纯气体供给

气调包装技术工艺 (MAP)

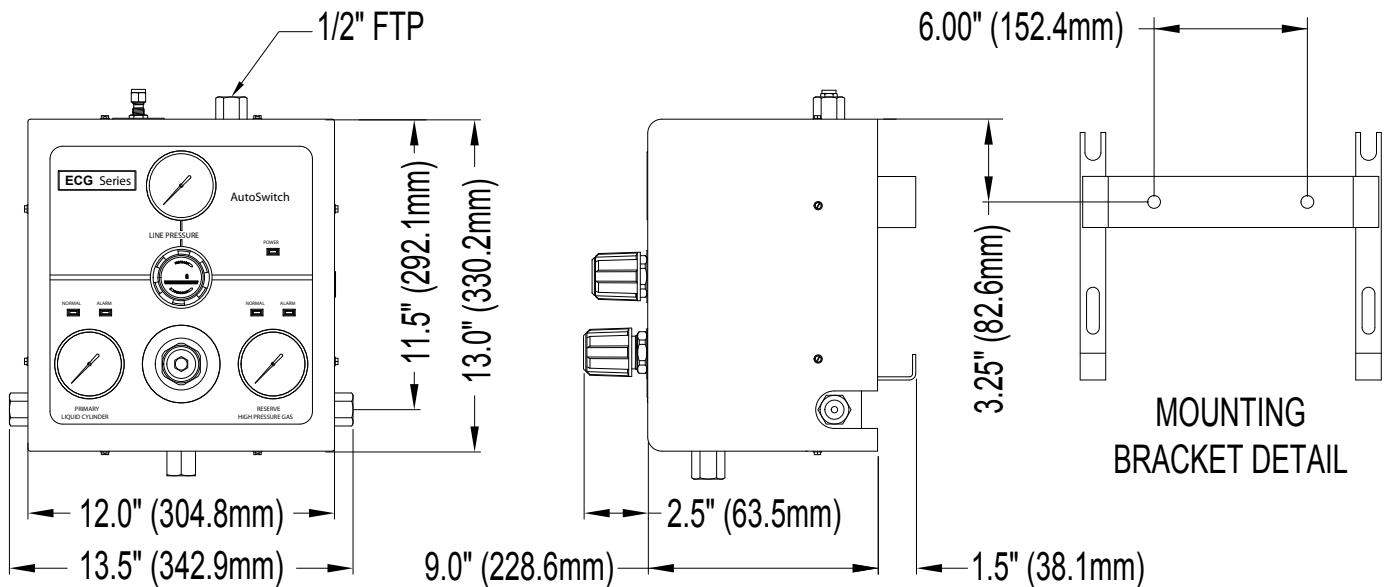
医药用气供应



图示：ECG COOO型

功 能	材 质	技术规格
<b>DOO Series 316L Stainless Components</b> CAPSULE® seat	<b>Priority Valve</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>Metal to Metal Seals</b> No possibility of gas contamination	<b>Line Regulator</b> 316L stainless steel barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Integral Line Regulator</b> Stable line pressure during change over	<b>Diaphragms</b> 316L stainless steel	<b>Maximum Flow at 100 PSIG (7 BAR)</b> 400 SCFH (190 LPM)
<b>Variable Line Pressure</b> Line pressure changeable on site	<b>Enclosure</b> Acrylic powder-coated steel	<b>Cv</b> 0.1
<b>Preset Switching Pressure</b> Prevents tampering or adjustment	<b>Tubing and Fittings</b> 316L stainless steel	<b>Inlet Connection</b> 1/2" FPT
<b>Integral Manifold System</b> Easy installation	<b>Internal Seats and Seals</b> PTFE	<b>Outlet Connection</b> 1/4" stainless steel compression tube
<b>Optional Alarms</b> Advantium 8 Monitors Up to 4 Systems Advantium 2 PLUS Monitors 1 System	<b>Pressure Gauges and Switches</b> 316L stainless steel	<b>Relief Valve Outlet</b> 1/2" FPT
<b>Intrinsic Safety Barriers</b> For use in Hazardous Areas Class 1, Div. 1, Group A, B, C, or D	<b>Check Valves</b> 316L stainless steel with Viton® seal	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
		<b>Weight</b> 40 lbs. (18 kg)

## 产品结构尺寸图



## 产品选型（仅供参考，以工厂交付为准）

ECG	A	B	C	D	-CON	
Series ECG	Outlet Pressure	Liquid Cylinders (Primary)	High Pressure (Reserve)	Assembly	Hose	
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	<b>0:</b> No inlet connection	<b>0:</b> No inlet connection	<b>1:</b> Without alarm capability	Please specify inlet connection (if applicable)	
	<b>3:</b> 0-100 PSIG (0-7 BAR)	<b>1:</b> One cylinder*	<b>1:</b> One cylinder*	<b>4:</b> With alarm capability* (alarm sold separately)	CGA DIN 477 BS 341 and others available	
	<b>7:</b> 0-150 PSIG (0-10 BAR)	<b>2:</b> Two cylinders†	<b>2:</b> Two cylinders†			
		<b>3:</b> Three cylinders†	<b>3:</b> Three cylinders†	*Intrinsic safety barriers are required for use in hazardous environments.		
		<b>4:</b> Four cylinders†	<b>4:</b> Four cylinders†			
			<b>5:</b> Five cylinders†			
			<b>6:</b> Six cylinders†			
	*Includes 36" (900mm) flexible hose and diaphragm valve		†Each manifold header includes 36" (900mm) flexible hose, manifold extensions and mounting hardware			
			*Includes 36" (900mm) flexible hose and diaphragm valve			
			†Each manifold header includes 24" (600mm) flexible hose, manifold extensions and mounting hardware			

### Option

### Order Number

### Description

Remote Alarm

Advantium Series

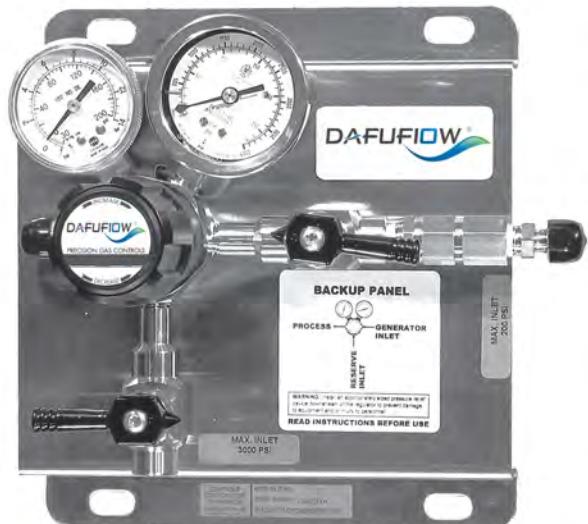
Provides audible and visible notification of a depleted supply bank to a remote location

## EDO面板控制式切换器

面板控制式切换器是一种简单结构的切换器，提供连续供气系统的装置，同时可以选择316L不锈钢连接件、调节器，并能选装远程报警系统。

### 典型应用

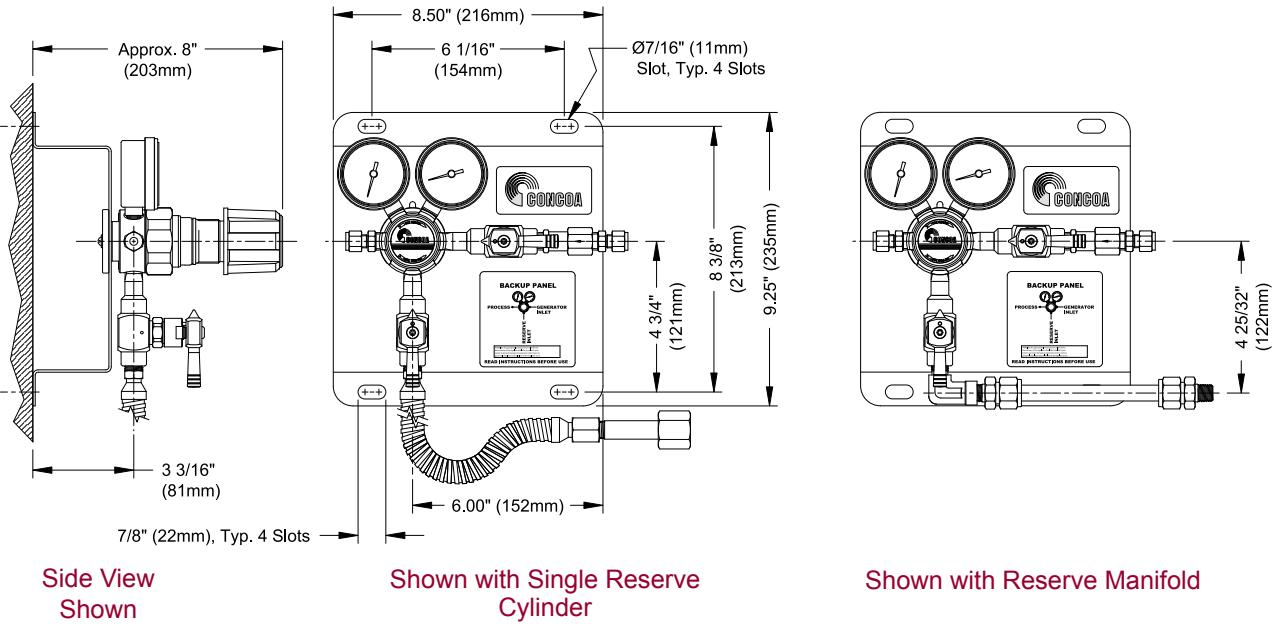
发生装置气体备用  
气相色谱仪，火焰离子化检测器，质谱分析仪气体备用  
零散和批量气体备用  
临界实验室气藏  
孵化器二氧化碳备用



图示：EDO BACD型

功 能	材 质	技术规格
<b>Adjustable Pressure</b> User determines the pressure at which the backup engages	<b>Regulator Body</b> Brass or 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>Check Valves on Both Generator and Reserve</b> Prevents back flow to the generator or reserve cylinder	<b>Bonnet</b> Brass or chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Shut-Off Valves on Both Generator and Reserve</b> Allows isolation and disconnection of either line	<b>Seat</b> PTFE (3000 PSIG/210 BAR)	<b>Gauges</b> 2" (53mm) diameter brass or 316L stainless steel
	<b>Filter</b> 10 micron sintered bronze mesh or 316L patented stainless steel mesh	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
	<b>Diaphragm and Hose</b> 316L stainless steel	<b>Two Adjustable Pressure Ranges</b> 0-150 PSIG (0-10 BAR) 150-500 PSIG (10-34 BAR)
	<b>CGA Connections</b> Brass or 316L stainless steel with check valve	<b>Cv</b> 0.1
	<b>Check Valve Seat</b> Viton®	<b>Weight</b> Brass - 6.5 lbs. (2.95 kg) Stainless steel - 7.25 lbs (3.29 kg)
	<b>Panel</b> 304 stainless steel	

## 产品结构尺寸图



## Ordering Information

EDO	A	B	C	D	-CON
Series EDO	Material	Number of Reserve Cylinders	Hose Style	Assembly/Gauges	Hose
	<b>1:</b> Brass 150 PSIG (10 BAR) maximum outlet	<b>1:</b> 1 cylinder with diaphragm valve	<b>0:</b> No hoses	<b>1:</b> 0-4000 PSIG/28,000 kPa gauge, no alarm capability	CGA DIN 477 BS 341 and others available
	<b>2:</b> 316L stainless steel 150 PSIG (10 BAR) maximum outlet	<b>2:</b> 2 cylinder manifold	<b>2:</b> 24" (600mm) flexible 316 stainless steel with check valve	<b>2:</b> 0-275 BAR/0-4000 PSIG gauge, no alarm capability	
	<b>3:</b> Brass 500 PSIG (34 BAR) maximum outlet	<b>3:</b> 3 cylinder manifold	<b>3:</b> 36" (900mm) flexible 316 stainless steel with check valve	<b>4:</b> 0-275 BAR/0-4000 PSIG gauge with pressure switch and 110/220 VAC remote alarm	
	<b>4:</b> 316L stainless steel 500 PSIG (34 BAR) maximum outlet	<b>4:</b> 4 cylinder manifold	<b>6:</b> 72" (1800mm) flexible 316 stainless steel with check valve	<b>9:</b> 0-275 BAR/0-4000 PSIG gauge with pressure switch without remote alarm	
		<b>5:</b> 5 cylinder manifold			
		<b>6:</b> 6 cylinder manifold			
		<b>7:</b> 7 cylinder manifold			
		<b>8:</b> 8 cylinder manifold			
		<b>9:</b> 9 cylinder manifold			
		<b>0:</b> 10 cylinder manifold			
		<b>A:</b> 11 cylinder manifold			
		<b>B:</b> 12 cylinder manifold			
		<b>C:</b> 13 cylinder manifold			
		<b>D:</b> 14 cylinder manifold			
		<b>E:</b> 15 cylinder manifold			
		<b>W:</b> Diaphragm valve with 1/4" FPT port			
		<b>Y:</b> Diaphragm valve with manifold connection			

## EC系列控制点操作板

EC系列控制点操作板是一款由COO系列调节器与隔膜阀配套组成的自动化装置，为高纯度气体分配、转储提供精确控制。EC系列控制点操作板的压力调节分段为：0 - 15 PSI(0-1bar)到0-200PSI (0-14bar)。

### 典型应用

- 散装气体分配系统
- 气和液相色谱法
- 高纯气体
- 临界和校准气体
- 高纯度室增压
- 液化烃气体控制
- 低温气体的控制
- EPA协议标准



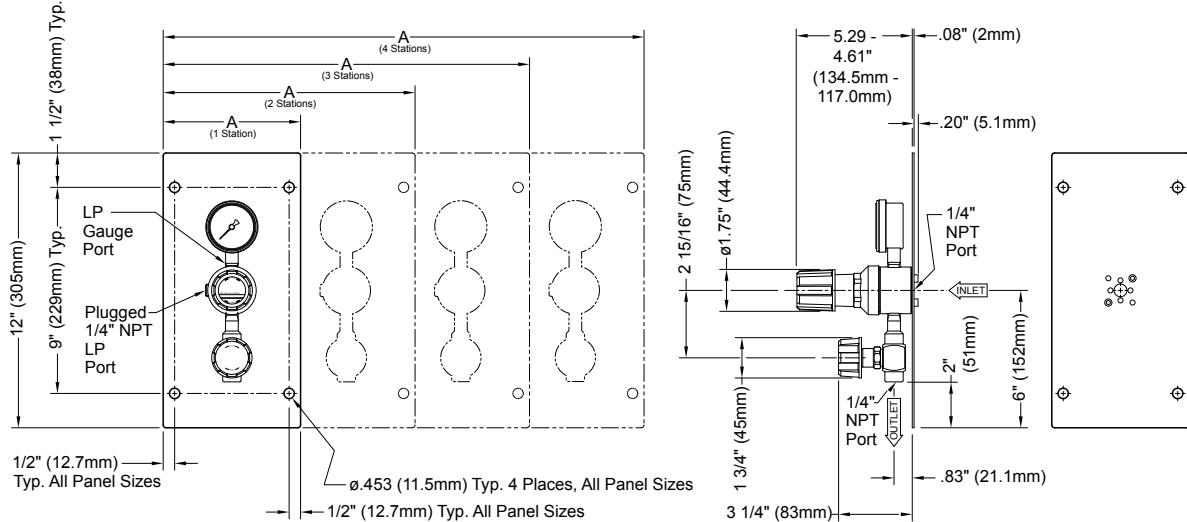
图示：EC3 CCCO OOA



图示：EC19 EOOO OOA

功 能	材 质	技术规格
<b>COG or CBG Series Regulators</b> High gas purity	<b>Regulator and Valve Body</b> 316L stainless steel or chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (207 bar)
<b>Modular Design</b> Flexible installation	<b>Bonnet</b> Chrome-plated brass barstock	<b>Operating Temp. Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Rear Entry Regulator Inlet Ports</b> Piping behind panel	<b>Seats</b> PTFE on regulator PCTFE on valve	<b>Cv</b> 0.1
<b>Five Individually Selectable Pressure Ranges</b> 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)	<b>Filter</b> Patented 10 micron 316 mesh or sintered bronze	<b>Inlet/Outlet Connection</b> 1/4" NPT female
<b>14 Gauge Stainless Steel Panel</b> Clean corrosion resistant installation	<b>Diaphragm</b> 316L stainless steel	<b>Gauges</b> 2" (53mm) brass or stainless steel case 53C chrome-plated stem/phosphor bronze tube 53S stainless steel stem and tube
<b>Stainless Steel Diaphragm</b> No inboard diffusion	<b>Internal Seals</b> PTFE	<b>Panel</b> 14-gauge 304 stainless steel
<b>High-Purity Diaphragm Outlet Valve</b> Gas flow control and positive shut-off		

## 产品结构尺寸图



Number of Stations	Length "Dim A"
1	6" (152.4mm)
2	11" (279.4mm)
3	16" (406.4mm)
4	21" (533.4mm)

## Ordering Information

EC	Material	Station 1	Station 2	Station 3	Station 4
Series EC		Outlet Pressure	Outlet Gauge	Outlet Pressure	Outlet Gauge
	<b>C:</b> Chrome-plated brass barstock COG Series regulators	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-200 kPa	<b>1:</b> 0-15 PSIG (0-1 BAR)	0-30 PSIG/ 0-200 kPa
	<b>S:</b> 316L stainless steel CBG Series regulators	<b>A:</b> 0-15 PSIG (0-1 BAR)	0-2 BAR/ 0-30 PSIG	<b>A:</b> 0-15 PSIG (0-1 BAR)	0-2 BAR/ 0-30 PSIG
		<b>2:</b> 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-400 kPa	<b>2:</b> 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-400 kPa
		<b>B:</b> 0-30 PSIG (0-2 BAR)	0-4 BAR/ 0-60 PSIG	<b>B:</b> 0-30 PSIG (0-2 BAR)	0-4 BAR/ 0-60 PSIG
		<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-700 kPa	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-700 kPa
		<b>C:</b> 0-50 PSIG (0-3.5 BAR)	0-7 BAR/ 0-100 PSIG	<b>C:</b> 0-50 PSIG (0-3.5 BAR)	0-7 BAR/ 0-100 PSIG
		<b>4:</b> 0-150 PSIG (0-10 BAR)*	0-200 PSIG/ 0-1400 kPa	<b>4:</b> 0-150 PSIG (0-10 BAR)*	0-200 PSIG/ 0-1400 kPa
		<b>D:</b> 0-150 PSIG (0-10 BAR)*	0-14 BAR/ 0-200 PSIG	<b>D:</b> 0-150 PSIG (0-10 BAR)*	0-14 BAR/ 0-200 PSIG
		<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-1400 kPa	<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-1400 kPa
		<b>E:</b> 0-100 PSIG (7 BAR)	0-14 BAR/ 0-200 PSIG	<b>E:</b> 0-100 PSIG (7 BAR)	0-14 BAR/ 0-200 PSIG
		<b>6:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-2800 kPa	<b>6:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-2800 kPa
		<b>F:</b> 0-200 PSIG (0-14 BAR)	0-28 BAR/ 0-400 PSIG	<b>F:</b> 0-200 PSIG (0-14 BAR)	0-28 BAR/ 0-400 PSIG

\* Only available on the 53C panels.

## ED系列控制点操作板

ED系列操作板是一款模块化设计，集成调节器、隔膜阀等元件的精密控制装置，特别使用DOO系列调节器，拥有： $1 \times 10^{-9}$ cc/sec的泄漏率、耐腐蚀性的结构、材质设计；所以特别适用于腐蚀性气体精密控制、分析仪器配套。并且最多能提供4个基站控制操作，保证输送气流稳定。



图示：ED19 COOO OOA



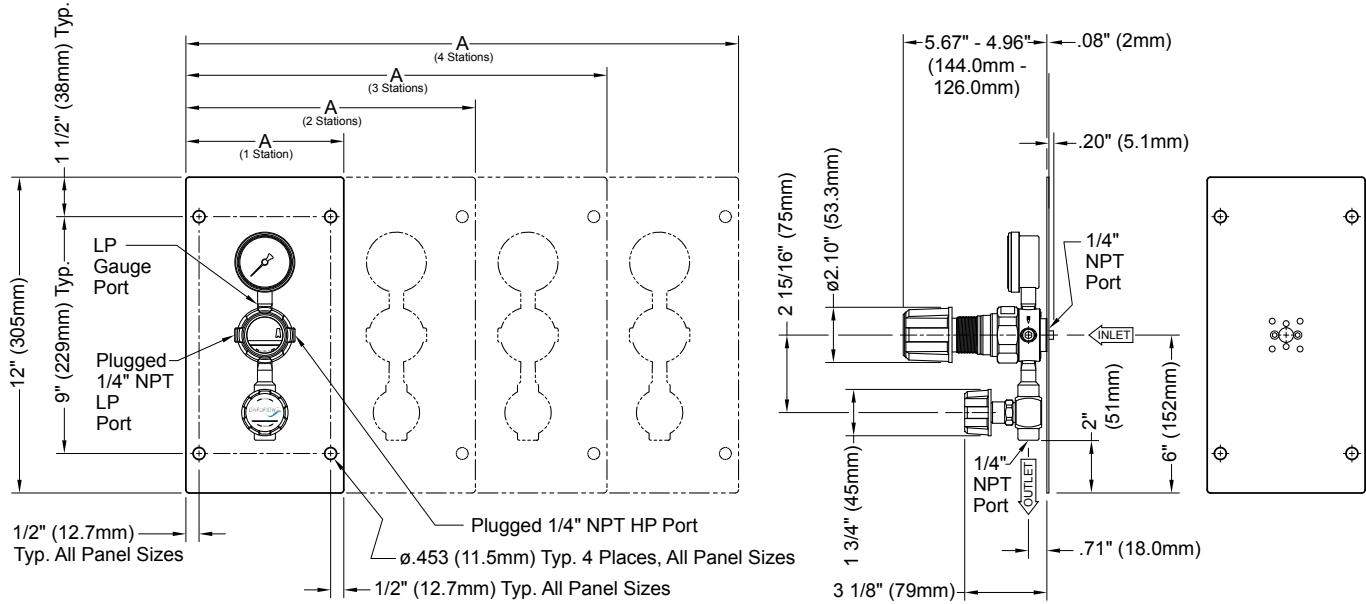
图示：EDC CCCO OOA

研究级气体系统  
超高纯气体控制  
气相色谱-质谱支持气体  
环境校正  
液化烃气体控制  
腐蚀性气体  
油气研究与标准化  
临界和校准气体

功 能	材 质	技术规格
<b>435 or 445 Series Regulators</b> Ultra high gas purity	<b>Regulator and Valve Body</b> 316L stainless steel or brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (207 BAR)
<b>Modular Design</b> Flexible installation	<b>Bonnet</b> Chrome-plated brass barstock	<b>Operating Temp. Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Rear Entry Regulator Inlet Ports</b> Piping behind panel	<b>Seats</b> PTFE on regulator PCTFE on valve	<b>Cv</b> 0.1 (Max outlet 50 PSIG/3.5 BAR or below) 0.2 (Max outlet above 50 PSIG/3.5 BAR)
<b>Five Individually Selectable Pressure Ranges</b> 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)	<b>Filter</b> 10 micron patented stainless steel mesh or sintered bronze	<b>Inlet/Outlet Connection:</b> 1/4" NPT female
<b>14 Gauge Stainless Steel Panel</b> Clean corrosion resistant installation	<b>Diaphragm</b> 316L stainless steel	<b>Gauges</b> 2" (53mm) brass or stainless steel case 54B brass stem/phosphor bronze tube 54S stainless steel stem and tube
<b>Stainless Steel Diaphragm</b> No inboard diffusion	<b>Internal Seals</b> PTFE	<b>Panel</b> 14-gauge 304 stainless steel
<b>High-Purity Diaphragm Outlet Valve</b> For flow control and positive shut-off		

# Panels

## 产品结构尺寸图



## Ordering Information

ED	Material	Station 1	Station 2	Station 3	Station 4	
Series ED	Outlet Pressure	Outlet Gauge	Outlet Pressure	Outlet Gauge	Outlet Pressure	
<b>B:</b> Brass 435 Series regulators	<b>1:</b> 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/100-0-200 kPa	<b>1:</b> 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/100-0-200 kPa	<b>1:</b> 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/100-0-200 kPa
<b>S:</b> 316L stainless steel DDE Series regulators	<b>A:</b> 0-15 PSIG (0-1 BAR)	-1-0-2 BAR/30"-0-30 PSIG	<b>A:</b> 0-15 PSIG (0-1 BAR)	-1-0-2 BAR/30"-0-30 PSIG	<b>A:</b> 0-15 PSIG (0-1 BAR)	-1-0-2 BAR/30"-0-30 PSIG
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-100-0-700 kPa	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-100-0-700 kPa	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-100-0-700 kPa
	<b>B:</b> 0-50 PSIG (0-3.5 BAR)	-1-0-7 BAR/30"-0-100 PSIG	<b>B:</b> 0-50 PSIG (0-3.5 BAR)	-1-0-7 BAR/30"-0-100 PSIG	<b>B:</b> 0-50 PSIG (0-3.5 BAR)	-1-0-7 BAR/30"-0-100 PSIG
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-100-0-1400 kPa	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-100-0-1400 kPa	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-100-0-1400 kPa
	<b>C:</b> 0-100 PSIG (0-7 BAR)	-1-0-14 BAR/30"-0-200 PSIG	<b>C:</b> 0-100 PSIG (0-7 BAR)	-1-0-14 BAR/30"-0-200 PSIG	<b>C:</b> 0-100 PSIG (0-7 BAR)	-1-0-14 BAR/30"-0-200 PSIG
	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/0-2800 kPa	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/0-2800 kPa	<b>4:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/0-2800 kPa
	<b>D:</b> 0-250 PSIG (0-17 BAR)	0-27 BAR/0-400 PSIG	<b>D:</b> 0-250 PSIG (0-17 BAR)	0-27 BAR/0-400 PSIG	<b>D:</b> 0-250 PSIG (0-17 BAR)	0-27 BAR/0-400 PSIG
	<b>5:</b> 0-500 PSIG (0-34 BAR)	0-1000 PSIG/0-7000 kPa	<b>5:</b> 0-500 PSIG (0-34 BAR)	0-1000 PSIG/0-7000 kPa	<b>5:</b> 0-500 PSIG (0-34 BAR)	0-1000 PSIG/0-7000 kPa
	<b>E:</b> 0-500 PSIG (0-34 BAR)	0-70 BAR/1000 PSIG	<b>E:</b> 0-500 PSIG (0-34 BAR)	0-70 BAR/1000 PSIG	<b>E:</b> 0-500 PSIG (0-34 BAR)	0-70 BAR/1000 PSIG
	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-100-0-1400 kPa	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-100-0-1400 kPa	<b>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-100-0-1400 kPa
	<b>G:</b> 0-150 PSIG (0-10 BAR)	-1-0-14 BAR/30"-0-200 PSIG	<b>G:</b> 0-150 PSIG (0-10 BAR)	-1-0-14 BAR/30"-0-200 PSIG	<b>G:</b> 0-150 PSIG (0-10 BAR)	-1-0-14 BAR/30"-0-200 PSIG

## EB系列分配器堆

EB2、EB3、EB19系列分配器堆作为分配器与调节器、自动开关、智能开关、双调节器配套连接形成各种多功能的分配系统装置；该类型分配器堆允许多个气罐接头、岐管、基站与其连接组装成各种自动化系统。该系列解决分散元件的装配问题，集成高效。



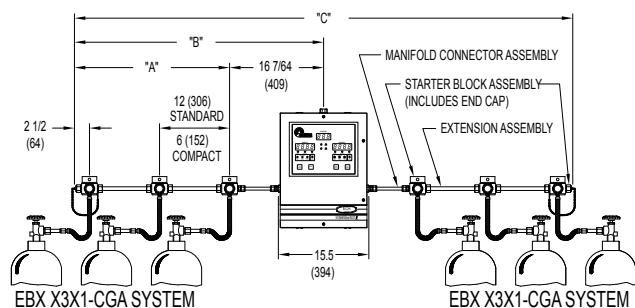
图示：EB2 ABCB型

功 能	材 质	技术规格
<b>Modular Design</b> Flexible field installation	<b>Diaphragm Valve</b> Body: Brass or stainless steel barstock Seat: PCTFE Stems: 303/304 stainless steel Diaphragms: Elgiloy®	<b>Maximum Inlet Pressure</b> 3500 PSIG (240 BAR)
<b>Integral Diaphragm Valves</b> Leak-tight integrity Independent shut-off capability	<b>Flexible Hoses</b> 316L stainless steel Monel® inner core for oxygen service	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Expandable System</b> Future growth capability		<b>Header</b> 0.625 OD x 0.188 wall (brass) 0.625 OD x 0.095 wall (stainless steel)
<b>Brass, Chrome-Plated Brass or Stainless Steel</b> No possibility of gas contamination		
<b>Metal to Metal Field-Assembled Joints</b> Easy leak-tight field assembly Ease of transportation		
<b>Silver-Brazed or TIG-Welded Connectors</b> Contamination-free installation		

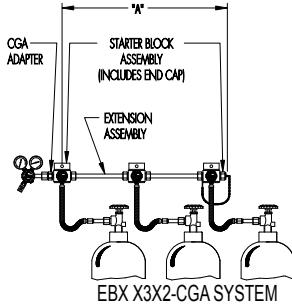
# Manifolds

**Dimensions ("A", "B", and "C" refer to the lengths specified on the diagram below.)**

Cylinders per Side	1	2	3	4	5	6	7	8	9	10
"A" standard (single row)	2.5" (68mm)	14.5" (368.3mm)	26.5" (673.1mm)	38.5" (977.9mm)	50.5" (1282.7mm)	62.5" (1587.5mm)	74.5" (1892.3mm)	86.5" (2197.1mm)	98.5" (2501.9mm)	110.5" (2806.7mm)
"B" standard (single row)	18.6" (472.44mm)	29.6" (751.84mm)	42.6" (1082.04mm)	54.6" (1386.84mm)	66.6" (1691.64mm)	78.6" (1996.44mm)	90.6" (2301.24mm)	102.6" (2606.04mm)	114.6" (2910.84mm)	126.6" (3215.64mm)
"C" standard (single row)	37.3" (947.42mm)	59.3" (1506.22mm)	85.3" (2166.62mm)	109.3" (2776.22mm)	133.3" (3385.82mm)	157.3" (3995.42mm)	181.3" (4605.02mm)	205.3" (5214.62mm)	229.3" (5824.22mm)	253.3" (6433.82mm)
Weight standard (brass single row)	3.45 lbs (1.56 kg)	7.07 lbs (3.21 kg)	10.69 lbs (4.85 kg)	14.31 lbs (6.49 kg)	17.93 lbs (8.13 kg)	21.55 lbs (9.77 kg)	25.17 lbs (11.42 kg)	28.79 lbs (13.05 kg)	32.41 lbs (14.7 kg)	36.03 lbs (16.34 kg)
Weight standard (ss single row)	3.33 lbs (1.51 kg)	6.45 lbs (2.92 kg)	9.57 lbs (4.34 kg)	12.69 lbs (5.76 kg)	15.81 lbs (7.17 kg)	18.93 lbs (8.59 kg)	22.05 lbs (10 kg)	25.17 lbs (11.4 kg)	28.29 lbs (12.83 kg)	31.41 lbs (14.25 kg)
"A" compact (single row)	2.5" (68mm)	8.5" (215.9mm)	14.5" (368.3mm)	20.5" (520.7mm)	26.5" (673.1mm)	32.5" (825.5mm)	38.5" (977.9mm)	44.5" (1130.3mm)	50.5" (1282.7mm)	56.5" (1435.1mm)
"B" compact (single row)	18.6" (472.44mm)	24.6" (624.84mm)	29.6" (751.84mm)	36.6" (929.64mm)	42.6" (1082.04mm)	48.6" (234.44mm)	54.6" (1371.6mm)	60.6" (1539.24mm)	66.6" (1691.64mm)	72.6" (1844.04mm)
"C" compact (single row)	37.3" (947.42mm)	49.3" (1252.22mm)	59.3" (1506.22mm)	73.3" (1861.82mm)	85.3" (2166.62mm)	97.3" (2471.42mm)	109.3" (2776.22mm)	121.3" (3081.02mm)	133.3" (3385.82mm)	145.3" (3690.62mm)
Weight compact (brass single row)	3.45 lbs (1.56 kg)	6.62 lbs (3.00 kg)	9.79 lbs (4.44 kg)	12.96 lbs (5.88 kg)	16.13 lbs (7.32 kg)	19.3 lbs (8.75 kg)	22.47 lbs (10.19 kg)	25.64 lbs (11.63 kg)	28.81 lbs (13.07 kg)	31.98 lbs (14.50 kg)
Weight compact (ss single row)	3.33 lbs (1.51 kg)	6.27 lbs (2.84 kg)	9.21 lbs (4.18 kg)	12.15 lbs (5.51 kg)	15.09 lbs (6.84 kg)	18.03 lbs (8.18 kg)	20.97 lbs (9.51 kg)	23.91 lbs (10.84 kg)	26.85 lbs (12.18 kg)	29.79 lbs (13.51 kg)



Swithcover System



Regulator System

## Ordering Information

EBX	A	B	C	D	-CON
Series	Orientation	Stations	Hose Style	Outlet Connection	Hose Connection
EB2 Brass	<b>1:</b> Standard single row (right or left) (one cylinder/station)	<b>0:</b> 10 stations	<b>0:</b> None	<b>1:</b> 1/4" FPT connection	CGA DIN 477 BS 341 and others available
EB3 Chrome-plated brass	<b>2:</b> Standard double row (right or left) (two cylinders/station)	<b>1:</b> 1 station	<b>2:</b> 24" (600mm) flexible 316 stainless steel with check valve	<b>2:</b> Cylinder connection adapter	
EB19 Stainless steel	<b>3:</b> Standard single duplex (right and left) (one cylinder/station)	<b>2:</b> 2 stations	<b>3:</b> 36" (900mm) flexible 316 stainless steel with check valve		
	<b>4:</b> Compact single row (right or left) (One cylinder/station)	<b>3:</b> 3 stations	<b>6:</b> 72" (1800mm) flexible 316 stainless steel with check valve		
	<b>5:</b> Compact double row (right or left) (two cylinders/station)	<b>4:</b> 4 stations			
	<b>6:</b> Compact single duplex (right and left) (one cylinder/station)	<b>5:</b> 5 stations			
		<b>6:</b> 6 stations			
		<b>7:</b> 7 Stations			
		<b>8:</b> 8 Stations			
		<b>9:</b> 9 Stations			
		<b>A:</b> 11 stations			
		<b>B:</b> 12 stations			
		<b>C:</b> 13 stations			
		<b>D:</b> 14 stations			
		<b>E:</b> 15 stations			

# 岐管组件

## EB12系列 微型岐管组件

EB12系列紧凑型岐管组件是配套与调节器为气罐分配输送气体的特殊装置；适用于非腐蚀性气体介质，保证调节器安装空间情况下设计的紧凑型岐管系统装置。

该岐管组件拥有非常快的流速，特殊设计保证每个输送端的输送速度是平等的，紧凑型设计不以牺牲流速而制作。

### 产品特性

独特的过流孔设计防止管打结  
集成块加强设计防止过载损坏  
紧凑型模块化设计提供后期扩展需求  
特殊材质应用保证多种非腐蚀性气体同时使用  
1/2" MPT接头形式设计提供可靠性、密封性  
灵活设计，配套多种系统如：ECH、ECI、EDB、  
EDD切换器使用，同时也能配套低温EGG系统使用

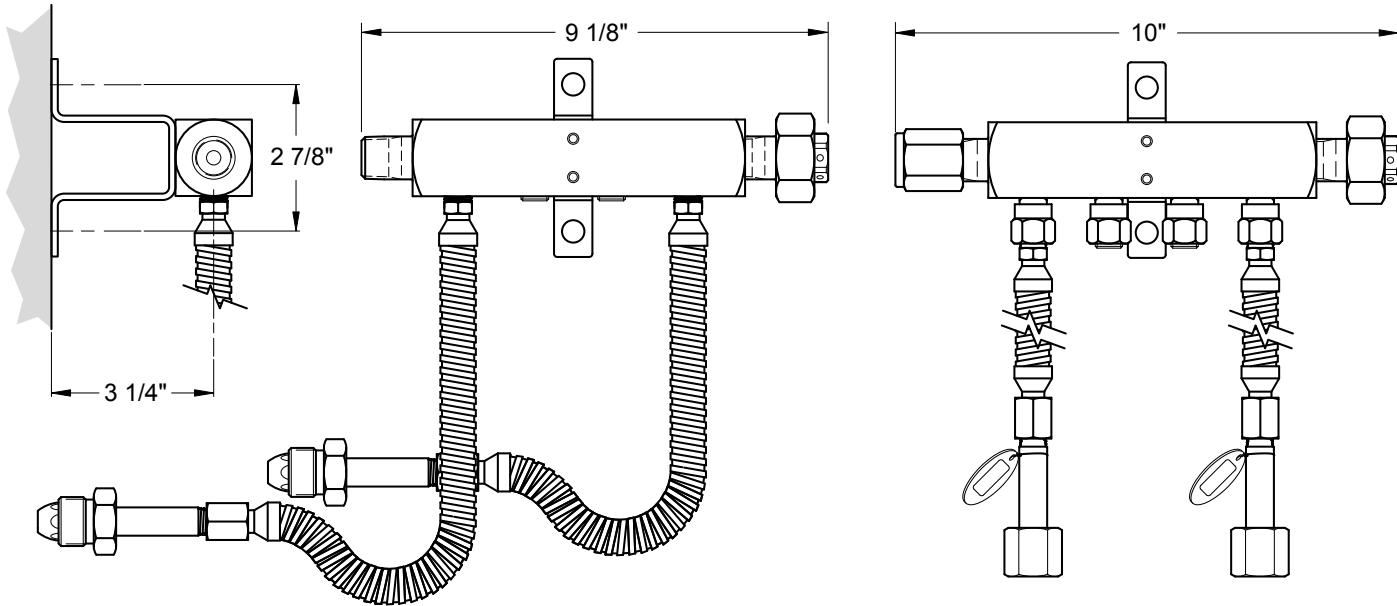


EB12 1053-580 Shown

功 能	材 质	技术规格
<b>Gas Delivery and Vent Manifold from Liquid Cylinder Supply</b> Argon, Carbon Dioxide, Nitrogen, and Oxygen	<b>Body</b> Brass barstock body <b>Flexible Hoses</b> 316L stainless steel Monel® inner core for oxygen service	<b>Maximum Inlet Pressure</b> 4500 PSIG (310 BAR)
<b>Gas Delivery from High Pressure Cylinder Supply</b> Air, Argon, Carbon Dioxide, Helium, and Oxygen		<b>Temperature Range</b> 0°F to 140°F (-18°C to 60°C)
<b>Expandable System</b> Future growth capability		<b>Inlet Connection</b> Four 1/4" FPT One 1/2" FPT
<b>High Flow Gas Installations</b> Laboratory building main supply Large incubator installations High flow purge gas suppl Bioreactor supply		<b>Outlet Connection</b> 1/2" MPT <b>Weight (manifold and mounting bracket)</b> 4.20 lbs. (1.91 kg)

# Manifolds

## 产品结构尺寸图



EB12-1152-580 MicroManifold

EB12-21A2-295 Vent MicroManifold

## Ordering Information

EB12	A	B	C	D	Inlet
Series EB12	Manifold Type	Orientation	Hoses Style	Cylinder side	Connection
	<b>1:</b> MicroManifold (No Gauges)	<b>0:</b> Simplex right bank	<b>0:</b> No hose	<b>1:</b> One	Please specify inlet connection Use -001 for hoses option 0.
	<b>2:</b> Vent MicroManifold (No Gauges)	<b>1:</b> Simplex left bank	<b>3:</b> 72" (1800mm) flexible stainless steel core and armor cased**	<b>2:</b> Two	
	<b>3:</b> MicroManifold 0-400 PSIG/0-2500 kPa gauges	<b>2:</b> Duplex right and left bank	<b>5:</b> 36" (900mm) flexible stainless steel core and armor cased**	<b>3:</b> Three	Use CGA 295 or 622 for hose option A
	<b>4:</b> MicroManifold 0-600 PSIG/0-40 BAR gauges	<b>3:</b> Simplex right bank with pressure switch gauge*	<b>7:</b> 24" (600mm) flexible stainless steel core and armor cased**	<b>4:</b> Four	CGA DIN 477 BS 341 and others available
	<b>5:</b> MicroManifold 0-4000 PSIG/0-2500 kPa gauges	<b>4:</b> Simplex left bank with pressure switch gauge	<b>A:</b> 72" (1800mm) flexible stainless steel-braide with PTFE lining inert or Carbon Dioxide†	<b>5:</b> Five	
	<b>6:</b> MicroManifold 0-4000 PSIG/0-280 BAR gauges	<b>5:</b> Duplex right and left bank with pressure switch gauge*	<b>B:</b> 72" (1800mm) flexible stainless steel-braide with PTFE lining for Oxygen†	<b>6:</b> Six	Use CGA 440 for hose option B
	<b>7:</b> MicroManifold 0-6000 PSIG/0-40,000 kPa gauges	*Valid with A= 4, 6, and 8		<b>K:</b> 72" (1800mm) stainless steel core and armor cased 4500 PSIG (310 BAR)††	<b>7:</b> Seven
	<b>8:</b> MicroManifold 0-6000 PSIG/0-420 BAR			<b>L:</b> 36" (900mm) stainless steel core and armor cased 4500 PSIG (310 BAR)††	<b>8:</b> Eight
				<b>**Valid with A= 1, 3, 5, and 6</b>	<b>0:</b> Zero
				<b>†Valid with A= 2</b>	
				<b>††Valid with A= 1, 7, or 8</b>	

## Options and Hoses

Option	Order Number	Description
Burst Disk Kit	829-9960	1/2" MPT replacement burst disk kit
Floor Stand	830-7437	Single manifold floor stand provides support for up to two conservative manifold extensions
Vacuum Jacketed Hoses	551-2000	36" (900mm) Vacuum-jacketed cryogenic hose
	551-2001	48" (1200mm) Vacuum-jacketed cryogenic hose
	551-2002	75" (1900mm) Vacuum-jacketed cryogenic hose

## EBI系列净化控制站点

EBI系列净化控制站点是集成吹扫、安全、便利性的一种特殊装置。该装置包括放气阀、调节器、2个隔膜阀，软管等元件。

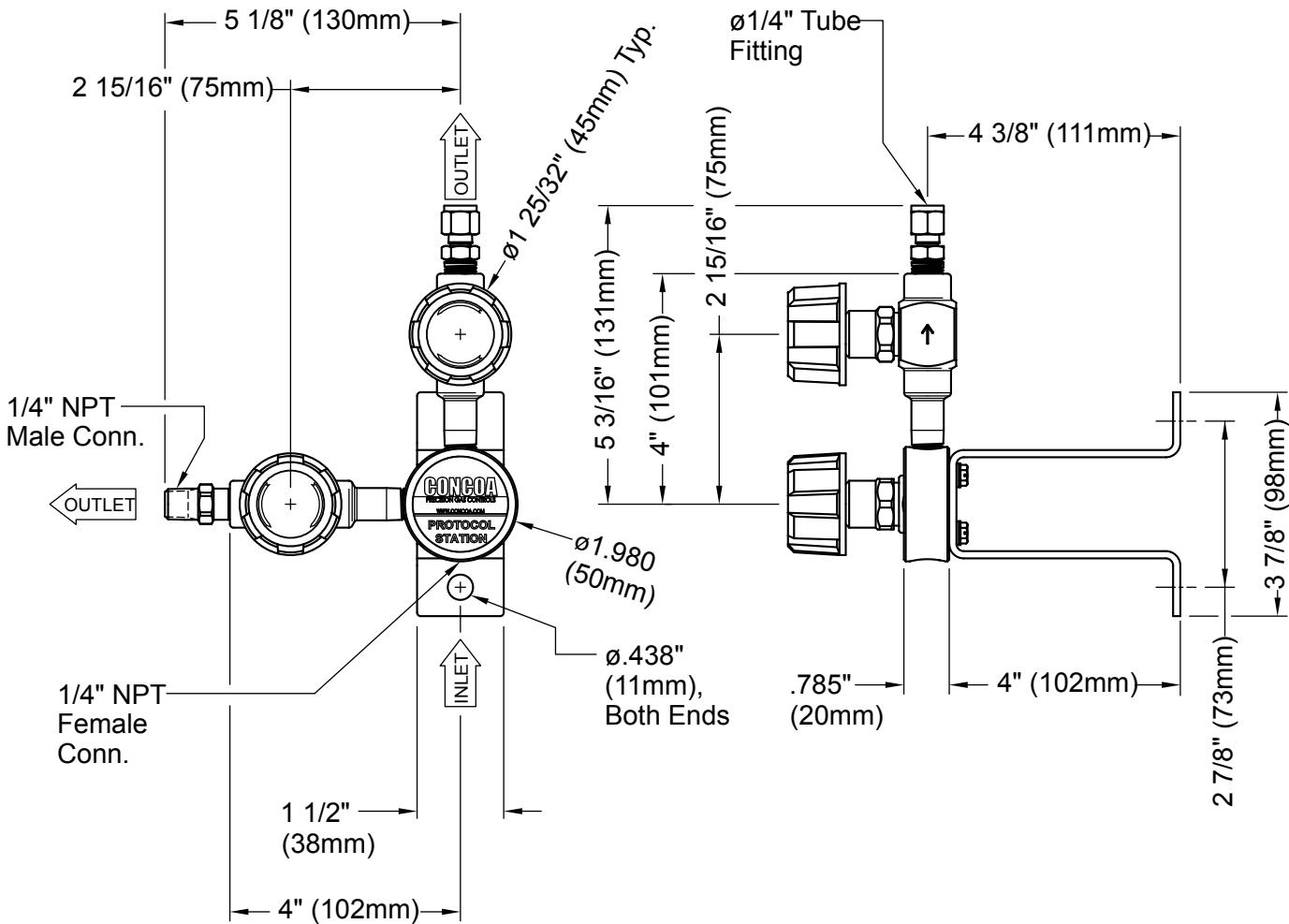


图示：EBI OAGF

功 能	材 质	技术规格
<b>Regulator Isolation Valve</b> Isolates regulator inlet during purging process	<b>Protocol Tee</b> Brass, chrome-plated brass or 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3500 PSIG (240 BAR)
<b>Purge Valve with 1/4" Compression Tube Fitting</b> Allows complete and safe purging of the inlet	<b>Flexible Hoses</b> 316L stainless steel inner core Monel® inner core for oxygen service	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Integral Check Valve at Inlet of Hose</b> Minimizes purging during cylinder change	<b>Inlet Connection</b> 316L stainless steel or brass barstock	<b>Weight (Single Stage)</b> 3.6 lbs. (1.4 kg)
<b>Bracket Mounts</b> Attaches conveniently to any surface	<b>Check Valve "O" Ring</b> Viton® (or neoprene for ammonia)	<b>Weight (Dual Stage)</b> 4.0 lbs. (1.6 kg)
<b>Connections</b> CGA, DIN 477, BS 341 and others available	<b>Bracket</b> 304 stainless steel	

# Manifolds

产品结构尺寸图



EBI 0174 Dimensions Shown

产品选型

Order Number	Description	Max Inlet
Add letter "Q" after any regulator order number.	For example, to order a DBB 1331-580 with a protocol purge station, the order number would be DBB 1331- 580Q	
<b>To order separately:</b>		
EBI 0171-CON	Protocol purge station for single stage brass regulators	3500 PSIG (240 BAR)
EBI 0172-CON	Protocol purge station for single stage chrome-plated brass regulator	3500 PSIG (240 BAR)
EBI 0173-CON	Protocol purge station for single stage 316L stainless steel regulators	3500 PSIG (240 BAR)
EBI 0174-CON	Protocol purge station for dual stage brass regulators	3500 PSIG (240 BAR)
EBI 0175-CON	Protocol purge station for dual stage chrome-plated brass regulators	3500 PSIG (240 BAR)
EBI 0176-CON	Protocol purge station for dual stage 316L stainless steel regulators	3500 PSIG (240 BAR)

## EBI系列协议标准站

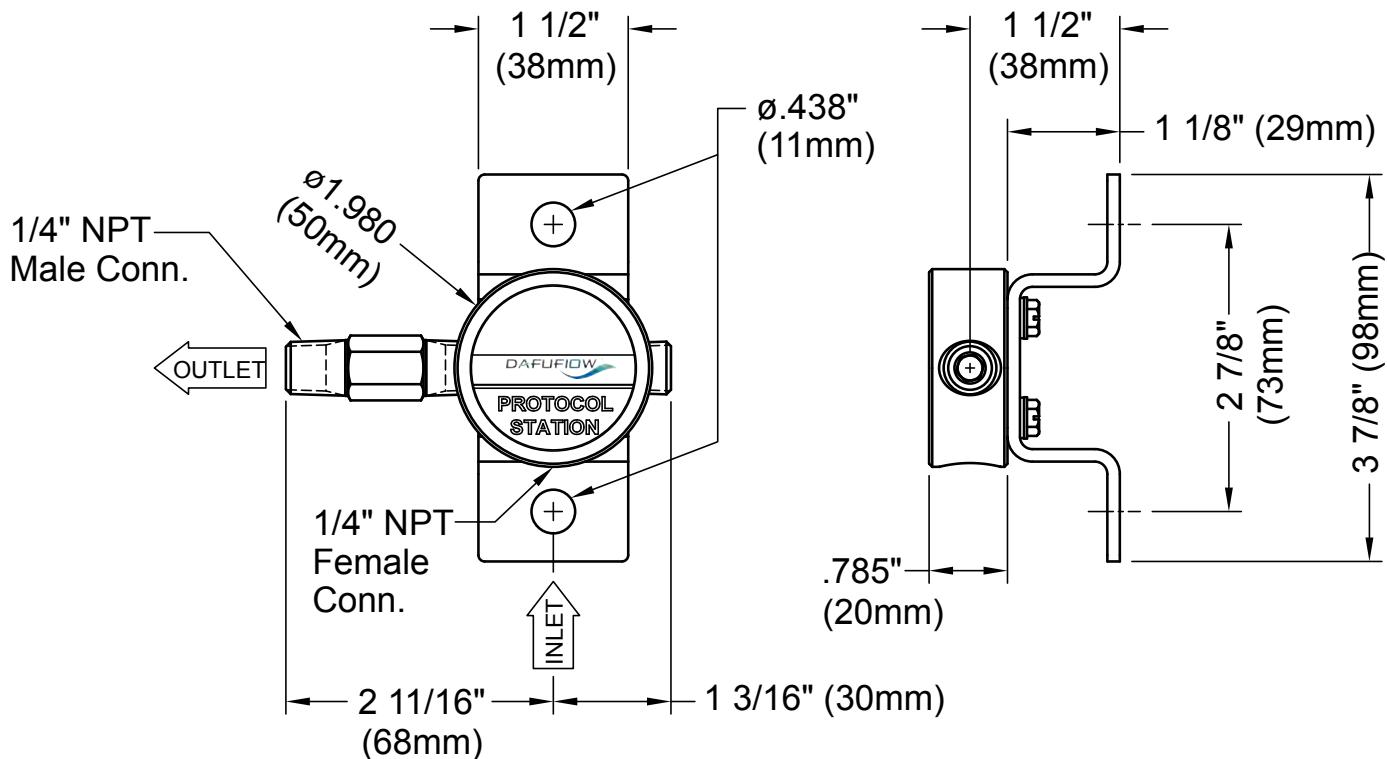
EBI系列操作站点是一款简易结构、便于任意安装保护调节器的组合控制模块化装置；在作业现场的墙壁任意安装能保护调节器、压力表的装置。可以配套使用镀铬铜或316L不锈钢调节器、紧凑型不锈钢带装甲的软管等元件。



图示：EBI OABF带调节器（单独出售）

功 能	材 质	技术规范
<b>Plugged Port in Gas Block</b> Facilitates purging	<b>Protocol Tee</b> Brass, chrome-plated brass or 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3500 PSIG (240 BAR) 4500 PSIG (310 BAR) optional 6000 PSIG (415 BAR) optional
<b>Integral Check Valve at Inlet</b> No internal contamination during cylinder change	<b>Flexible Hoses</b> 316L stainless steel inner core Monel® inner core for oxygen service PTFE inner core for 6000 PSIG (405 BAR)	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Bracket Mounts</b> Attaches conveniently to any surface	<b>Inlet Connection</b> 316L stainless steel or brass barstock	<b>Weight (Single Stage)</b> 3.1 lbs. (1.4 kg)
<b>Connections</b> CGA, DIN 477, BS 341 and others available	<b>Check Valve 'O' Ring</b> Viton® (or neoprene for ammonia)	<b>Weight (Dual Stage)</b> 3.5 lbs. (1.6 kg)
	<b>Bracket</b> 304 stainless steel	

## 产品结构尺寸图



EBI 0101 Dimensions Shown

## 产品选项

Order Number	Description
Add letter "M" after any regulator order number.	For example, DBB 1331-580 with a protocol station wall mount, the order number would be DBB 1331-580M
<b>To order separately:</b>	
EBI 0101-CON	Protocol station for single stage brass regulators with 3500 PSIG (240 BAR) max inlet pressure
EBI 0102-CON	Protocol station for single stage chrome-plated brass regulators with 3500 PSIG (240 BAR) max inlet pressure
EBI 0103-CON	Protocol station for single stage 316L stainless steel regulators with 3500 PSIG (240 BAR) max inlet pressure
EBI 0104-CON	Protocol station for dual stage brass regulators with 3500 PSIG (240 BAR) max inlet pressure
EBI 0105-CON	Protocol station for dual stage chrome-plated brass regulators with 3500 PSIG (240 BAR) max inlet pressure
EBI 0106-CON	Protocol station for dual stage 316L stainless steel regulators with 3500 PSIG (240 BAR) max inlet pressure
EBI 0121-CON	Protocol station for single stage brass regulators with 4500 PSIG (310 BAR) max inlet pressure
EBI 0122-CON	Protocol station for single stage chrome-plated brass regulators with 4500 PSIG (310 BAR) max inlet pressure
EBI 0123-CON	Protocol station for single stage 316L stainless steel regulators with 4500 PSIG (310 BAR) max inlet pressure
EBI 0124-CON	Protocol station for dual stage brass regulators with 4500 PSIG (310 BAR) max inlet pressure
EBI 0125-CON	Protocol station for dual stage chrome-plated regulators with 4500 PSIG (310 BAR) max inlet pressure
EBI 0126-CON	Protocol station for dual stage 316L stainless steel regulators with 4500 PSIG (310 BAR) max inlet pressure
EBI 0133-CON	Protocol station for single stage regulators with 6000 PSIG (405 BAR) max inlet pressure

## EBI系列协议开关切换站

EBI切换控制站点是一个拥有安全性、便利性的标准型控制站点。该系统自带切换阀、手动操作开关；具有加强效率保证储备罐有效连接供应系统。

二根900mm带全不锈钢装甲外壳的管，二个阀（膜片压力：3500PSI或4500、6000PSI）。

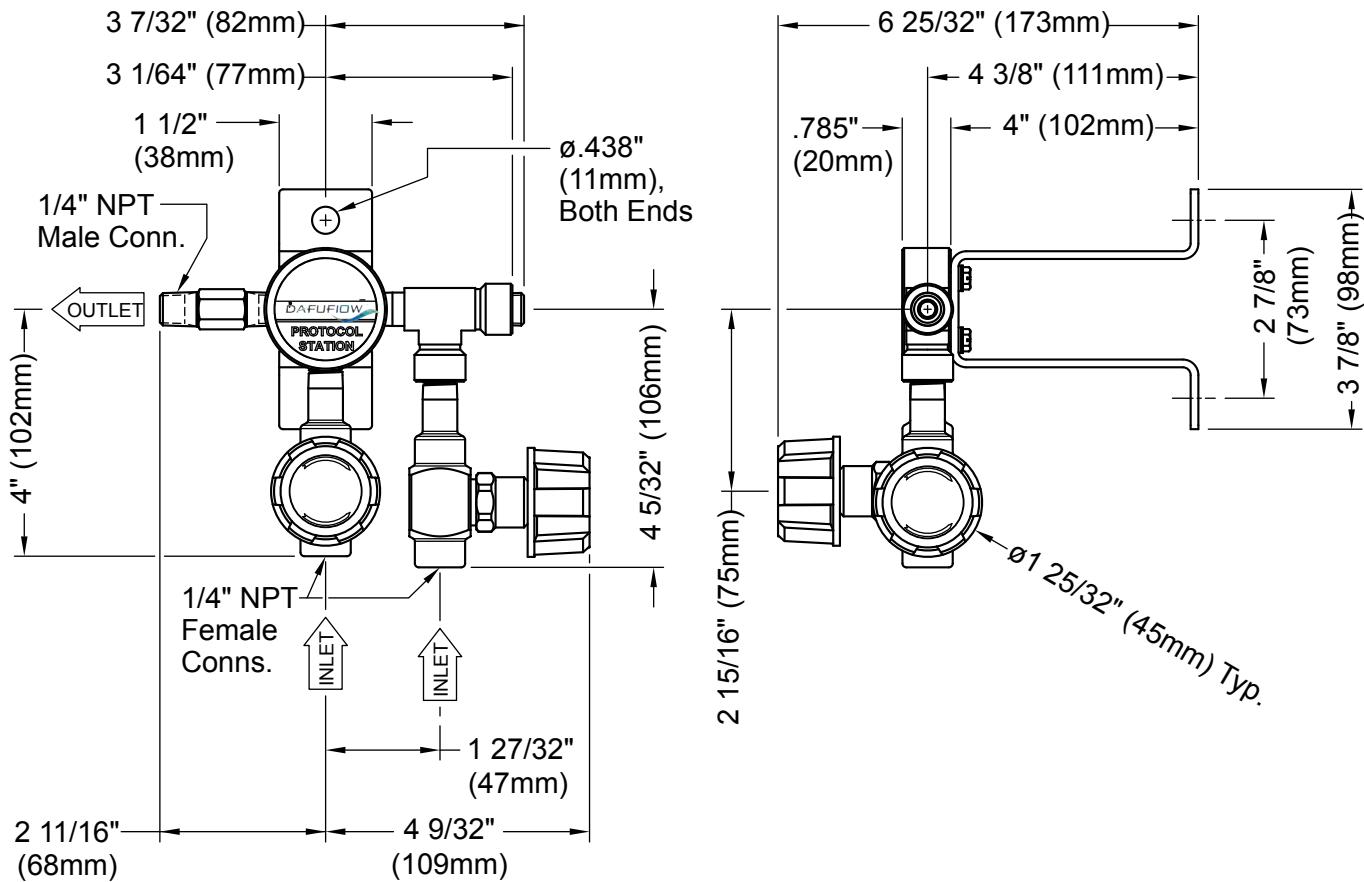


图示：EBI OAED带调节器（可单独出售）

功 能	材 质	技术规格
<b>Plugged Port in Gas Block</b> Facilitates purging	<b>Protocol Tee</b> Brass, chrome-plated brass or 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3500 PSIG (240 BAR) 4500 PSIG (310 BAR) optional 6000 PSIG (415 BAR) optional
<b>Integral Check Valve at Inlet</b> No internal contamination during cylinder change	<b>Flexible Hoses</b> 316L stainless steel inner core Monel® inner core for oxygen service PTFE inner core for 6000 PSIG (405 BAR)	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Bracket Mounts</b> Attaches conveniently to any surface	<b>Inlet Connection</b> 316L stainless steel or brass barstock	<b>Weight (Single Stage)</b> 3.6 lbs. (1.4 kg)
<b>Connections</b> CGA, DIN 477, BS 341 and others available	<b>Check Valve 'O' Ring</b> Viton® (or neoprene for ammonia)	<b>Weight (Dual Stage)</b> 4.0 lbs. (1.6 kg)
	<b>Bracket</b> 304 stainless steel	

# Manifolds

产品结构尺寸图



EBI 0154 Dimensions Shown

产品选型（仅供参考，以工厂交付为准）

Order Number	Description	Max Inlet
Add letter "C" after any regulator order number.	For example, to order a DBB 1331-580 with a protocol switchover, the order number would be DBB 1331-580C	
<b>To order separately:</b>		
EBI 0154-CON	Protocol switchover station for brass regulators	3500 PSIG (240 BAR)
EBI 0155-CON	Protocol switchover station for chrome-plated brass regulators	3500 PSIG (240 BAR)
EBI 0156-CON	Protocol switchover station for 316L stainless steel regulators	3500 PSIG (240 BAR)
EBI 0157-CON	Protocol switchover station for brass regulators	4500 PSIG (310 BAR)
EBI 0158-CON	Protocol switchover station for chrome-plated brass regulators	4500 PSIG (310 BAR)
EBI 0159-CON	Protocol switchover station for 316L stainless steel regulators	4500 PSIG (310 BAR)
EBI 0160-CON	Protocol switchover station for 316L stainless steel regulators	6000 PSIG (405 BAR)

## EBI系列警报控制站

EBI系列警报控制站结合安全功能，添加一个具有远程警报系统。根据气罐的储备量情况发送一个声音或者邮件警报信号，保证系统安全同时减少气体损耗。该系统可配套与控制站点、900mm的不锈钢装甲软管、压力开关表、远程警报器等元件使用，也可以单独订购警报系统或连接高纯度调节器配件。

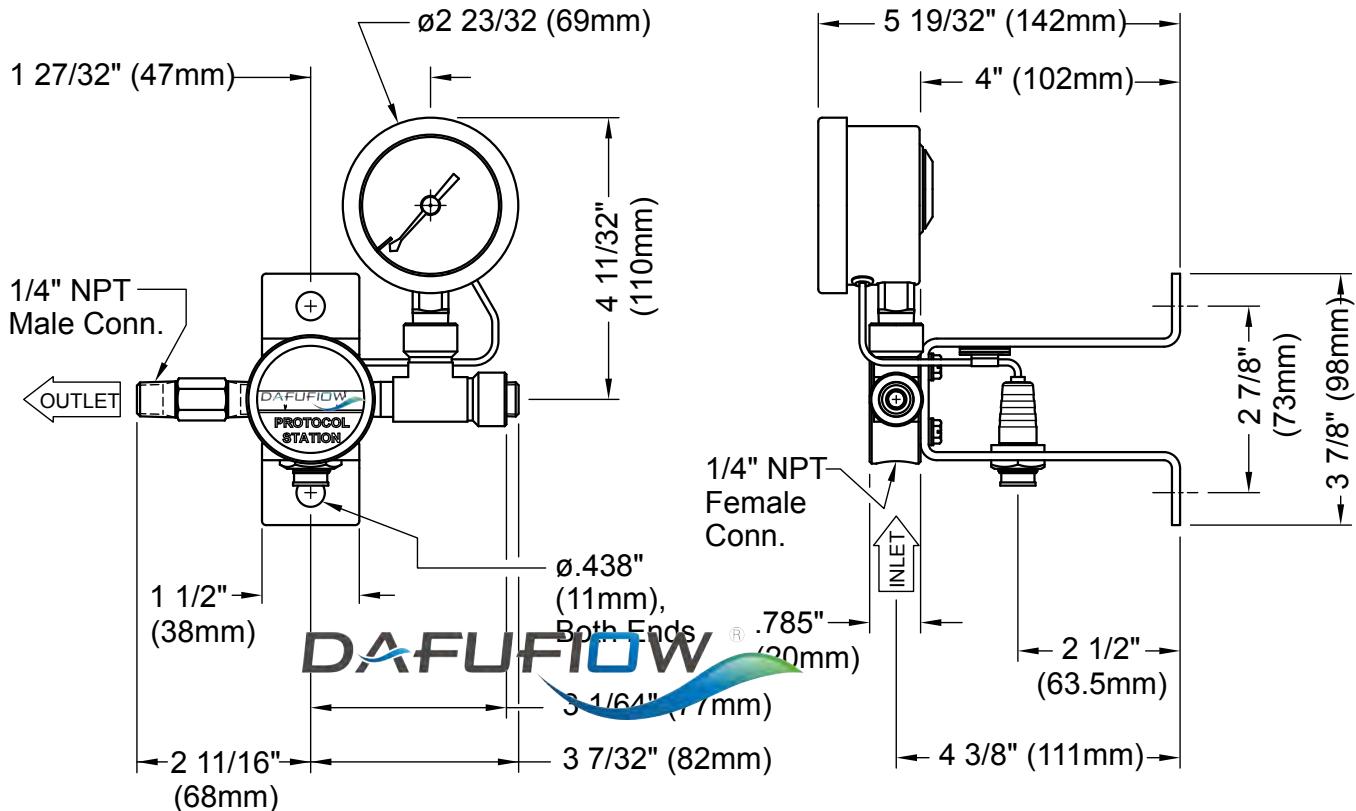


图示：EBI AAOC型带调节器（可单独出售）

功 能	材 质	技术规格
<b>Plugged Port in Gas Block</b> Facilitates purging	<b>Protocol Tee</b> Brass, chrome-plated brass or 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3500 PSIG (240 BAR) 4500 PSIG (310 BAR) optional 6000 PSIG (415 BAR) optional
<b>Integral Check Valve at Inlet</b> No internal contamination during cylinder change	<b>Flexible Hoses</b> 316L stainless steel inner core Monel® inner core for oxygen service PTFE inner core for 6000 PSIG (405 BAR)	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Bracket Mounts</b> Attaches conveniently to any surface	<b>Inlet Connection</b> 316L stainless steel or brass barstock	<b>Weight (Single Stage)</b> 3.6 lbs. (1.6 kg)
<b>Pressure Switch Gauge</b> Provides visible warning of cylinder depletion	<b>Check Valve "O" Ring</b> Viton® (or neoprene for ammonia)	<b>Weight (Dual Stage)</b> 4.0 lbs. (1.8 kg)
<b>Remote Alarm</b> Provides audible and visible warning of cylinder depletion	<b>Bracket</b> 304 stainless steel	<b>Intrinsic Safety Barriers</b> Required for flammable gas service or for use in hazardous environments
<b>Connections</b> CGA, DIN 477, BS 341 and others available		

# Manifolds

产品结构尺寸图



EBI 1095 Dimensions Shown

## Ordering Information

Order Number	Description	Max Inlet	Inlet Gauge
Add letter "B" after any regulator order number	For example, to order a DBB 1331-580 with protocol alarm station, the order number would be DBB 1331-580B		
<b>To order separately:</b>			
EBI 1095-CON	Protocol alarm station for brass regulators (110/220 VAC)	400 PSIG (27 BAR)	600 PSIG/42 BAR
EBI 1096-CON	Protocol alarm station for chrome-plated brass regulators (110/220 VAC)	400 PSIG (27 BAR)	600 PSIG/42 BAR
EBI 1097-CON	Protocol alarm station for 316L stainless steel regulators (110/220 VAC)	400 PSIG (27 BAR)	600 PSIG/42 BAR
EBI 1101-CON	Protocol alarm station for brass regulators (110/220 VAC)	3500 PSIG (240 BAR)	4000 PSIG/275 BAR
EBI 1102-CON	Protocol alarm station for chrome-plated brass regulators (110/220 VAC)	3500 PSIG (240 BAR)	4000 PSIG/275 BAR
EBI 1103-CON	Protocol alarm station for 316L stainless steel regulators (110/220 VAC)	3500 PSIG (240 BAR)	4000 PSIG/275 BAR
EBI 1121-CON	Protocol alarm station for brass regulators (110/220 VAC)	4500 PSIG (310 BAR)	6000 PSIG/405 BAR
EBI 1122-CON	Protocol alarm station for chrome-plated brass regulators (110/220 VAC)	4500 PSIG (310 BAR)	6000 PSIG/405 BAR
EBI 1123-CON	Protocol alarm station for 316L stainless steel regulators (110/220 VAC)	4500 PSIG (310 BAR)	6000 PSIG/405 BAR
EBI 1133-CON	Protocol alarm station for 316L stainless steel regulators (110/220 VAC)	6000 PSIG (405 BAR)	10,000 PSIG/700 BAR

## EBI系列协议开关切换兼警报站

EBI系列警报控制站结合安全功能，添加一个具有远程警报系统。根据气罐的储备量情况发送一个声音或者邮件警报信号，保证系统安全同时减少气体损耗。

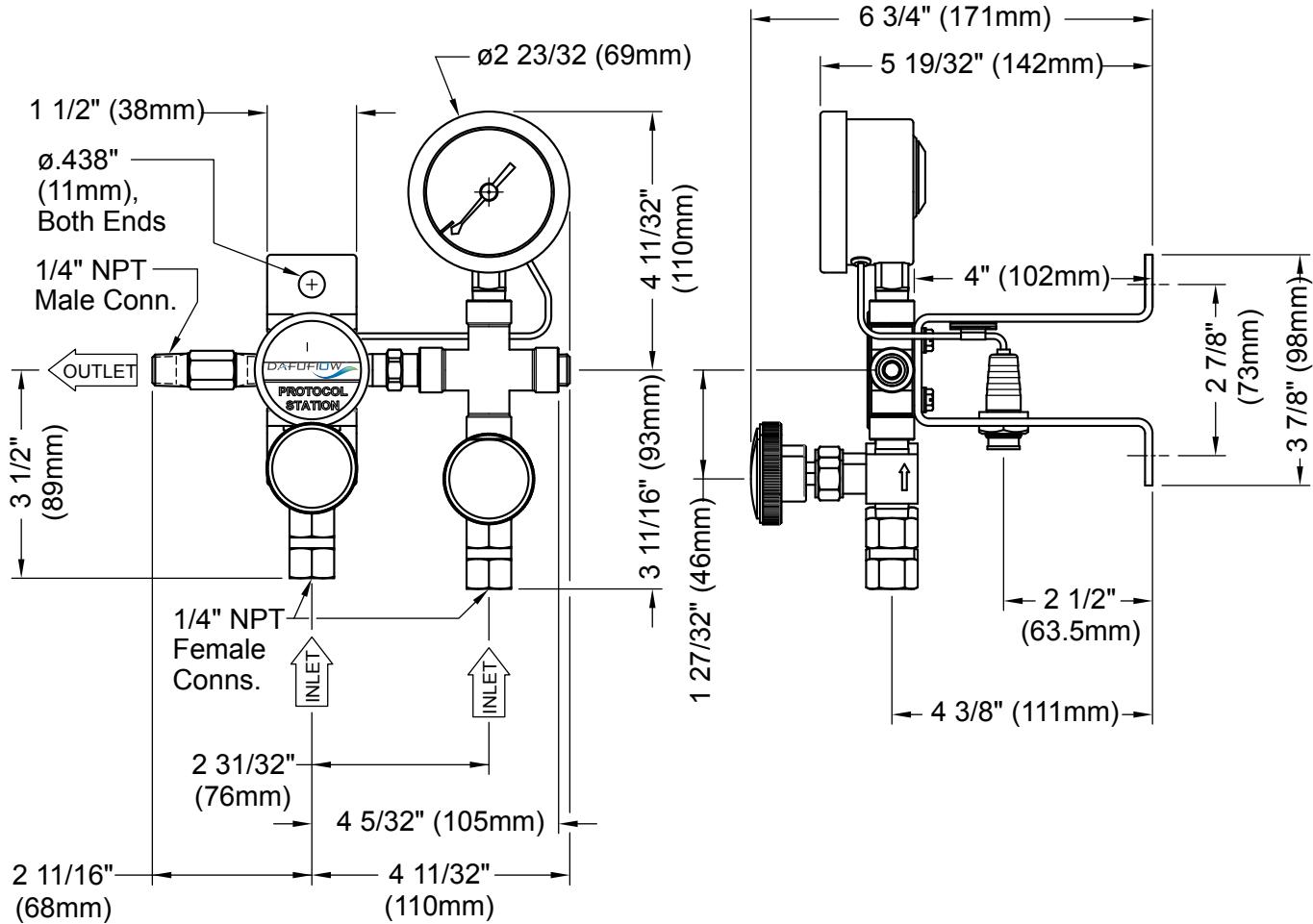
该系统可配套与控制站点、二根900mm的不锈钢装甲软管、二个阀、远程警报器等元件使用，也可以单独订购警报系统或连接高纯度调节器配套件。



图示：EBI OAEF FFO带调节器（单独出售）

功 能	材 质	技术规格
<b>Plugged Port in Gas Block</b> Facilitates purging	<b>Protocol Tee</b> Brass, chrome-plated brass or 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3500 PSIG (240 BAR) 4500 PSIG (310 BAR) optional 6000 PSIG (415 BAR) optional
<b>Integral Check Valve at Inlet</b> No internal contamination during cylinder change	<b>Flexible Hoses</b> 316L stainless steel inner core Monel® inner core for oxygen service PTFE inner core for 6000 PSIG (405 BAR)	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Bracket Mounts</b> Attaches conveniently to any surface	<b>Inlet Connection</b> 316L stainless steel or brass barstock	<b>Weight (Single Stage)</b> 4.4 lbs. (2 kg)
<b>Pressure Switch Gauge</b> Provides visible warning of cylinder depletion	<b>Check Valve "O" Ring</b> Viton®(or neoprene for ammonia)	<b>Weight (Dual Stage)</b> 4.8 lbs. (2.2 kg)
<b>Remote Alarm</b> Provides audible and visible warning of cylinder depletion	<b>Bracket</b> 304 stainless steel	<b>Intrinsic Safety Barriers</b> Required for flammable gas service or for use in hazardous environments
<b>Connections</b> CGA, DIN 477, BS 341 and others available		

## 产品结构尺寸图



EBI 0157 Dimensions Shown

## 产品选型（仅供参考，以工厂交付为准）

Order Number	Description	Inlet Gauge
Add letter "H" after any regulator order number	For example, to order a DBB 1331-580 with a protocol switchover alarm (110/220 VAC), the order number would be DBB 1331-580H	
<b>To order separately:</b>		
EBI 0151-CONH	Protocol switchover alarm for brass regulators (110/220 VAC)	600 PSIG (42 BAR)
EBI 0152-CONH	Protocol switchover alarm for chrome-plated brass regulators (110/220 VAC)	600 PSIG (42 BAR)
EBI 0153-CONH	Protocol switchover alarm for 316L stainless steel regulators (110/220 VAC)	600 PSIG (42 BAR)
EBI 0154-CONH	Protocol switchover alarm for brass regulators (110/220 VAC)	3500 PSIG (240 BAR)
EBI 0155-CONH	Protocol switchover alarm for chrome-plated brass regulators (110/220 VAC)	3500 PSIG (240 BAR)
EBI 0156-CONH	Protocol switchover alarm for 316L stainless steel regulators (110/220 VAC)	3500 PSIG (240 BAR)
EBI 0157-CONH	Protocol switchover alarm for brass regulators (110/220 VAC)	4500 PSIG (310 BAR)
EBI 0158-CONH	Protocol switchover alarm for chrome-plated brass regulators (110/220 VAC)	4500 PSIG (310 BAR)
EBI 0159-CONH	Protocol switchover alarm for 316L stainless steel regulators (110/220 VAC)	4500 PSIG (310 BAR)
EBI 0160-CONH	Protocol switchover alarm for 316L stainless steel regulators (110/220 VAC)	6000 PSIG (405 BAR)

## 奥特姆™8系列

奥特姆™8系列报警器适用于所有自动切换系统装置，可适用于惰性气体或易燃易爆气体，本安型防爆设计制造，用户通过奥特曼™8最新的集成安全、便利系统进行气罐监控，并进行远程警报信号发送。

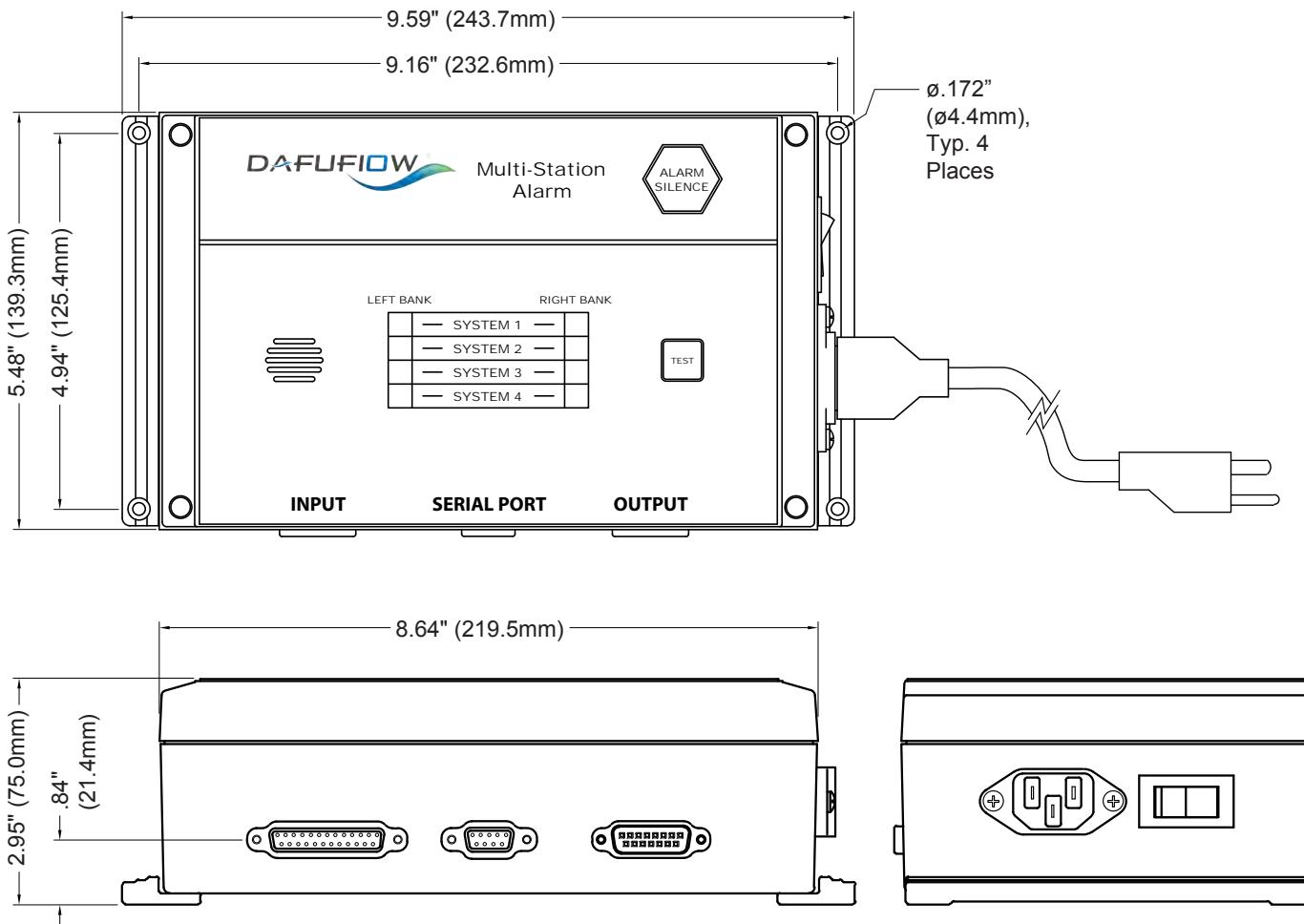


图示：EBI ECAO型

功 能	材 质	技术规格
<b>High Profile Visible and Audible Notification</b> Brightly lit LEDs and 93 dB alarm	外壳 铝合金	<b>Sound</b> 93 dB audible alarm
<b>Audible Alarm Silence Function</b> Flexibility between audio or visual notification		<b>Power</b> 120 VAC or 220 VAC
<b>Thirteen Channels</b> Eight input and five output		<b>Relay Contact</b> Single pole, double throw (SPDT)
<b>Dry Contact Relay Output</b> Four discrete or one general		<b>Relay Contact Rating</b> .5 A@24 VDC
<b>RS232 Data Interface Capability</b> Computer monitoring programs		<b>RS232 Serial Port</b> No parity, 9600 baud rate
<b>NO or NC Switch Compatibility</b> Customize system signals		<b>Dimensions</b> 9.59" x 5.48" x 2.95" (24.39mm x 139.19mm x 74.93mm)
<b>Auto-reset on Cylinder Replenishment</b> No button to push		<b>Power Fuses</b> .5A normal blow, type 3AG, 120 VAC .25A normal blow, type 3AG, 220 VAC
<b>Custom Configure One to Four System</b> Economical and expandable		<b>System Fuses</b> Internal resettable poly-fuse
		<b>Connections</b> Input connector (D25) Relay output connector (D15) RS232 serial output connector (D9)

# 警报系统

## 产品结构尺寸图



## 产品选型（仅供参考，以工厂交付为准）

Order No.	Description
EBI 5310	Multi-station remote alarm (120V)
EBI 5311	Multi-station remote alarm (220V)
EBI 5312	Intrinsic safety barriers for EAE, EBF, EBG Series switchover systems (required for flammable gas or hazardous environments)
EBI 5296	Intrinsic safety barriers for EBB, EBC ECG Series AutoSwitch systems (required for flammable gas or hazardous environments)
EBI 5316-XX	Cable available in 3', 10', 25', 50' and 100' lengths. "XX" in order number specifies length
EBI 5314	Advantium 8 D25 x four 6-pin male adapter cable
EBI 5315	Advantium 8 D25 x one 6-pin male adapter cable

## 奥特姆™加强型

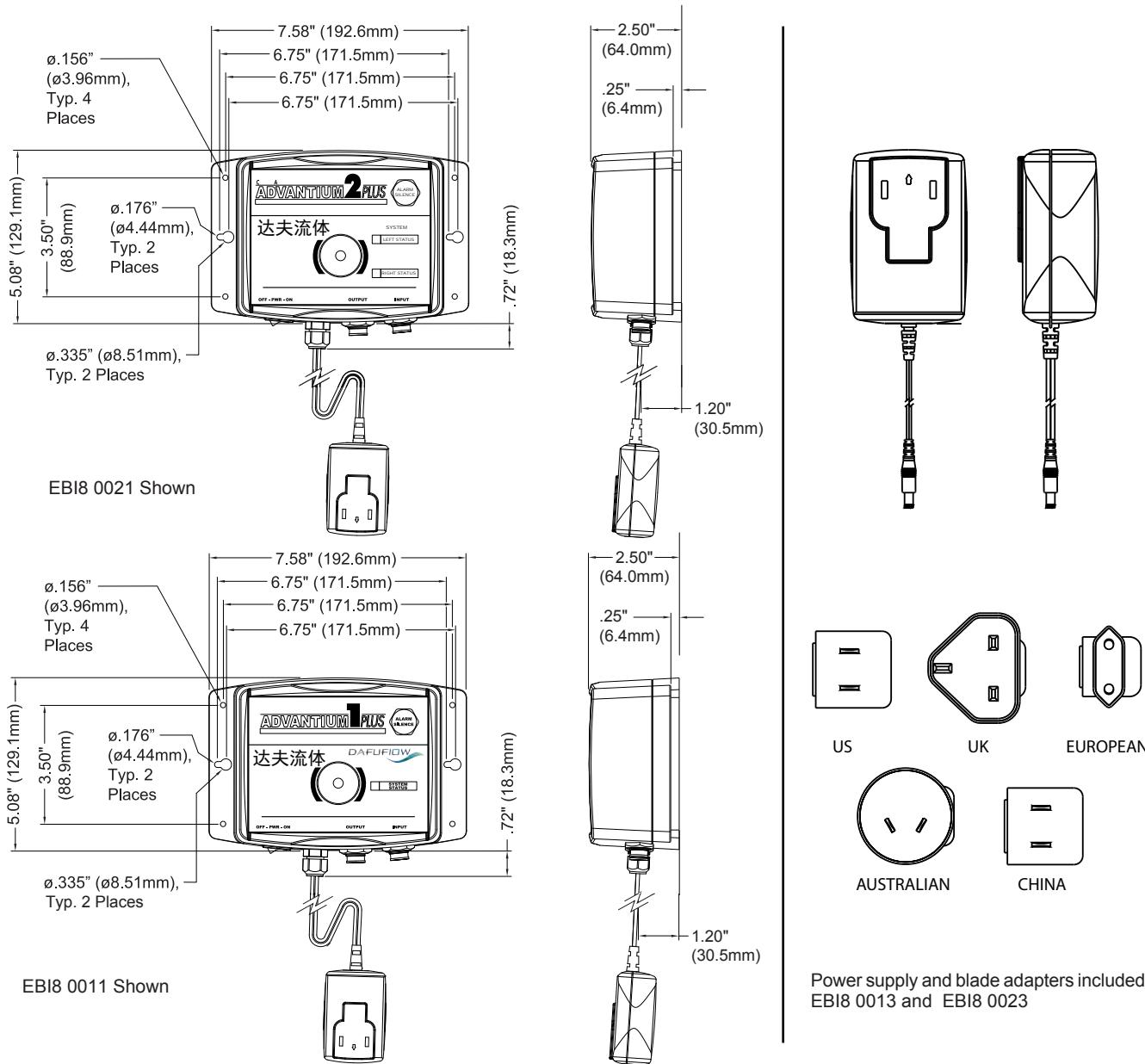
新加强型奥特姆™警报系统是在原来版本上优化整合了：安全、便利性等性能，监视开关由一个桥型开关控制，非常便利；适用于所有的自动切换系统。该系统可以监控惰性或易燃易爆气体，因为该系统配有本安型防爆功能设置。



功 能	材 质	技术规格
<b>Two Input Channels (Advantium 2 PLUS)</b> Monitors both primary and reserve banks	<b>Enclosure</b> Polycarbonate injection molding Flame retardant UV stabilized with mold release RoHS compliant	<b>Audio</b> 93db audible alarm
<b>One Input Channel (Advantium 1 PLUS)</b> Monitors one source		<b>Power Input</b> 90~264 VAC, 47~63 Hz (US, UK, European, Australian, and Chinese adapters included)
<b>Dry Contact Relay Outputs</b> Connects to building or auxiliary systems		<b>Outputs</b> 2 channels (Advantium 2 PLUS) 1 channel (Advantium 1 PLUS) Dry contacts Normally open/normally closed (selectable) Contact rating .5A 24V
<b>NO or NC Switch Compatibility</b> Customize system signals		<b>Inputs</b> 2 channels Accepts normally open/normally closed contact closure (selectable) Resettable fuse protection
<b>Highly Visible Lighted Status Notifications</b> Easy to tell status from a distance		<b>Connectors</b> Input: 6 pin circular Output: 4 pin circular
<b>Auto-reset on Cylinder Replenishment</b> No button to push		<b>Dimensions</b> 4.75 x 7.5"x 2.625" (120.65mm x 190.5mm x 66.675mm)
<b>Ability to "Daisy Chain" Multiple Alarms</b> Notify multiple users of alarm		
<b>Switch Selectable 40-Minute Alarm Delay</b> Allow for transient events		
<b>CE marked</b> Conforms to EU directives		

# 警报系统

## 产品结构尺寸图



## 产品选型（仅供参考，以工厂交付为准）

Order No.	Description
EBI8 0023-01-000	Advantium 2 PLUS remote alarm (universal input)
EBI8 0013-01-000	Advantium 1 PLUS remote alarm (universal input)
EBI 5316-XX	Input Cable Assembly available in 3', 10', 25', 50' and 100' lengths. "XX" in order number denotes length.
EBI 5329-XX	Interconnect Cable Assembly available in 3', 10', 25', 50' and 100' lengths. "XX" in order number denotes length.
EBI 5312	Intrinsic safety barriers for EAE, EBF and EBG Series switchover systems and EBI protocol alarm station
EBI 5296	Intrinsic safety barriers for EBB, EBC, ECG Series switchover systems
EBI 5319-XX	Cables for intrinsic safety barriers (two required)

## DOA系列稳压型调压阀-单级、镀铬铜材主体，6个接口

DOA系列调压阀是一种对于非腐蚀性、高纯度或液化气体的初级压力控制装置，同时可以实现减小进口压力的波动而导致出口压力的波动现象，即稳压功能。

\*单级

\*六个接口

\*镀铬黄铜阀体材质

\*316L不锈钢材质膜片

### 典型应用

散装气体分配系统

气体和液体色谱法

高纯度气体

零、跨度、和校准气体

高纯度气体燃烧室升压

液化的烃气体控制

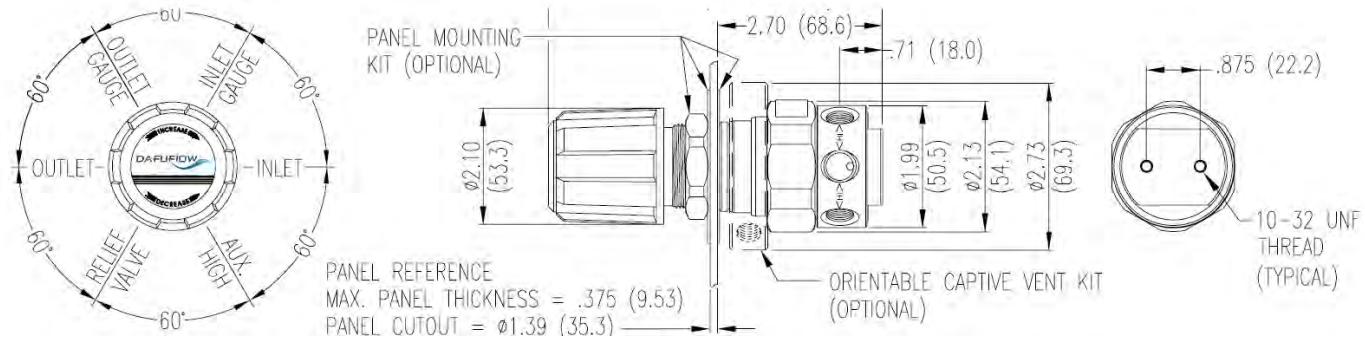
低温气体的控制

EPA 协议标准



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>阀体材质</b> 镀铬黄铜	<b>最大输入压力</b> 3000 PSIG (210 BAR) 3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> 镀铬黄铜	<b>温度范围</b> -40°F to 140°F (-40°C to 60°C)
<b>Chrome-plated Brass Barstock Body</b> Smooth surface finish	<b>阀座</b> PTFE PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Gauges</b> 2" (53mm) diameter chrome-plated
<b>Front Panel-Mountable</b> Easy installation	<b>过滤精度</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9} \text{ scc/sec}$
<b>压力范围: 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Weight (DOA 7331-580)</b> 3.99 lbs. (1.81 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DOA	A	B	C	D	-CON	Options
Series DOA	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Installed Options
1: 0-15 PSIG (0-1 BAR)*	30"-0-30 PSIG/-1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-1-0-7 BAR	3: 0-4000 PSIG/0-275 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-1-0-14 BAR	5: 0-1000 PSIG/0-70 BAR	2: 1/4" tube fittin	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	D: Deep purge*
4: 0-250 PSIG (0-17 BAR)	0-400 PSIG / 0-27 BAR	6: 0-300 PSIG/0-21 BAR	3: Diaphragm valve 1/4" tube fittin	6: Mirror image (PSIG/kPa gauges)	TF6: 3/8" tube	H: Protocol switchover station with alarm (110/220 VAC)
5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG / 0-70 BAR	7: 0-400 PSIG/0-27 BAR	4: Diaphragm valve 1/4" MPT	7: Mirror image (BAR/PSIG gauges)	M06: 6mm tube	M: Protocol station
7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-1-0-14 BAR	8: 0-6000 PSIG/0-400 BAR*	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	Q: Protocol purge station*
A: 0-15 (0-1 BAR)*	0-30 PSIG / 0-2 BAR***	G: 0-4000 PSIG/0-275 BAR†	6: 1/8" tube fittin			*Not available with 4500 PSIG (310 BAR) maximum inlet pressure
*Not available with 4500 PSIG (310 BAR) maximum inlet pressure				**Standard assembly does not include relief valve		
*** With redline for acetylene use.				†Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®		
				7: 3/8" tube fittin		
				8: Diaphragm valve 1/8" tube fittin		
				9: Diaphragm valve 1/4" FPT		
				A: 3/8" BSP RH fittin		
				B: Diaphragm valve 3/8" fittin		
				C: 3/8" BSP LH fittin		
				D: 6mm brass hose barb (not available if A=4 or 5)		
				G: 1/8" stainless steel tube fittin		
				H: 1/4" stainless steel tube fittin		
				M: 6mm tube fittin		
				S: Diaphragm valve 6mm tube fittin		

## 相关辅件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit)
FB0002	氦泄漏认证证书

## DOB系列稳压型调压阀-单级、铜材主体，6个接口

DOB系列调压阀可以用于初级调压控制，适用介质无腐蚀性气体、高纯气体、液化气体；也可用于允许因进口压力减少引起出口压力轻微波动的工况。

The DOB 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.

\*单级

\*六个接口

\*黄铜材质阀体

\*316L不锈钢材质膜片

### 典型应用

散装气体分配系统

气体和液体色谱法

高纯度气体

零、跨度、和校准气体

高纯度气体燃烧室升压

液化的烃气体控制

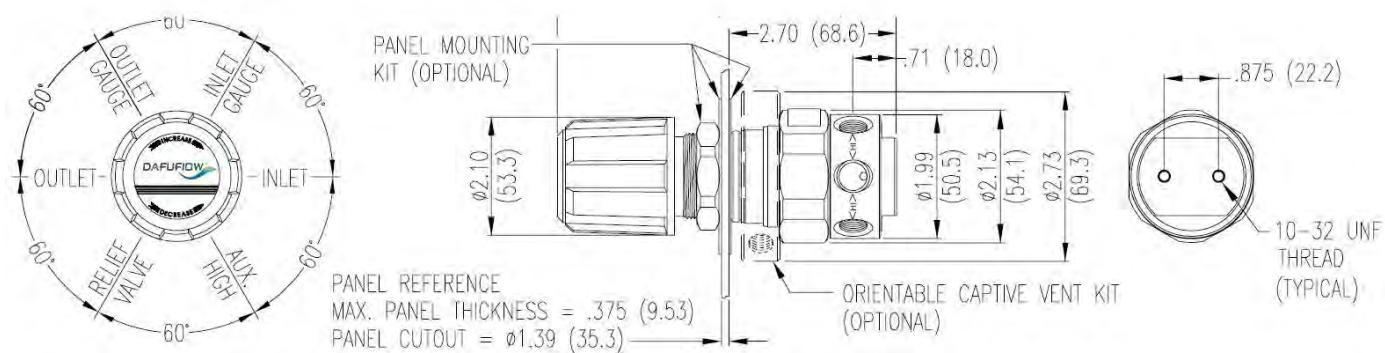
低温气体的控制

EPA 协议标准



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> Brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Brass Barstock Body</b> Smooth surface finish	<b>Seat</b> PTFE PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Gauges</b> 2" (53mm) diameter brass
<b>Front Panel-Mountable</b> Easy installation	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9} \text{ scc/sec}$
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Weight (DOB 1331-580)</b> 3.99 lbs. (1.81 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DOB	A	B	C	D	-CON	Options
Series DOB	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Installed Options
1: 0-15 PSIG (0-1 BAR)*	30"-0-30 PSIG/-1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-1-0-7 BAR	3: 0-4000 PSIG/0-275 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station
3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-1-0-14 BAR	5: 0-1000 PSIG/0-70 BAR	2: 1/4" tube fittin	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	D: Deep purge*
4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/0-27 BAR	6: 0-300 PSIG/0-21 BAR	3: Diaphragm valve 1/4" tube fittin	6: Mirror image (PSIG/kPa gauges)	TF6: 3/8" tube	H: Protocol switchover station with alarm (110/220 VAC)
5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/0-70 BAR	7: 0-400 PSIG/0-27 BAR	4: Diaphragm valve 1/4" MPT	7: Mirror image (BAR/PSIG gauges)	M06: 6mm tube	M: Protocol station
7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-1-0-14 BAR	8: 0-6000 PSIG/0-400 BAR*	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	Q: Protocol purge station*
A: 0-15 PSIG / (0-1 BAR)*	0-30 PSIG / 0-2 BAR***	G: 0-4000 PSIG/0-275 BAR†	6: 1/8" tube fittin			*Not available with 4500 PSIG (310 BAR) maximum inlet pressure

\*Not available with 4500 PSIG (310 BAR) maximum inlet pressure

\*\*Standard assembly does not include relief valve

\*\*\* With redline for acetylene use.

\*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®

†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®

A: 3/8" BSP RH fittin

B: Diaphragm valve 3/8" fittin

C: 3/8" BSP LH fittin

D: 6mm brass hose barb (not available if A=4 or 5)

G: 1/8" stainless steel tube fittin

H: 1/4" stainless steel tube fittin

M: 6mm tube fittin

S: Diaphragm valve 6mm tube fittin

\*Not available with 4500 PSIG (310 BAR) max inlet pressure

## 相关辅件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit)
FB0002	氦泄漏认证证书

## DOC系列稳压型调压阀-单级、镀铬铜材主体，4个接口

DOC系列调压阀是专为二级压力控制设计，适用于非腐蚀性气体、高纯度气体或液化气体；也可作为高纯气体分配系统中的点使用压力控制。

The DOC 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.

- \*单级
- \*四个接口
- \*镀铬黄铜阀体材质
- \*316L不锈钢材质膜片

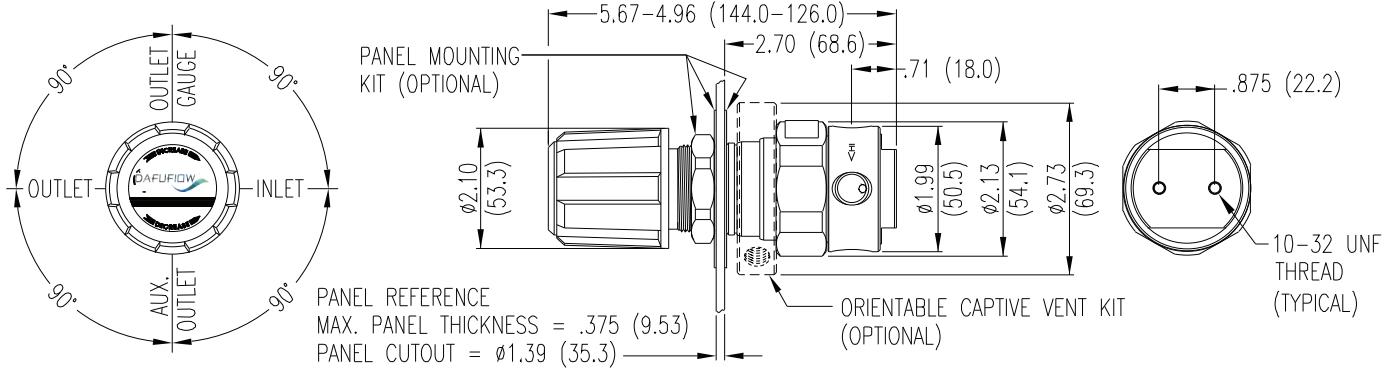
### 典型应用

- 散装气体分配系统
- 气体和液体色谱法
- 高纯度气体
- 零、跨度、和校准气体
- 高纯度气体燃烧室升压
- 液化的烃气体控制
- 低温气体的控制



特点	材质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Chrome-plated Brass Barstock Body</b> Smooth surface fins	<b>Seat</b> PTFE	<b>Gauge</b> 2" (53mm) diameter chrome-plated
<b>Front and Rear Panel-Mountable</b> Versatile system configuration	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 Max outlet 50 PSIG (3.5 BAR) or below 0.2 Max outlet above 50 PSIG (3.5 BAR) See page 189 for flow curves
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Weight (DOC 2021-000)</b> 2.71 lbs. (1.23 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DOC	A	B	C	D	-CON	Options	
Series DOC	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>D:</b> Deep purge
	<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> Cleanroom assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	<b>M:</b> Protocol station
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>2:</b> 1/4" tube fittin	<b>2:</b> Cleanroom assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	<b>Q:</b> Protocol purge station
	<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>6:</b> Mirror image (PSIG/kPa gauges)	<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>7:</b> Mirror image (BAR/PSIG gauges)	<b>M06:</b> 6mm tube	
	<b>7:</b> 0-150 (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>5:</b> Needle valve 1/4" MPT			
	**Standard assembly does not include relief valve						
	<b>6:</b> 1/8" tube fittin						
	<b>7:</b> 3/8" tube fittin						
	<b>8:</b> Diaphragm valve 1/8" fittin						
	<b>9:</b> Diaphragm valve 1/4" FPT						
	<b>A:</b> 3/8" BSP RH fittin						
	<b>B:</b> Diaphragm valve 3/8" tube fittin						
	<b>C:</b> 3/8" BSP LH fittin						
	<b>D:</b> 6mm brass hose barb (Not available if A=4 or 5)						
	<b>G:</b> 1/8" stainless steel tube fittin						
	<b>H:</b> 1/4" stainless steel tube fittin						
	<b>M:</b> 6mm tube fittin						
	<b>S:</b> Diaphragm valve 6mm tube fittin						

## 相关附件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit)
FB0002	氦泄漏认证证书

## DOE系列调压阀-单级、316L材质主体，4个接口

DOE系列调压阀是为无腐蚀气体，高纯气体或液化气体二级压力控制而设计，也可当成高纯气体分配系统中做点控制使用。

The DOE 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.

\*单级 \*四个接口

\*黄铜材质阀体

\*316L不锈钢材质膜片

### 典型应用

散装气体分配系统

气体和液体色谱法

高纯度气体

零、跨度、和校准气体

高纯度气体燃烧室升压

液化的烃气体控制

低温气体的控制



### 特 点

#### Metal-to-Metal Diaphragm Seal

No possibility of gas contamination

#### CAPSULE® Seat

Increased serviceability and life

#### Brass Barstock Body

Smooth surface fins

#### Front and Rear Panel-Mountable

Versatile system configuration

#### 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

#### Pipe Away Relief Valve

Safely vents exhaust gases

### 材 质

#### Body

Brass barstock

#### Bonnet

Brass barstock

#### Seat

PTFE

#### Filter

10 micron sintered bronze

#### Diaphragm

316L stainless steel

#### Internal Seals

PTFE

### 技术规格

#### Maximum Inlet Pressure

3000 PSIG (210 BAR)

#### Temperature Range

-40°F to 140°F (-40°C to 60°C)

#### Gauge

2" (53mm) diameter brass

#### Ports

1/4" FPT

#### Helium Leak Integrity

$1 \times 10^{-9}$  scc/sec

#### Cv

0.1 Max outlet 50 PSIG (3.5 BAR) or below

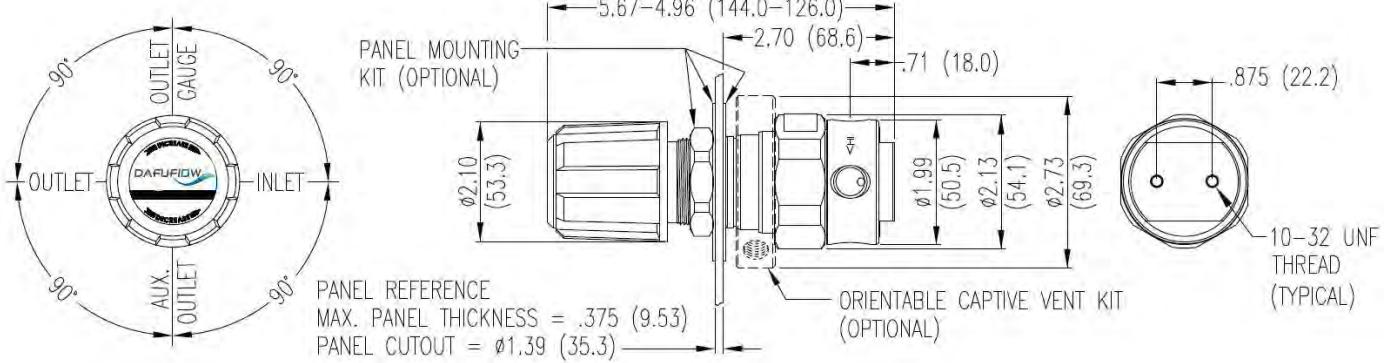
0.2 Max outlet above 50 PSIG (3.5 BAR)

See page 189 for flow curves

#### Weight (DOE 2021-000)

2.71 lbs. (1.23 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DOE	A	B	C	D	-CON	Options
Series DOE	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	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>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> Cleanroom assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube
	<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>2:</b> 1/4" tube fittin	<b>2:</b> Cleanroom 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>6:</b> Mirror image (PSIG/kPa gauges)	<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>7:</b> Mirror image (BAR/PSIG gauges)	<b>M06:</b> 6mm tube
	<b>7:</b> 0-150	30"-0-200 PSIG/ 0-10 BAR	-1-0-14 BAR	<b>5:</b> Needle valve 1/4" MPT		
				<b>6:</b> 1/8" tube fittin		
				<b>7:</b> 3/8" tube fittin		
				<b>8:</b> Diaphragm valve 1/8" fittin		
				<b>9:</b> Diaphragm valve 1/4" FPT		
				<b>A:</b> 3/8" BSP RH fittin		
				<b>B:</b> Diaphragm valve 3/8" tube fittin		
				<b>C:</b> 3/8" BSP LH fittin		
				<b>D:</b> 6mm brass hose barb (Not available if A=4 or 5)		
				<b>G:</b> 1/8" stainless steel tube fittin		
				<b>H:</b> 1/4" stainless steel tube fittin		
				<b>M:</b> 6mm tube fittin		
				<b>S:</b> Diaphragm valve 6mm tube fittin		

## 相关辅件

### Order No. Description

HCE 0204 面板安装套件

F0001 排气组件 (Captured vent kit)

FB0002 氮泄漏认证证书

## DOH系列稳压型调压阀-单级、铝合金材质主体，6个接口

DOH系列调压阀主要用于控制轻度腐蚀性高纯度气体，如氨、硫化氢和二氧化硫，也可用于对重量有要求并且能使用铝材质阀体的应用环境。

The DOH Series regulators are intended for primary pressure control of mildly corrosive high purity gases such as ammonia, hydrogen sulfide, and sulfur dioxide or for applications requiring the light weight of an aluminum body regulator.

\*单级

\*阳极氧化铝材质阀体

\*316L不锈钢材质膜片

### 典型应用

散装气体分配系统

气体和液体色谱法

高纯度气体

零、跨度、和校准气体

高纯度气体燃烧室升压

轻度腐蚀性气体



### 特 点

#### Metal-to-Metal Diaphragm Seal

No possibility of gas contamination

#### CAPSULE® Seat

Increased serviceability and life

#### Anodized Aluminum Body

Cost-effective corrosion resistance

#### Front and Rear Panel-Mountable

Versatile system configuration

#### Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)

Broad range of applications

#### Pipe Away Relief Valve

Safely vents exhaust gases

### 材 质

#### Body

Anodized aluminum barstock

#### Bonnet

Anodized aluminum barstock

#### Seat

PTFE

#### Filter

Patented 10 micron 316 mesh

#### Diaphragm

316L stainless steel

#### Internal Seals

PTFE

### 技术规格

#### 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

1/4" FPT

#### Helium Leak Integrity

$1 \times 10^{-9}$  scc/sec

#### Cv

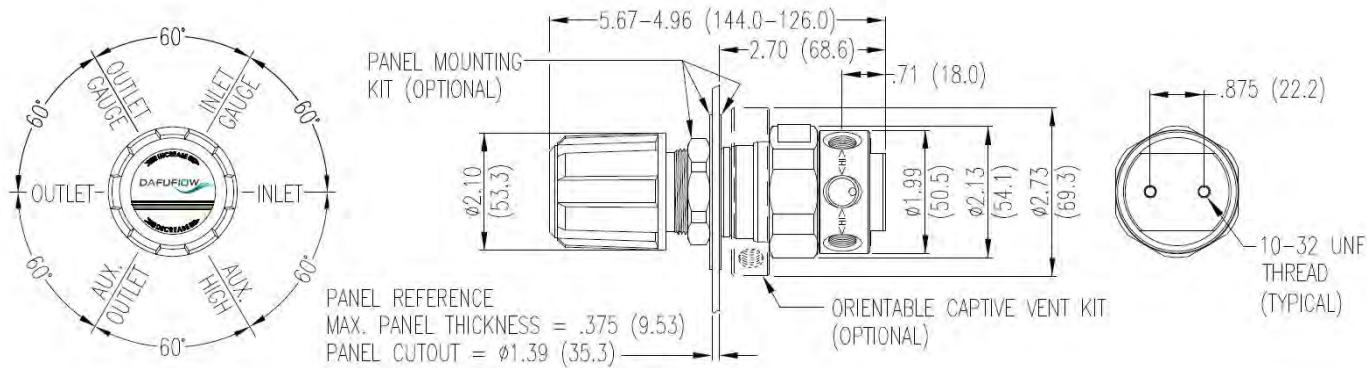
0.1

See page 188 for flow curves

#### Weight (DOH 2331-000)

2.7 lbs. (1.24 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DOH	A	B	C	D	-CON	Options	
Series DOH	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>3:</b> 0-4000 PSIG/ 0-310 BAR	<b>1:</b> 1/4" MPT	<b>1:</b> Cleanroom assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	<b>D:</b> Deep purge	
<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 fittin	<b>2:</b> Cleanroom assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	<b>Q:</b> Protocol purge station	
<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>5:</b> 0-500 (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>7:</b> 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>5:</b> Needle valve 1/4" MPT			CGA DIN 477 BS 341 and others available	
<i>**No relief valve</i>			<b>6:</b> 1/8" tube fittin				
			<b>7:</b> 3/8" tube fittin				
			<b>8:</b> Diaphragm valve 1/8" tube fittin				
			<b>9:</b> Diaphragm valve 1/4" FPT				
			<b>M:</b> 6mm tube fittin				
			<b>S:</b> Diaphragm valve 6mm tube fittin				

## 相关附件

Options	Order No.	Description
Panel mount kit	HCE 0204	To mount the regulator using bonnet threads. Material: Nickel-plated brass
Captured vent kit	F0001	360° Orientation pipes vented gases to safe location in the event of diaphragm failure. Material: Nickel-plated brass
Helium Leak certificatio	FB0002	Inboard Helium Leak certification to less than $1 \times 10^{-9}$ cc/sec

## DAA系列稳压型调压阀-双级、镀铬铜材主体，6个接口

DAA系列调压器（稳压阀、调压阀）适用于非腐蚀性、高纯度或液化气体应用环境；该系列调节器能保持被控制气体的压力恒定或者不受供给压力变化影响。

The DAA 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.

\*双级

\*六个接口

\*镀铬黄铜材质阀体

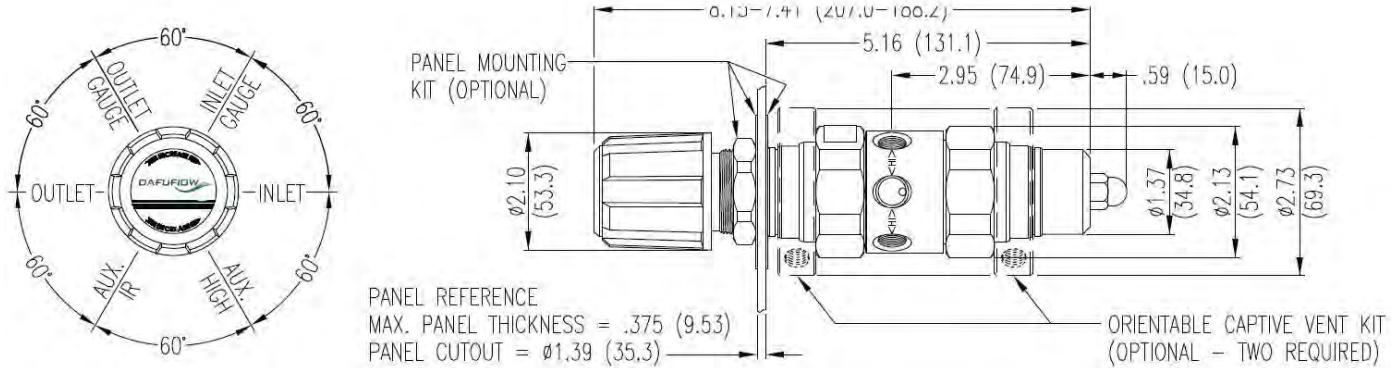
\*316L不锈钢材质膜片



DAA 2331-580 shown

特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Chrome-plated Brass Barstock Body</b> Smooth surface finish	<b>Seat</b> PTFE PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Gauges</b> 2" (53mm) diameter chrome-plated
<b>Front Panel-Mountable</b> Easy installation	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>Pressure Ranges 0-15 to 0-350 PSIG (0-1 to 0-24 BAR)</b> Broad range of applications	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Weight (DAA 2331-580)</b> 5.3 lbs. (2.40 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DAA	A	B	C	D	-CON	Options	
Series DAA	Max Outlet Pressure	Max 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> Cleanroom 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 fittin	<b>2:</b> Cleanroom assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube	<b>D:</b> Deep purge*
	<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 fittin		<b>TF6:</b> 3/8" tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<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>M:</b> Protocol station
	<b>E:</b> 0-350 PSIG (0-24 BAR)	0-400 PSIG/ 0-27 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>G:</b> 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8" tube fittin			*Not available with 4500 PSIG (310 BAR) max inlet pressure
			<p>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®</p> <p>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</p> <ul style="list-style-type: none"> <li><b>7:</b> 3/8" tube fittin</li> <li><b>8:</b> Diaphragm valve 1/8" tube fittin</li> <li><b>9:</b> Diaphragm valve 1/4" FPT</li> <li><b>A:</b> 3/8" BSP RH fittin</li> <li><b>B:</b> Diaphragm valve 3/8" tube fittin</li> <li><b>C:</b> 3/8" BSP LH fittin</li> <li><b>D:</b> 6mm brass hose barb (not available if A=4 or 5)</li> <li><b>G:</b> 1/8" stainless steel tube fittin</li> <li><b>H:</b> 1/4" stainless steel tube fittin</li> <li><b>M:</b> 6mm tube fittin</li> <li><b>S:</b> Diaphragm valve 6mm tube fittin</li> </ul>				

## 相关辅件

### Order No. Description

HCE 0204 面板安装套件

F0001 排气组件 (Captured vent kit)

FB0002 氦泄漏认证证书

## DAB系列稳压型调压阀-双级、铜材主体，6个接口

**DAB**系列调压阀适用于非腐蚀性、高纯度或液化气体应用环境；该系列调压阀能保持被控制气体的压力恒定或者不受供给压力变化影响。

The DAB 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.

- \*双级
- \*六个接口
- \*黄铜材质阀体
- \*316L不锈钢材质膜片

### 典型应用

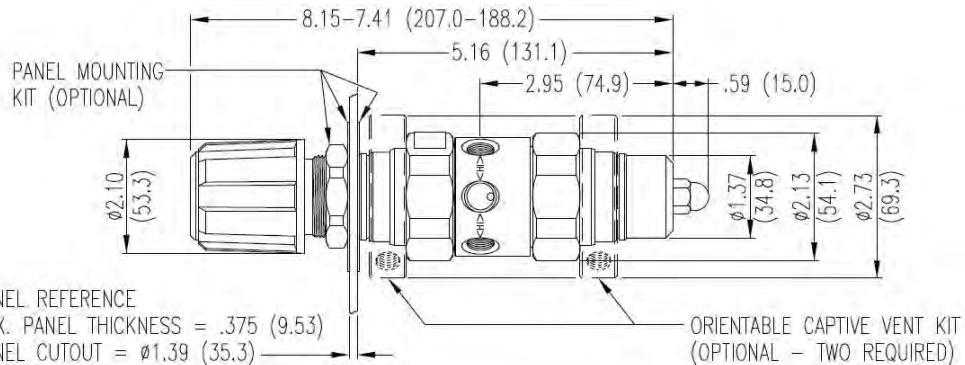
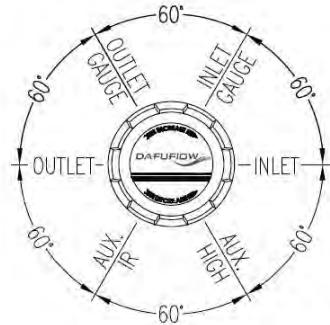
EPA协议的气体  
气相和液相色谱法  
高纯气体搬运  
零、跨距和校准气体  
高纯气体增压



DAB 2331-580 shown

特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> Brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Brass Barstock Body</b> Smooth surface fins	<b>Seat</b> PTFE PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Gauges</b> 2" (53mm) diameter brass
<b>Front Panel-Mountable</b> Easy installation	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>Pressure Ranges 0-15 to 0-350 PSIG (0-1 to 0-24 BAR)</b> Broad range of applications	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Weight (DAB 2331-580)</b> 5.3 lbs. (2.40 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DAB	A	B	C	D	-CON	Options
Series DAB	Max Outlet Pressure	Max Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	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>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> Cleanroom assembly (PSIG/kPa gauges)	<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 fittin	<b>2:</b> Cleanroom assembly (BAR/PSIG gauges)	<b>D:</b> Deep purge*
	<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 fittin	<b>TF6:</b> 3/8" tube	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<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>M:</b> Protocol station
	<b>E:</b> 0-350 PSIG (0-24 BAR)	0-400 PSIG/ 0-27 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>G:</b> 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8" tube fittin		*Not available with 4500 PSIG (310 BAR) max inlet pressure
			<p>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®</p> <p>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</p>			
			<p><b>7:</b> 3/8" tube fittin</p> <p><b>8:</b> Diaphragm valve 1/8" tube fittin</p> <p><b>9:</b> Diaphragm valve 1/4" FPT</p> <p><b>A:</b> 3/8" BSP RH fittin</p> <p><b>B:</b> Diaphragm valve 3/8" tube fittin</p> <p><b>C:</b> 3/8" BSP LH fittin</p> <p><b>D:</b> 6mm brass hose barb (not available if A=4 or 5)</p> <p><b>G:</b> 1/8" stainless steel tube fittin</p> <p><b>H:</b> 1/4" stainless steel tube fittin</p> <p><b>M:</b> 6mm tube fittin</p> <p><b>S:</b> Diaphragm valve 6mm tube fittin</p>			

## 相关附件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit)
FB0002	氦泄漏认证证书

## DBO系列稳压型调压阀-单级、SilcoNert™ 1020 材主体，6个接口

DBO系列阳极化镀硅晶耐腐蚀性工艺处理调压阀，与介质接触的金属材料都经过阳极化镀硅晶工艺处理，该工艺技术能有效抵抗腐蚀性介质的强腐蚀性，它的耐腐蚀性强度比316L, 哈氏合金-20都要强许多，所以在做气体成分分析时，由于该调压阀没有与介质发生反应，所以各个气体元素成分不会发生变化，特别适用于精确分析仪器使用。

The DBO Series SilcoNert regulators are intended for primary pressure control of reactive or corrosive calibration mixtures or pure gases in applications where an extremely inert wetted finish is required. The proprietary non-reactive amorphous silicon finish is significantly more inert than 316L stainless steel and ideally suited for Hydrogen Sulfide, reduced Sulfur, Mercury and PPM to PPB calibration mixtures.

\*单级

\*六个接口或四个口可选

\*SilcoNert™ 1020材质阀体，膜片和内部件

\*惰性表面光洁度和耐腐蚀性

### 典型应用

汞标准

超量监测

硫混合物

腐蚀性介质

精确的校准标准

硫化氢PPM 到 PPB 标准



### 特点

**Metal-to-Metal Diaphragm Seal**  
No possibility of gas contamination

**CAPSULE® Seat**  
Increased serviceability and life

**SilcoNert 1020 Barstock Body**  
Increased corrosion resistance

**Front and Rear Panel-Mountable**  
Versatile system configuration

**Pressure Ranges 0-15 to 0-500 PSIG  
(0-1 to 0-34 BAR)**  
Broad range of applications

### 材质

**Body**  
SilcoNert 1020

**Bonnet**  
SilcoNert 1020

**Seat**  
PTFE

**Filter**  
SilcoNert 1020 10 micron mesh

**Diaphragm**  
SilcoNert 1020

**Internal Seals**  
PTFE

### 技术规格

**Maximum Inlet Pressure**  
3000 PSIG (210 BAR)  
4500 PSIG (310 BAR) optional

**Temperature Range**  
-40°F to 140°F (-40°C to 60°C)

**Gauge**  
2" (53mm) diameter stainless steel  
(bourdon tube not SilcoNert 1020)

**Ports**  
1/4" FPT

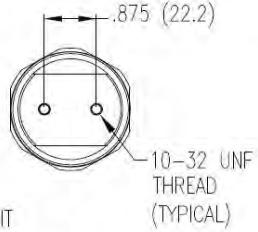
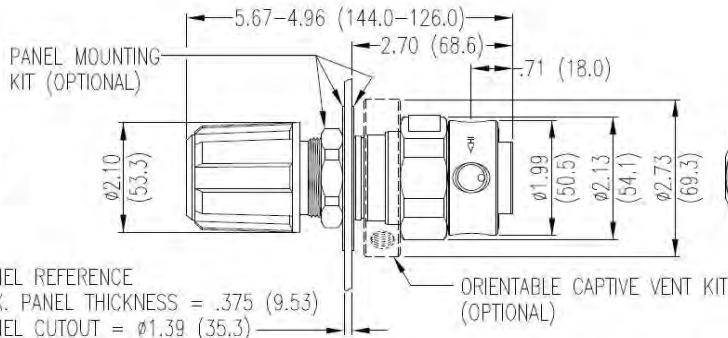
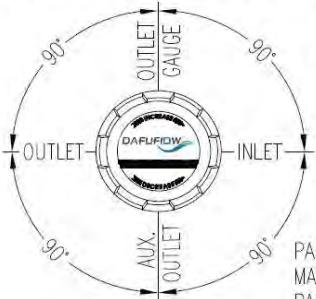
**Helium Leak Integrity**  
 $1 \times 10^{-9}$  scc/sec

**Cv**  
0.1 (Max outlet 50 PSIG/3.5 BAR or below)  
0.2 (Max outlet above 50 PSIG/3.5 BAR)  
See page 188 for flow curves

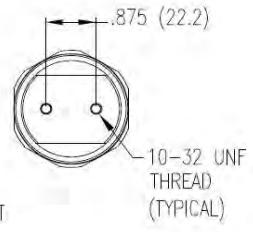
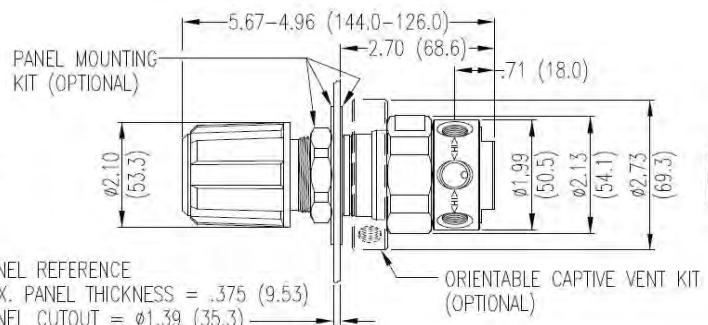
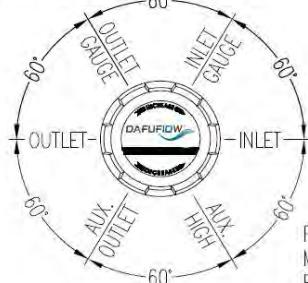
**Weight (DBO 3331-330)**  
3.8 lbs. (1.73 kg)

## 安装结构尺寸

### Four Port Configuration



### Six Port Configuration



## 产品编码（仅供参考，以工厂交付为准）

DBO	A	B	C	D	-CON	Options
Series DBO	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
1: 0-15 PSIG (0-1 BAR)*	30"-0-30 PSIG/-1-0-2 BAR)	0: None	0: 1/4" FPT port	0: Six-port bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)
2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/-1-0-7 BAR)	3: 0-4000 PSIG/0-275 BAR	2: 1/4" tube fittin	1: Six-port cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube	C: Protocol switchover station*
3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/-1-0-14 BAR)	5: 0-1000 PSIG/0-70 BAR	3: Diaphragm valve 1/4" tube fitting	2: Six-port cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube	H: Protocol switchover station with alarm (110/220 VAC)*
4: 0-250 PSIG (0-17 BAR)	0-400 PSI/0-27 BAR)	6: 0-300 PSIG/0-21 BAR	6: 1/8" tube fittin	6: Six-port mirror image (PSIG/kPa gauges)	M06: 6mm tube	M: Protocol station
5: 0-500 PSIG (0-34 BAR)	0-1000 PSIG/0-70 BAR	7: 0-400 PSIG/0-27 BAR	8: Diaphragm valve 1/8" tube fittin	7: Six-port mirror image (BAR/PSIG gauges)	CGA DIN 477 BS 341 and others available upon request	Q: Protocol purge station*
7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/-1-0-14 BAR)	8: 0-6000 PSIG/0-405 BAR*	9: Diaphragm valve 1/4" FPT	A: Four-port bare body		*Not available with 4500 PSIG (310 BAR) maximum inlet pressure
*Not available with 4500 PSIG (310 BAR) maximum inlet pressure		*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®		M: 6mm tube fittin	B: Four-port cleanroom assembly (PSIG/kPa gauges)	
				S: Diaphragm valve 6mm tube fittin	C: Four-port cleanroom assembly (BAR/PSIG)	
					D: Four-port mirror image (PSIG/kPa gauges)	
					E: Four-port mirror image (BAR/PSIG gauges)	

## 相关辅件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit)
FB0002	氦泄漏认证证书

## DBB系列稳压型调压阀-单级、316L材质主体，6个接口

DBB系列调节器（稳压阀、调压阀）适用于腐蚀性、高纯度气体应用环境；该系列调节器能保持被控制气体的压力相对恒定或者微小波动。

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

\*单级

\*六个接口

\*316L材质阀体

\*316L不锈钢材质膜片

### 典型应用

气体和液体色谱法

超高纯度气体

零、跨度、和校准气体

高纯度气体燃烧室升压

腐蚀性气体

低温气体控制

液化烃气体控制



### 特点

#### Metal-to-Metal Diaphragm Seal

No possibility of gas contamination

#### CAPSULE® Seat

Increased serviceability and life

#### 316L Stainless Steel Barstock Body

Increased corrosion resistance

#### Front and Rear Panel-Mountable

Versatile system configuration

#### Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)

Broad range of applications

#### Pipe Away Relief Valve

Safely vents exhaust gases

### 材 质

#### Body

316L stainless steel barstock

#### Bonnet

Chrome-plated brass barstock

#### 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

### 技术规格

#### 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 stainless steel

#### Ports

1/4" FPT

#### Helium Leak Integrity

$1 \times 10^{-9}$  scc/sec

#### Cv

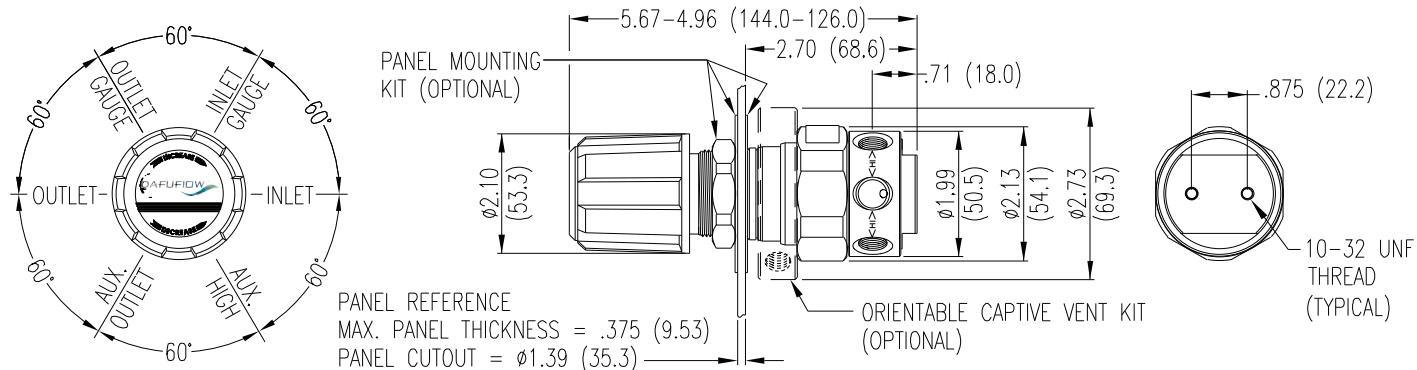
0.1

See page 188 for flow curves

#### Weight (DBB 3331-580)

3.8 lbs. (1.73 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DBB	A	B	C	D	-CON	Options
Series DBB	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Installed Options
	1: 0-15 PSIG (0-1 BAR)*	30"-0-30 PSIG/ -1-0-2 BAR	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT <b>B:</b> Protocol alarm station (110/220 VAC)
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	TF2: 1/8" tube <b>C:</b> Protocol switchover station
	3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fittin	2: Cleanroom assembly (BAR/PSIG gauges)	TF4: 1/4" tube <b>D:</b> Deep purge*
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4" tube fittin	6: Mirror image (PSIG/kPa gauges)	TF6: 3/8" tube <b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	5: 0-500 PSIG (0-34 BAR)**	0-1000 PSIG/ 0-70 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4" MPT	7: Mirror image (BAR/PSIG gauges)	M06: 6mm tube <b>M:</b> Protocol station
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	8: 0-6000 PSIG*/ 0-400 BAR	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available <b>Q:</b> Protocol purge station*
*Not available with 4500 PSIG (310 BAR) maximum inlet pressure		G: 0-4000 PSIG/ 0-275 BAR†	6: 1/8" tube fittin			<b>S:</b> Stainless steel bonnet
**Standard assembly does not include relief valve		*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®	7: 3/8" tube fittin			*Not available with 4500 PSIG (310 BAR) max inlet pressure
		†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®	8: Diaphragm valve 1/8" tube fittin			
			9: Diaphragm valve 1/4" FPT			
			M: 6mm tube fittin			
			S: Diaphragm valve 6mm tube fittin			

## 相关辅件

Order No.	Description
HCE 0204	Panel mount kit
F0001	Captured vent kit
FB0002	Helium Leak certificatio

## DBE系列稳压型调压阀-单级、316L材主体，4个接口

DBE系列调压阀适用于超高纯度和腐蚀性气体的二次压力控制，或作为超高纯度气体分配系统中的点压力控制使用。

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

- \*单级
- \*四个接口
- \*316L材质阀体
- \*316L不锈钢材质膜片

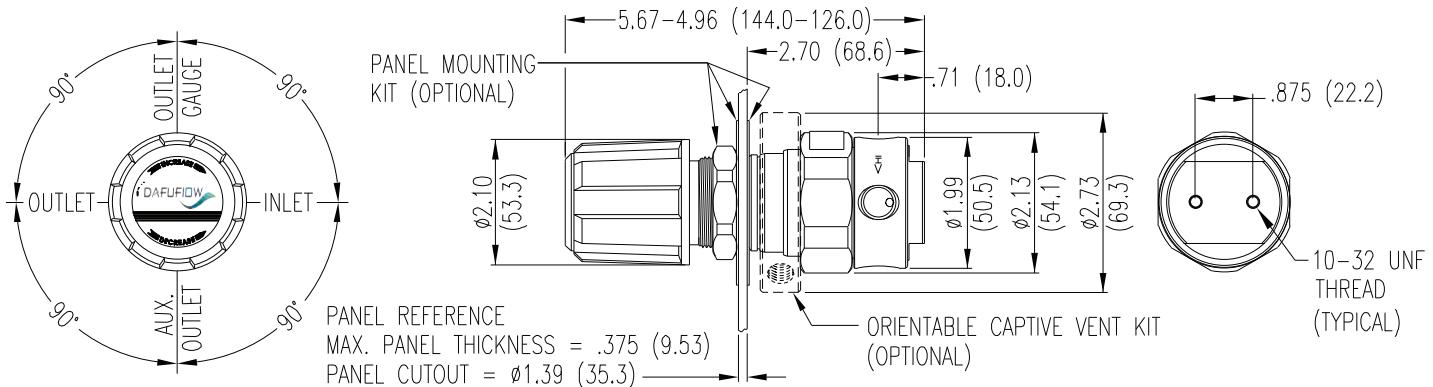
### 典型应用

散装气体分配系统  
气相和液相色谱法  
超高纯气体  
零、跨距和校准气体  
高纯室增压  
液化烃气体控制  
低温气体的控制  
腐蚀性气体



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>316L Stainless Steel Barstock Body</b> Increased corrosion resistance	<b>Seat</b> PTFE	<b>Gauges</b> 2" (53mm) diameter stainless steel
<b>Front and Rear Panel-Mountable</b> Versatile system configuration	<b>Filter</b> Patented 10 micron 316 mesh	<b>Ports</b> 1/4" FPT
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 (Max outlet 50 PSIG/1 BAR or below) 0.2 (Max outlet above 50 PSIG/3.5 BAR) See page 189 for flow curves
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Weight (DBE 2021-TF4)</b> 2.58 lbs. (1.17 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DBE	A	B	C	D	-CON	Options	
Series DBE	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> Cleanroom 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 fittin	<b>2:</b> Cleanroom Assembly (BAR/PSIG Gauges)	<b>TF4:</b> 1/4" tube	<b>S:</b> Stainless steel bonnet
	<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>6:</b> Mirror Image (PSIG/kPa Gauges)	<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>7:</b> Mirror Image (BAR/PSIG Gauges)	<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			
	**Standard assembly does not include relief valve						
				<b>6:</b> 1/8" tube fittin			
				<b>7:</b> 3/8" tube fittin			
				<b>8:</b> Diaphragm valve 1/8" tube fittin			
				<b>9:</b> Diaphragm valve 1/4" FPT			
				<b>M:</b> 6mm tube fittin			
				<b>S:</b> Diaphragm valve 6mm tube fittin			

## 相关辅件

### Order No. Description

HCE 0204 面板安装套件

F0001 排气组件 (Captured vent kit)

FB0002 氦泄漏认证证书

## DBF系列稳压型调压阀-单级、316L材主体，2个接口

DBF系列调压阀用于超高纯度和腐蚀性气体的二次压力控制，或作为超高纯度气体分配系统中的使用点压力控制。

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

\*很小的死区面积

\*二个接口

\*316L材质阀体

\*316L不锈钢材质膜片

### 典型应用

散装气体分配系统

气相和液相色谱法

超高纯载气

零、跨距和校准气体

高纯室增压

液化烃气体控制

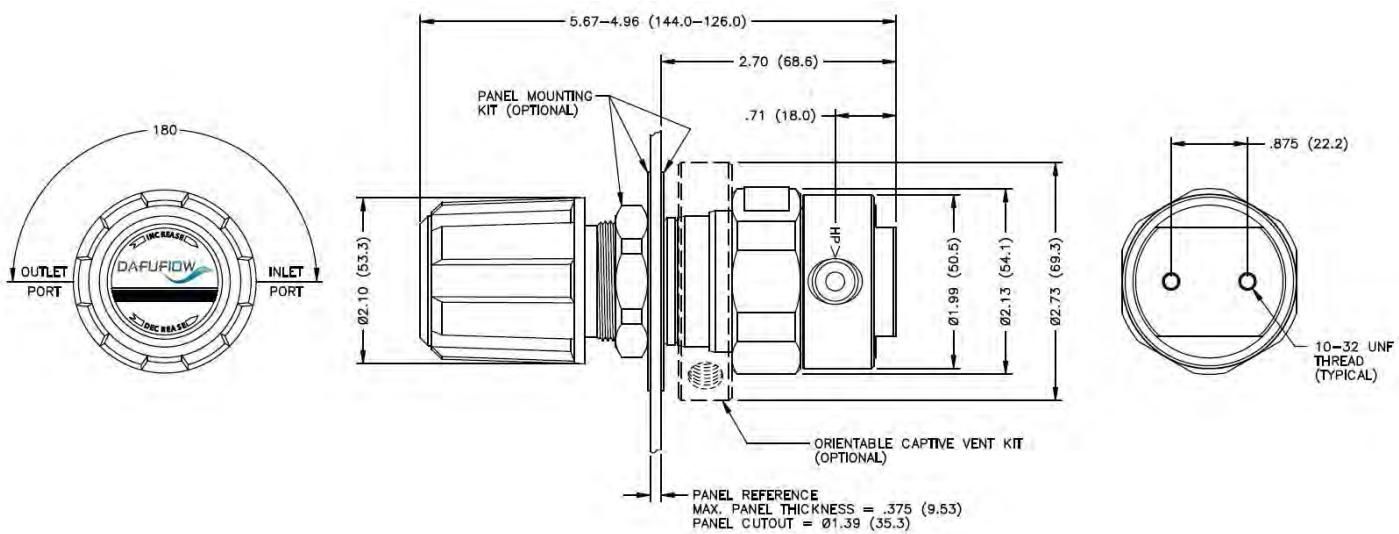
低温气体的控制

腐蚀性气体



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 4500 PSIG (310 BAR)
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>316L Stainless Steel Barstock Body</b> Increased corrosion resistance	<b>Seat</b> PCTFE	<b>Ports</b> 1/4" FPT
<b>Front and Rear Panel-Mountable</b> Versatile system configuration	<b>Filter</b> Patented 10 micron 316 mesh	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications	<b>Diaphragm</b> 316L stainless steel	<b>Cv</b> 0.1 <i>See page 188 for flow curves</i>
<b>4500 PSIG (310 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders	<b>Internal Seals</b> PTFE	<b>Weight (DBF 3801-000)</b> 2.2 lbs (1.01 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DBF	A	B	C	D	-CON	Options
Series DBF	Outlet Pressure	Inlet Pressure	Outlet Assemblies	Assembly	Inlet Connections	Installed Options
	<b>2:</b> 0-50 PSIG (0-3.5 BAR)	<b>8:</b> 4500 PSIG (310 BAR)	<b>0:</b> 1/4" FPT port	<b>1:</b> Cleanroom assembly	<b>000:</b> 1/4" FPT	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>3:</b> 0-100 PSIG (0-7 BAR)		<b>1:</b> 1/4" MPT		<b>TF2:</b> 1/8" tube	<b>D:</b> Deep purge*
	<b>4:</b> 0-250 PSIG (0-17 BAR)		<b>2:</b> 1/4" tube fittin		<b>TF4:</b> 1/4" tube	<b>M:</b> Protocol station
	<b>5:</b> 0-500 PSIG (0-34 BAR)		<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube	*Only valid with 3000 PSIG cylinder inlet connections
	<b>7:</b> 0-150 PSIG (0-10 BAR)		<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube	
			<b>5:</b> Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available	
			<b>6:</b> 1/8" tube fittin			
			<b>7:</b> 3/8" tube fittin			
			<b>8:</b> Diaphragm valve 1/8" tube fittin			
			<b>9:</b> Diaphragm valve 1/4" FPT			
			<b>M:</b> 6mm tube fittin			
			<b>S:</b> Diaphragm valve 6mm tube fittin			

## 相关辅件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit)
FB0002	氦泄漏认证证书

## DBG系列调压阀-单级、316L材主体，2个接口，VCR®连接

DBG系列调压阀用于高纯度气体的二次压力控制或作为高纯度气体分配系统中的使用点压力控制。

The DBG Series regulators are intended for secondary pressure control of the highest purity gases or as point of use pressure control in high purity gas distribution systems.

\*单级

\*二个接口

\*316L材质阀体

\*高效密封连接

### 典型应用

半导体工艺气体

气相和液相色谱法

超高纯载气

零、跨距和校准气体

液化烃气体控制

低温气体的控制



### 特 点

#### Metal-to-Metal Diaphragm Seal

No possibility of gas contamination

#### CAPSULE® Seat

Increased serviceability and life

#### Butt-Welded Face Seal connections

Highest leak integrity available

#### 316L Stainless Steel Barstock Body

Increased corrosion resistance

#### Front and Rear Panel-Mountable

Versatile system configuration

#### 3000 PSIG (210 BAR) Inlet Pressure Rating

Safe use with high pressure cylinders

#### Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)

Broad range of applications

### 材 质

#### Body

316L stainless steel barstock

#### Bonnet

Chrome-plated brass barstock

#### Seat

PTFE

#### Filter

Patented 10 micron 316 mesh

#### Diaphragm

316L stainless steel

#### Internal Seals

PTFE

### 技术规格

#### Maximum Inlet Pressure

3000 PSIG (210 BAR)

#### Temperature Range

-40°F to 140°F (-40°C to 60°C)

#### Ports

1/4" face seal connection

#### Helium Leak Integrity

$1 \times 10^{-9}$  scc/sec

#### Cv

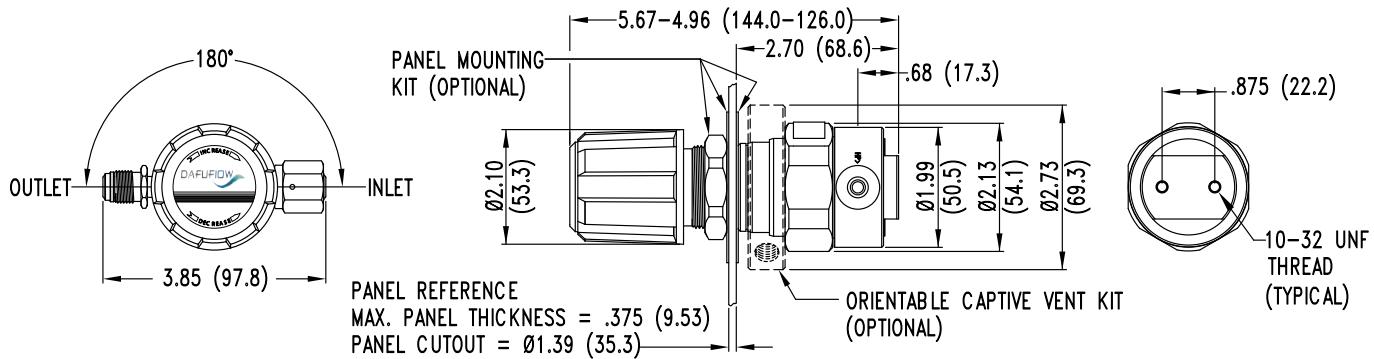
0.1

See page 188 for flow curves

#### Weight (DBG 4004-001)

2.24 lbs. (1.02 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DBG	A	B	C	D
Series	Outlet Pressure	Outlet Gauge	Inlet Gauge	Connections - inlet/outlet
DBG	1: 0-15 PSIG (0-1 BAR)	0: None	0: None	1: Female face seal/male face seal
	2: 0-30 PSIG (0-2 BAR)			2: Male face seal/male face seal
	3: 0-50 PSIG (0-3.5 BAR)			3: Male face seal/female face seal
	4: 0-100 PSIG (0-7 BAR)			4: Female face seal/female face seal
	5: 0-250 PSIG (0-17 BAR)			
	6: 0-500 PSIG (0-34 BAR)			
	7: 0-150 PSIG (0-10 BAR)			

## 相关辅件

Order No.	Options	Description
HCE 0204	面板安装套件	
F0001	排气组件 (Captured vent kit)	为防止隔膜失效，快速排气用。
FB0002	氦泄漏认证证书 (泄漏率小于 $1 \times 10^{-9}$ cc/sec)	

## DBH系列调压阀-单级、316L材主体，3个接口，VCR@连接

DBH系列调压阀用于高纯度气体的二次压力控制或作为高纯度气体分配系统中的使用点压力控制。

The DBH Series regulators are intended for secondary pressure control of the highest purity gases or as point of use pressure control in high purity gas distribution systems.

\*单级

\*三个接口

\*316L材质阀体

\*高效密封连接

### 典型应用

半导体工艺气体  
气相和液相色谱法  
超高纯载气  
零、跨距和校准气体  
液化烃气体控制  
低温气体的控制



### 特 点

**Metal-to-Metal Diaphragm Seal**  
No possibility of gas contamination

**CAPSULE® Seat**  
Increased serviceability and life

**Butt-Welded Face Seal Connections**  
Highest leak integrity available

**316L Stainless Steel Barstock Body**  
Increased corrosion resistance

**Front and Rear Panel-Mountable**  
Versatile system configuration

**3000 PSIG Inlet Pressure Rating**  
Safe use with high pressure cylinders

**Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)**  
Broad range of applications

### 材 质

**Body**  
316L stainless steel barstock

**Bonnet**  
Chrome-plated brass barstock

**Seat**  
PTFE

**Filter**  
Patented 10 micron 316 mesh

**Diaphragm**  
316L stainless steel

**Internal Seals**  
PTFE

### 技术规格

**Maximum Inlet Pressure**  
3000 PSIG (210 BAR)

**Temperature Range**  
-40°F to 140°F (-40°C to 60°C)

**Gauge**  
2" (53mm) diameter stainless steel

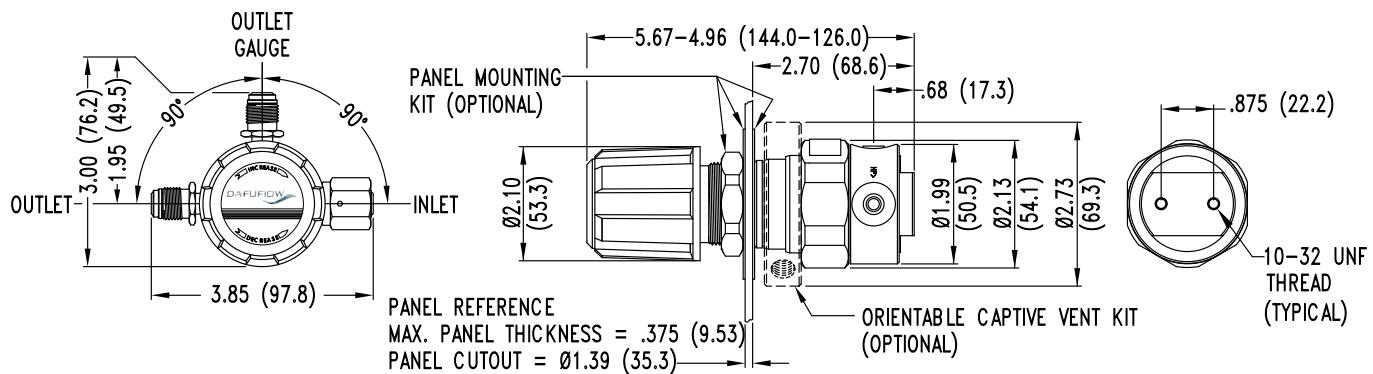
**Ports**  
1/4" face seal connection

**Helium Leak Integrity**  
 $1 \times 10^{-9}$  scc/sec

**Cv**  
0.1  
See page 188 for flow curves

**Weight (DBH 3302-001)**  
2.46 lbs. (1.12 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DBH	A	B	C	D
Series	Outlet Pressure	Outlet Gauge	Inlet Gauge	Connections - inlet/outlet
DBH				
<b>1:</b> 0-15 PSIG (0-1 BAR)	<b>0:</b> None	<b>0:</b> None	<b>1:</b> Female face seal/male face seal	
<b>2:</b> 0-30 PSIG (0-2 BAR)	<b>1:</b> 30"-0-30 PSIG/-1-0-2 BAR		<b>2:</b> Male face seal/male face seal	
<b>3:</b> 0-50 PSIG (0-3.5 BAR)	<b>2:</b> 30"-0-60 PSIG/-1-0-4 BAR		<b>3:</b> Male face seal/female face seal	
<b>4:</b> 0-100 PSIG (0-7 BAR)	<b>3:</b> 30"-0-100 PSIG/-1-0-7 BAR		<b>4:</b> Female face seal/female face seal	
<b>5:</b> 0-250 PSIG (0-17 BAR)	<b>4:</b> 30"-0-200 PSIG/-1-0-14 BAR			
<b>6:</b> 0-500 PSIG (0-34 BAR)	<b>5:</b> 0-400 PSIG/0-27 BAR			
<b>7:</b> 0-150 PSIG (0-10 BAR)	<b>6:</b> 0-1000 PSIG/0-70 BAR			

## 相关辅件

Order No.	Options	Description
HCE 0204	面板安装套件	
F0001	排气组件 (Captured vent kit)	为防止隔膜失效，快速排气用。
FB0002	氦泄漏认证证书 (泄漏率小于 $1 \times 10^{-9}$ cc/sec)	

## DBI系列调压阀-单级、316L材主体，3个接口，VCR®连接

DBI系列调压阀主要用于高纯度气体的压力控制，也适用于因进口压力下降而产生的出口压力微小波动的应用。

The DBI Series regulators are intended for primary pressure control of the highest purity gases or for applications where minor fluctuations in outlet pressure due to diminishing inlet supply pressure can be tolerated.

- \*单级
- \*四个接口
- \*316L材质阀体
- \*高效密封连接

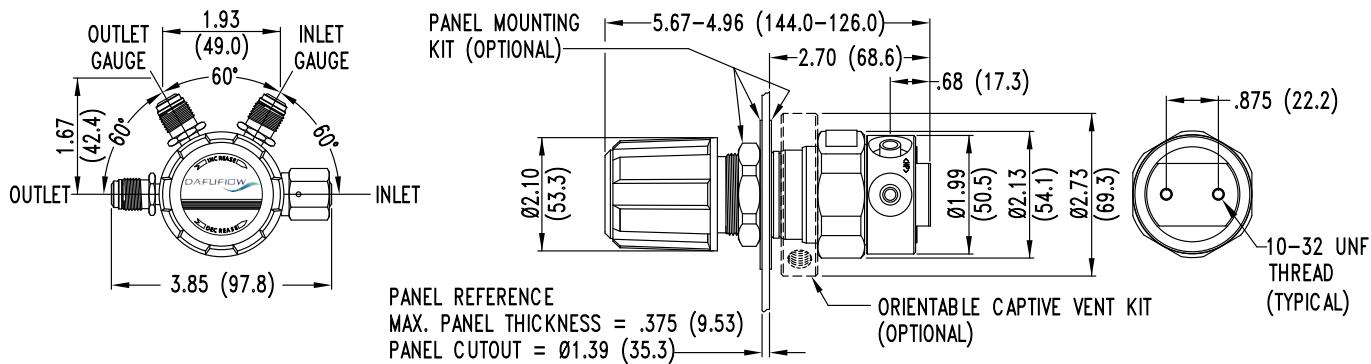
### 典型应用

半导体工艺气体  
气相和液相色谱法  
超高纯载气  
零、跨距和校准气体  
液化天然气  
低温气体控制控制



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Butt-Welded Face Seal Connections</b> Highest leak integrity available	<b>Seat</b> PTFE	<b>Gauges</b> 2" (53mm) diameter stainless steel
<b>316L Stainless Steel Barstock Body</b> Increased corrosion resistance	<b>Filter</b> Patented 10 micron 316 mesh	<b>Ports</b> 1/4" face seal connection
<b>Front and Rear Panel-Mountable</b> Versatile system configuration	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 <i>See page 188 for flow curves</i>
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications		<b>Weight (DBI 2241-001)</b> 2.73 lbs. (1.24 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DBI	A	B	C	D
Series DBI	Outlet Pressure	Outlet Gauge	Inlet Gauge	Connections - inlet/outlet
1: 0-15 PSIG (0-1 BAR)	0: None	0: None	1: Female face seal/male face seal	
2: 0-30 PSIG (0-2 BAR)	1: 30"-0-30 PSIG/-1-0-2 BAR	1: 0-4000 PSIG/0-275 BAR	2: Male face seal/male face seal	
3: 0-50 PSIG (0-3.5 BAR)	2: 30"-0-60 PSIG/-1-0-4 BAR	2: 0-400 PSIG/0-27 BAR	3: Male face seal/female face seal	
4: 0-100 PSIG (0-7 BAR)	3: 30"-0-100 PSIG/-1-0-7 BAR	3: 0-1000 PSIG/0-70 BAR	4: Female face seal/female face seal	
5: 0-250 PSIG (0-17 BAR)	4: 30"-0-200 PSIG/-1-0-14 BAR	4: 0-3000 PSIG/0-210 BAR		
6: 0-500 PSIG (0-34 BAR)	5: 0-400 PSIG/0-27 BAR	5: 30"-0-200 PSIG/-1-0-14 BAR		
7: 0-150 PSIG (0-10 BAR)	6: 0-1000 PSIG/0-70 BAR	6: 30"-0-100 PSIG/-1-0-7 BAR		
		7: 30"-0-60 PSIG/-1-0-4 BAR		
		8: 30"-0-30 PSIG/-1-0-2 BAR		

Options	Order No.	Description
HCE 0204	面板安装套件	
F0001	排气组件 (Captured vent kit)	为防止隔膜失效，快速排气用。
FB0002	氦泄漏认证证书 (泄漏率小于 $1 \times 10^{-9}$ cc/sec)	
FF0001	0.01 Micron过滤件	低颗粒气体，安装在出口处，仅用于1/4" 接口。

## DCO系列调压阀-双级、SilcoNert™ 1020材主体，6个接口

DCO系列阳极化镀硅晶耐腐蚀性工艺处理调压阀，与介质接触的金属材料都经过阳极化镀硅晶工艺处理，该工艺技术能有效抵抗腐蚀性介质的强腐蚀性，它的耐腐蚀性强度比316L,哈氏合金-20都要强许多，所以在做气体成分分析时，由于该调压阀没有与介质发生反应，所以各个气体元素成分不会发生变化，特别适用于精确分析仪器使用。

The DCO Series SilcoNert™ 1020 coated regulators are intended for pressure control of reactive or corrosive calibration mixtures or pure gases in applications where an extremely inert wetted finish is required along with stable delivery pressure regardless of inlet pressure. The proprietary non-reactive amorphous Silicon finish is desired over standard 316L stainless steel and ideally suited for Hydrogen Sulfide, reduced Sulfur, Mercury and PPM to PPB calibration mixtures.

\*双级

\*六个接口

\*SilcoNert™ 1020 材质阀体，膜片和内部件

\*高效密封连接和抗腐蚀性处理

### 典型应用

超量排放监测

硫混合物

腐蚀性介质

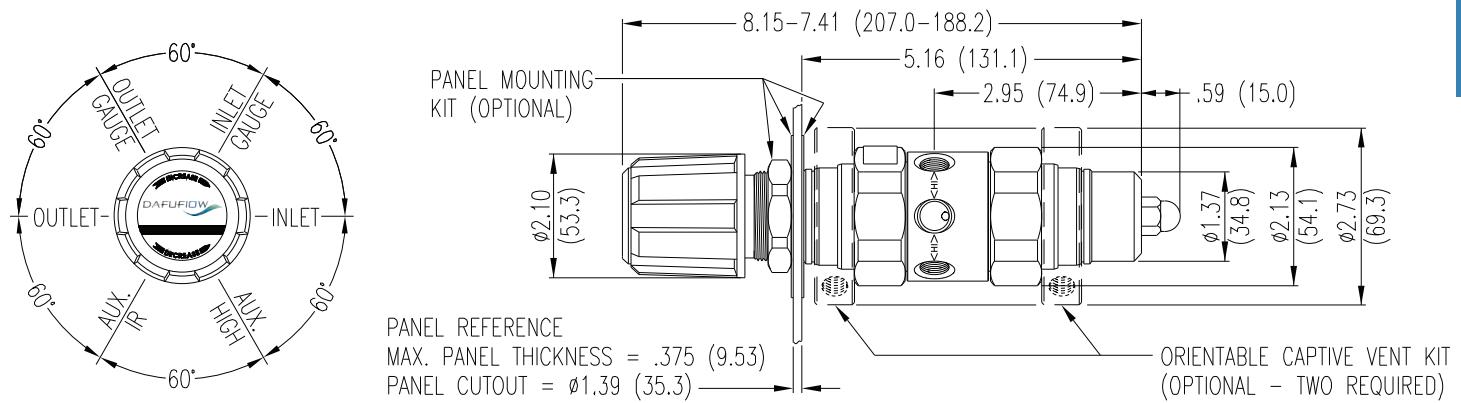
精确的校准标准

硫化氢 PPM 到 PPB 标准



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> SilcoNert 1020	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 4500 PSIG (310 BAR) optional
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> SilcoNert 1020	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>SilcoNert 1020 Barstock Body</b> Increased corrosion resistance	<b>Seat</b> PTFE PCTFE with 4500 PSIG (310 BAR) inlet option	<b>Gauges</b> 2" (53mm) diameter stainless steel (bourdon tube not SilcoNert 1020)
<b>Front and Rear Panel-Mountable</b> Versatile system configuration	<b>Filter</b> SilcoNert 1020 10 micron	<b>Ports</b> 1/4" FPT
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications	<b>Diaphragm</b> SilcoNert 1020	<b>Helium Leak Integrity</b> $1 \times 10^{-9} \text{ scc/sec}$
	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 <i>See page 188 for flow curves</i>
		<b>Weight (DCO 3331-330)</b> 5.09 lbs. (2.31 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DCO	A	B	C	D	-CON	Options	
Series DCO	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections	Installed Options
	<b>1: 0-15 PSIG</b> (0-1 BAR)*	30"-0-30 PSIG/ -1-0-2 BAR	<b>0: None</b>	<b>0: 1/4" FPT port</b>	<b>0: Bare body</b>	<b>000: 1/4" FPT</b>	<b>B: Protocol alarm station</b> (110/220 VAC)
	<b>2: 0-50 PSIG</b> (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	<b>3: 0-4000 PSIG/</b> 0-275 BAR	<b>2: 1/4" tube fittin</b>	<b>1: Cleanroom assembly</b> (PSIG/kPa gauges)	<b>TF2: 1/8" tube</b>	<b>C: Protocol switchover</b> station*
	<b>3: 0-100 PSIG</b> (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>5: 0-1000 PSIG/</b> 0-70 BAR	<b>3: Diaphragm valve</b> 1/4" tube fitting	<b>2: Cleanroom assembly</b> (BAR/PSIG gauges)	<b>TF4: 1/4" tube</b>	<b>H: Protocol switchover</b> station with alarm (110/220 VAC)*
	<b>4: 0-250 PSIG</b> (0-17 BAR)	0-400 PSIG/ 0-27 BAR	<b>6: 0-300 PSIG/</b> 0-21 BAR	<b>6: 1/8" tube fittin</b>		<b>M06: 6mm tube</b>	<b>M: Protocol station</b>
	<b>7: 0-150 PSIG</b> (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	<b>7: 0-400 PSIG/</b> 0-27 BAR	<b>8: Diaphragm valve</b> 1/8" tube fittin		CGA DIN 477 BS 341 and others available upon request	<b>Q: Protocol purge station*</b>
	<i>*Not available with 4500 PSIG (310 BAR) maximum inlet pressure</i>		<b>8: 0-6000 PSIG/</b> 0-405 BAR*	<b>9: Diaphragm valve</b> 1/4" FPT			<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>
				<b>M: 6mm tube fittin</b>			
				<b>S: Diaphragm valve</b> 6mm tube fittin	Captured vent kit (2 required)		

## 相关附件

### Order No. Description

HCE 0204 面板安装套件

F00012 排气组件 (2个Captured vent kit) 为防止隔膜失效，快速排气用。

FB0002 氦泄漏认证证书 (泄漏率小于1 x 10<sup>-9</sup> cc/sec)

## DCB系列调压阀-双级、316L材主体，6个接口

DCB系列调压阀主要用于控制超高纯度或腐蚀性气体的应用，也可适用于需要恒压控制和输送，而不受供应压力的变化的工况。

The DCB 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.

- \*双级
- \*六个接口
- \*316L材质阀体
- \*316L不锈钢膜片

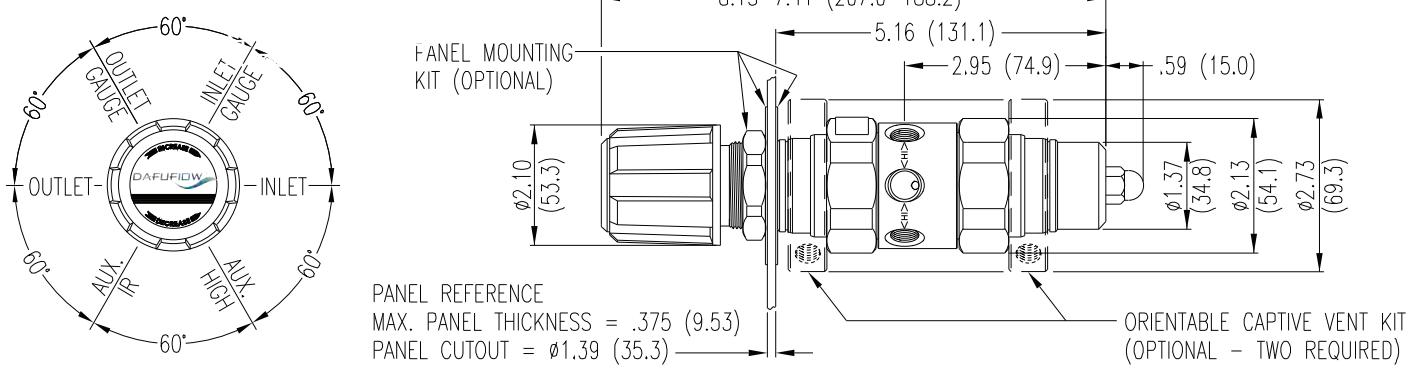
### 典型应用

- EPA协议的气体
- 气体和液体色谱法
- 高纯载气
- 零、跨距和校准气体
- 超高纯室增压
- 液化烃气体控制
- 腐蚀性气体



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Chrome-plated brass barstock	3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional
<b>316L Stainless Steel Barstock Body</b> Increased corrosion resistance	<b>Seat</b> PTFE PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Front Panel-Mountable</b> Easy installation	<b>Filter</b> Patented 10 micron 316 mesh	<b>Gauges</b> 2" (53mm) diameter stainless steel
<b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance	<b>Diaphragm</b> 316L stainless steel	<b>Ports</b> 1/4" FPT
<b>Pressure Ranges 0-15 to 0-350 PSIG (0-1 BAR to 0-24 BAR)</b> Broad range of applications	<b>Internal Seals</b> PTFE	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Cv</b> 0.1 See page 188 for flow curves
		<b>Weight (DCB 3331-580)</b> 5.09 lbs. (2.31 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DCB	A	B	C	D	-CON	Options
Series DCB	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Installed Options
	1: 0-15 PSIG (0-1 BAR)	30"-0-30 PSIG/ -1-0-2 BAR)	0: None	0: 1/4" FPT port	0: Bare body	000: 1/4" FPT <b>B:</b> Protocol alarm station (110/220 VAC)
	2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 BAR	3: 0-4000 PSIG/ 0-275 BAR	1: 1/4" MPT	1: Cleanroom assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube <b>C:</b> Protocol switchover station
	3: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fittin	2: Cleanroom assembly (BAR/PSIG gauges)	<b>TF4:</b> 1/4" tube <b>D:</b> Deep purge*
	4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube <b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube <b>M:</b> Protocol station
	E: 0-350 PSIG (0-24 BAR)	0-400 PSIG/ 0-27 BAR	8: 0-6000 PSIG/ 0-405 BAR*	5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available <b>Q:</b> Protocol purge station*
			G: 0-4000 PSIG/ 0-275 BAR†	6: 1/8" tube fittin		<b>S:</b> Stainless steel bonnets
			*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®	7: 3/8" tube fittin		*Not available with 4500 PSIG (310 BAR) max inlet pressure
			†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®	8: Diaphragm valve 1/8" tube fittin		
				9: Diaphragm valve 1/4" FPT		
				M: 6mm tube fittin		
				S: Diaphragm valve 6mm tube fittin		

## 相关辅件

### Order No. Description

HCE 0204	面板安装套件
F0001	排气组件 (2个Captured vent kit) 为防止隔膜失效，快速排气用。
FB0002	氦泄漏认证证书 (泄漏率小于1 x 10⁻⁹ cc/sec)

## DCE系列调压阀-单级、铜材主体，5个接口，背部入口连接

DCE系列调压阀用于非腐蚀性、高纯度或液化气体的二次压力控制或作为高纯度气体分配系统中的使用点压力控制。

The DCE 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.

\*单级

\*四个接口

\*黄铜材质阀体

\*316L不锈钢膜片

### 典型应用

散装气体分配系统

气相色谱法

超高纯载气

零、跨距和校准气体

液化烃气体控制

低温气体的控制



### 特 点

#### Metal-to-Metal Diaphragm Seal

No possibility of gas contamination

#### CAPSULE® Seat

Increased serviceability and life

#### Brass Barstock Body

Smooth surface finish

#### Front and Rear Panel-Mountable

Versatile system configuration

#### 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

#### Pipe Away Relief Valve

Safely vents exhaust gases

### 材 质

#### Body

Brass barstock

#### Bonnet

Brass barstock

#### Seat

PTFE

#### Filter

10 micron sintered bronze

#### Diaphragm

316L stainless steel

#### Internal Seals

PTFE

### 技术规格

#### Maximum Inlet Pressure

3000 PSIG (210 BAR)

#### Temperature Range

-40°F to 140°F (-40°C to 60°C)

#### Gauge

2" (53mm) diameter brass

#### Ports

1/4" FPT

#### Helium Leak Integrity

$1 \times 10^{-9}$  scc/sec

#### Cv

0.1 (Max outlet 50 PSIG/3.5 BAR or below)  
0.2 (Max outlet above 50 PSIG/3.5 BAR)

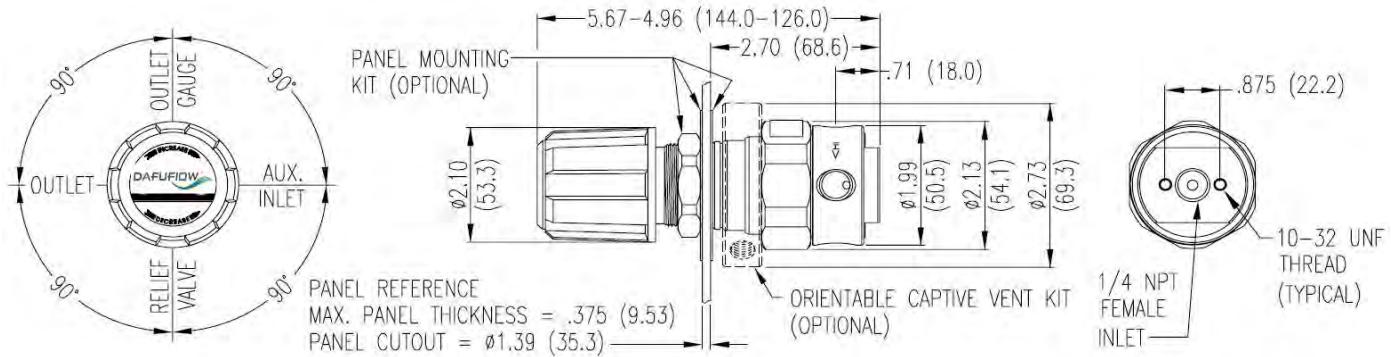
See page 189 for flow curves

#### Weight (DCE

2021-000) 2.70 lbs.

(1.22 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DCE	A	B	C	D	-CON	Options
Series DCE	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
<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	None
<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> Cleanroom assembly (PSIG/kPa gauges)	<b>TF2:</b> 1/8" tube	
<b>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>2:</b> 1/4" tube fittin	<b>2:</b> Cleanroom 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			
**Standard assembly does not include relief valve						
<b>6:</b> 1/8" tube fittin						
<b>7:</b> 3/8" tube fittin						
<b>8:</b> Diaphragm valve 1/8" tube fittin						
<b>9:</b> Diaphragm valve 1/4" FPT						
<b>A:</b> 3/8" BSP RH fittin						
<b>B:</b> Diaphragm Valve 3/8" tube fittin						
<b>C:</b> 3/8" BSP LH fittin						
<b>D:</b> 6mm brass hose barb (not available if A=4 or 5)						
<b>G:</b> 1/8" stainless steel tube fittin						
<b>H:</b> 1/4" stainless steel tube fittin						
<b>M:</b> 6mm tube fittin						
<b>S:</b> Diaphragm valve 6mm tube fittin						

## 相关辅件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit) 为防止隔膜失效，快速排气用。
FB0002	氦泄漏认证证书 (泄漏率小于 $1 \times 10^{-9}$ cc/sec)

## DDE系列调压阀-单级、316L材主体，5个接口，背部入口

DDE系列调压阀用于非腐蚀性、高纯度或液化气体的二次压力控制或作为高纯度气体分配系统中的使用点压力控制。

The DDE 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.

\*双级 \*背部接入

\*五个接口

\*316L材质阀体

\*316L不锈钢膜片

### 典型应用

散装气体分配系统

气相色谱法

超高纯载气

零、跨距和校准气体

高纯室增压

液化烃气体控制

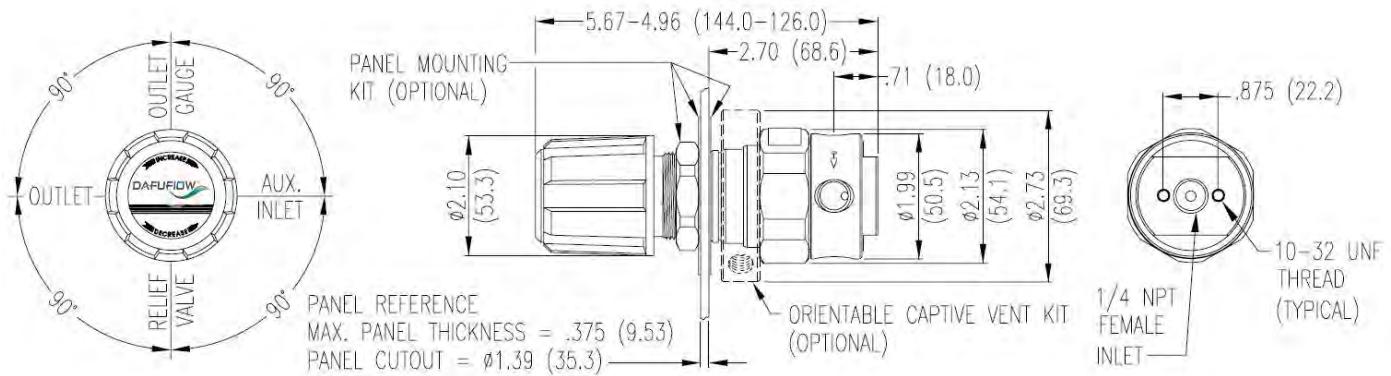
低温气体的控制

腐蚀性气体



特 点	材 质	技术规格
<b>Metal-to-Metal Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> Chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Stainless Steel Barstock Body</b> Increased corrosion resistance	<b>Seat</b> PTFE	<b>Gauge</b> 2" (53mm) diameter stainless steel
<b>Front and Rear Panel-Mountable</b> Versatile system configuration	<b>Filter</b> Patented 10 micron 316 mesh	<b>Ports</b> 1/4" FPT
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-9}$ scc/sec
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 (Max outlet 50 PSIG/3.5 BAR or below) 0.2 (Max outlet above 50 PSIG/3.5 BAR) See page 189 for flow curves
		<b>Weight (DDE 2021-000)</b> 2.57 lbs. (1.17 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DDE	A	B	C	D	-CON	Options
Series DDE	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
				<b>0: 1/4" FPT port</b>	<b>0: Bare body</b>	<b>000: 1/4" FPT</b>
	<b>1: 0-15 PSIG (0-1 BAR)</b>	30"-0-30 PSIG/ -1-0-2 BAR	<b>0: None</b>			None
	<b>2: 0-50 PSIG (0-3.5 BAR)</b>	30"-0-100 PSIG/ -1-0-7 BAR		<b>1: 1/4" MPT</b>	<b>1: Cleanroom assembly (PSIG/kPa gauges)</b>	<b>TF2: 1/8" tube</b>
	<b>3: 0-100 PSIG (0-7 BAR)</b>	30"-0-200 PSIG/ -1-0-14 BAR		<b>2: 1/4" tube fittin</b>	<b>2: Cleanroom assembly (BAR/PSIG gauges)</b>	<b>TF4: 1/4" tube</b>
	<b>4: 0-250 PSIG (0-17 BAR)</b>	0-400 PSIG/ 0-27 BAR		<b>3: Diaphragm valve 1/4" tube fitting</b>		<b>TF6: 3/8" tube</b>
	<b>5: 0-500 PSIG (0-34 BAR)**</b>	0-1000 PSIG/ 0-70 BAR		<b>4: Diaphragm valve 1/4" MPT</b>		<b>M06: 6mm tube</b>
	<b>7: 0-150 PSIG (0-10 BAR)</b>	30"-0-200 PSIG/ -1-0-14 BAR		<b>5: Needle valve 1/4" MPT</b>		
	<i>**Standard assembly does not include relief valve</i>					
				<b>6: 1/8" tube fittin</b>		
				<b>7: 3/8" tube fittin</b>		
				<b>8: Diaphragm valve 1/8" tube fittin</b>		
				<b>9: Diaphragm valve 1/4" FPT</b>		
				<b>M: 6mm tube fittin</b>		
				<b>S: Diaphragm valve 6mm tube fittin</b>		

## 相关辅件

Order No.	Description
HCE 0204	面板安装套件
F0001	排气组件 (Captured vent kit) 为防止隔膜失效，快速排气用。
FB0002	氦泄漏认证证书 (泄漏率小于 $1 \times 10^{-9}$ cc/sec)

## DEE系列调压阀-单级、铜化镀镍材质主体，4个接口，耐腐蚀性

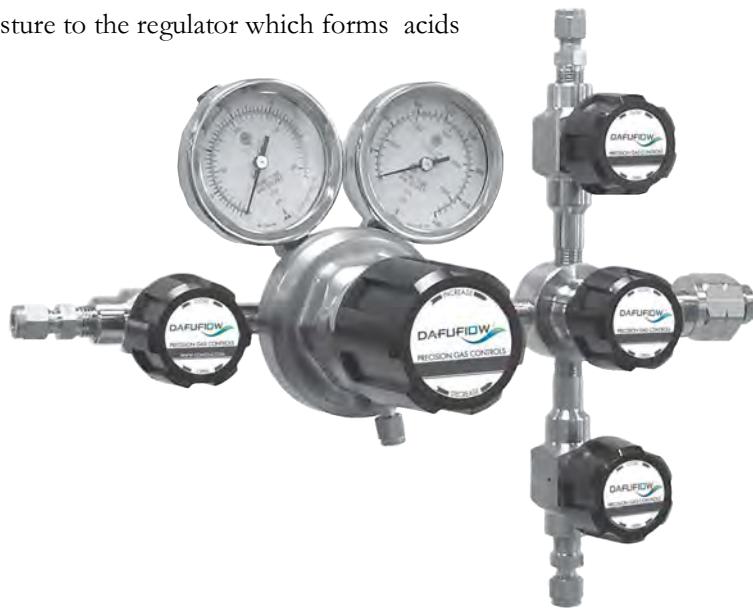
DEE系列调压器主要用于控制高腐蚀性气体，如氯化物、硫化物和其他酸形成气体。为了安全和防腐蚀，Dafuflow强烈推荐使用本系列深层净化装置DEE系列稳压器，从而防止有害气体泄漏到工作场所。此外，深层净化可以防止将水分引入调节器，从而形成体内的酸并导致腐蚀。

The DEE Series regulators are intended for primary pressure control of highly corrosive gases such as chlorides, sulfides, and other acid-forming gases . For safety and corrosion prevention, Dafuflow highly recommends the addition of a Deep Purge assembly to the DEE Series regulator. Completely purging a system prevents the release of hazardous gases into the work place. In addition, the Deep Purge prevents the introduction of moisture to the regulator which forms acids in the body and results in corrosion.

- \*单级      \*深层净化
- \*无电镀化学镀镍锻造黄铜材质阀体
- \*腐蚀性介质适用

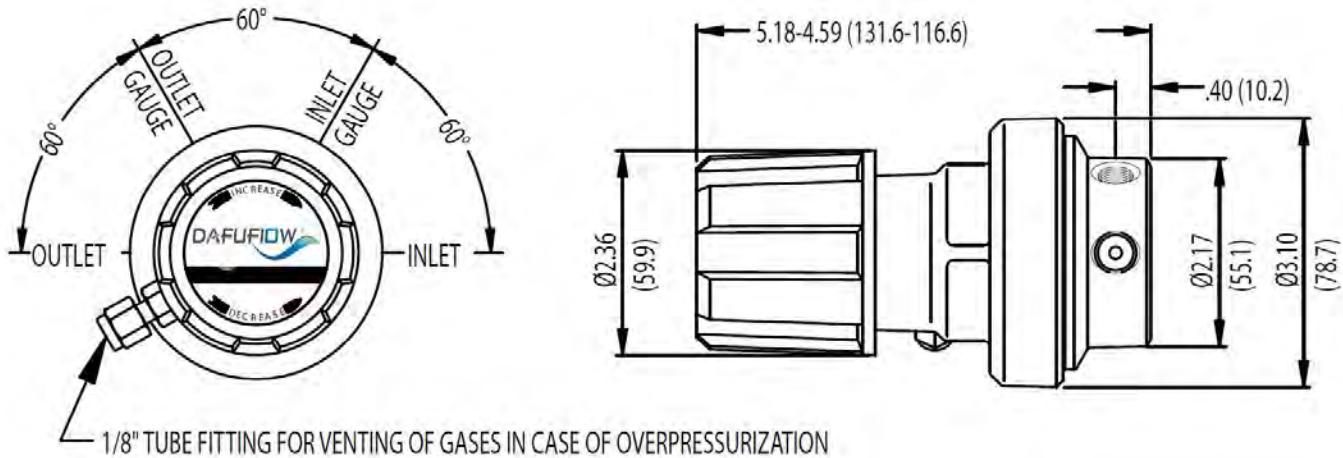
### 典型应用

- 氯化氢
- 氯
- 三氯化硼
- 硫化氢
- 二氯硅烷



特 点	材 质	技术规格
<b>Nickel-Plated Forged Brass Body</b> Durable, long lasting construction	<b>Body</b> Electroless nickel-plated forged brass	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>Convoluted 316L Stainless Steel Diaphragm</b> Sensitive to downstream changes	<b>Bonnet</b> Electroless nickel-plated forged brass	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>CAPSULE® Seat</b> Serviceability and long life	<b>Seat</b> PTFE	<b>Gauges</b> 2 1/2" (53mm) diameter Monel®
<b>Captured Vent Standard</b> Safely vent exhaust gases	<b>Nozzle</b> Hastelloy®	<b>Ports</b> 1/4" FPT
<b>Hastelloy® Seat Assembly</b> Superior corrosion resistance	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>High Load Marginal Spring</b> Positive seat closure	<b>Diaphragm Seal</b> PTFE	<b>Cv</b> 0.2 <i>See page 189 for flow curves</i>
	<b>Filter</b> 10 micron Hastelloy®	<b>Weight (DEE 2332-660)</b> 7.23 lbs. (3.28 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DEE	A	B	C	D	-CON	Options	
Series DEE	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: 1/4" FPT port	0: Bare body	000: 1/4" FPT	None	
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 without deep purge (PSIG/kPa gauges)	TF2: 1/8" tube		
3: 0-120 PSIG (0-8 BAR)	0-200 PSIG/ 0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fittin	2: Standard assembly with deep purge (PSIG/kPa gauges)	TF4: 1/4" tube		
4: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4" tube fitting	4: Standard assembly without deep purge (BAR/PSIG gauges)	TF6: 3/8" tube		
5: 0-250 (0-17 BAR)	0-400 PSIG/ 0-27 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4" MPT	5: Standard assembly with deep purge (BAR/PSIG gauges)	M06: 6mm tube		
	8: 0-200 PSIG/ 0-14 BAR	5: Needle valve 1/4" MPT			CGA DIN 477 BS 341 and others available		
	6: 1/8" tube fittin						
	7: 3/8" tube fittin						
	8: Diaphragm valve 1/8" tube fittin						
	9: Diaphragm valve 1/4" FPT						
	M: 6mm tube fittin						
	S: Diaphragm valve 6mm tube fittin						

## DHC系列调压阀-单级、铜材主体，4个接口，超大流量

DHC系列调压阀应用广泛，包括高流量净化，无腐蚀过程气体控制，歧管和线路调节。

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

\*单级 \*黄铜阀体

\*超大流量

\*四个接口

\*316L不锈钢膜片

### 典型应用

散装气体分配系统

气相色谱法

超高纯载气

零、跨距和校准气体

高纯室增压

液化烃气体控制

低温气体的控制



### 特 点

#### Metal-to-Metal Diaphragm Seal

No possibility of gas contamination

#### ISOFLOW Technology

Internal equalization provides constant delivery pressure at high flow

#### Brass Barstock Body

Smooth surface fins

#### Rear Panel-Mountable

Versatile system configuration

#### Pressure Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)

Broad range of applications

#### 3000 PSIG (210 BAR) Inlet Pressure Rating

Safe use with high pressure cylinders

#### Pipe Away Relief Valve

Safely vents exhaust gases

### 材 质

#### 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

### 技术规格

#### Maximum Inlet Pressure

3000 PSIG (210 BAR)

#### Temperature Range

-40°F to 140°F (-40°C to 60°C)

#### Gauge

2" (53mm) diameter brass

#### Ports

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

#### Helium Leak Integrity

$1 \times 10^{-8}$  scc/sec

#### Cv

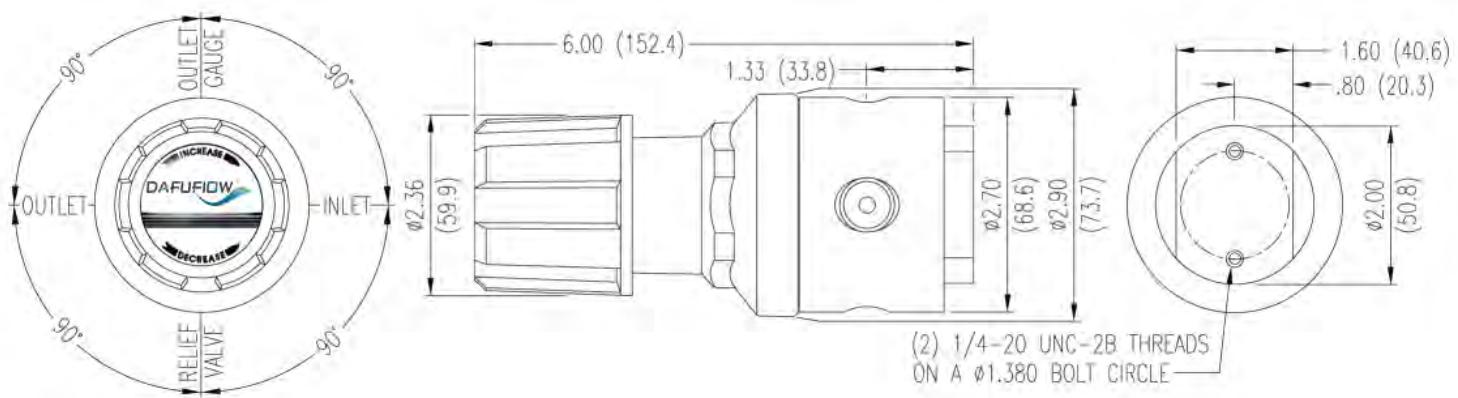
1.0

See page 190 for flow curves

#### Weight (DHC 3001-000)

4.79 lbs. (2.17 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DHC	A	B	C	D	-CON	Installed Options
Series DHC	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
	<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>2:</b> 0-40 PSIG (0-3 BAR)	30"-0-60 PSIG/ -1-0-4 BAR		<b>1:</b> 1/2" tube fittin	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF8:</b> 1/2" tube
	<b>3:</b> 0-120 PSIG (0-8 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>5:</b> Needle valve 1/4" MPT	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>M12:</b> 12mm tube
	<b>4:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		<b>P:</b> 12mm tube fittin	<b>6:</b> Mirror image assembly (PSIG/kPa gauges)	
	<b>5:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR			<b>7:</b> Mirror image assembly (BAR/PSIG gauges)	F0010

## 相关辅件

Options	Order No.	Description
面板安装组件	HCE 0204	后置安装型

## DHD系列调压阀-单级、316L材主体，4个接口，超大流量

DHD系列调节器的应用范围广泛，包括大流量清洗，半导体CDA和散装气体供应，气调包装，制药加工，歧管和线路调节。

The DHD 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.

- \*单级、超大流量
- \*四个接口
- \*不锈钢材质阀体
- \*316L不锈钢膜片

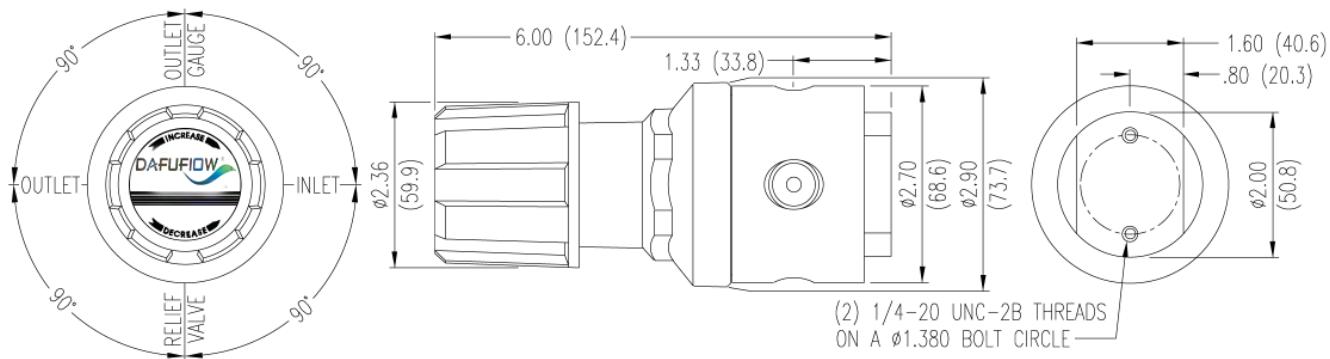
### 典型应用

散装气体分配系统  
气相色谱法  
超高纯载气  
零、跨距和校准气体  
高纯室增压  
液化烃气体控制  
低温气体的控制



特 点	材 质	技术规格
<b>PTFE Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>ISOFLOW Technology</b> Internal equalization provides constant delivery pressure at high flow	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>316L Stainless Steel Barstock Body</b> Corrosion resistance for smooth surface fins	<b>Seat</b> PCTFE	<b>Gauge</b> 2" (53mm) diameter stainless steel
<b>Rear Panel-Mountable</b> Versatile system configuration	<b>Filter</b> 40 micron 316L stainless steel	<b>Ports</b> 1/2" FPT (inlet/outlet) 1/4" FPT (gauge/relief valve)
<b>Pressure Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)</b> Broad range of applications	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders	<b>Internal Seals</b> PTFE	<b>Cv</b> 1.0 See page 190 for flow curves
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases		<b>Weight (DHD 3001-000)</b> 4.52 lbs. (2.05 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DHD	A	B	C	D	-CON	Installed Options
Series DHD	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	Inlet Connections
	<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>2:</b> 0-40 PSIG (0-3 BAR)	30"-0-60 PSIG/ -1-0-4 BAR		<b>1:</b> 1/2" tube fittin	<b>1:</b> Standard assembly (PSIG/kPa gauges)	<b>TF8:</b> 1/2" tube
	<b>3:</b> 0-120 PSIG (0-8 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>5:</b> Needle valve 1/4" MPT	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>M12:</b> 12mm tube
	<b>4:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		<b>P:</b> 12mm tube fittin	<b>6:</b> Mirror image assembly (PSIG/kPa gauges)	
	<b>5:</b> 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR			<b>7:</b> Mirror image assembly (BAR/PSIG gauges)	

## 相关辅件

Options	Order No.	Description
面板安装组件	F0010	后置安装型

## DHE系列调压阀-单级、316L材主体，6个接口，超大流量

DHE系列稳压器应用广泛，包括高流量净化，无腐蚀过程气体控制，歧管和线路调节。

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

- \*单级、超大流量
- \*六个接口
- \*黄铜材质阀体
- \*316L不锈钢膜片

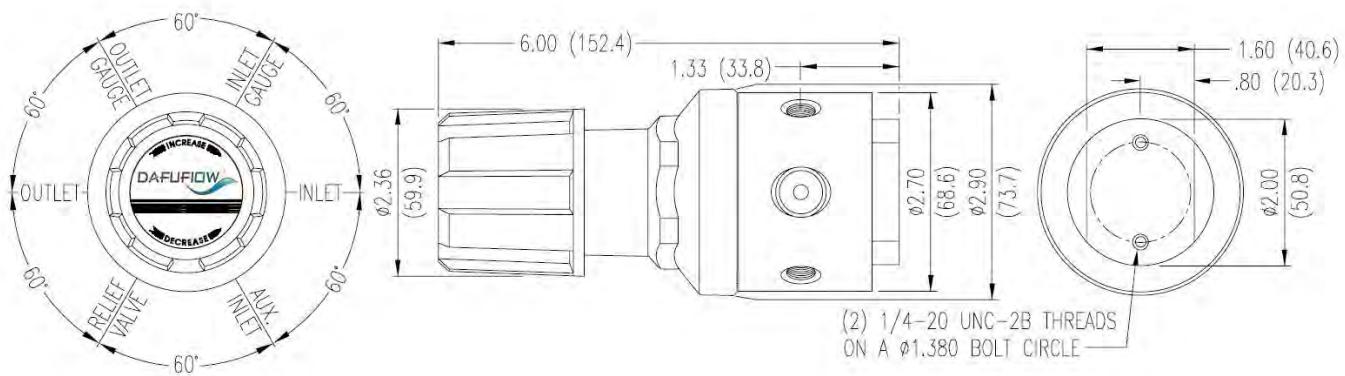
### 典型应用

- 散装气体分配系统
- 气相色谱法
- 超高纯载气
- 零、跨距和校准气体
- 高纯室增压
- 液化烃气体控制
- 低温气体的控制



特 点	材 质	技术规格
<b>PTFE Diaphragm Seal</b> No possibility of gas contamination	<b>Body</b> Brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>ISOFLOW Technology</b> Internal equalization provides constant delivery pressure at high flow	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Brass Barstock Body</b> Smooth surface fins	<b>Seat</b> PCTFE	<b>Gauges</b> 2" (53mm) diameter brass
<b>Rear Panel-Mountable</b> Versatile system configuration	<b>Filter</b> 40 micron 316L stainless steel	<b>Ports</b> 1/2" FPT (inlet/outlet) 1/4" FPT (gauge/relief valve)
<b>Pressure Ranges 0-15 To 0-250 PSIG (0-1 to 0-17 BAR)</b> Broad range of applications	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Pipe Away Relief Valve</b> Safely vents exhaust gases	<b>Internal Seals</b> PTFE	<b>Cv</b> 1.0 See page 190 for flow curves
		<b>Weight (DHE 3301-000)</b> 5.85 lbs. (2.65 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DHE	A	B	C	D	-CON	Options
Series DHE	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly/Gauges	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 fittin	<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> 0-300 PSIG/ 0-21 BAR	<b>P:</b> 12mm tube fittin	<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/ 0-17 BAR		<b>7:</b> Mirror image (BAR/PSIG gauges)		
		<b>9:</b> 0-600 PSIG/ 0-42 BAR				

## DHF系列调压阀-单级、316L材主体，6个接口，超大流量

DHF系列调压阀应用范围广泛，包括大流量清洗，半导体CDA和散装气体供应，气调包装，制药加工，歧管和线路调节。

The DHF 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.

\*单级、超大流量

\*六个接口

\*316L不锈钢材质阀体

\*316L不锈钢膜片

### 典型应用

散装气体分配系统

气相色谱法

超高纯载气

零、跨距和校准气体

高纯室增压

液化烃气体控制

低温气体的控制



### 特 点

#### PTFE Diaphragm Seal

No possibility of gas contamination

#### ISOFLOW Technology

Internal equalization provides constant delivery pressure at high flow

#### 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

### 材 质

#### Body

316L stainless steel barstock

#### Bonnet

Chrome-plated die-cast zinc

#### Seat

PCTFE

#### Filter

40 micron 316L stainless steel

#### Diaphragm

316L stainless steel

#### Internal Seals

PTFE

### 技术规格

#### 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

$1 \times 10^{-8}$  scc/sec

#### Cv

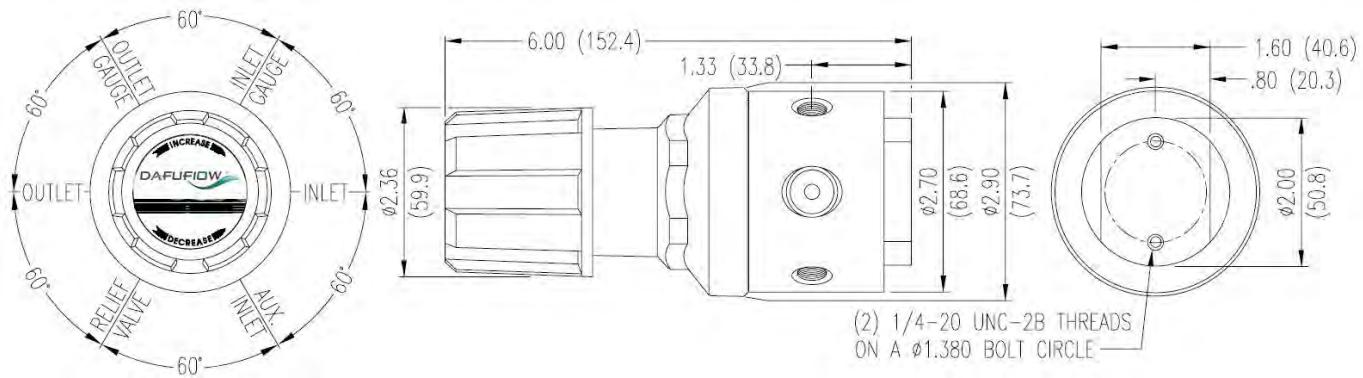
1.0

See page 190 for flow curves

#### Weight (DHF 3301-000)

5.06 lbs. (2.30 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DHF	A	B	C	D	-CON	Options	
Series DHF	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 fittin	<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> 0-300 PSIG/0- 210 BAR	<b>P:</b> 12mm tube fittin	<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)				

## DIB系列调压阀-柱塞感测、316L材主体，6个接口，超大压力

DIB系列调压阀是专为非腐蚀性气体的主要压力控制，最大入口压力为6000 PSIG (405bar)。

The DIB Series regulators are intended for primary pressure control of non-corrosive gases at a maximum inlet pressure of 6000 PSIG (405 BAR).

\*单级、超大压力

\*Piston-Sensed

\*镀铬黄铜材质阀体

### 典型应用

飞机支柱充气

研究与产品开发实验室

化工制造

航空航天液压系统

医药制造业

计量校准



### 特 点

#### **Large Piston Sensor**

Safely control pressures to 6000 PSIG (405 BAR)

#### **CAPSULE® Seat**

Increased serviceability and life

#### **Low Wetted Surface Area**

Minimal purge requirements

#### **Field-Adjustable Pressure Limit**

Safeguard downstream equipment

#### **Chrome-Plated Brass Barstock Body**

Smooth surface fins

#### **Front and Rear Panel-Mountable**

Versatile system configuration

#### **Pressure Ranges 0-750 to 0-6000 PSIG (0-50 to 0-405 BAR)**

Broad range of applications

#### **Six Port Design**

Flexible installation alternatives

### 材 质

#### **Body**

Chrome-plated brass barstock

#### **Bonnet**

Chrome-plated brass barstock

#### **Seat**

PCTFE 3000 and 4500 PSIG (210 and 310 BAR) inlet  
Arlon® (PEEK) (6000 PSIG inlet)

#### **Piston**

Brass barstock

#### **Filter**

10 micron sintered bronze

#### **Internal Seals**

Viton® (encapsulated)

### 技术规格

#### **Maximum Inlet Pressure**

6000 PSIG (405 BAR)

#### **Temperature Range**

-40°F to 140°F (-40°C to 60°C)

#### **Gauges**

2 1/2" (53mm) diameter chrome-plated brass

#### **Ports**

1/4" FPT

#### **Cv**

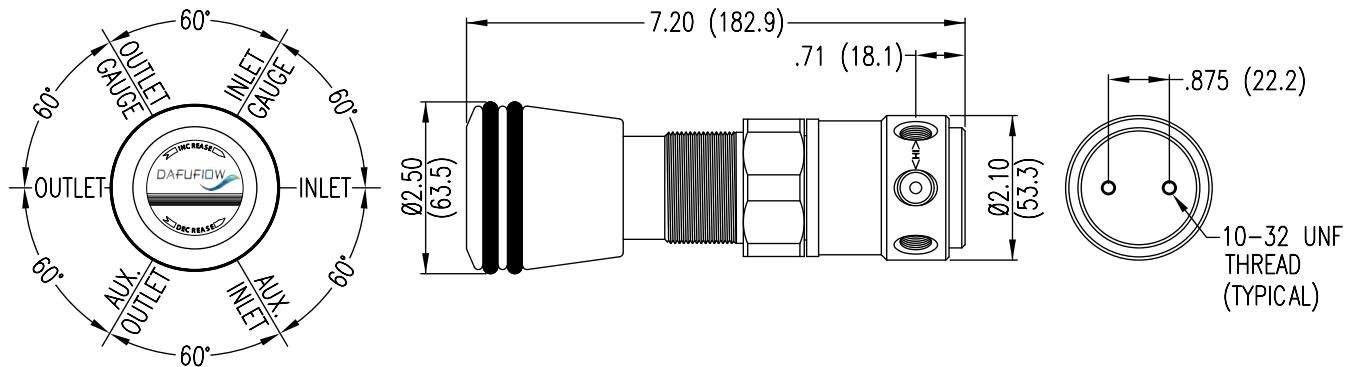
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See page 190 for flow curves

#### **Weight (DIB 4952-677)**

5.59 lbs. (2.54 kg)

## 安装结构尺寸



产品编码（仅供参考，以工厂交付为准）

DIB	A		B		C		D	-CON	Options
Series DIB	Outlet Pressure	Outlet Gauge	Inlet Maximum	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections		Installed Options
	<b>1:</b> 0-750 PSIG (50 BAR)	0-1000 PSIG/ 0-70 BAR	<b>0:</b> 6000 PSIG (405 BAR)*	None	<b>0:</b> 1/4" FPT	<b>0:</b> Bare body†	CGA DIN 477 BS 341 and others available	<b>B:</b> Protocol alarm station (110/220 VAC)	
	<b>2:</b> 0-1500 PSIG (0-100 BAR)	0-4000 PSIG/ 0-275 BAR	<b>3:</b> 3000 PSIG (210 BAR)	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> 0-2500 PSIG (0-170 BAR)	0-4000 PSIG/ 0-275 BAR	<b>8:</b> 5500 PSIG (380 BAR)	0-6000 PSIG/ 0-405 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>4:</b> 0-4500 PSIG (0-310 BAR)*	0-6000 PSIG/ 0-405 BAR	<b>9:</b> 6000 PSIG (405 BAR)	0-10,000 PSIG/ 0-700 BAR	<b>5:</b> Needle valve 1/4" MPT	<b>6:</b> Mirror image (BAR/kPa gauges)		<b>M:</b> Protocol station	
	<b>5:</b> 0-6000 PSIG (0-405 BAR)†	0-10,000 PSIG/ 0-700 BAR	*Only valid if D = 1 or 2 (outlet gauge specified)		<b>6:</b> 1/8" tube fitting	<b>7:</b> Mirror image (BAR/PSIG gauges)		<b>Q:</b> Protocol purge station*	
	<b>6:</b> 0-3500 PSIG (0-240 BAR)*	0-6000 PSIG/ 0-405 BAR			<b>7:</b> 3/8" tube fitting	<sup>†</sup> B must be 3, 8 or 9 (maximum pressure specified)		<sup>*3000 PSIG (210 BAR) maximum inlet only valid if B=3</sup>	
	<sup>*Not available with 3000 PSIG (210 BAR) maximum inlet pressure</sup>				<b>F:</b> Needle valve 1/4" tube fitting				
	<sup>†Only available with 6000 PSIG (405 BAR) maximum inlet pressure</sup>				<b>M:</b> 6mm tube fittin				
	830 6483				<i>Note: Outlet fittings and outlet valves are 316 stainless steel</i>				

相关辅件

Options	Order No.	Description
面板安装组件	F0001H	锁盖螺纹型

## DIC系列调压阀-柱塞感测、316L材主体，6个接口，超大压力

DIC系列调压器应用广泛，包括高流量清洗，压力测试，歧管和线路调节。

The DIC Series regulator applications are wide and varied including high flow purging, pressure testing, manifold and line regulation.

\*单级、超大压力

\*Piston-Sensed

\*316L材质阀体

### 典型应用

飞机支柱充气

研究与产品开发实验室

化工制造

航空航天液压系统

医药制造业

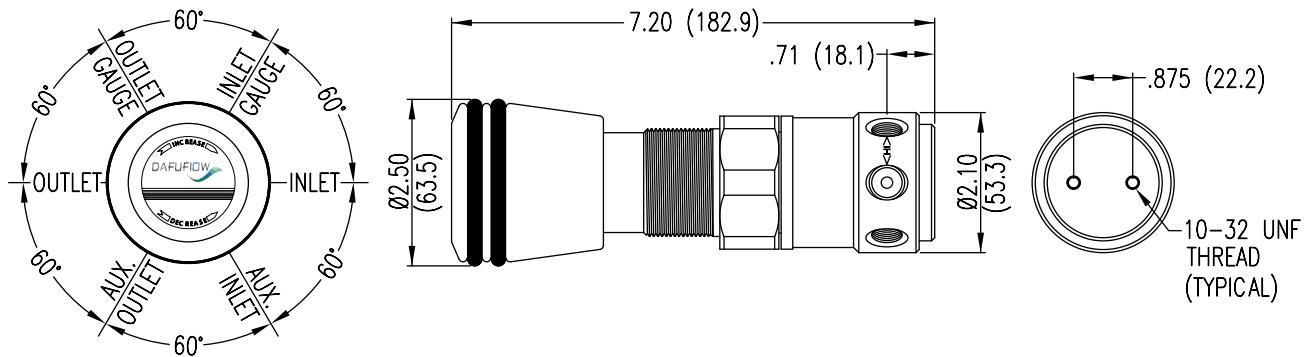
计量校准



DIC 5952-677 shown

特 点	材 质	技术规格
<b>Large Piston Sensor</b> Safely control pressures to 6000 PSIG (405 BAR)	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 6000 PSIG (405 BAR)
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Bonnet</b> 304 stainless steel	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PCTFE 3000 and 4500 PSIG (210 and 310 BAR) inlet Arlon® (PEEK) 6000 PSIG (405 BAR) inlet	<b>Gauges</b> 2 1/2" (53mm) diameter stainless steel
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Piston</b> 316L stainless steel	<b>Ports</b> 1/4" FPT
<b>316 Stainless Steel Barstock Body</b> Smooth surface finis	<b>Filter</b> Patented 10 micron 316 mesh	<b>Cv</b> 0.1 See page 190 for flow curves
<b>Front and Rear Panel-Mountable</b> Versatile system configuratio	<b>Internal Seals</b> Viton®	<b>Weight (DIC 5952-677)</b> 4.64 lbs. (2.10 kg)
<b>Pressure Ranges 0-750 to 0-6000 PSIG (0-50 to 0-405 BAR)</b> Broad range of applications	<b>Not for N<sub>2</sub>O or CO<sub>2</sub></b>	
<b>Six Port Design</b> Flexible installation alternatives		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

DIC	A	B	C	D	-CON	Options		
Series DIC	Outlet Pressure	Outlet Gauge	Inlet Maximum	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections	Installed Options
	<b>1:</b> 0-750 PSIG (0-50 BAR)	0-1000 PSIG/ 0-70 BAR	<b>0:</b> 6000 PSIG (0-405 BAR)*	None	<b>0:</b> 1/4" FPT	<b>0:</b> Bare body†	CGA DIN 477 BS 341 and others available	<b>B:</b> Protocol alarm station (110/220 VAC)
	<b>2:</b> 0-1500 PSIG (0-100 BAR)	0-4000 PSIG/ 0-275 BAR	<b>3:</b> 3000 PSIG (210 BAR)	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> 0-2500 PSIG (0-170 BAR)	0-4000 PSIG/ 0-275 BAR	<b>8:</b> 5500 PSIG (379 BAR)	0-6000 PSIG/ 0-405 BAR	<b>2:</b> 1/4" tube fitting	<b>2:</b> Standard assembly (BAR/PSIG gauges)	Not for N <sub>2</sub> O or CO <sub>2</sub>	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<b>4:</b> 0-4500 (0-310 BAR)*	0-6000 PSIG/ 0-405 BAR	<b>9:</b> 6000 PSIG (405 BAR)	0-10,000 PSIG/ 0-700 BAR	<b>5:</b> Needle valve 1/4" MPT	<b>6:</b> Mirror image (BAR/kPa gauges)		<b>M:</b> Protocol station
	<b>5:</b> 0-6000 PSIG (0-405 BAR)†	0-10,000 PSIG/ 0-700 BAR	* Only valid if D=1 or 2 (outlet gauge specified)		<b>6:</b> 1/8" tube fitting	<b>7:</b> Mirror image (BAR/PSIG gauges)		<b>Q:</b> Protocol purge station*
	<b>6:</b> 0-3500 (241 BAR)*	0-6000 PSIG/ 405 BAR			<b>7:</b> 3/8" tube fitting	<sup>†</sup> B must be 3,8 or 9 (maximum pressure specified)		*3000 PSIG (210 BAR) maximum inlet only valid if B=3
*Not available with 3000 PSIG (210 BAR) maximum inlet pressure					<b>F:</b> Needle valve 1/4" tube fitting			
†Only available with 6000 PSIG (405 BAR) maximum inlet pressure					<b>M:</b> 6mm tube fitting			
Note: Outlet fittings and outlet valves are 316 stainless steel								

## 相关辅件

Options	Order No.	Description
面板安装组件	F0001H	阀盖螺纹型

## COB系列调压阀-单级、镀铬铜材主体，4个接口

COB系列调压阀主要用于无腐蚀性、高纯度或液化气体的主压控制，也可用于因入口供应减少而产生的出口压力微小波动的应用。

The COB 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.

- \*单级、4个接口
- \*镀铬黄铜材质阀体
- 316L不锈钢膜片

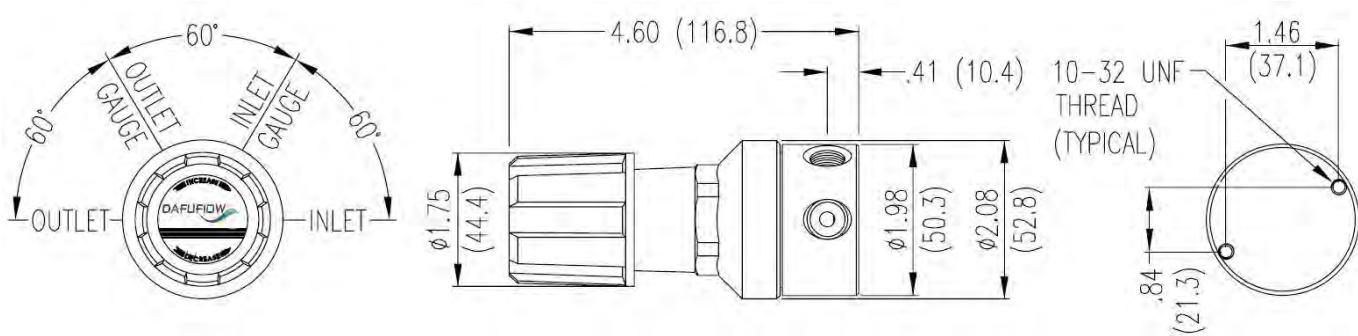
### 典型应用

- 气相色谱法
- 超高纯载气
- 零、跨距和校准气体
- 高纯室增压
- 液化烃气体控制
- 低温气体的控制



特点	材质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Gauges</b> 2" (53mm) diameter chrome-plated brass
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Ports</b> 1/4" FPT
<b>Compact Design</b> Easily transported and integrated into systems	<b>Internal Seals</b> PTFE	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Chrome-Plated Brass Barstock Body</b> Smooth surface fins		<b>Cv</b> 0.1 See page 188 for flow curves
<b>Rear Panel-Mountable</b> Easy installation		<b>Weight (COB 2331-580)</b> 3.1 lbs. (1.40 kg)
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

COB	A	B	C	D	-CON	Options	
Series COB	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: 1/4" FPT port	0: Bare body	000: 1/4" FPT	B: Protocol alarm station (110/220 VAC)	
2: 0-50 PSIG (0-3.5 BAR)	30"-0-100 PSIG/ -1-0-7 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: 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	5: 0-1000 PSIG/ 0-70 BAR	2: 1/4" tube fittin	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube	H: Protocol switchover station with alarm (110/220 VAC)	
4: 0-250 PSIG (0-17 BAR)	0-400 PSIG/ 0-27 BAR	6: 0-300 PSIG/ 0-21 BAR	3: Diaphragm valve 1/4" tube fittin		TF6: 3/8" tube	M: Protocol station	
5: 0-500 PSIG (0-34 BAR)	0-1000 PSIG/ 0-70 BAR	7: 0-400 PSIG/ 0-27 BAR	4: Diaphragm valve 1/4" MPT		M06: 6mm tube	Q: Protocol purge station*	
7: 0-150 PSIG (0-10 BAR)	30"-0-200 PSIG/ -1-0-14 BAR	8: 0-6000 PSIG/ 0-405 BAR*	5: Needle valve 1/4" MPT			T: Tee purge*	
<i>*Not available with 4500 PSIG (310 BAR) maximum inlet pressure</i>		G: 0-4000 PSIG/ 0-275 BAR†	6: 1/8" tube fittin		CGA DIN 477 BS 341 and others available	<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>		7: 3/8" tube fittin			
		<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</i>		8: Diaphragm valve 1/8" tube fittin			
		<i>9: Diaphragm valve 1/4" FPT</i>					
		<i>A: 3/8" BSP RH fittin</i>					
		<i>B: Diaphragm valve 3/8" tube fittin</i>					
		<i>C: 3/8" BSP LH fittin</i>					
		<i>D: 6mm brass hose barb (not available if A=4 or 5)</i>					
		<i>G: 1/8" stainless steel tube fittin</i>					
		<i>H: 1/4" stainless steel tube fittin</i>					
		<i>M: 6mm tube fittin</i>					
		<i>S: Diaphragm valve 6mm tube fittin</i>					

## 相关辅件

Order No.	Description
F0001	后置式面板安装套件

## COD系列调压阀-单级、镀铬铜材主体，3个接口

COD系列调节器用于对无腐蚀性、高纯度或液化气体进行二次压力控制，或作为高纯度气体分布系统中的使用点压力控制。

The COD 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.

- \*单级、三个接口
- \*镀铬黄铜材质阀体
- \*316L不锈钢膜片

### 典型应用

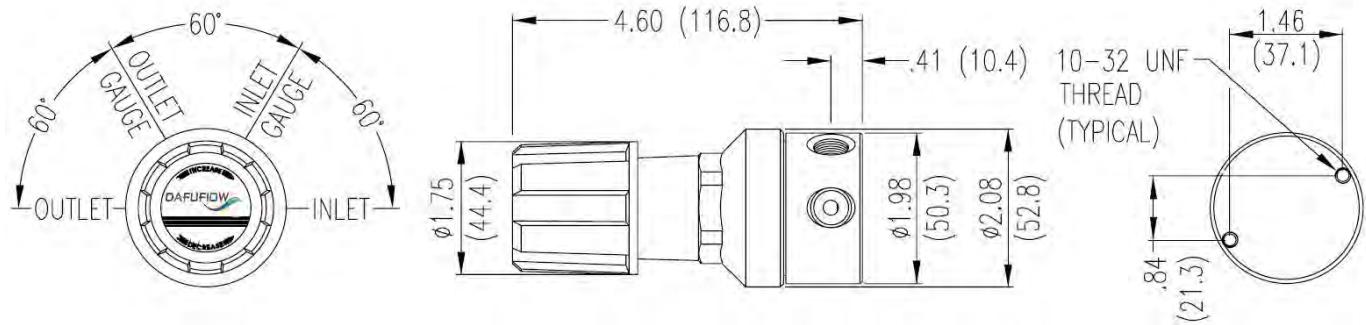
- 散装气体分配系统
- 气相色谱法
- 超高纯载气
- 零、跨距和校准气体
- 高纯室增压
- 液化烃气体控制
- 低温气体的控制



COD 3021-000 shown

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated brass barstock	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Gauges</b> 2" (53mm) diameter chrome-plated brass
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE	<b>Ports</b> 1/4" FPT
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Cv</b> 0.1 See page 188 for flow curves
<b>Compact Design</b> Easily transported and integrated into systems	<b>Internal Seals</b> PTFE	<b>Weight (COD 2021-000)</b> 1.7 lbs. (0.78 kg)
<b>Chrome-Plated Brass Barstock Body</b> Smooth surface finish		
<b>Rear Panel-Mountable</b> Easy installation		
<b>Pressure Ranges 0-15 to 0-500 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications		
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

COD	A	B	C	D	-CON	Options
Series COD	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 fittin	<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 fittin		<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 fittin			
			<b>7:</b> 3/8" tube fittin			
			<b>8:</b> Diaphragm valve 1/8" tube fittin			
			<b>9:</b> Diaphragm valve 1/4" FPT			
			<b>A:</b> 3/8" BSP RH fittin			
			<b>B:</b> Diaphragm valve 3/8" tube fittin			
			<b>C:</b> 3/8" BSP LH fittin			
			<b>D:</b> 6mm brass hose barb (not available if A=4 or 5)			
			<b>G:</b> 1/8" stainless steel tube fittin			
			<b>H:</b> 1/4" stainless steel tube fittin			
			<b>M:</b> 6mm tube fittin			
			<b>S:</b> Diaphragm valve 6mm tube fittin			

## 相关辅件

Order No.	Description
F0001	后置式面板安装套件

COE系列调压阀专用于对医用血液气体、激光气体和其他临床应用的气体而设计，此阀会受输入压力影响形成轻微的压力输出波动。

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

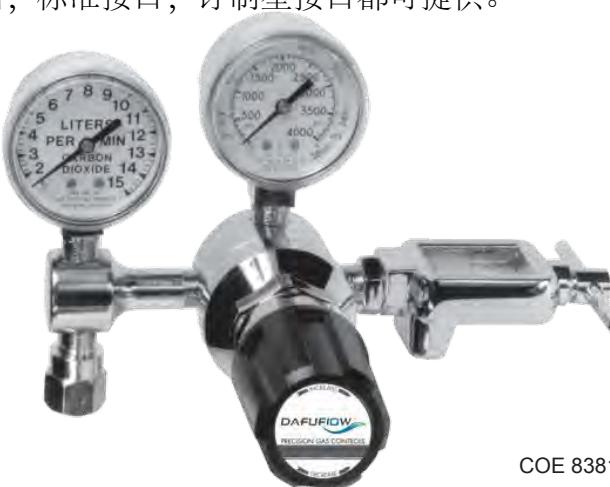
## 自主校准

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 flowmete.一句话，标准接口，订制型接口都可提供。

\*单级 \*自主校准  
 \*镀铬黄铜材质阀体 \*316L不锈钢膜片

## 典型应用

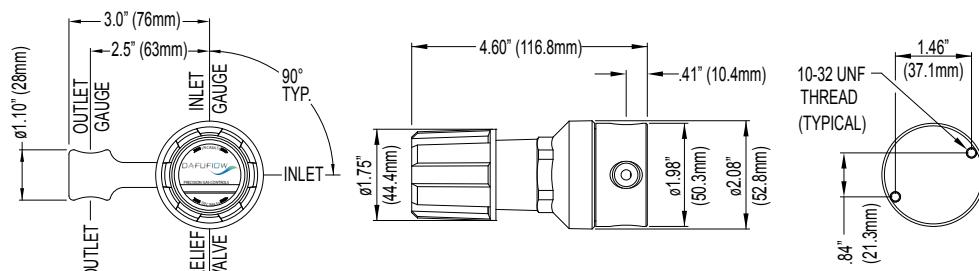
血液气体  
 激光气体  
 医学研究  
 大学实验室



COE 8381-M2D

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE	<b>Gauges</b> 2" (53mm) diameter chrome-plated brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Compact Design</b> Easily transported and integrated into systems	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
		<b>Weight (COE 8381-M2D)</b> 2.8 lbs. (1.29 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

COE	A	B	C	D	-CON	Options
Series COE	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Connections
	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.
	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)	<b>B:</b> Protocol alarm station (110/220 VAC) <b>C:</b> Protocol switchover station
	3: 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		2: 1/4" tube fittin	2: Standard assembly (BAR/PSIG gauges)	<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	5: 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		3: Diaphragm valve 1/4" tube fittin		<b>M:</b> Protocol station
	6: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		4: Diaphragm valve 1/4" MPT		<b>Q:</b> Protocol purge station
	7: 0-500 PSIG (0-34 BAR)	0-1000 PSIG/ 0-70 BAR		5: Needle valve 1/4" MPT		
	8: 2-15 LPM CO <sub>2</sub>	2-15 LPM flowgaug		6: 1/8" tube fittin		
	9: Custom calibration	Custom flowgaug		7: 3/8" tube fittin		
				8: Medical DISS outlet		
				9: 1/4" hose barb		
				A: 3/8" BSP RH fittin		

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	

**COG**系列调压阀主要用于对无腐蚀性、高纯度或液化气体进行二次压力控制，或作为高纯度气体分布系统中的使用点压力控制。

The COG 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.



- \*单级、4个接口
- \*镀铬黄铜材质阀体
- \*背部输入

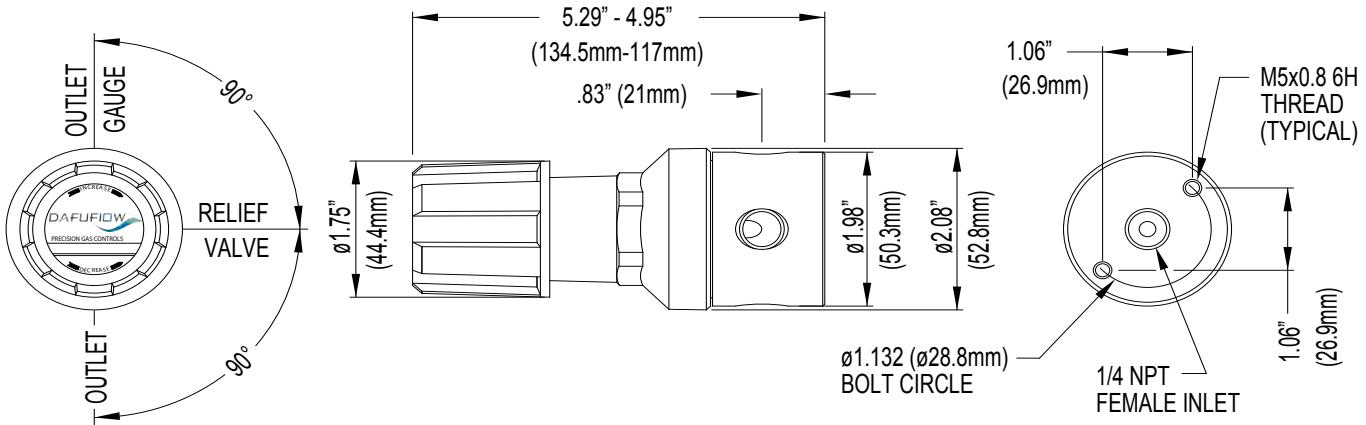
### 典型应用

散装气体分配系统  
气相色谱法  
超高纯载气  
零、跨距和校准气体  
高纯室增压  
液化烃气体控制  
低温气体的控制

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE	<b>Gauges</b> 2" (53mm) diameter chrome-plated brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Compact Design</b> Easily transported and integrated into systems	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 <i>See page 188 for flow curves</i>
<b>Chrome-Plated Brass Barstock Body</b> Smooth surface fins		<b>Weight (COG 2031-580)</b> 2.9 lbs. (1.29 kg)
<b>Rear Panel-Mountable</b> Easy installation		
<b>Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)</b>		
Broad range of applications		

**3000 PSIG (210 BAR) Inlet Pressure Rating**  
Safe use with high pressure cylinders

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

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

## 相关辅件

Order No.	Description
HCE 0204	后置式面板安装套件
FB0002	氦泄漏认证证书

COH系列调压阀是专为防止二氧化碳和氧化亚氮高流量而冻结的问题而设计的。当二氧化碳或N<sub>2</sub>O通过调节器阀座时，如果流量过高，干冰会形成，导致调节器结冰。

The COH 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.

\*单级、4个接口

\*电加热

\*镀铬黄铜材质阀体

\*316L不锈钢膜片

\*NEMA 4

### 典型应用

化学储存

厌氧室

惰性气体吹扫

原子吸收氧化剂气体

半导体反应炉

感应耦合等离子体系统

pH值的控制



### 特 点

#### 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

#### 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

### 材 质

#### 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

### 技术规格

#### 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

$1 \times 10^{-8}$  scc/sec

#### Cv

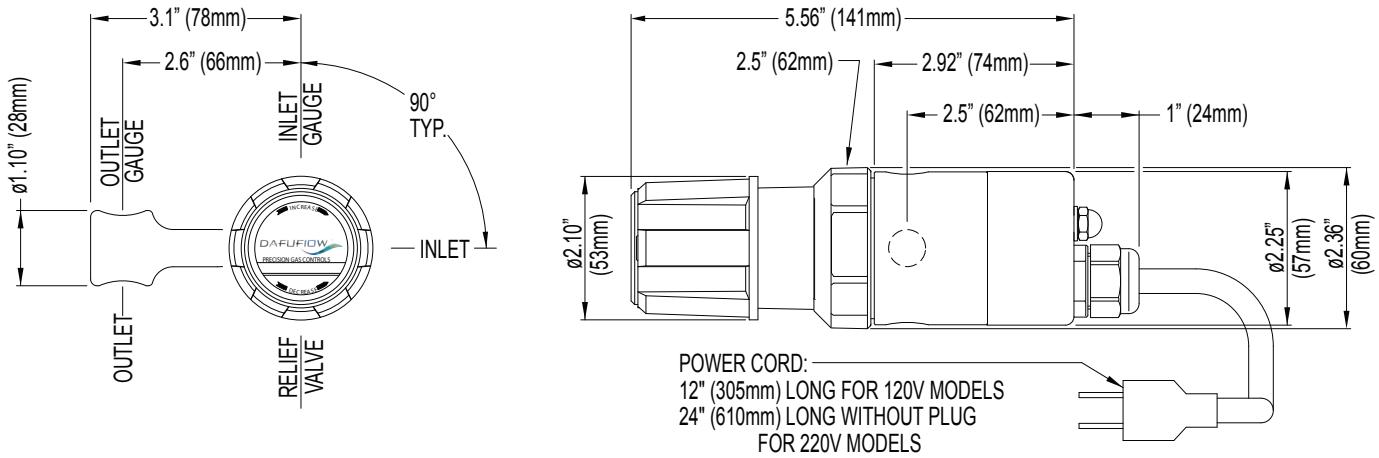
0.1

See page 191 for flow curves

#### Weight (COH 3301-330)

5.4 lbs. (2.45 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

COH	A	B	C	D	-CON	Options
Series COH	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections
<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 fittin	<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 fittin	<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 fittin	*220 volt models are CE marked		
			<b>7:</b> 3/8" tube fittin			
			<b>8:</b> Diaphragm valve 1/8" tube fittin			
			<b>9:</b> Diaphragm valve 1/4" FPT			
			<b>A:</b> 3/8" BSP RH fittin			
			<b>M:</b> 6mm tube fittin			
			<b>S:</b> Diaphragm valve 6mm tube fittin			

CAB系列调节器主要用于无腐蚀性、高纯度或液化气体的主压控制。

The CAB 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.

- \*双级 \*4个接口
- \*镀铬黄铜接口阀体
- \*316L不锈钢膜片

### 典型应用

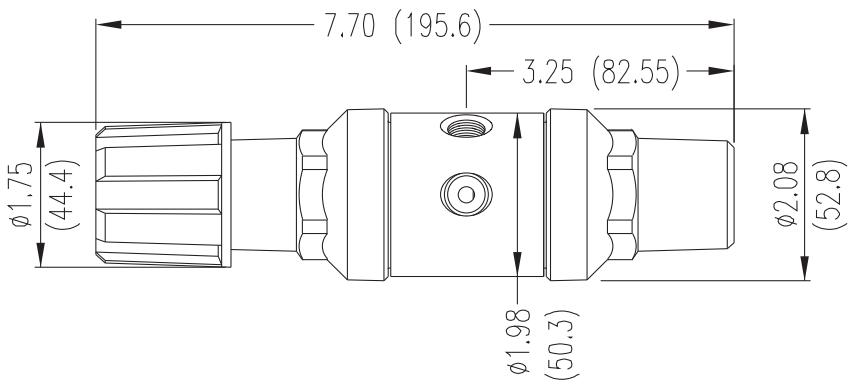
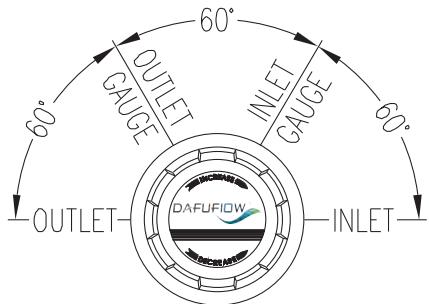
- EPA协议的气体
- 气相色谱法
- 高纯载气
- 零、跨距和校准气体
- 超高纯室增压



特点	材质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	3500 PSIG (240 BAR) optional 4500 PSIG (310 BAR) optional
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Gauges</b> 2" (53mm) diameter chrome-plated brass
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Compact Design</b> Easily transported and integrated into systems	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Chrome-Plated Brass Barstock Body</b> Smooth surface finish	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
<b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance		<b>Weight (CAB 2331-580)</b> 4.4 lbs. (1.98 kg)
<b>Pressure Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)</b> Broad range of applications		

Conforms to CGA E-4 Standard for Pressure Regulators

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

CAB	A	B	C	D	-CON	Options
Series CAB	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	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>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>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 fittin	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<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 fittin	<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*
			<b>G:</b> 0-4000 PSIG/ 0-275 BAR†	<b>6:</b> 1/8" tube fittin		*Not available with 4500 PSIG (310 BAR) max inlet pressure
	<i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®</i>			<b>7:</b> 3/8" tube fittin		
	<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</i>			<b>8:</b> Diaphragm valve 1/8" tube fittin		
				<b>9:</b> Diaphragm valve 1/4" FPT		
				<b>A:</b> 3/8" BSP RH fittin		
				<b>B:</b> Diaphragm valve 3/8" tube fittin		
				<b>C:</b> 3/8" BSP LH fittin		
				<b>D:</b> 6mm brass hose barb (not available if A=4 or 5)		
				<b>G:</b> 1/8" stainless steel tube fittin		
				<b>H:</b> 1/4" stainless steel tube fittin		
				<b>M:</b> 6mm tube fittin		
				<b>S:</b> Diaphragm valve 6mm tube fittin		

CAE系列调压器是专门设计用于医用实验室的血液气体，激光气体或其他气体应用，需要恒定的压力控制和不受供应压力变化影响。

除应用于激光领域2-15LMP流量的CO<sub>2</sub>外，Dafuflow还能提供应用于非腐蚀性气体或混合气体2-15LMP标准化或订制型应用。

The CAE 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.

In addition to a standard 2-15 LPM flowgauge for CO<sub>2</sub> in laser applications, Dafuflow 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 flowmete .

- \*双级
- \*自定义校准
- \*镀铬黄铜材质阀体
- \*316L不锈钢膜片

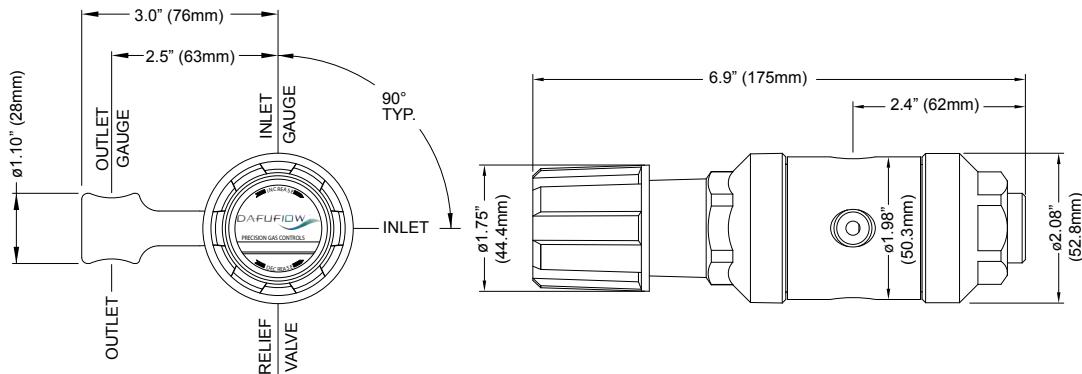
### 典型应用

激光气体  
医学研究  
医药制造业  
大学实验室  
血液气体



特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE	<b>Gauges</b> 2" (53mm) diameter chrome-plated brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Compact Design</b> Easily transported and integrated into systems	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
		<b>Weight (CAE 5301-580)</b> 4.2 lbs. (1.90 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

CAE	A	B	C	D	-CON	Options
Series CAE	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Connections
	<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
	<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>B:</b> Protocol alarm station (110/220 VAC)
	<b>3:</b> 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		<b>2:</b> 1/4" tube fittin	<b>2:</b> Standard assembly (BAR/PSIG gauges)	<b>C:</b> Protocol switchover station
	<b>5:</b> 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		<b>3:</b> Diaphragm valve 1/4" tube fittin		<b>H:</b> Protocol switchover station with alarm (110/220 VAC)
	<b>6:</b> 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		<b>4:</b> Diaphragm valve 1/4" MPT		<b>M:</b> Protocol 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>Q:</b> Protocol purge station
	<b>8:</b> 2-15 LPM CO <sub>2</sub>	2-15 LPM flowgaug		<b>6:</b> 1/8" tube fittin		
	<b>9:</b> Custom calibration	Custom flowgaug		<b>7:</b> 3/8" tube fittin		
				<b>8:</b> Medical DISS outlet		
				<b>9:</b> 1/4" hose barb		
				<b>A:</b> 3/8" BSP RH fittin		

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	

CBB系列调压器用于初级压力控制超高纯度和腐蚀性气体环境中，这种阀因进口输入压力减少对出口压力的产生微小波动。

The CBB 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.

#### \*单级

\*4个接口

\*316L材质阀体

\*316L不锈钢膜片

#### 典型应用

气相色谱法

超高纯载气

零、跨距和校准气体

高纯室增压

液化烃气体控制

低温气体的控制



#### 特 点

##### 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

##### 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

#### 材 质

##### 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

#### 技术规格

##### 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

$1 \times 10^{-8}$  scc/sec

##### Cv

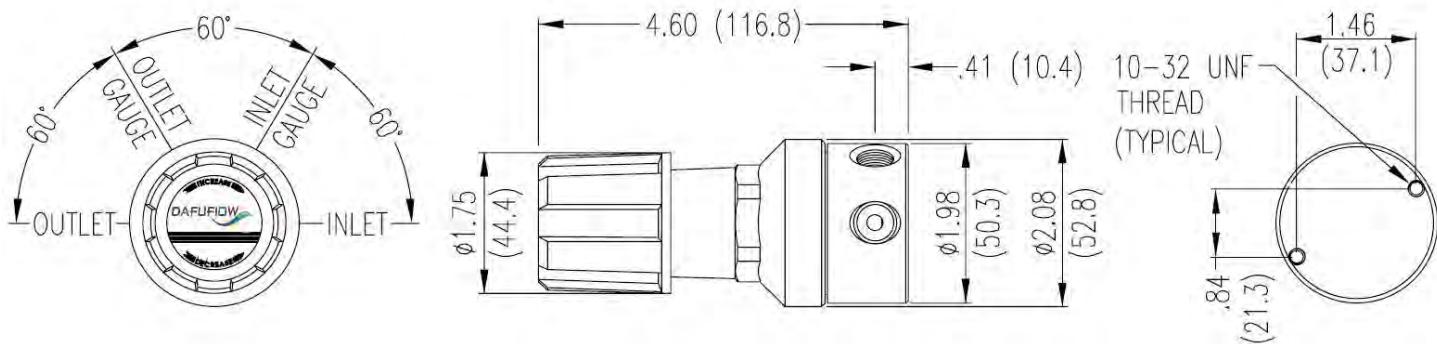
0.1

See page 188 for flow curves

##### Weight (CCB 2331-580)

3.0 lbs. (1.34 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

CCB	A	B	C	D	-CON	Options	
Series CCB	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 fittin		<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			
	<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 fittin			
	<i>*Maximum inlet pressure 4500 PSIG (310 BAR) with PCTFE Seat CAPSULE®</i>			<b>7:</b> 3/8" tube fittin			
	<i>t Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</i>			<b>8:</b> Diaphragm valve 1/8" tube fittin			
	<i>S: Diaphragm valve 6mm tube fittin</i>			<b>9:</b> Diaphragm valve 1/4" FPT			
	<i>M: 6mm tube fittin</i>						
	<i>*Not available with 4500 PSIG (310 BAR) max inlet pressure</i>						
	<i>†Maximum inlet pressure 3500 PSIG (240 BAR) with PCTFE seat CAPSULE®</i>						
	<i>CGA DIN 477 BS 341 and others available</i>						

## 相关辅件

Order No.	Description
HCE 0204	Rear Panel mount kit

CBD系列调压器用于超高纯度和腐蚀性气体的二次压力控制，或作为超高纯度气体分配系统中的使用点压力控制。

The CBD 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.

\*单级

\*三个接口

\*316L材质阀体

\*316L不锈钢膜片

### 典型应用

散装气体分配系统

气相色谱法

超高纯载气

零、跨距和校准气体

液化烃气体控制

低温气体的控制



### 特 点

#### 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

#### 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

### 材 质

#### 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

### 技术规格

#### 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

$1 \times 10^{-8}$  scc/sec

#### Cv

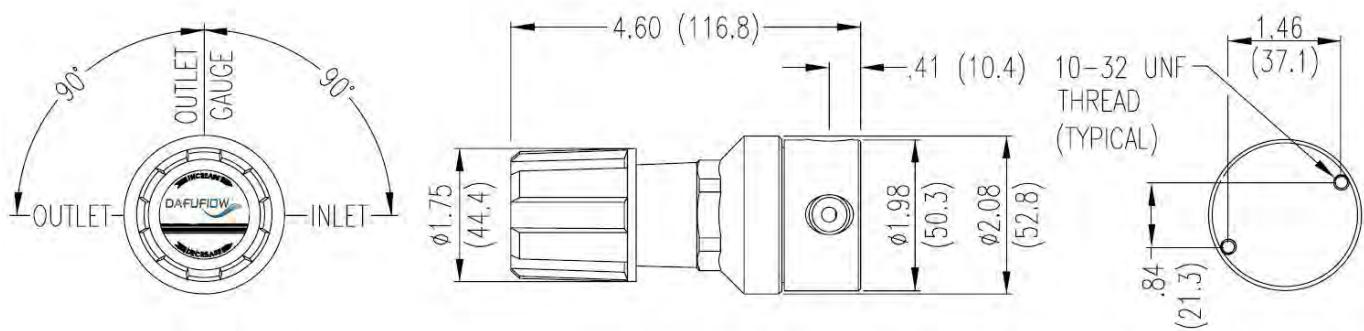
0.1

See page 188 for flow curves

#### Weight (CBD 2021-000)

2.4 lbs. (1.09 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

CBD	A	B	C	D	-CON	Options
Series CBD	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>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>3:</b> 0-100 PSIG (0-7 BAR)	30"-0-200 PSIG/ -1-0-14 BAR		<b>2:</b> 1/4" tube fittin	<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 fittin		<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 fittin		
				<b>7:</b> 3/8" tube fittin		
				<b>8:</b> Diaphragm valve 1/8" tube fittin		
				<b>9:</b> Diaphragm valve 1/4" FPT		
				<b>M:</b> 6mm tube fittin		
				<b>S:</b> Diaphragm valve 6mm tube fittin		

## 相关辅件

Order No.	Description
F0001	Rear Panel mount kit

CBE系列调压阀是专为无腐蚀性气体使用而设计气瓶阀。我们的细小的阀能很好的调节超过使用范围的工况。。

The CBE 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.

#### \*单级

\*气瓶阀Lecture Bottle Regulator

\*镀铬铜材质阀体

\*316L不锈钢膜片

#### 典型应用

大学实验室

化学研究

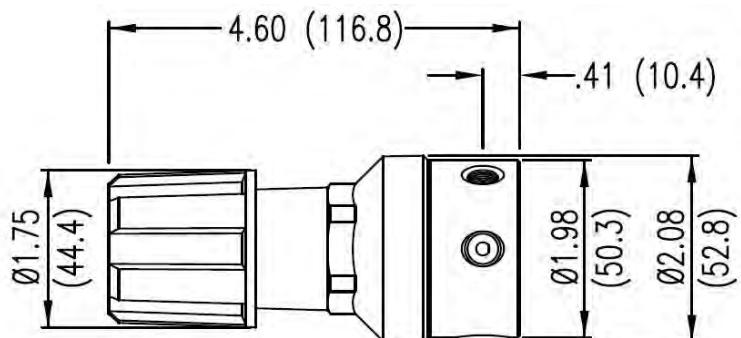
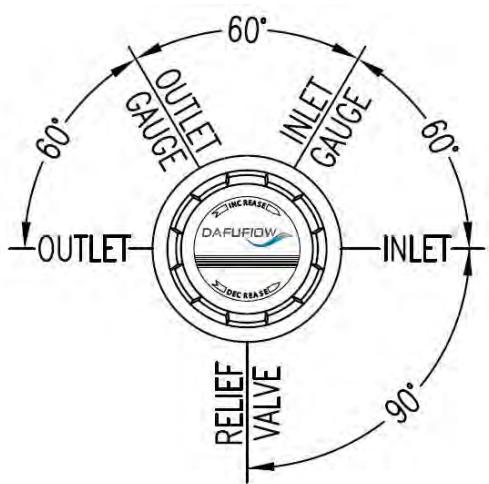
医药制造业

大学课堂



特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated brass barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE	<b>Gauges</b> 1 1/2" (38.1mm) diameter chrome-plated brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/8" FPT (1/4" FPT relief valve)
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Compact Design</b> Easily transported and integrated into systems	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.02 See page 191 for flow curves
<b>Chrome-Plated Brass Barstock Body</b> Smooth surface finish		<b>Weight (CBE 3351-170)</b> 2.0 lbs. (0.89 kg)
<b>Low Droop</b> Stable outlet pressure		
<b>1 1/2" (38.1mm) Pressure Gauges</b> Small envelope		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

CBE	A	B	C	D	-CON	Options	
Series CBE	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>1:</b> Standard assembly (PSI/kPa gauges)	<b>-110:</b> CGA 110	
				<b>5:</b> Needle valve 1/8" MPT		<b>-170:</b> CGA 170	
						<b>-180:</b> CGA 180	

CBG系列调节器用于对无腐蚀性、高纯度或液化气体的二次压力控制，或作为高纯气体分配系统中的使用压力控制。

The CBG 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.

\*单级

\*四个接口

\*316L材质阀体

\*背部输入

### 典型应用

散装气体分配系统

气相色谱法

超高纯载气

零、跨距和校准气体

高纯室增压

液化烃气体控制

低温气体的控制



### 特 点

#### 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

#### 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

### 材 质

#### 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

### 技术规格

#### 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

$1 \times 10^{-8}$  scc/sec

#### Cv

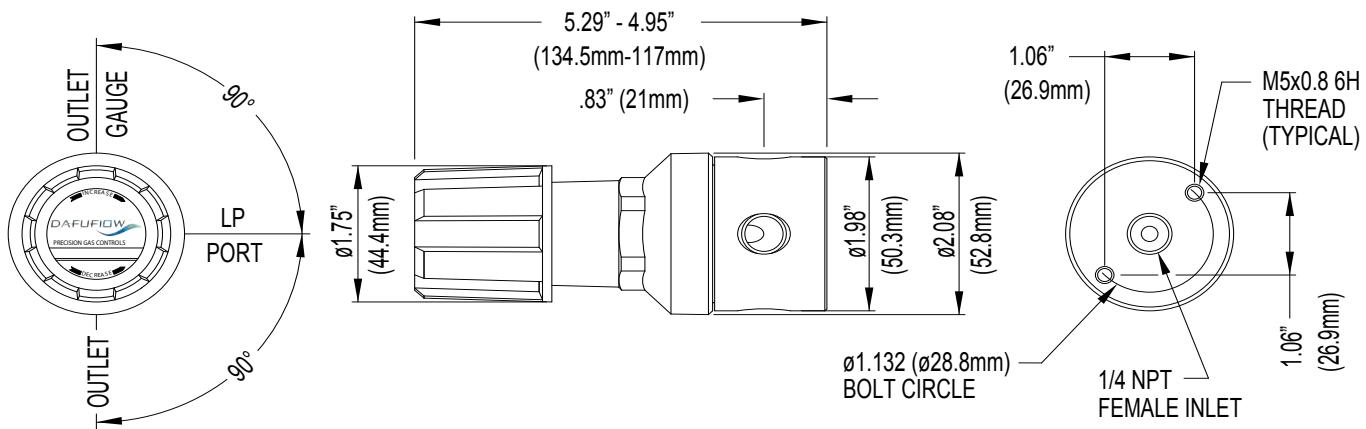
0.1

See page 188 for flow curves

#### Weight (CBG 1031-M1L)

2.9 lbs. (1.29 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

CBG	A	B	C	D	-CON	Options
Series CBG	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections
	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
	2: 0-30 PSIG (0-2 BAR)	0-60 PSIG/ 0-4 BAR		1: 1/4" MPT	1: Standard assembly (PSIG/kPa gauges)	TF2: 1/8" tube
	3: 0-50 PSIG (0-3.5 BAR)	0-100 PSIG/ 0-7 BAR		2: 1/4" tube fittin	2: Standard assembly (BAR/PSIG gauges)	TF4: 1/4" tube
	4: 0-150 PSIG (0-10 BAR)	0-200 PSIG/ 0-14 BAR		3: Diaphragm valve 1/4" tube fittin		TF6: 3/8" tube
	5: 0-100 PSIG (0-7 BAR)	0-200 PSIG/ 0-14 BAR		4: Diaphragm valve 1/4" MPT		M06: 6mm tube
	6: 0-200 PSIG (0-14 BAR)	0-400 PSIG/ 0-27 BAR		5: Needle valve 1/4" MPT		CGA DIN 477 BS 341 and others available
				6: 1/8" tube fittin		
				7: 3/8" tube fittin		
				8: Diaphragm valve 1/8" tube fitting		
				9: Diaphragm valve 1/4" FPT		
				M: 6mm tube fittin		
				S: Diaphragm valve 6mm tube fittin		

## 相关辅件

Order No.	Description
HCE 0204	Rear Panel mount kit
FB0002	Helium Leak certificatio

**CCB**系列调压阀是专为高纯气体、腐蚀性气体初级压力控制设计，这种阀可以满足不受输入压力影响的恒压压力输出的应用。

The CCB 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.

- \*双级
- \*四个接口
- \*316L材质阀体
- \*316L材质膜片

### 典型应用

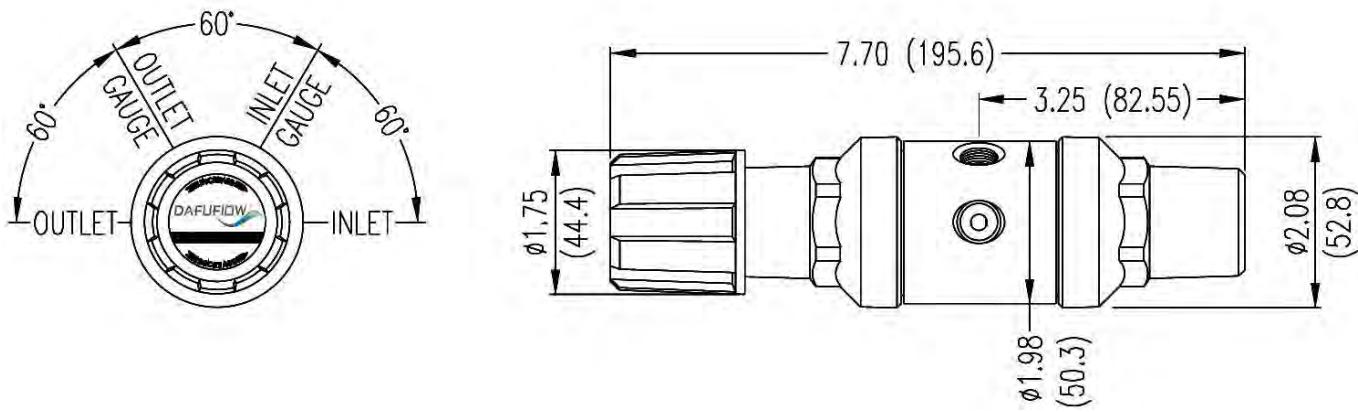
EPA协议的气体  
气相色谱法  
超高纯载气  
零、跨距和校准气体  
高纯室增压



CCB 2331-580 shown

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> 316L stainless steel barstock	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 4500 PSIG (310 BAR) optional
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Low Wetted Surface Area</b> Minimal purge requirements	<b>Seat</b> PTFE PCTFE with 3500 PSIG (240 BAR) or 4500 PSIG (310 BAR) inlet option	<b>Gauges</b> 2" (53mm) diameter Chrome-plated case Stainless steel internals
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> Patented 10 micron 316 mesh	<b>Ports</b> 1/4" FPT
<b>Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Compact Design</b> Easily transported and integrated into systems	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 188 for flow curves
<b>316L Stainless Steel Barstock Body</b> Increased corrosion resistance		<b>Weight (CCB 2331-580)</b> 4.2 lbs. (1.91 kg)
<b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance		
<b>Pressure Ranges 0-15 to 0-250 PSIG (0-1 to 0-17 BAR)</b> Broad range of applications		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

CCB	A	B	C	D	-CON	Options	
Series CCB	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*
		G: 0-4000 PSIG/ 0-275 BAR†		<b>6:</b> 1/8" tube fitting			*Not available with 4500 PSIG (310 BAR) max inlet pressure
				<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			

\*Maximum inlet  
pressure 4500  
PSIG (310 BAR)  
with PCTFE Seat  
CAPSULE®

†Maximum inlet  
pressure 3500  
PSIG (240 BAR)  
with PCTFE seat  
CAPSULE®

BOB系列调压阀用于无腐蚀性气体、高纯气体或液化气体初级压力控制，这种阀受输入压力有轻微型压力波动。

The BOB 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.

- \*单级
- \*五个接口
- \*316L材质膜片
- \*镀铬黄铜阀体

### 典型应用

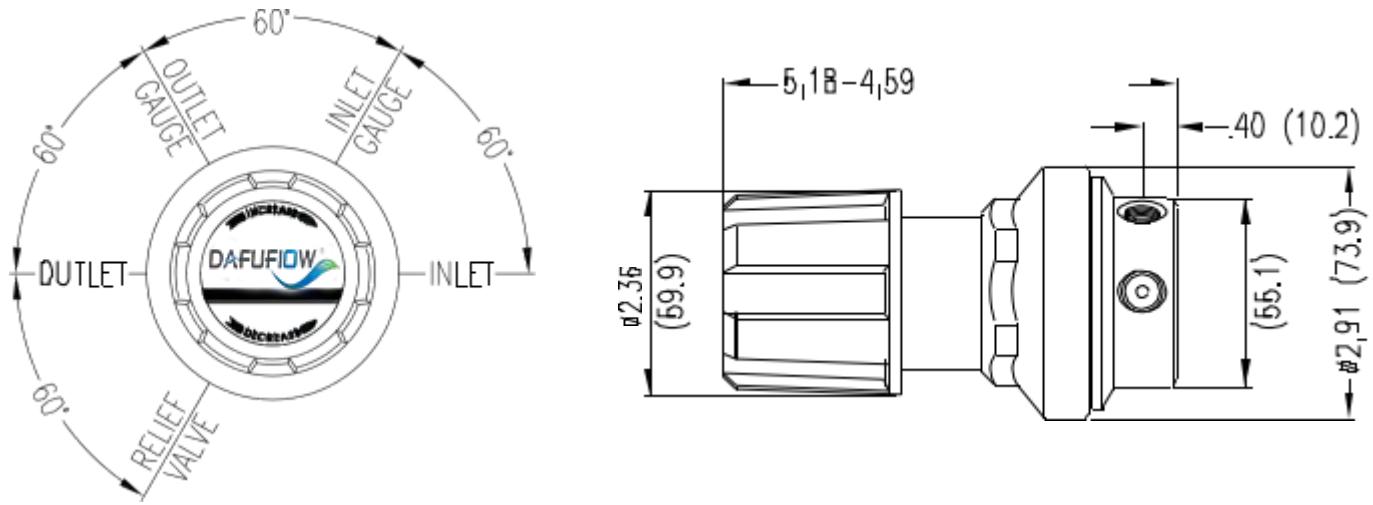
- 燃气净化
- 气体系统充装
- 燃气供给控制
- 原子吸收乙炔 Atomic absorption acetylene



BOB 1331-580 shown

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated forged brass	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Forged Body</b> Durable, long-lasting construction	<b>Seat</b> PTFE	<b>Gauges</b> 2 1/2" (68mm) diameter chrome-plated brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Large Convolved Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Standard Relief Valve</b> Diaphragm and gauge protection	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.2 See page 193 for flow curves
<b>Chrome-Plated Forged Brass Body</b> Economical high purity design		<b>Weight (BOB 1331-580)</b> 3.8 lbs. (1.74 kg)
<b>High Flow Capacity</b> Supply multiple user locations		
<b>Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-34 BAR)</b> Broad range of applications		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

BOB	A	B	C	D	-CON	Options	
Series BOB	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
*With redline for acetylene use							
<u>5: Needle valve 1/4" MPT</u> <u>6: 1/8" tube fitting</u> <u>7: 3/8" tube fitting</u> <u>8: Diaphragm valve 1/8" tube fitting</u> <u>9: Diaphragm valve 1/4" FPT</u> <u>A: 3/8" BSP RH fitting</u> <u>B: Diaphragm valve 3/8" tube fitting</u> <u>C: 3/8" BSP LH fitting</u> <u>D: 6mm brass hose barb (Not available if A=4 or 5)</u> <u>G: 1/8" stainless steel tube fitting</u> <u>H: 1/4" stainless steel tube fitting</u> <u>M: 6mm tube fitting</u> <u>S: Diaphragm valve 6mm tube fitting</u>							
<u>CGA</u> <u>DIN 477</u> <u>BS 341</u> <u>and others available</u>							
<u>T: Tee purge</u>							

BOE系列调压阀是为无腐蚀、高纯气体或液体(up to grade 4.5)二级调压而设计，也可用于高纯气体分配系统点控制。

The BOE 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.

- \*单级
- \*四个接口
- \*316L材质膜片
- \*镀铬黄铜阀体

### 典型应用

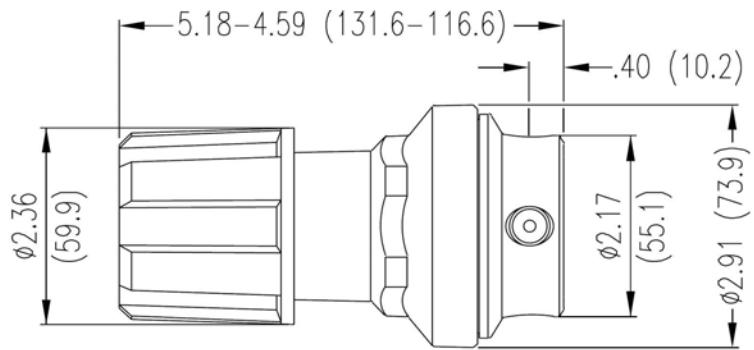
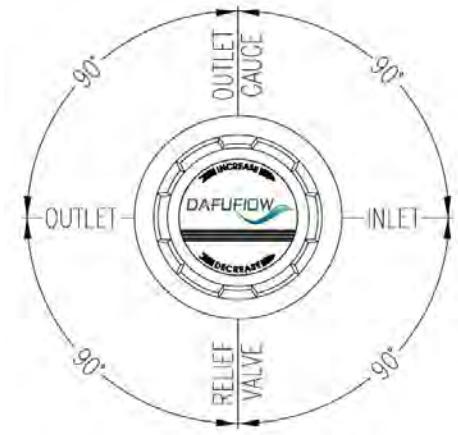
点控实验系统  
燃气净化  
液化烃气体控制  
低温气体的控制  
散装气体分配系统



BOE 3021-000 shown

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated forged brass	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Forged Body</b> Durable, long-lasting construction	<b>Seat</b> PTFE	<b>Gauge</b> 2 1/2" (68mm) diameter chrome-plated brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Large Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Standard Relief Valve</b> Diaphragm and gauge protection	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.28 See page 192 for flow curves
<b>Chrome-Plated Forged Brass Body</b> Economical high purity design		<b>Weight (BOE 3021-000)</b> 3.2 lbs. (1.44 kg)
<b>High Flow Capacity</b> Supply multiple user locations		
<b>Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)</b> Broad range of applications		
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use with high pressure cylinders		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

BOE	A	B	C	D	-CON	Options	
Series BOE	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		
*With redline for acetylene use							
<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							

BOF系列主要用于低温液体钢瓶初级气体调压。

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

- \*单级
- \*四个接口
- \*316L材质膜片
- \*镀铬黄铜阀体
- \*液体钢瓶调压

### 典型应用

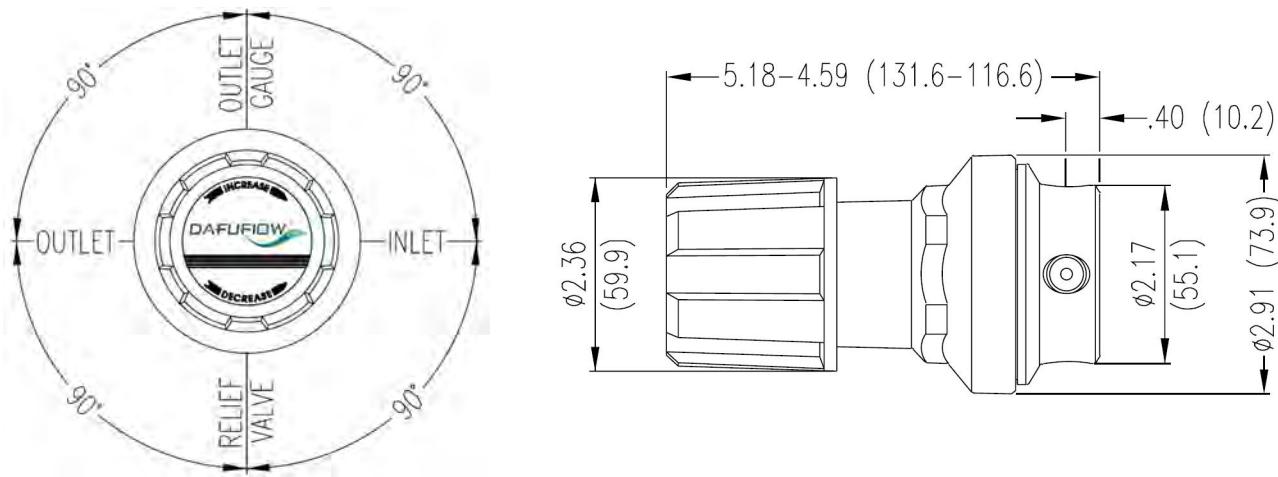
Argon 氩  
 Nitrogen 氮  
 Oxygen 氧  
 Carbon dioxide 二氧化碳  
 Certain freons



BOF 3021-580 shown

特点	材质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated forged brass	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Forged Body</b> Durable, long-lasting construction	<b>Seat</b> PTFE	<b>Gauge</b> 2 1/2" (68mm) diameter chrome-plated brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Large Convoluted Diaphragm</b> Smooth pressure changes	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8} \text{ scc/sec}$
<b>Standard Relief Valve</b> Diaphragm and gauge protection	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.28 <i>See page 192 for flow curves</i>
<b>Designed for Low Inlet Pressures</b> Optimized flow with liquid cylinders		<b>Weight (BOF 3021-580)</b> 3.5 lbs. (1.59 kg)
<b>Large CAPSULE® Seat</b> Permits flow rates unobtainable with conventional regulators		
<b>3000 PSIG (210 BAR) Inlet Pressure Rating</b> Safe use on high pressure cylinders		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

BOF	A	B	C	D	-CON	Options	
Series BOF	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	<b>B:</b> Protocol alarm station (110/220 VAC)
<b>2:</b> 0-40 PSIG (0-3 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>C:</b> Protocol switchover station
<b>3:</b> 0-120 PSIG (0-8 BAR)	0-200 PSIG/ 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>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>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube	<b>M:</b> Protocol station
				<b>4:</b> Diaphragm valve 1/4" MPT		<b>M06:</b> 6mm tube	<b>Q:</b> Protocol purge station
				<b>5:</b> Needle valve 1/4" MPT		CGA	
				<b>6:</b> 1/8" tube fitting		DIN 477	
				<b>7:</b> 3/8" tube fitting		BS 341	
				<b>8:</b> Diaphragm valve 1/8" tube fitting		and others available	
				<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			

**BAB**系列调压阀是为无腐蚀、高纯气体或液体(up to grade 4.5) 初级调压而设计，可以满足恒定压力输出，这种恒定不受输入压力变化影响。

The BAB Series regulators are intended for secondary 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.

\*双级

\*五个接口

\*316L材质膜片

\*镀铬黄铜阀体

## 典型应用

Argon 氩

Nitrogen 氮

Oxygen 氧

Carbon dioxide 二氧化碳

Certain freons



BAB 2331-580 shown

### 特点

#### 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

### 材 质

#### 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

### 技术规格

#### 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<sup>-8</sup> scc/sec

#### Cv

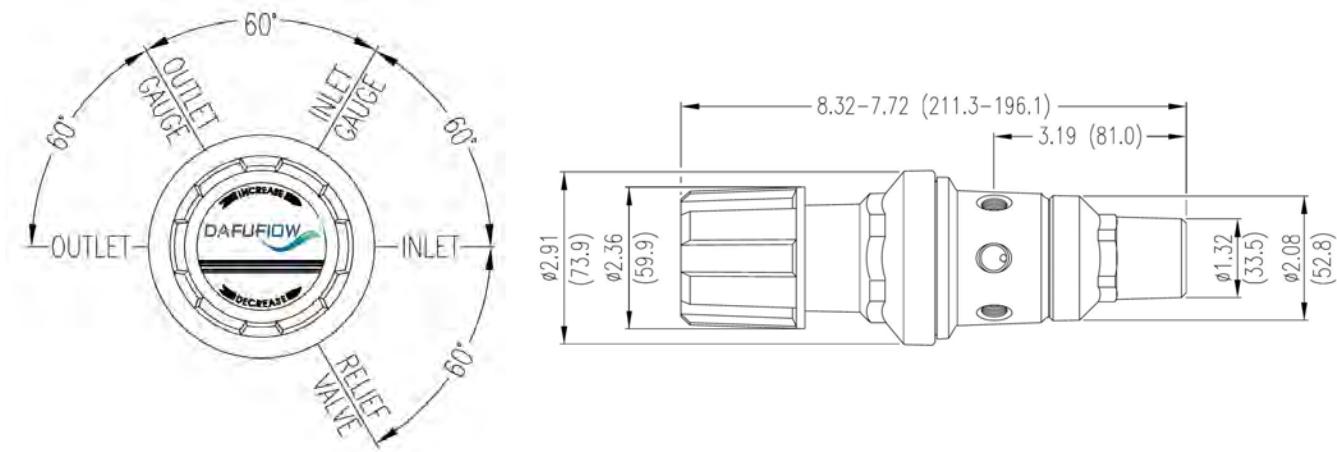
0.28

See page 192 for flow curves

#### Weight (BAB 2331-580)

5.1 lbs. (2.3 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

BAB	A	B	C	D	-CON	Options
Series BAB	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	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>B:</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 <b>C:</b> 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 <b>H:</b> 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 <b>M:</b> 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 <b>Q:</b> 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			
		G: 0-4000 PSIG/ 0-275 BAR†	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 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			
					CGA DIN 477 BS 341 and others available	T: Tee purge

BAC系列调压阀是为无腐蚀、高纯气体或液体(up to grade 4.5) 而设计，主要用于保持低压控制而不受输入压力变化影响。在输入压力低至0.1 PSIG (7 mBAR)时，能够调压至0.05 to 0.1 PSIG (4 to 7 mBAR) 内。BAC系列调压阀满足任何在5 PSIG (350 mBAR)以下压力的高纯介质应用。

The BAC 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 BAC satisfies any high purity application requiring atmospheric pressures below 5 PSIG (350 mBAR).

\*双级

\*五个接口

\*316L材质膜片

\*镀铬黄铜阀体

## 典型应用

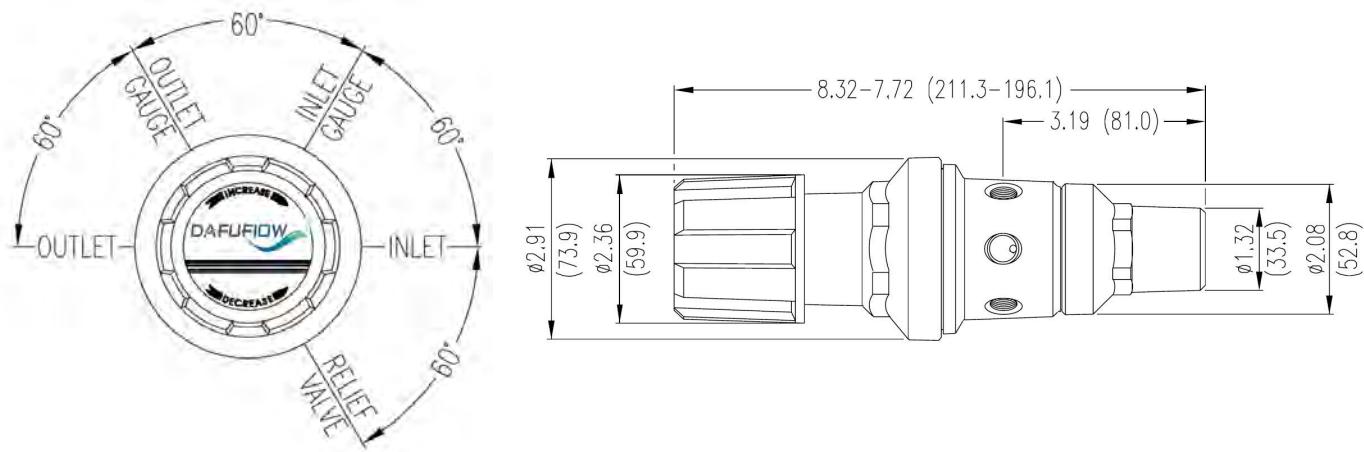
化学品和燃料罐低压惰性气体覆盖  
燃气净化  
气体系统充装  
燃气供应控制  
校准气体控制



BAC 1331-580 shown

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Chrome-plated forged brass	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) 4500 PSIG (310 BAR) Optional
<b>316L Stainless Steel Diaphragm</b> No inboard diffusion	<b>Bonnet</b> Chrome-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Forged Body</b> Durable, long-lasting construction	<b>Seat</b> PTFE	<b>Gauges</b> <b>Inlet:</b> 2 1/2" (68mm) diameter chrome-plated brass <b>Outlet:</b> 2 1/2" (68mm) diameter steel case with brass connection
<b>Large Convoluted Diaphragm</b> Stable pressure control	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Standard Relief Valve</b> Diaphragm and gauge protection	<b>Diaphragm</b> 316L stainless steel	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>Chrome-Plated Forged Brass Body</b> High purity design	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.1 See page 194 for flow curves
<b>Substantial Flow Capacity at Low Outlet Pressure</b> Supply multiple user locations	PCTFE with 4500 PSIG (310 BAR) inlet	<b>Weight (BAC 1331-580)</b> 5.1 lbs. (2.3 kg)
<b>Pressure Ranges 0.05-2.0 to 0.1-5.0 PSIG (4-140 mBAR to 7-350 mBAR)</b> Excellent pressure control in 0.05 to 0.1 PSIG (4 to 7 mBAR) increments		
<b>3000 and 4500 PSIG (210 and 405 BAR)</b> <b>Inlet Pressure Rating</b> Safe use with high pressure cylinders		

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

BAC	A	B	C	D	-CON	Options
Series BAC	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assemblies	Assembly Gauges	Inlet Connections
	<b>1:</b> 0-2 PSIG (0-0.1 BAR)	0-5 PSIG/ 0-0.3 BAR	<b>0:</b> None	<b>0:</b> 1/4" FPT port	<b>0:</b> Bare body	<b>000:</b> 1/4" FPT
	<b>2:</b> 0-5 PSIG (0-0.3 BAR)	0-10 PSIG/ 0-0.6 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>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>6:</b> 0-400 PSIG/ 0-27 BAR	<b>3:</b> Diaphragm valve 1/4" tube fitting		<b>TF6:</b> 3/8" tube
			<b>9:</b> 0-600 PSIG/ 0-42 BAR	<b>5:</b> Needle valve 1/4" MPT		<b>M:</b> Protocol station
	<small>* Max inlet 4500 PSIG (310 BAR) with PCTFE seat CAPSULE®</small>		<b>6:</b> 1/8" tube fitting		CGA DIN 477 BS 341 and others available	<b>Q:</b> Protocol purge station
			<b>7:</b> 3/8" tube fitting			<b>T:</b> Tee purge
			<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 LG 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			

**AOA1**系列调压阀主要用于能允许受输入压  
力变化而微小波动的普通实验室气体调压控制

The AOA1 Series regulators are intended for  
pressure control of general purpose laboratory  
where minor fluctuations in outlet pressure due  
to diminishing inlet supply pressure can be tolerated.

\*单级

\*五个接口

\*PTFE-Lined材质膜片

\*锻造黄铜阀体

### 典型应用

净化

压力测试

覆盖Blanketing

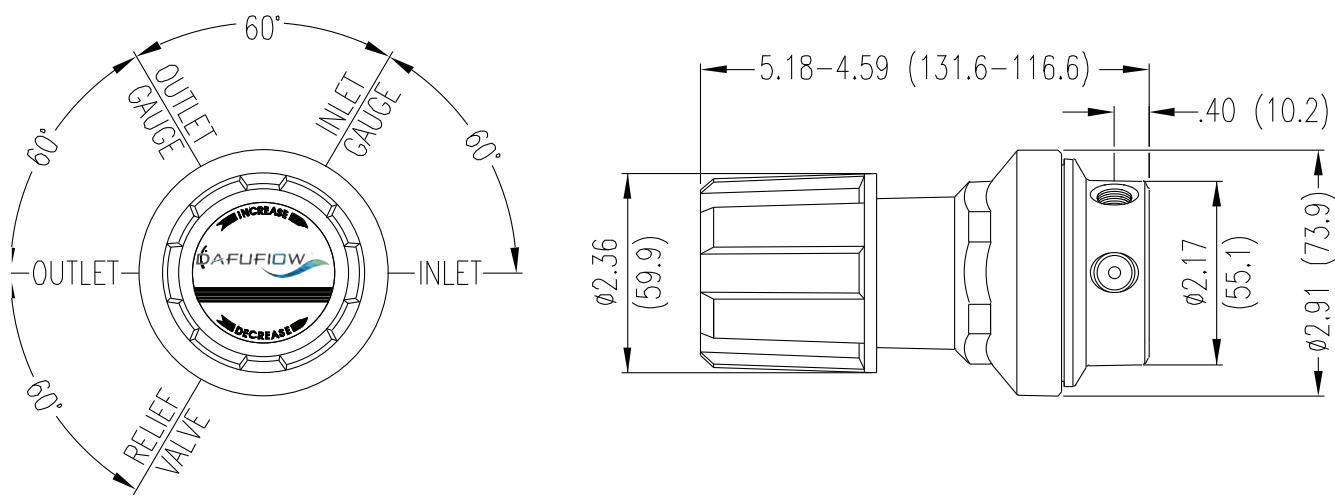
燃烧室增压Chamber pressurization



AOA1 6504-580 shown

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life	<b>Body</b> Forged brass	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR)
<b>PCTFE-Lined Neoprene Diaphragm</b> Sensitive to downstream conditions	<b>Bonnet</b> Brass-plated die-cast zinc	<b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C)
<b>Forged Body</b> Durable, long-lasting construction	<b>Seat</b> PTFE	<b>Gauges</b> 2 1/2" (68mm) diameter brass
<b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment	<b>Filter</b> 10 micron sintered bronze	<b>Ports</b> 1/4" FPT
<b>Integral Relief Valve</b> Diaphragm and gauge protection	<b>Diaphragm</b> PTFE-lined Neoprene	<b>Helium Leak Integrity</b> $1 \times 10^{-8}$ scc/sec
<b>High Flow Capacity</b> Supply multiple user locations	<b>Internal Seals</b> PTFE	<b>Cv</b> 0.28 See page 193 for flow curves
<b>Forged Brass Body</b> Economical high purity design		<b>Weight (AOA1 6504-580)</b> 3.3 lbs. (1.5 kg)
<b>Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)</b> Broad range of applications		

## 安装结构尺寸



Order No. (AOA1 Series Single Stage)	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assembly
AOA1 6501-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA1 6502-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
AOA1 6504-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-4 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA1 6505-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-4 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
AOA1 6512-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA1 6513-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
AOA1 6520-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-27 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA1 6521-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-27 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT

## 相关辅件

Options	Order No.	Description
Protocol station	Add letter "M" after inlet	Convenient regulator wall mount, including tee, bracket, and stainless steel flexible hose with check valve in the inlet gland
Protocol purge station	Add letter "Q" after inlet	Convenient regulator wall mount with purge

**AOA2**系列调压阀主要用于不受输入压力变化影响而恒定输出压力的普通实验室气体调压控制。

The AOA2 Series regulators are intended for pressure control of general purpose laboratory gases with applications requiring constant pressure control and delivery regardless of supply pressure variations.

- \*双级
- \*五个接口
- \*PTFE-Lined材质膜片
- \*黄铜阀体

### 典型应用

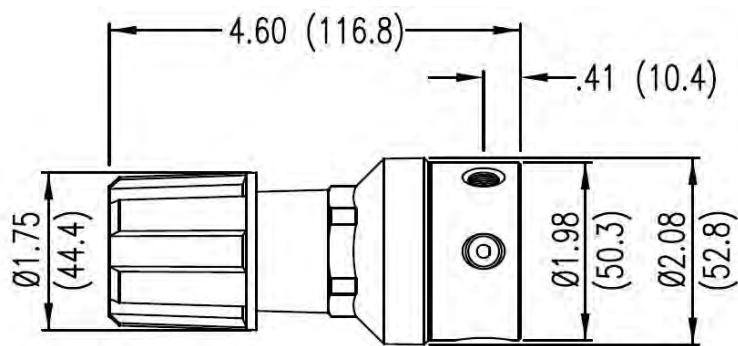
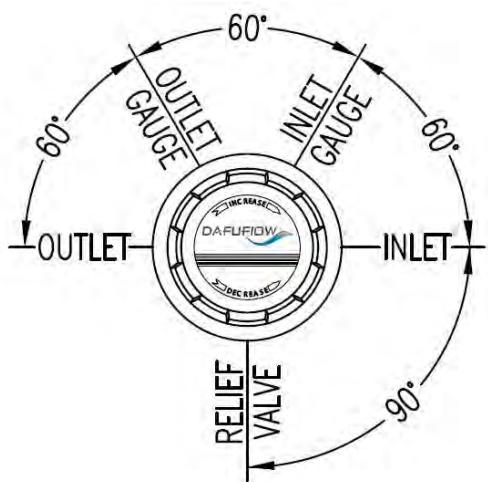
净化  
压力测试  
覆盖Blanketing  
燃烧室增压Chamber pressurization



AOA2 7505-580  
shown

特 点	材 质	技术规格
<b>CAPSULE® Seat</b> Increased serviceability and life <b>PCTFE-Lined Neoprene Diaphragm</b> Sensitive to downstream conditions <b>Forged Body</b> Durable, long-lasting construction <b>Field-Adjustable Pressure Limit</b> Safeguard downstream equipment <b>Integral Relief Valve</b> Diaphragm and gauge protection <b>High Flow Capacity</b> Supply multiple user locations <b>Forged Brass Body</b> Economical high purity design <b>Pressure Ranges 0-15 to 0-200 PSIG (0-1 to 0-14 BAR)</b> Broad range of applications <b>10 Micron Filtration in Both Stages</b> Fail-safe seat performance	<b>Body</b> Forged brass <b>Bonnet</b> Brass-plated die-cast zinc <b>Seat</b> PTFE <b>Filter</b> 10 micron sintered bronze <b>Diaphragm</b> PTFE-lined neoprene <b>Internal Seals</b> PTFE	<b>Maximum Inlet Pressure</b> 3000 PSIG (210 BAR) <b>Temperature Range</b> -40°F to 140°F (-40°C to 60°C) <b>Gauges</b> 2 1/2" (68mm) diameter brass <b>Ports</b> 1/4" FPT <b>Cv</b> 0.28 <i>See page 193 for flow curves</i> <b>Weight (AOA2 7505-580)</b> 4.69 lbs. (2.13 kg)

## 安装结构尺寸



## 产品编码（仅供参考，以工厂交付为准）

Order No. (AOA2 Series Dual Stage)	Outlet Pressure	Outlet Gauge	Inlet Gauge	Outlet Assembly
AOA2 7501-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA2 7502-CGA	0-15 PSIG (0-1 BAR)	0-30 PSIG/0-2 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
AOA2 7504-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-3 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA2 7505-CGA	0-40 PSIG (0-3 BAR)	0-60 PSIG/0-3 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
AOA2 7512-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA2 7513-CGA	0-120 PSIG (0-8 BAR)	0-200 PSIG/0-14 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT
AOA2 7520-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-27 BAR	0-4000 PSIG/0-275 BAR	1/4" tube fitting
AOA2 7521-CGA	0-200 PSIG (0-14 BAR)	0-400 PSIG/0-400 BAR	0-4000 PSIG/0-275 BAR	Needle valve 1/4" MPT

## 相关辅件

Options	Order No.	Description
Protocol station	Add letter "M" after inlet	Convenient regulator wall mount, including tee, bracket, and stainless steel flexible hose with check valve in the inlet gland
Protocol purge station	Add letter "Q" after inlet	Convenient regulator wall mount with purge

## DZM质量流量控制器

The Dafuflow Mass Flowmeter (DZM 100) and Mass Flow Controller (DZM 102) Series are based on a modular design. At the heart of each instrument is an insulated thermal transfer sensor which provides enhanced zero stability. This sensor is designed to virtually eliminate long downtime due to clogging. Additionally, the DZM 100/DZM 102 design features an integral I<sup>ter</sup> and an easily replaceable closed loop electronics card.

### 特点 应用

±1% 满量程精度	泄漏测试
久经验证的可靠性	医学研究
Range—20,000 SCCM (N <sub>2</sub> equivalent)	气相沉积Vapor deposition
NIST 质量标准	研发和工艺流程 半导体工艺 气体混合 色谱法Chromatography



### 技术规格

#### DZM 100

精度和线性	±1% F.S.
重复性	±0.05% F.S.
标准压力等级	500 PSIG (34 BAR)
压力系数	-0.0067%/PSI (0-1000 PSIG/0-70 BAR N <sub>2</sub> ) typical
泄漏率	<1x10 <sup>-9</sup> SCCS
温度系数	Zero ±0.035% FS/°C (0-60°C) Span ±0.05% RDG/°C (0-60°C)
STP	0°C and 760 TORR
电源	±15 VDC @ ±25 mA
流体信号	(Inherently linear) 0-5.00 VDC
与介质接触的材料	316 stainless steel, Viton®, 82/18 Au/Ni braze, trace silver solder
连接	15-pin subminiature D
净重	1.8 lb (0.82 kg)

#### DZM 102

精度和线性	±1% F.S.
重复性	±0.05% F.S.
标准压力等级	500 PSIG (34 BAR)
压力系数	-0.0067%/PSI 0-1000 PSIG (0-70 BAR) N <sub>2</sub> typical
控制阀DP <sup>2</sup> (Control Valve DP <sup>2</sup> )	15-65 PSIG (1-4.5 BAR)
泄漏率	<1x10 <sup>-9</sup> sccs
温度系数	Zero ±0.035% FS/°C 0-60°C (0-140°F) Span ±0.05% RDG/°C (0-60°C)
STP	0°C and 760 TORR
电源	±15 VDC @ ±60 mA-185 mA
流体信号	(Inherently linear) 0-5.00 VDC
流量指令信号	0-500 VDC or 4-20 mA
与介质接触的材料	316 stainless steel, COB stainless steel, nickel, Viton®, 82/18 Au/Ni braze, trace silver solder, Kalrez®
连接	15-pin subminiature D
净重	1.8 lb (0.82 kg)

<sup>1</sup> See product manual for critical information on instrument accuracy and the use of GCFs (gas conversion factors). Stated accuracy is for nitrogen or other gas specific calibration and use with this gas only.

<sup>2</sup> Consult Dafuflow for other pressures.

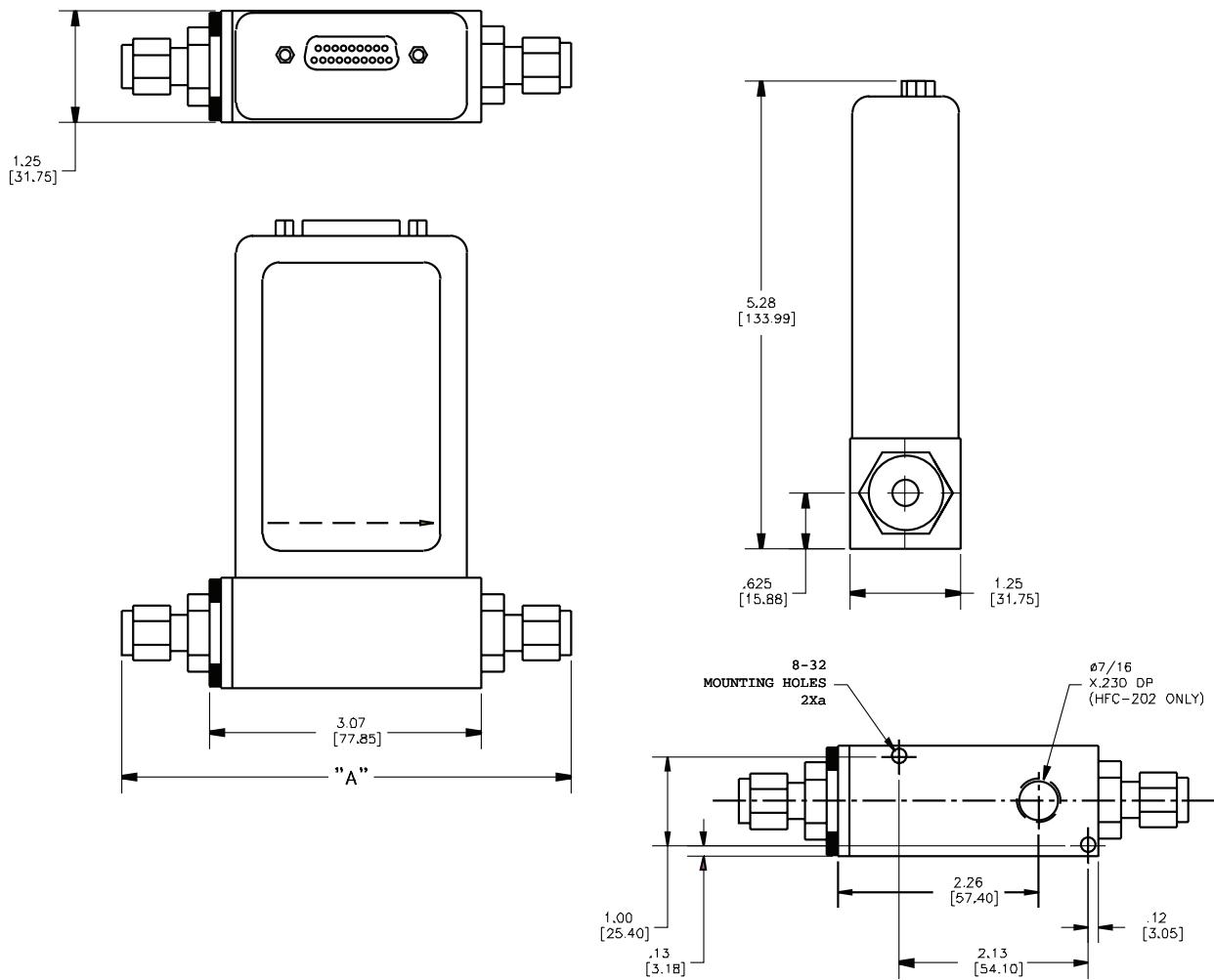
<sup>3</sup> Specifications listed are for Revision G electronics (81-275).

#### DZM 100/DZM 102 接头类型

#### Dim "A"

1/8" tube fitting with nu	4.84 (122.94)
1/4" tube fitting with nu	5.02 (127.51)

## 安装结构尺寸



## 质量流量控制 产品选型

Part Number	Range NEFR	Fitting
DZM 100-2-10	0-10 SCCM	1/8"
DZM 100-2-100	0-100 SCCM	1/8"
DZM 100-2-500	0-500 SCCM	1/8"
DZM 100-2-1000	0-1000 SCCM	1/8"
DZM 100-4-3L	0-3 SLM	1/4"
DZM 100-4-5L	0-5 SLM	1/4"
DZM 100-4-10L	0-10 SLM	1/4"
DZM 100-4-20L	0-20 SLM	1/4"

## 质量流量控制 产品选型

Part Number	Range NEFR	Fitting
DZM 102-2-10	0-10 SCCM	1/8"
DZM 102-2-100	0-100 SCCM	1/8"
DZM 102-2-500	0-500 SCCM	1/8"
DZM 102-2-1000	0-1000 SCCM	1/8"
DZM 102-4-3L	0-3 SLM	1/4"
DZM 102-4-5L	0-5 SLM	1/4"
DZM 102-4-10L	0-10 SLM	1/4"
DZM 102-4-20L	0-20 SLM	1/4"

## CXD200数显控制器

Dafuflow's CXD200 Controller Display features a graphical VFD display which displays the relevant units and generates ease of use menu structures. The Controller Display contains digital comms, alarm outputs, configurable units and multiple transducer supplies as well. The unit's firmware can also be customized for specific applications

The CXD200 not only contains internal setpoint functions but also features external inputs which can be used to generate slaved setpoint from another processor/transducer. The unit can also be programmed for tamper-resistant functionality by hard wiring the interface connector. The user can lock out the menu command and/or zero out the command button.

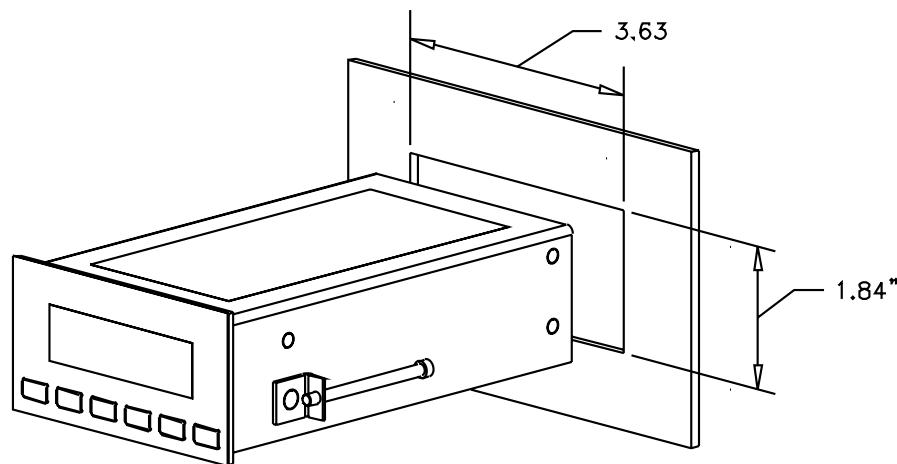
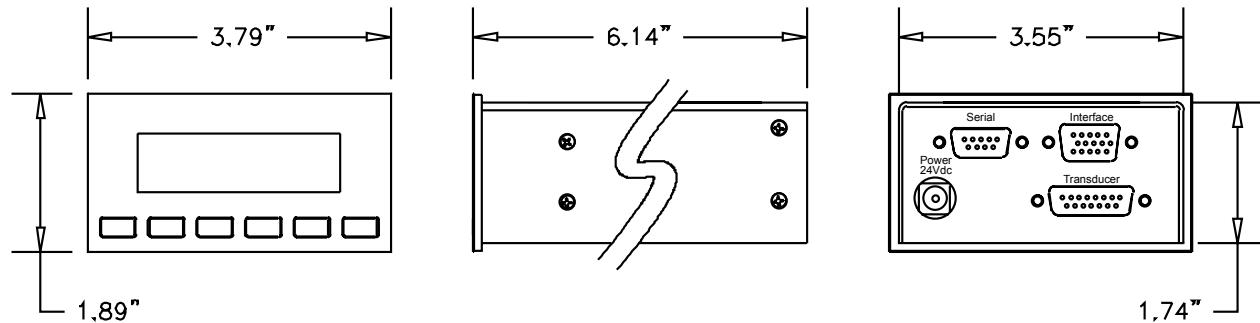
The user-friendly menu structure allows the CXD200 to be programmed easily. All menus feature backwards and forwards options as well as up and down numeric inputs.



CXD200 Shown

特 点	技术规格
Full scale input	0-5 volt or 0-10 volt
Input impedance	>100Kohm
Measurement resolution	16 bit
Command output	0-5 volt operator selectable
Error	0.02% of reading plus 1 digit
Display type	VFD graphical display
Display range	-9.999 to +99.999
Transducer power supply	+/- 15 volts at 250mA, 24 volts DC at 300mA
Operating temperature range	+5 to +50°C (41 to 122°F)
Storage temperature range	-20 to +70°C (-4 to 158°F)
Maximum relative humidity	95% at 50°C (122°F)
Warm up time	20 mins
Decimal point selection	Operator selectable from front panel
Power supply	110/115/230 VAC 50/60 Hz or 24VDC
Dimensions	92mm x 45mm x 141mm (3.62" x 1.77" x 5.67")
Weight	350g (.77lbs)
Panel cut out	Standard 1/8 DIN
Main connector	IEC 320 on in-line PSU
Alarm output	2 mechanical changeover relays (max 50VDC)
<b>数字通信</b>	
Serial	RS232 or RS485
Baud	19200 57600, 8 data bits, no parity, 1 stop bit
Addressing	A to H
Ethernet (TCP/IP)	Configurable IP address and subnet mask. Single host stack.

## 安装结构尺寸

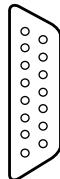


## 线路连接

### Transducer

15 Way D (Female)

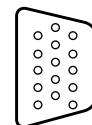
- 2 - Signal+
- 5 - Power ground
- 6 - -15 VDC
- 7 - +15 VDC
- 8 - Set point output
- 11 - Signal return
- 12 - Signal return
- 13 - +24 VDC
- 15 - Case GND



### Interface

15 Way High Density D (Female)

- 1 - Analogue output
- 2 - Relay 2 Com\*
- 3 - Relay 2 NO\*
- 4 - Relay 2 NC\*
- 5 - 0v (signal ground)
- 6 - External setpoint return
- 8 - External setpoint
- 10 - 0v (signal ground)
- 11 - TTL input-Disable menu
- 12 - TTL input-Disable zero
- 13 - Relay 1 Com
- 14 - Relay 1 NO
- 15 - Relay 1 NC



\* factory fit option

## 描述

传感器与数显控制器

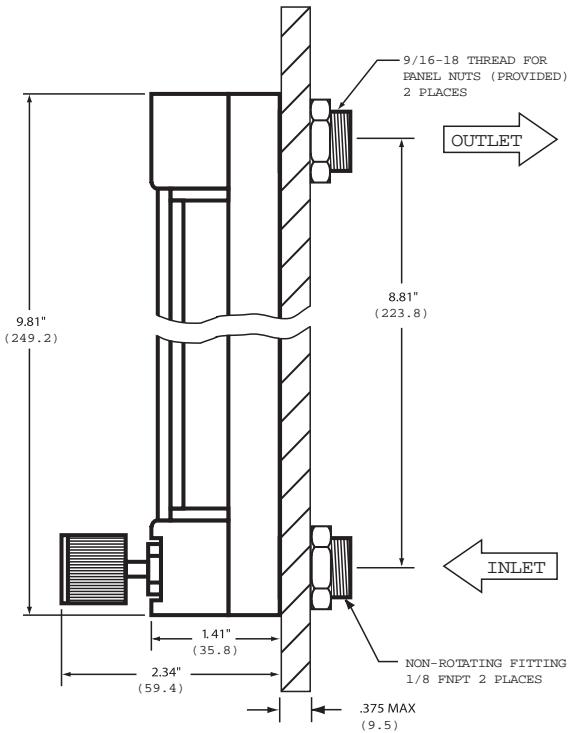
## 订货型号

CXD200

## EFO Series 150mm Flowmeter

The EFO Series 150mm (6") variable area flowmeters offer inherent simplicity, versatility, and economy in a precision flow instrument. The 150mm scale (6") is particularly suited for metering critical flows in laboratories, pilot plants or process applications as well as controlling carrier gases used in chromatography.

Flow readings from the millimeter scale are converted to actual flow using the calibration chart provided with the flowtube. Dafuflow offers a wide variety of flowtube and float combinations to provide the optimum flow range for each application.



特点	材料选用	技术规格
<b>Rib-Guided Tube Internals</b> Precise stable flow reading	<b>Flowtube</b> Heavy-walled borosilicate glass	<b>Accuracy</b> ±3% full scale
<b>Rotating Magnifier Len</b> Enhances reading resolution	<b>Front Shield</b> Lexan polycarbonate	<b>Repeatability</b> ±.25% full scale
<b>Two Panel Mount Retaining Nuts</b> Easy industrial panel mounting	<b>End Fitting</b> Brass or 316L stainless steel	<b>Maximum Pressure</b> 200 PSIG (14 BAR)
<b>Flowtubes Easily Interchangeable</b> One flowmeter frame accommodates wide range of flow requirement	<b>Seals</b> Buna-N (aluminum) Viton® (316L stainless steel) EPDM (optional) Kalrez® (optional)	<b>Maximum Temperature</b> 200°F (93°C) <b>Useful Flow Range</b> 10:1

## 产品选型（仅供参考，以工厂交付为准）

EFO	A	B	C	D	-CON(X)	
Series	Tube Size*	Float Material*	Material	Valve	End Connection*	
EFO	<b>1: 1</b>	<b>1: Glass</b>	<b>0: No frame* (fitting and float onl</b>	<b>0: Tube and float onl</b>	<b>000:1/8" FPT</b>	
	<b>2: 2</b>	<b>2: Sapphire</b>	<b>1: Black anodized aluminum†</b>	<b>1: Standard valve</b>	<b>TF2: 1/8" tube</b>	
	<b>3: 3</b>	<b>3: 316L stainless steel</b>	<b>2: 316L stainless steel†</b>	<b>2: High-accuracy valve*</b>	<b>TF4: 1/4" tube</b>	
	<b>4: 4</b>	<b>4: Carbolloy</b>	<i>*Please see selection chart below for air flow information</i>		<b>HB4:1/4" hose barb</b>	
	<b>5: 5</b>	<i>*Please see selection chart below for air flow information</i>		<i>* Not available with tube size 8 (a=8)</i>		
	<b>6: 6</b>			<i>*For EPDM/EPR seals, add "E" after the end connection. For Kalrez® seals, add "K" after end connection.</i>		
	<b>7: 7</b>					
	<b>8: 8</b>					
	<i>*Please see selection chart below for air flow information</i>					

## Selection Chart

Air Flow (14.7 PSIA @ 70° F)						Air Flow (14.7 PSIA @ 70° F)					
Tube Size	Float Material	ml/min	SCFH	LPM		Tube Size	Float Material	ml/min	SCFH	LPM	
1	1 (Glass)	50	0.11	0.05		5	1 (Glass)	2300	4.88	2.30	
1	2 (Sapphire)	78	0.17	0.08		5	2 (Sapphire)	2950	6.25	2.95	
1	3 (Stainless Steel)	152	0.32	0.15		5	3 (Stainless Steel)	4450	9.43	4.45	
1	4 (Carbolloy)	281	0.60	0.28		5	4 (Carbolloy)	6375	13.5	6.37	
2	1 (Glass)	100	0.21	0.10		6	1 (Glass)	3500	7.42	3.50	
2	2 (Sapphire)	155	0.33	0.15		6	2 (Sapphire)	4550	9.65	4.55	
2	3 (Stainless Steel)	295	0.63	0.30		6	3 (Stainless Steel)	6800	14.4	6.80	
2	4 (Carbolloy)	490	1.04	0.49		6	4 (Carbolloy)	9730	20.6	9.72	
3	1 (Glass)	400	0.85	0.40		7	1 (Glass)	10200	21.6	10.19	
3	2 (Sapphire)	550	1.17	0.55		7	2 (Sapphire)	13025	27.6	13.02	
3	3 (Stainless Steel)	850	1.80	0.85		7	3 (Stainless Steel)	19050	40.4	19.07	
3	4 (Carbolloy)	1275	2.70	1.27		7	4 (Carbolloy)	27000	57.2	27.00	
4	1 (Glass)	850	1.80	0.85		8	1 (Glass)	25000	53	25.01	
4	2 (Sapphire)	1150	2.44	1.15		8	2 (Sapphire)	32500	68.9	32.52	
4	3 (Stainless Steel)	1750	3.71	1.75		8	3 (Stainless Steel)	46200	97.9	46.20	
4	4 (Carbolloy)	2480	5.26	2.48		8	4 (Carbolloy)	65,700	139.3	65.74	

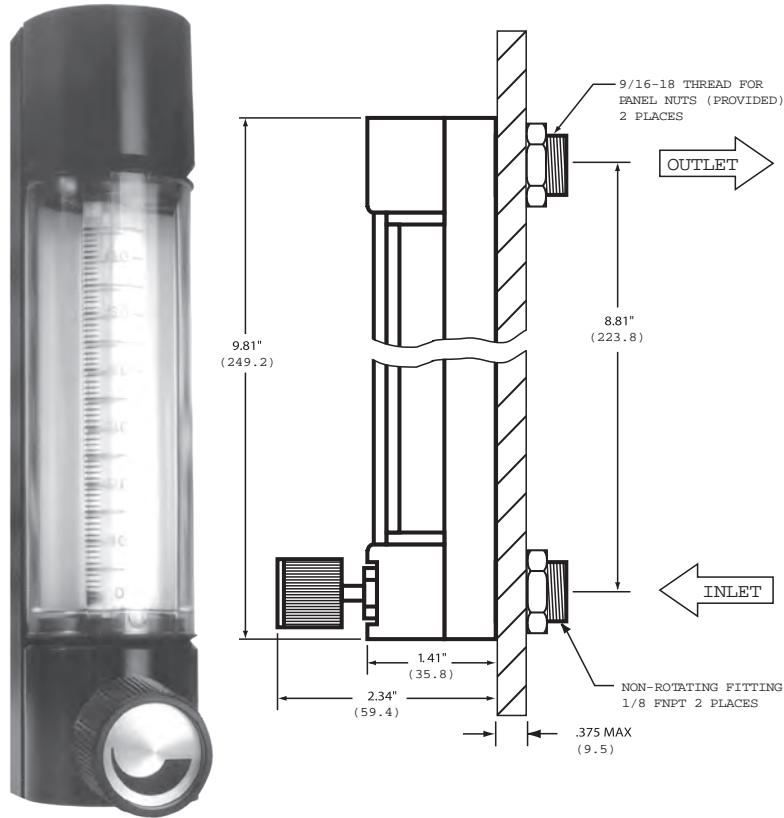
## 相关配件

Order No.	Description
EFO 0001	Tripod base
EEF 0001	Brass regulator adapter kit
EEF 0002	316L stainless steel regulator adapter kit

## EFE Series 65mm Flowmeter

The EFE Series 65mm (2.6") variable area flowmeters offer inherent simplicity, versatility and economy in a precision flow instrument. The compact size of the 65mm (2.6") scale is preferred in industrial panel-mounting applications and for direct mounting to a pressure regulator.

Flow readings from the millimeter scale are converted to actual flow using the calibration chart provided with the flowtube. Dafuflow offers a wide variety of flowtube and float combinations to provide the optimum flow range for your application.



特点	材料选用	技术规格
<b>Rib-Guided Tube Internals</b> Precise stable flow reading <b>Rotating Magnifier Len</b> Enhances reading resolution <b>Two Panel Mount Retaining Nuts</b> Easy industrial panel mounting <b>Flowtubes Easily Interchangeable</b> One flowmeter frame accommodates wide range of flow requirement	<b>Flowtube</b> Heavy-walled borosilicate glass <b>Front Shield</b> Lexan polycarbonate <b>End Fitting</b> Brass or 316L stainless steel <b>Seals</b> Buna-N (aluminum) Viton® (316L stainless steel) EPDM (optional) Kalrez® (optional)	<b>Accuracy</b> ±5% full scale <b>Repeatability</b> ±.25% full scale <b>Maximum Pressure</b> 200 PSIG (14 BAR) <b>Maximum Temperature</b> 200°F (93°C) <b>Useful Flow Range</b> 10:1

## 产品选型（仅供参考，以工厂交付为准）

EEF	A	B	C	D	- X(X)
Series EEF	Tube Size*	Float Material*	Material	Valve	End Connection*
1: 1	1: Glass	0: No frame* (fitting and float on)	0: Tube and float on	000: 1/8" FPT	
2: 2	2: Sapphire	1: Black anodized aluminum†	1: Standard valve	TF2: 1/8" tube	
3: 3	3: 316L stainless steel	2: 316L stainless steel†	2: High-accuracy valve*	TF4: 1/4" tube	
4: 4	4: Carbolloy	*Not available with a valve †Not available without a valve	* Not available with tube size 8 (A=8)	HB4: 1/4" hose barb	
5: 5	*Please see selection chart below for air flow information		*For EPDM/EPR seals, add "E" after the end connection. For Kalrez® seals, add "K" after end connection.		
6: 6					
7: 7					
8: 8					
9: 9					
*Please see selection chart below for air flow information					

## Selection Chart

Air Flow (14.7 PSIA @ 70° F)					Air Flow (14.7 PSIA @ 70° F)				
Tube Size	Float Material	ml/min	SCFH	LPM	Tube Size	Float Material	ml/min	SCFH	LPM
1	1 (Glass)	51	0.11	0.05	5	3 (Stainless Steel)	5000	10.6	5.00
1	2 (Sapphire)	78	0.17	0.08	5	4 (Carbolloy)	7200	15.30	7.22
1	3 (Stainless Steel)	156	0.33	0.15	6	1 (Glass)	4000	8.48	4.00
1	4 (Carbolloy)	280	0.59	0.59	6	2 (Sapphire)	5200	11.00	5.20
2	1 (Glass)	100	0.21	0.21	6	3 (Stainless Steel)	7650	16.20	7.64
2	2 (Sapphire)	150	0.32	0.15	6	4 (Carbolloy)	11000	23.30	11.00
2	3 (Stainless Steel)	255	0.54	0.25	7	1 (Glass)	6000	12.70	6.00
2	4 (Carbolloy)	475	1.01	0.48	7	2 (Sapphire)	7240	15.30	7.22
3	1 (Glass)	400	0.85	0.40	7	3 (Stainless Steel)	11420	24.20	11.42
3	2 (Sapphire)	545	1.16	0.55	7	4 (Carbolloy)	16275	34.50	16.28
3	3 (Stainless Steel)	845	1.79	0.84	8	1 (Glass)	10000	21.20	10.00
3	4 (Carbolloy)	1275	2.70	1.27	8	2 (Sapphire)	12970	27.50	12.98
4	1 (Glass)	900	1.91	0.90	8	3 (Stainless Steel)	18800	39.86	18.81
4	2 (Sapphire)	1175	2.49	1.17	8	4 (Carbolloy)	26665	56.53	26.68
4	3 (Stainless Steel)	1780	3.77	1.78	9	1 (Glass)	24500	51.94	24.51
4	4 (Carbolloy)	2600	5.51	2.60	9	2 (Sapphire)	31900	67.63	31.92
5	1 (Glass)	2500	5.30	2.50	9	3 (Stainless Steel)	44425	94.18	44.45
5	2 (Sapphire)	3360	7.12	3.36	9	4 (Carbolloy)	63600	134.83	63.63

## 相关配件

Order No.	Description
EFO 0001	Tripod base
EEF 0001	Brass regulator adapter kit
EEF 0002	316L stainless steel regulator adapter kit

## EFG Series Purge Meter

The EFG Series purge meter is an economical flowmeter for noncorrosive gas service. The 2" (53mm) direct-reading scale is calibrated in SCFH, air. The EFG Series Purge Meter is available with either brass or 316L stainless steel end fittings and a standard cartridge-style needle valve for accurate flow control



### 技术规格

精度	±5%
最大压力	100 PSIG (7 BAR)
最高温度	(65°C)
接头	1/8" FPT
"O" Rings and Packing	Buna-N (brass model) Viton® (316L stainless steel model)
阀体	Clear acrylic

## 产品选型（仅供参考，以工厂交付为准）

EFG	A	B	C	D
Series	Material	①: N/A	②: N/A	Flow Rate
EFG	①: Brass ②: 316L stainless steel			①: 0.1 to 1 SCFH (2.8 to 28.3 LPM) ②: 0.5 to 5 SCFH (14.1 to 141.6 LPM) ③: 1 to 10 SCFH (28.3 to 283.7 LPM) ④: 5 to 50 SCFH (141.6 to 1415.8 LPM) ⑤: 10 to 100 SCFH (283.2 to 2831.7 LPM)

## 567 Series High Flow Flowmeter

The 567 Series flowmeter offers excellent accuracy at high flows. The 4" (101.6mm) or 5" (127mm) direct-reading dual scale (SCFM/SCFH) is calibrated in SCFM, air. The 567 Series Purge Meter is available with either brass or stainless steel end fittings on 4" (101.6mm) scale models, or PVC fittings on 5" (127mm) scale models. Additionally, a standard cartridge-style needle valve 4" (101.6mm) scale models or plastic in-line gate on 5" (127mm) scale models for accurate flow control



### 技术规格

精度	±3% on 4" (101.6mm) ±5% on 5" (127mm)
最大压力	100 PSIG (7 BAR)
最高温度	(65°C)
"O" Rings and Packing	Buna-N (brass model) Viton® (316L stainless steel model)
阀体	Clear acrylic

## 产品选型（仅供参考，以工厂交付为准）

567	A	B	C	D
Series	Fittings	①: N/A	Valve	Flow Range
567	①: Brass* (1/4" FPT) ②: Stainless steel* (1/4" FPT) ③: PVC† (1" FPT)		①: No valve* ②: Standard valve* <small>*Not available with brass or stainless steel fittings †Not available with pvc fittings</small>	①: 0.5 to 5 SCFM (14.1 to 141.6 LPM) - 4" (101.6mm) scale ②: 1 to 10 SCFM (28.3 to 283.7 LPM) - 4" (101.6mm) scale ③: 4 to 20 SCFM* (113.3 to 566.3 LPM) - 4" (101.6mm) scale ④: 3 to 25 SCFM* (84.9 to 707.9 LPM) - 5" (127mm) scale ⑤: 4 to 50 SCFM* (113.3 to 1415.8 LPM) - 5" (127mm) scale ⑥: 10 to 100 SCFM* (283.7 to 2831.7 LPM) - 5" (127mm) scale <small>*Not available with valve</small>

## 深度净化装置

EOB系列深层净化装置是由设计独特的通气管与气灌连接，同时各个元件的连接处、内腔设计独特，保证无死角流通。保证能绝对完全排放，净化残余气体（介质）。



### 技术规格

阀座	PCTFE
隔膜（吹扫阀）	Elgiloy®
隔膜（中心阀）	Elgiloy®
密封结构	Metal to Metal
CV	0.17
最大压力	3500 PSIG (240 BAR)

**Order No.**

EOB 3009-CON

**Body Material**

316L stainless steel

**Purge Type**

Deep Purge

**Weight**

3.0 lbs. (1.35 kg)

## T型净化装置

EOB系列深层净化装置是由设计独特的通气管与气灌连接，同时各个元件的连接处、内腔设计独特，保证无死角流通。保证能绝对完全排放，净化残余气体（介质）。

T型净化装置防止排放的腐蚀性气体或者有毒气体与工作现场的水分发生反应，形成对设备、人有害的物质，并且保证管道气体介质的纯度。



### 技术规格

阀座	PCTFE
隔膜	Elgiloy®
密封结构	Metal to Metal
单向阀阀座	Viton® for brass Ethylene propylene for stainless steel
最大压力	3000 PSIG (210 BAR)

## 产品选型（仅供参考，以工厂交付为准）

CRN OH 5216.5R1

**Order No.**

EOB 2003-CON

**Body Material**

Brass

**Purge Type**

Tee purge

**Weight**

2.5 lbs. (1.12 kg)

EOB 2005-CON

316L stainless steel

Tee purge

2.5 lbs. (1.12 kg)

EOB 2010

Brass

Right inlet process purge

2.5 lbs. (1.12 kg)

EOB 2011

Brass

Left inlet process purge

2.5 lbs. (1.12 kg)

EOB 2015

316L stainless steel

Right inlet process purge

2.5 lbs. (1.12 kg)

EOB 2016

316L stainless steel

Left inlet process purge

2.5 lbs. (1.12 kg)

## 直通型净化装置

EOB系列深层净化装置是由设计独特的通气管与气灌连接，同时各个元件的连接处、内腔设计独特，保证无死角流通。保证能绝对完全排放，净化残余气体（介质）。

直通型净化装置防止排放的腐蚀性气体或者有毒气体与工作现场的水分发生反应，形成对设备、人有害的物质，并且保证管道气体介质的纯度。



### 技术规格

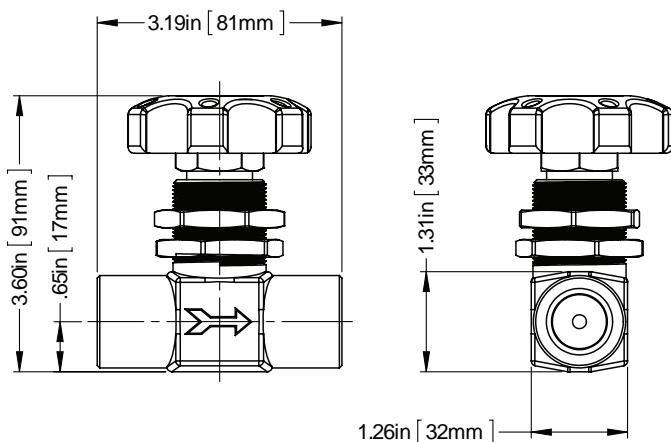
阀座	PCTFE
隔膜	Elgiloy®
密封结构	Metal to Metal
单向阀阀座	Viton®
CV	0.17
最大压力	3000 PSIG (210 BAR)

## 产品选型（仅供参考，以工厂交付为准）

Order No.	Body Material	Purge Type	Weight
EOB 1002	Brass	Straight purge	1.2 lbs. (0.54 kg)
EOB 1005	316L stainless steel	Straight purge	1.2 lbs. (0.54 kg)

## 大流量隔膜阀

ECC系列大流量隔膜阀是理想的微型用于控制管路里纯度高或腐蚀性气体服务装置。316L不锈钢材质阀体，以及金属对金属密封结构可确保零泄漏通过更高的压力。拥有特殊隔膜材质、特殊材质弹簧，包括非常人性化的人体工学设计的旋钮，能提高可靠性的同时更能方便操作。



### 技术规格

最大输入压力	3500 PSIG (240 BAR) @70°F
最大背压差	3000 PSIG (210 BAR)
温度范围	-65°F to 150°F (-54°C to 65°C)
氦气泄漏率	2x10 <sup>-8</sup> scc/sec
阀体	Forge 316L stainless steel
阀座	Elgiloy®
隔膜	PCTFE
密封结构	Metal to metal
CV	0.30
面板安装孔	1.25" (31.75 mm)

## 产品选型（仅供参考，以工厂交付为准）

Order No.	Inlet Connection	Outlet Connection	Body
ECC 8002	1/2" MPT	1/2" FPT	316L stainless steel
ECC 8008	1/2" FPT	1/2" FPT	316L stainless steel

## 手动控制阀

The ECE Series manual control valves provide an economical means of controlling gas flow directly from a cylinder. These valves do not control pressure or back pressure in a system. If greater flow accuracy or pressure control is required, Dafuflow recommends the use of an appropriate regulator (see pages 14-15 for more information). The ECE Series manual control valves are available with a variety of connections, with or without a pressure gauge.



## 产品选型（仅供参考，以工厂交付为准）

### Order No.

ECE 2030-CGA  
ECE 2031-CGA  
ECE 2032-CGA  
ECE 2033-CGA

### Body

Forged chrome-plated brass  
Forged chrome-plated brass  
Forged 303 stainless steel  
Forged 303 stainless steel

### Gauge

Without pressure gauge  
With pressure gauge (0-4000 PSIG/0-28,000 kPa)  
Without pressure gauge  
With pressure gauge (0-4000 PSIG/0-28,000 kPa)

## 针阀

500系列微型针阀是以锻造铜材或316L不锈钢作为主体材质，配以PTFE氟橡胶密封，对阀杆进行精密抛光处理，能做到零泄漏精密控制，最大工作压力6000PSIG。



## 技术规格

Temperature Range -65°F to 450°F (-54°C to 232°C)

Weight 0.7 lbs. (0.3 kg)

## 产品选型（仅供参考，以工厂交付为准）

Order No.	End Fittings	Body	Stem	Packing	Maximum Inlet Pressure
550 0067	1/8" MPT x 1/8" MPT	Forged chrome-plated brass	303 stainless steel	PTFE/Chrome-plated brass	3000 PSIG (210 BAR)
ECC	1/4" MPT x 1/4" MPT	Forged brass	303 stainless steel	PTFE/Brass	3500 PSIG (240 BAR)
9002 555	1/4" MPT x 1/4" MPT	Forged chrome-plated brass	303 stainless steel	PTFE/Chrome-plated brass	3000 PSIG (210 BAR)
3225	1/4" MPT x 1/4" MPT	Forged 316L stainless steel	316L stainless steel	PTFE/316L stainless steel	5000 PSIG (340 BAR)
ECC	1/4" MPT x 1/4" MPT	Forged 316L stainless steel	316L stainless steel	PTFE/316 stainless steel	6000 PSIG (405 BAR)
9304 830					
8607					

## 多功能旋扭式隔膜阀

ECC系列隔膜阀是控制高纯度或腐蚀性气体的最佳阀，与介质接触的表面光滑而耐腐蚀，减少气体中颗粒杂质对管路的堵塞及破坏；低扭力设计降低操作难度，并且提供了流体流向的箭头指示，减少误操作。

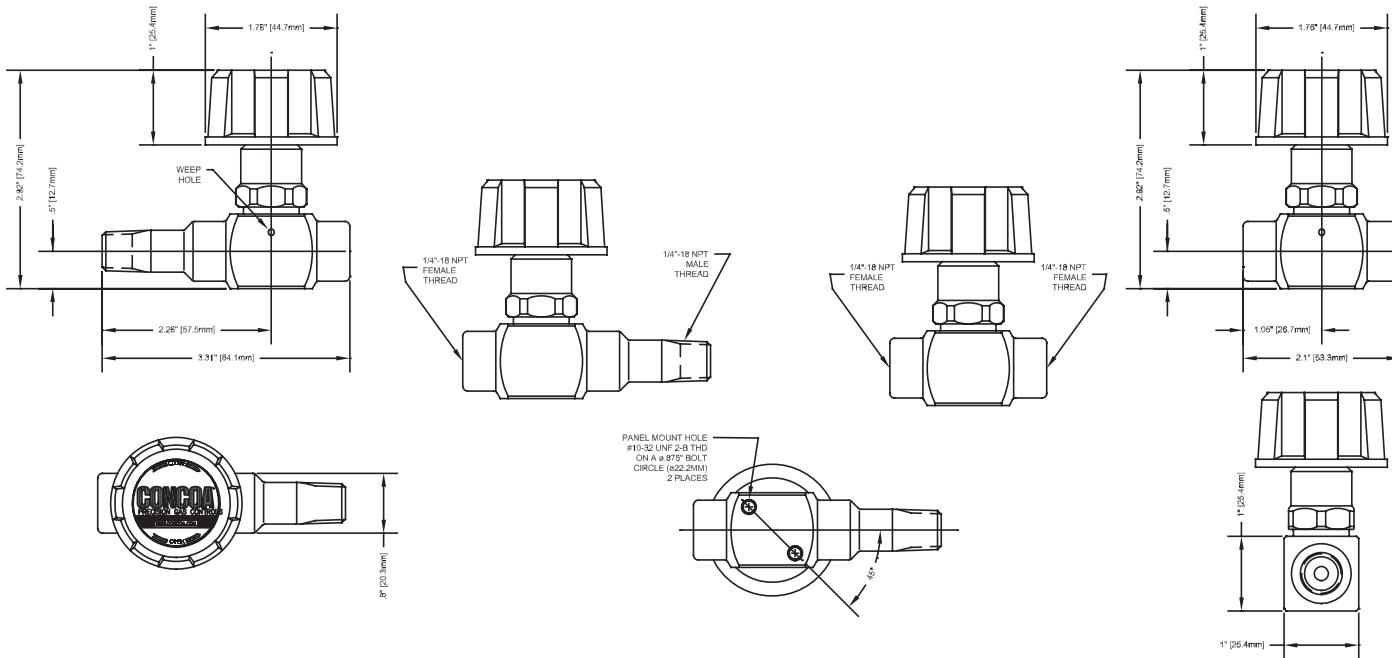
CRN OH 5216.5R1



### 技术规格

最大输入压力	3500 PSIG (240 BAR)
氦气泄漏率	$1 \times 10^{-9} \text{ scc/sec}$
阀体与接头	铜, 316L或镀铬铜材
隔膜	Elgiloy®
阀座	PCTFE
密封结构方式	Metal to metal
CV	0.17
重量	0.66 lbs. (0.3 kg)

### 产品选型（仅供参考，以工厂交付为准）



### 产品选型（仅供参考，以工厂交付为准）

#### Series

Series	B
ECC-3	Flow Direction
<b>0:</b> Multi-turn right to left	Material
<b>2:</b> Multi-turn left to right*	<b>2:</b> Brass

\*Only for D=3, 7, 8, & 9

Material
<b>2:</b> Brass
<b>4:</b> 316L stainless steel
<b>9:</b> Chrome-plated brass

#### C

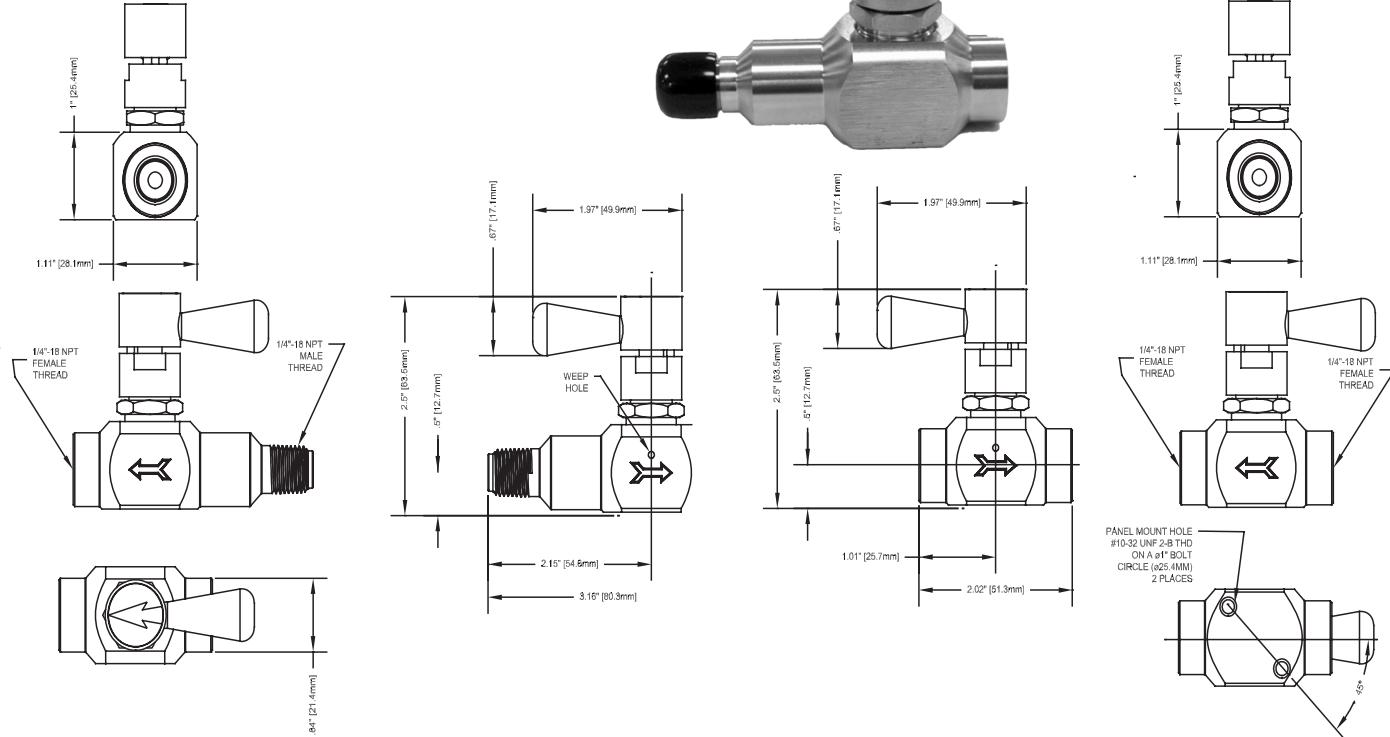
Connection
<b>0:</b> 1/4" FPT x 1/4" FPT
<b>1:</b> 6mm tube fitting x 6mm tube fitting
<b>2:</b> 1/4" tube fitting x 1/4" tube fitting
<b>3:</b> 1/4" MPT (extended leg) x 1/4" tube fitting
<b>4:</b> 1/4" MPT x 1/4" MPT
<b>7:</b> 1/4" MPT x 6mm tube fitting
<b>8:</b> 1/4" MPT (extended leg) x 1/8" tube fitting
<b>9:</b> 1/4" MPT (extended leg) x 1/4" FPT

#### D

For example, a ECC 3040 is a bare body, 316L stainless steel diaphragm valve controlled by a multi turn handle.

## 快速控制型隔膜阀

ECC系列隔膜阀是控制高纯度或腐蚀性气体的最佳阀，与介质接触的表面光滑而耐腐蚀，减少气体中颗粒杂质对管路的堵塞及破坏；低扭力设计降低操作难度，并且提供了流体流向的箭头指示，减少误操作。



## 产品选型（仅供参考，以工厂交付为准）

Series	B	C	D
Series	Flow Direction	Material	Connection
ECC-4	<b>1:</b> Quarter turn right to left <b>3:</b> Quarter turn left to right*	<b>2:</b> Brass <b>4:</b> 316L stainless steel <b>9:</b> Chrome-plated brass	<b>0:</b> 1/4" FPT x 1/4" FPT <b>1:</b> 6mm tube fitting x 6mm tube fitting <b>2:</b> 1/4" tube fitting x 1/4" tube fitting <b>3:</b> 1/4" MPT (extended leg) x 1/4" tube fitting <b>4:</b> 1/4" MPT x 1/4" MPT <b>7:</b> 1/4" MPT x 6mm tube fitting <b>8:</b> 1/4" MPT (extended leg) x 1/8" tube fitting <b>9:</b> 1/4" MPT (extended leg) x 1/4" FPT
			*Only for D=3, 7, 8, & 9

## 可调式溢流阀

ECD系列可调式溢流阀是适于高纯度气体控制系统，用于保护管道系统里的低压元件；当管路系统的压力过载时，可调式溢流阀能在不受监视的情况下自动进行泄压来保护系统的低压元件，各种压力规格应用都可以进行选择，只需要使用1/8”的扳手进行调节泄压压力值。

### 技术规格

弹簧	302 stainless steel
密封锥体	304 stainless steel
CV	0.37
输入端连接	1/4" MPT
输出端连接	1/4" FPT
重量	0.1lbs.(0.05kg)



## 产品选型（仅供参考，以工厂交付为准）

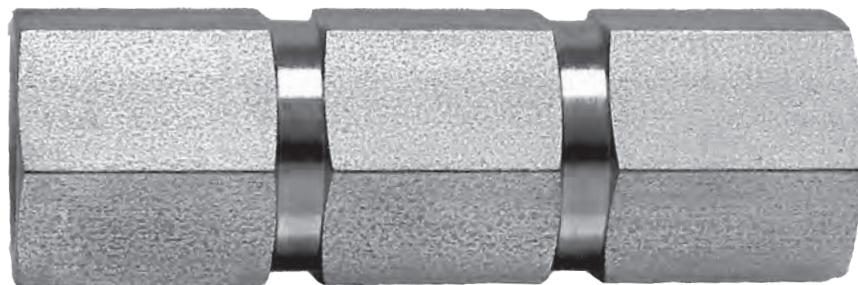
ECD	A	9	2	D	-PSIG
Series	Material			Pressure Range	
ECD	<b>2:</b> Brass barstock body and fittings ( iton® seals)	<b>9:</b> N/A	<b>2:</b> N/A	<b>1:</b> 10 to 20 PSIG (0.7 to 1.4 BAR)	Please specify factory set pressure
	<b>4:</b> 316L stainless steel barstock body and fittings ( iton® seals)			<b>2:</b> 20 to 100 PSIG (1.4 to 7 BAR)	
	<b>5:</b> 316L stainless steel barstock body and fittings (Kalre ® seals)			<b>3:</b> 100 to 250 PSIG (7 to 17 BAR)	
				<b>4:</b> 250 to 500 PSIG (17 to 34 BAR)	

## 单向阀

ECB系列单向阀通常设计用在气罐与相关联的其他低压元件之间，用来防止介质反向流动，压力过大而损坏系统低压元件，稳定流向，防止低压元件损坏。高纯介质专用，The brass and stainless steel models have a cracking pressure of 1 PSIG (0.07 BAR)。

### 技术规格

最大压力	3000 PSIG (200 BAR)
流量值@10 PSIG (0.7 BAR)	47 LPM (99.6 SCFH) air
弹簧	302 stainless steel
密封锥体	304 stainless steel



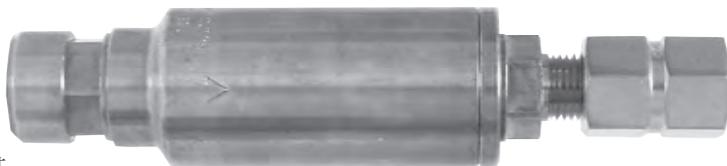
## 产品选型（仅供参考，以工厂交付为准）

Order No.	End Fittings	Body	Fittings	Seals
ECB 3922	1/4" FPT x 1/4" FPT	Brass barstock	Brass barstock	Viton®
ECB 3924	1/4" FPT x 1/4" FPT	316L stainless steel barstock	316L stainless steel barstock	Ethylene propylene
ECB 3824	1/4" FPT x 1/4" FPT	316L stainless steel barstock	316L stainless steel barstock	Viton®
ECB 3842	1/4" MPT x 1/4" FPT	Brass barstock	Brass barstock	Viton®
ECB 3834	1/4" MPT x 1/4" FPT	316L stainless steel barstock	316L stainless steel barstock	Ethylene propylene
ECB 3844	1/4" MPT x 1/4" FPT	316L stainless steel barstock	316L stainless steel barstock	Viton®

## 阻火阀 (Flashback Arrestors)

Dafuflow's ECB 系列不锈钢和黄铜材质的阻火器是防止其他火焰传递到高纯气体管路系统的电器或设备中，紧急情况可自行自动关闭气源，从而保护系统元件。此阀不用手动复位。

Dafuflow's ECB系列阻火器满足BS6158、EN730(BAM/DIN)、ISO5175、AS 4603 和 UI 23Y5等安全标准的要求。With the brass arrestors, a positive shut off of reverse flow permits resetting and reuse after flashback has occurred.



### 不锈钢材质配置

阀体与内件	316L stainless steel										
弹性材质	Viton®										
温度传感器	Polyethylene										
弹簧材质	316 stainless steel										
重量	1.4 lbs. (0.64 kg)										
连接	1/4" NPT Female										
UL认证对应最大压力(UL 23Y5)	<table> <tbody> <tr> <td>Acetylene</td> <td>15 PSIG (1 BAR)</td> </tr> <tr> <td>Hydrogen</td> <td>50 PSIG (3.5 BAR)</td> </tr> <tr> <td>Natural Gas</td> <td>50 PSIG (3.5 BAR)</td> </tr> <tr> <td>Propane</td> <td>50 PSIG (3.5 BAR)</td> </tr> <tr> <td>Air/Oxygen</td> <td>143 PSIG (10 BAR)</td> </tr> </tbody> </table>	Acetylene	15 PSIG (1 BAR)	Hydrogen	50 PSIG (3.5 BAR)	Natural Gas	50 PSIG (3.5 BAR)	Propane	50 PSIG (3.5 BAR)	Air/Oxygen	143 PSIG (10 BAR)
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Hydrogen	50 PSIG (3.5 BAR)										
Natural Gas	50 PSIG (3.5 BAR)										
Propane	50 PSIG (3.5 BAR)										
Air/Oxygen	143 PSIG (10 BAR)										

### 黄铜材质配置

阀体与内件	Brass with brass internals										
弹性材质	Neoprene										
温度传感器	Polyethylene										
弹簧材质	316 stainless steel										
重量	1.5 lbs. (0.68 kg)										
连接	1/4" NPT Female										
UL认证对应最大压力(UL 23Y5)	<table> <tbody> <tr> <td>Acetylene</td> <td>15 PSIG (1 BAR)</td> </tr> <tr> <td>Hydrogen</td> <td>50 PSIG (3.5 BAR)</td> </tr> <tr> <td>Natural Gas</td> <td>50 PSIG (3.5 BAR)</td> </tr> <tr> <td>Propane</td> <td>50 PSIG (3.5 BAR)</td> </tr> <tr> <td>Air/Oxygen</td> <td>143 PSIG (10 BAR)</td> </tr> </tbody> </table>	Acetylene	15 PSIG (1 BAR)	Hydrogen	50 PSIG (3.5 BAR)	Natural Gas	50 PSIG (3.5 BAR)	Propane	50 PSIG (3.5 BAR)	Air/Oxygen	143 PSIG (10 BAR)
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Propane	50 PSIG (3.5 BAR)										
Air/Oxygen	143 PSIG (10 BAR)										



### 产品选型（仅供参考，以工厂交付为准）

Order No.	Body	Description	Size/Dimensions
ECB 7000	316L stainless steel	Fuel gas flash arrestor (with check valve)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)
ECB 7001	316L stainless steel	Oxygen flash arrestor (with check valve)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)
ECB 7002	316L stainless steel	Hydrogen flash arrestor (with high flow check valv)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)
ECB 7003	Brass	Fuel gas flash arrestor (with check valve)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)
ECB 7004	Brass	Oxygen flash arrestor (with check valve)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)
ECB 7005	Brass	Fuel gas flash arrestor (with high flow check valv)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)
ECB 7006	Brass	Oxygen flash arrestor (with high flow check valv)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)
ECB 7007	Brass	Hydrogen flash arrestor (with high flow check valv)	1 1/4" x 4 3/4" (0.57mm x 2.15mm)

## 氧气监测仪 Oxygen Deficiency Monitor

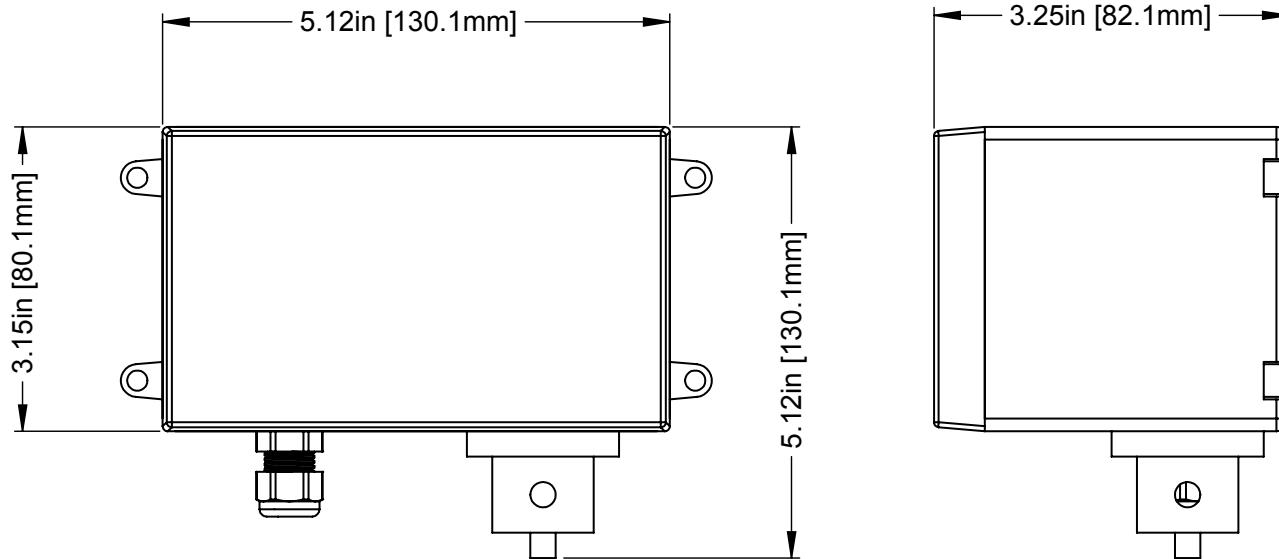
The EHO Series Oxygen Deficiency Monitor is a compact system that is ideal for the continuous monitoring oxygen levels in any area where inert gases or confined space may produce a hazardous reduction in the oxygen content of the air. This system should be installed in gas storage and use areas, cryogenic freezer rooms, laboratory or industrial locations where liquefied or compressed gases may accumulate and pose a hazard of asphyxiation as required by OHSA 29 CFR 1910. The monitor features two set points with independent relays to accommodate multiple threat level notification. The unique long lasting zirconium sensor provides accurate and rapid response to changes in oxygen concentration over a wide range of temperature and humidity conditions and does not drift due to weather or temperature.



### 技术规格

监测介质	O <sub>2</sub>	宽度	5.5 in (140 mm)
范围	0-25%	高度 Height	3.5 in (89 mm)
精度	±1% of full scale	深度 Depth	3.25 in (83 mm)
工作温度范围	-40 to 55°C	重量	1.6 lb (0.8 kg)
显示	3/4" 液晶数字显示, 背光照明	防护等级	NEMA 4x (electronics and sensor)
传感器类型	Long life zirconium oxide sensor cell	Required Calibration	None
传感器寿命	正常使用10年		
信号输出	4-20 mA 模拟输出		
电源要求	100 mA without relays - 500 mA with relays		

### 安装结构尺寸



### 产品选型（仅供参考，以工厂交付为准）

Order No.	Description	Housing	Weight
EHO 3004	Oxygen Deficiency Monitor with 120 AC/24 VDC power supply	NEMA 4x (electronics and sensor)	1.6 lbs (0.8 kg)
EHO 3005	Remote Display 4-20 mA	NEMA 4x	0.5 lbs (0.23 kg)
EHO 3006	Horn and Strobe Red 80-100 dB	NEMA 4x	1.0 lbs (0.45 kg)

## 气瓶切换装置



The Switchover Station is designed to mount a EBF or EBG Series switchover system and two cylinders in areas where wall mounting is inconvenient. The Switchover Station has holes pre-drilled for easy mounting as well as cylinder brackets with straps to secure the cylinders in place. For safety, the Switchover Station must be secured to a floor or pad.

### Materials and Specification

Bracket Material	11 gauge hot rolled steel
Strap Material	Polypropylene with steel cinch buckle
Cylinder Diameter	Up to 12"

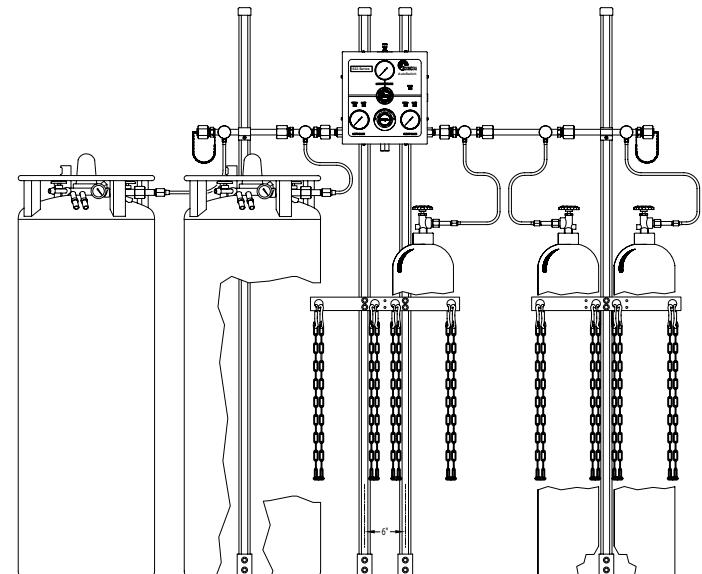
Shown with 526 Switchover (sold separately)

### 产品选型（仅供参考，以工厂交付为准）

Order No.	Dimensions (Length x Width x Height)	Weight
EAG 1625	28" x 12" x 72" (711.2mm x 304.8mm x 1828.8mm)	56 lbs. (25.4 kg)

## 气瓶切换装置Manifold Floor Stands

Dafuflow floor stands provide a convenient method to mount switchovers and manifolds where a permanent structure is unavailable. Made from durable plated steel, each model comes with the necessary hardware to safely secure cylinders that otherwise are unable to support themselves. Models 518 1625 and 518 1725 offer a unique header plate to mount single cylinder per side switchover configurations

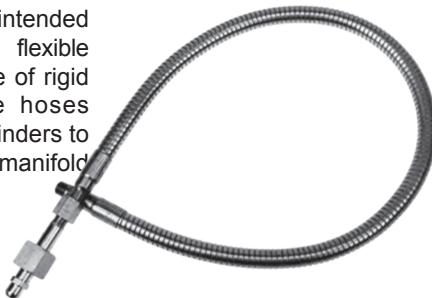


### 产品选型（仅供参考，以工厂交付为准）

Order No.	Description	Dimensions (L x W x H)
EAG1625	Single switchover floor stand with storage for two 12" cylinder	28" x 12" x 72" (711.2mm x 304.8mm x 1828.8mm)
EAG1725	Multiple switchover floor stand with storage for six 12" cylinder	24" x 48" x 72" (609.6mm x 1219.2mm x 1828.8mm)
HCO 7437	Manifold extension floor stand designed to provide support every 24" (609.6mm) from a pressure control device	6" x 6" x 84" (152.4mm x 152.4mm x 2133.6mm)
HCO 7439	Switchover floor stand designed to provide support with dual vertical post	12" x 12" x 84" (304.8mm x 304.8mm x 2133.6mm)

## Flexible Hoses

The EBI Series flexible hoses are intended for use in systems where a flexible connection is preferable to the use of rigid tubing. Most commonly, flexible hoses are used as hoses to connect cylinders to wall-mounted regulators or manifold headers.



### Materials and Specification

Minimum Bend Radius	4.0" (101.6mm)
Temperature Range	-450°F to 1500°F (-265°C to 815°C)
Oxygen Service	Cleaned to CGA G4.1 specification

### 产品选型（仅供参考，以工厂交付为准）

Order No.	Inner Core	Connection	Max Pressure	Length
EBI 0029-CGA*	316L stainless steel	1/4" MPT x 316L stainless steel CON (with check valve)	3850 PSIG (265 BAR)	3 ft (900 mm)
EBI 0031-CGA*	316L stainless steel	1/4" MPT x brass CON (with check valve)	3850 PSIG (265 BAR)	3 ft (900 mm)
EBI 0055-CGA*	316L stainless steel	1/4" MPT x brass CON (with check valve)	3850 PSIG (265 BAR)	6 ft (1800 mm)
EBI 0056-CGA*	316L stainless steel	1/4" MPT x 316L stainless steel CON (with check valve)	3850 PSIG (265 BAR)	6 ft (1800 mm)
EBI 0071-CGA*	316L stainless steel	1/4" MPT x brass CON (with check valve)	3850 PSIG (265 BAR)	2 ft (600 mm)
EBI 0070-CGA*	316L stainless steel	1/4" MPT x 316L stainless steel CON (with check valve)	3850 PSIG (265 BAR)	2 ft (600 mm)
EBI 0058-CGA	316L stainless steel	1/4" MPT x brass CON (with check valve)	4500 PSIG (300 BAR)	3 ft (900 mm)
EBI 0059-CGA	316L stainless steel	1/4" MPT x 316L stainless steel CON (with check valve)	4500 PSIG (300 BAR)	3 ft (900 mm)
EBI 0064-CGA	PTFE	1/4" MPT x 316L stainless steel CON (with check valve)	6000 PSIG (415 BAR)	3 ft (900 mm)

\*Inner core Monel® with CGA 540, 280, 296

## Transfer Hoses

Specifically designed for the transfer of cryogenic gases, these all stainless hoses offer complete flexibility, durability and fast cool-down. Machined end connections and a long collar extend the hose life, and low profile corrugations provide faster filling, lower pressure drop and less product loss. Full armor casing protects the hose from abrasion and damage.



### Materials and Specification

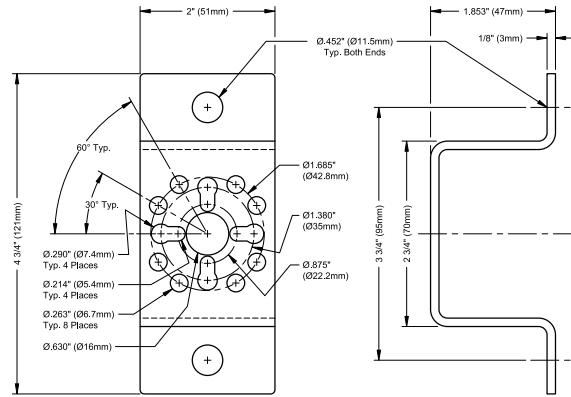
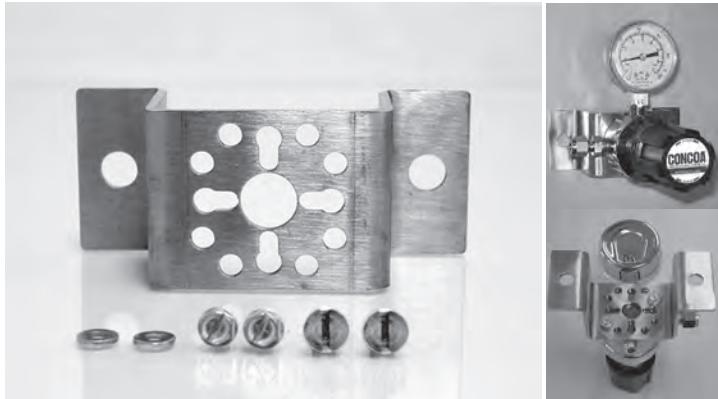
Minimum Bend Radius	6" (152.4mm)
Temperature Range	-450°F to 1500°F (-265°C to 815°C)
Oxygen Service	Cleaned to CGA G4.1 specification

### 产品选型（仅供参考，以工厂交付为准）

Order No.	Inner Core	Connection	Max Pressure	Length
EBI 0245	316L stainless steel	316L stainless steel CGA 440	1000 PSIG (70 BAR)	4 ft (1200 mm)
EBI 0246	316L stainless steel	316L stainless steel CGA 440	1000 PSIG (70 BAR)	5 ft (1500 mm)
EBI 0247	316L stainless steel	316L stainless steel CGA 440	1000 PSIG (70 BAR)	6 ft (1800 mm)
EBI 0250	316L stainless steel	316L stainless steel CGA 295	1000 PSIG (70 BAR)	4 ft (1200 mm)
EBI 0251	316L stainless steel	316L stainless steel CGA 295	1000 PSIG (70 BAR)	5 ft (1500 mm)
EBI 0252	316L stainless steel	316L stainless steel CGA 295	1000 PSIG (70 BAR)	6 ft (1800 mm)

## 调压阀安装支架

The Universal Regulator Mounting Kit HCE 0204 provides an easy and secure option to mount any of Dafuflow's single stage DOO or COO Series regulators. The kit comes with a sturdy 1/8" thick brushed stainless 'U' bracket, bolts, and washers to fit both 10-32 UNF and 1/4- 20 UNC-2B mounting holes. Multiple hole patterns accommodate any orientation and the 16mm center hole allows for use with rear inlet regulators.



## 产品选型（仅供参考，以工厂交付为准）

Order No.	Description
HCE 0204	Universal DOO & COO Series regulator mounting kit

## 气瓶(罐)支架和链带

Cylinder brackets are designed to secure up to three cylinders of normal or smaller size. The chain set assists in securing the cylinders and can be installed without removing the bracket from the wall or structure.



## Materials and Specification

Bracket Material	11 gauge hot rolled steel
Strap Material	Polypropylene with steel cinch buckle
Cylinder Diameter	Up to 14" (355.6mm) - HCE 1611 Up to 12" (304.8mm) - HCE 1612 4" to 14" (101.6 to 355.6mm) - HCE 1614
Mounting Dimensions (HCE 1614)	Maximum bench thickness 1 3/4" (44.45mm)



## 产品选型（仅供参考，以工厂交付为准）

Order No.	Description	Dimensions (L x W x H)	Weight
HCE 1611	Single cylinder	8" x 2.25" x 4.25" (200mm x 57.15mm x 107mm)	3 lbs. (1.36 kg)
HCE 1612	Two cylinder	24" x 2.25" x 4.25" (600mm x 57.15mm x 107mm)	8 lbs. (3.63 kg)
HCE 1613	Three cylinder	36" x 2.25" x 4.25" (900mm x 57.15mm x 107mm)	10.7 lbs. (4.85 kg)
HCE 1614	Single cylinder bench	8" x 4.25" x 4.25" (200mm x 57.15mm x 107mm)	4.5 lbs. (2.04 kg)
HCE 1615	Long chain set	41" (1041.4mm)	1 lb. (0.45 kg)

## 便携式测漏仪

新测漏仪用于检测氦、氮、氩、二氧化碳和氢气。制造商的支持一年保修，测漏仪执行行业标准性能；确保手持式测漏仪的准确能力。

## 功能包括

泄漏测漏率  $1 \times 10^{-5}$  cc/sec  
一个光滑，新的符合人体工程学的手持设计外形  
增加耐用性的防脱落的侧手柄  
清洁方便的探针存储  
使用时间更长的电池，长达 6 个小时的连续使用  
自动关闭功能  
方便携带、储存数据  
万能充电器套（包括美国、欧洲、英国和澳大利亚插头）  
认证：CE，日本标准

## 产品选型（仅供参考，以工厂交付为准）

Order No.	Description
EHO 3003	EOH Series Restek leak detector



## 分子筛Traps



水分

The EHO 1800 Series traps are designed for use in high purity gas systems to prevent the possible introduction of moisture into the instrumentation carrier gases. The trap has a maximum flow rate of 70 LPM air at 100 PSIG.



烃类

The 580 1900 Series hydrocarbon traps are designed to remove organic compounds from carrier gases, air and hydrogen. These high capacity traps contain 200cc of carbon impregnated filter media. Excellent efficiencies are achieved for the removal of the following; Acetone, any Acetate dissolved in oil, Isopropyl Alcohol, Mercaptans and organic acids, as some examples.



氧气

The EHO 1600 Series oxygen traps contain highly active, metal containing inert reagents capable of reducing the oxygen content in a gas stream to less than 15 ppb. These traps can remove up to 2 grams of moisture with no effect on oxygen capacity. Typical applications involve, but are not exclusive to, Nitrogen, Helium, Argon, Carbon Dioxide, and low boiling point aromatics such as Benzene, Toluene and Alkyl Benzene's for oxygen cleaner gases.


 Indicating O<sub>2</sub>

The EHO 1600 Series indicating oxygen traps contain highly active, metal containing inert reagents capable of reducing the oxygen content in a gas stream to less than 2 ppb. As the metal is oxidized, it changes color indicating the presence of Oxygen. Typical applications involve, but are not exclusive to, Nitrogen, Helium, Argon, Carbon Dioxide, and low boiling point aromatics such as Benzene, Toluene and Alkyl Benzene's for oxygen cleaner gases.

## 技术规格与

## 材料技术规格与材料

## 技术规格与材料

## 技术规格与材料

<b>Tube</b>	Polycarbonate	<b>Tube</b>	Polycarbonate	<b>Tube</b>	Aluminum	<b>Tube</b>	Glass
<b>Seals</b>	Buna-N	<b>Seals</b>	Buna-N	<b>Seals</b>	Buna-N	<b>Seals</b>	Buna-N
<b>Filters</b>	316L Stainless steel						
<b>Max Operating Pressure</b>	125 PSIG (8.62 BAR)	<b>Max Operating Pressure</b>	125 PSIG (8.62 BAR)	<b>Max Operating Pressure</b>	125 PSIG (8.62 BAR)	<b>Max Operating Pressure</b>	100 PSIG (7 BAR)

## 产品选型（仅供参考，以工厂交付为准）

Moisture Traps	End Fittings	Removal Capacity (H <sub>2</sub> O)	Catalyst
EHO 1805	1/8" Brass tube fittin	36.0 grams (H <sub>2</sub> O < 18 ppb)	13X mole sieve
EHO 1806	1/4" Brass tube fittin	36.0 grams (H <sub>2</sub> O < 18 ppb)	13X mole sieve
EHO 1807	1/8" Brass tube fittin	72.0 grams (H <sub>2</sub> O < 14 ppb)	13X mole sieve
EHO 1808	1/4" Brass tube fittin	72.0 grams (H <sub>2</sub> O < 14 ppb)	13X mole sieve
EHO 1800	Refill (1) 58 1807/1808	N/A	13X mole sieve

Hydrocarbon Traps	End Fittings	Removal Capacity (C <sub>4</sub> )	Catalyst
EHO 1903	1/8" Brass tube fittin	30 grams (C <sub>4</sub> Hydrocarbons < 15 ppb)	Activated carbon
EHO 1904	1/4" Brass tube fittin	30 grams (C <sub>4</sub> Hydrocarbons < 15 ppb)	Activated carbon
EHO 1900	Refill (2) 58 1903/1904	N/A	Activated carbon

Oxygen Traps	End Fittings	Removal Capacity (O <sub>2</sub> )	Catalyst
EHO 1602	1/8" Brass tube fittin	600 mg (O <sub>2</sub> < 15 ppb)	Activated metal
EHO 1604	1/4" Brass tube fittin	600 mg (O <sub>2</sub> < 15 ppb)	Activated metal

Indicating Oxygen Traps	End Fittings	Removal Capacity (O <sub>2</sub> )	Catalyst
EHO 1608	1/8" Brass tube fittin	30 mg (O <sub>2</sub> < 2 ppb)	Activated metal
EHO 1609	1/4" Brass tube fittin	30 mg (O <sub>2</sub> < 2 ppb)	Activated metal

## DOO系列调压阀用压力表

These 550 Series gauges allow the user to monitor pressure in systems. They are available in 2" (53mm) diameter brass or 316L stainless steel for use especially on regulators such as the DOO series brass and 316L stainless steel regulators. For convenient mounting, all 550 Series gauges are 1/4" MPT bottom mount. Cleaned for oxygen service, ASME B40.1.



### 2" Brass

Part Number	Pressure Range	Part Number	Pressure Range	Part Number	Pressure Range	Part Number	Pressure Range
550 0201	30"-0-30 PSIG/-100-0-200 kPa	550 0300	30"-0-30 PSIG/-1-0-2 BAR	550 0221	30"-0-30 PSIG/-100-0-200 kPa	550 0320	30"-0-30 PSIG/-1-0-2 BAR
550 0202	30"-0-100 PSIG/-100-0-700 kPa	550 0302	30"-0-100 PSIG/-1-0-7 BAR	550 0222	30"-0-100 PSIG/-100-0-700 kPa	550 0322	30"-0-100 PSIG/-1-0-7 BAR
550 0203	30"-0-200 PSIG/-100-0-1400 kPa	550 0303	30"-0-200 PSIG/-1-0-14 BAR	550 0223	30"-0-200 PSIG/-100-0-1400 kPa	550 0323	30"-0-200 PSIG/-1-0-14 BAR
550 0204	0-300 PSIG/0-2000 kPa	550 0304	0-300 PSIG/0-21 BAR	550 0224	0-300 PSIG/0-2000 kPa	550 0324	0-300 PSIG/0-21 BAR
550 0205	0-400 PSIG/0-2800 kPa	550 0305	0-400 PSIG/0-27 BAR	550 0225	0-400 PSIG/0-2800 kPa	550 0325	0-400 PSIG/0-27 BAR
550 0206	0-1000 PSIG/0-7000 kPa	550 0306	0-1000 PSIG/0-70 BAR	550 0226	0-1000 PSIG/0-7000 kPa	550 0326	0-1000 PSIG/0-70 BAR
550 0208	0-4000 PSIG/0-28,000 kPa	550 0308	0-4000 PSIG/0-275 BAR	550 0228	0-4000 PSIG/0-28,000 kPa	550 0328	0-4000 PSIG/0-275 BAR
550 0209	0-6000 PSIG/0-40,000 kPa	550 0309	0-6000 PSIG/0-400 BAR	550 0229	0-6000 PSIG/0-40,000 kPa	550 0329	0-6000 PSIG/0-400 BAR

### 2" 316 Stainless Steel



## COO 系列调压阀用压力表

These 550 Series gauges allow the user to monitor pressure in systems. They are available in 2" (53mm) diameter chrome-plated brass or chrome-plated steel with 316 stainless steel wetted parts for use especially on regulators such as the COO Series chrome-plated brass and 316L stainless steel regulators. For convenient mounting, all 550 Series gauges are 1/4" MPT bottom mount. Cleaned for oxygen service, ASME B40.1.

### 2" Brass (with chrome-plated case)

### 2" 316 Stainless Steel (with chrome-plated case)

Part Number	Pressure Range	Part Number	Pressure Range	Part Number	Pressure Range	Part Number	Pressure Range
550 0267	30"-0-30 PSIG/-100-0-200 kPa	550 0367	30"-0-30 PSIG/-1-0-2 BAR	550 0621	30"-0-30 PSIG/-100-0-200 kPa	550 0720	30"-0-30 PSIG/-1-0-2 BAR
550 0268	30"-0-100 PSIG/-100-0-700 kPa	550 0368	30"-0-100 PSIG/-1-0-7 BAR	550 0622	30"-0-100 PSIG/-100-0-680 kPa	550 0722	30"-0-100 PSIG/-1-0-7 BAR
550 0269	30"-0-200 PSIG/-100-0-1400 kPa	550 0369	30"-0-200 PSIG/-1-0-14 BAR	550 0623	30"-0-200 PSIG/-100-0-1360 kPa	550 0723	30"-0-200 PSIG/-1-0-14 BAR
550 0273	0-300 PSIG/0-2000 kPa	550 0373	0-300 PSIG/0-20 BAR	550 0624	0-300 PSIG/0-2050 kPa	550 0724	0-300 PSIG/0-20 BAR
550 0270	0-400 PSIG/0-2800 kPa	841 0545	0-400 PSIG/0-28 BAR	550 0625	0-400 PSIG/0-2750 kPa	550 0725	0-400 PSIG/0-28 BAR
550 0271	0-1000 PSIG/0-7000 kPa	550 0371	0-1000 PSIG/0-70 BAR	550 0626	0-1000 PSIG/0-6800 kPa	550 0726	0-1000 PSIG/0-68 BAR
550 0263	0-4000 PSIG/0-28,000 kPa	841 0546	0-4000 PSIG/0-280 BAR	550 0628	0-4000 PSIG/0-27000 kPa	550 0728	0-4000 PSIG/0-275 BAR
550 0272	0-6000 PSIG/0-40,000 kPa	550 0372	0-6000 PSIG/0-400 BAR	550 0629	0-6000 PSIG/0-41000 kPa	550 0729	0-6000 PSIG/0-415 BAR



## BOO系列调压阀用压力表

These 550 Series gauges allow the user to monitor pressure in systems. They are available in 2 1/2" (68mm) diameter chrome-plated brass for use especially on regulators such as the 200 Series chrome-plated brass regulators, and the DHC, DHE and DIB Series brass ultra high flow regulators. For convenient mounting, all 550 Series gauges are 1/4" MPT bottom mount. UL listed, cleaned for oxygen service, ASME B40.1.

### 2 1/2" Brass (with chrome-plated case and stem)

Part Number	Pressure Range	Part Number	Pressure Range	Part Number	Pressure Range	Part Number	Pressure Range
550 0241	0-30 PSIG/0-210 kPa	550 0291	0-30 PSI/0-2.1 BAR	550 0246	0-1000 PSIG/0-7000 kPa	550 0296	0-1000 PSIG/0-70 BAR
550 0242	0-60 PSIG/0-400 kPa	550 0292	0-60 PSI/0-4 BAR	550 0248	0-4000 PSIG/0-28,000 kPa	550 0298	0-4000 PSIG/0-280 BAR
550 0243	0-200 PSIG/0-1400 kPa	550 0293	0-200 PSI/0-14 BAR	550 0249	0-6000 PSIG/0-40,000 kPa	550 0297	0-6000 PSIG/0-420 BAR
550 0245	0-400 PSIG/0-2800 kPa	550 0295	0-400 PSI/0-28 BAR	550 0240	0-30 PSIG/0-200 kPa (Redline)	550 0290	0-30 PSIG/0-2.0 BAR (Redline)
550 0250	0-600 PSIG/0-4200 kPa	550 0299	0-600 PSI/0-40 BAR				

## 接头和适配件 Fittings and Adapters

### 产品选型（仅供参考，以工厂交付为准）

Part No.	Description	Connections	Body Material
EBI 0019	1/2" x 1/2" manifold connector	1/2" MPT x 1/2" MPT 4500 PSIG (310 BAR) max	Stainless steel
EBI 0024	1/2" x 1/4" manifold connector	1/2" MPT x 1/4" MPT 4500 PSIG (310 BAR) max	Stainless steel
EBI 0224	1/4" x 1/4" manifold connector	1/2" MPT x 1/4" MPT 4500 PSIG (310 BAR) max	Stainless steel
550 0760	Inert liquid withdrawal	1/2" MPT x CGA 295 (liquid nitrogen and argon)	Brass
550 0761	Oxygen liquid withdrawal	3/8" MPT x CGA 440 (liquid oxygen)	Brass
550 0762	90° Elbow extension	CGA 440 x CGA 440 (liquid oxygen)	304 stainless steel
550 0764	90° Elbow extension	CGA 295 x CGA 295 (liquid nitrogen and argon)	304 stainless steel
829 1839	Union gland	1/2" MPT 3000 PSIG (210 BAR) max	Brass
829 1840	Union nut	1" 3000 PSIG (210 BAR) max	Brass
830 6498	Union connector	1/2" MPT 3000 PSIG (210 BAR) max	Brass
830 6163	Reducing adapter	1/2" MPT x 1/4" FPT 3000 PSIG (210 BAR) max	Brass
830 6164	Reducing adapter	1/2" MPT x 1/4" FPT 6000 PSIG (405 BAR) max	Stainless steel
830 9805	Reducing adapter	1/2" MPT x 3/8" FPT 2600 PSIG (180 BAR) max	Brass
830 6155	1/2" tee	1/2" FPT 3000 PSIG (210 BAR) max	Brass
830 6499	1/2" male nipple	1/2" MPT x 3/8" 3000 PSIG (210 BAR) max	Brass
555 0221	1/4" tube fittin	1/4" tube x 1/4" MPT	Brass
554 0121	1/8" tube fittin	1/8" tube x 1/4" MPT	Brass
550 0167	6mm tube fittin	6mm tube x 1/4" MPT	Brass
830 5371	1/2" tube fittin	1/2" tube x 1/2" MPT	Brass
550 0035	1/4" male nipple	1/4" MPT 3000 PSIG (210 BAR) max	Chrome-plated brass
550 0031	1/4" tube fittin	1/4" tube x 1/4" MPT	Chrome-plated brass
550 0032	1/8" tube fittin	1/8" tube x 1/4" MPT	Chrome-plated brass
550 0142	6mm tube fittin	6mm tube x 1/4" MPT	Chrome-plated brass
553 4104	1/4" male nipple	1/4" MPT 6000 PSIG (405 BAR) max	316L stainless steel
555 0220	1/4" tube fittin	1/4" tube x 1/4" MPT	316L stainless steel
554 0120	1/8" tube fittin	1/8" tube x 1/4" MPT	316L stainless steel
550 0165	6mm tube fittin	6mm tube x 1/4" MPT	316L stainless steel
830 6149	1/2" tube fittin	1/2" tube x 1/2" MPT	316L stainless steel
550 1002-CGA	CGA Cylinder connection	1/4" MPT x CGA	Brass
550 1004-CGA	CGA Cylinder connection	1/4" MPT x CGA	Stainless steel
550 1009-CGA	CGA Cylinder connection	1/4" MPT x CGA	Chrome-plated brass
EBI 0004-CGA	CGA Cylinder adapter	1/4" MPT x CGA	Brass
EBI 0003-CGA	CGA Cylinder adapter	1/4" MPT x CGA	Stainless steel
830 8385	Coupling	1/2" FPT x 1/2" FPT 2400 PSIG (160 BAR) max	Brass
830 9891	Coupling	1/2" FPT x 1/2" FPT 4900 PSIG (310 BAR) max	Stainless steel
830 6195	Street elbow	1/4" MPT x 1/4 FPT 3000 PSIG (210 BAR) max	Brass
830 5395	Street tee	1/4" MPT x 1/4 FPT 6000 PSIG (400 BAR) max	Brass
830 5396	Street tee	1/4" MPT x 1/4 FPT 4500 PSIG (310 BAR) max	Stainless steel
830 8551	Street tee	1/4 FPT x 1/4 MPT 3000 PSIG (210 BAR) max	Chrome-plated brass
830 8609	Coupling	1/4" FPT x 1/4" FPT 6000 PSIG (400 BAR) max	Stainless steel
803 4250	1/4" male nipple	1/4" MPT x 1/4" MPT 3000 PSIG (210 BAR) max	Brass

## 接XX CGA Selection Charts

### Pure Gases CGA Selection Chart for Fittings      Mixed Gases CGA Selection Chart for Fittings

CGA Fittings Required		Mixed Gases		
	Pure Gases	CGA Fittings Required	Minor Component in	Major Component
EAO/COO	Acetylene	BDO/FFO/GOE	Ammonia	Nitrogen
EIO/CDF/CDG/GOB	Air	CEO	Butane	Nitrogen
BDO/FFO/GOE	Ammonia	BIF	Carbon Dioxide	Oxygen
EHO/FHO/FGG	Argon	EHO	Carbon Dioxide	Helium or nitrogen
CEO	Arsine*	EHO	Carbon Dioxide and/or Nitrogen	Helium
CBO	Carbon dioxide	CCO	Chlorine	Nitrogen
CEO	Carbon monoxide	CEO	Diborane	Argon, helium, Hydrogen, nitrogen
FFO	Chlorine	EHO	Freon-12	Nitrogen
EAO	Cyclopropane	BIF	Helium	Oxygen
CEO	Deuterium	CEO	Hexane	Nitrogen
CEO	Ethane	CEO	Isobutane	Nitrogen
CEO	Ethylene	CEO	Krypton-85	Carbon monoxide, Hydrogen or methane
EAO	Ethylene oxide	CCO	Krypton-85	Chlorine
EHO/FHO/FGG	Helium	EDO	Krypton-85	Oxygen
CEO/FIE/GOC	Hydrogen	EHO	Moisture	Argon, helium or Nitrogen
CCO	Hydrogen chloride	FFO	Nitric Oxide	Nitrogen
CCO	Hydrogen sulfid	FFO	Nitrogen Dioxide	Air or nitrogen
EHO	Krypton, kr-85	EIO	Nitrous Oxide	Nitrogen
CEO/FIE/GOC	Methane	EIO	Oxygen	Nitrogen or helium
EAO	Methyl chloride	CEO	Propane*	Nitrogen or helium
EHO/FHO/FGG	Neon	FFO	Sulfur Dioxide	Air or nitrogen
EHO/FHO/FGG	Nitrogen	EIO	Sulfur Hexafluorid	Argon, helium or Nitrogen
CBF	Nitrous oxide	CEO	Sulfur Hexafluorid	Hydrogen
EDO/EGG/GOA	Oxygen*	CEO	Tritium	Argon, carbon dioxide, hydrogen, methane, neon, nitrogen, krypton, or xenon
CEO	Phosphine			
EAO	Propane			
CEO	Silane*			
FFH/FFO	Sulfur dioxide			
CEO	Sulfur hexafluorid			
EHO/FHO/FGG	Xenon			

It is recommended that the user thoroughly familiarize himself with the specific properties of these gases

The Compressed Gas Association (CGA) has selected and standardized the valve outlet to be used on each gas cylinder. These standards, contained in the document "CGA STANDARD V-1, Compressed Gas Cylinder Valve Outlet Connections", have been adopted to prevent the inadvertent mixing of gases which could be reactive and to avoid other possible misuse hazards.

The above chart may be used for guide purposes only. Consult your gas supplier to determine the actual CGA connection required when ordering a regulator.

\*Exceptions: Flammables in Air or Oxidizers

\*Propane in air, methane in air, carbon monoxide in air: CGA EIO

Since the combined characteristics of a mixture of gases often differ from the properties of the separate components, different CGA connections are often required. The chart above can be used as a reference for the CGA connections.

Mixtures which use the same CGA connection as if the minor component were in its pure gas form have not been included for the sake of brevity. The proper fitting for these mixtures can be determined by looking up the minor component on the chart for pure gases

## 混合气体兼容表

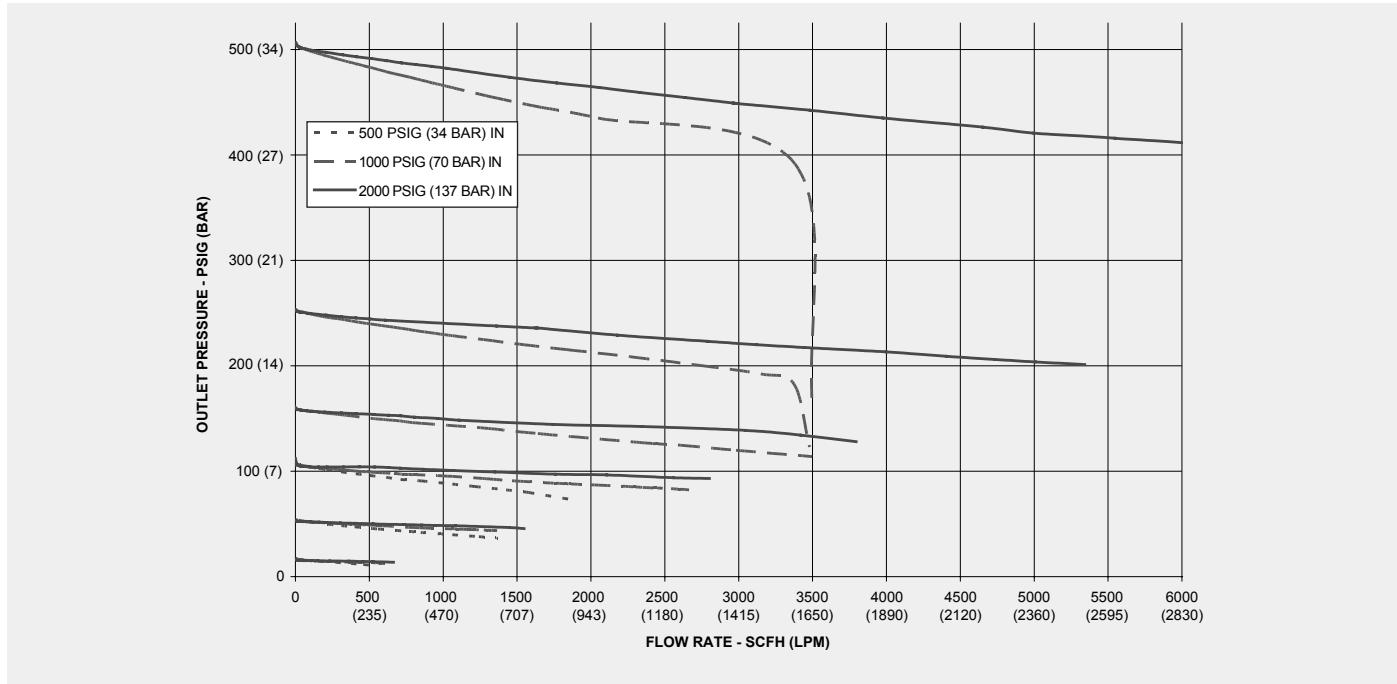
混合气体	Regulators								Flowmeters		
	AOO Series		BOO Series		COO Series		DOO Series			EOO Series	
	Brass	Plated brass	Plated brass	Stainless steel	Aluminum	Brass	Stainless steel	Plated brass	Stainless steel		
Ammonia											
in Argon					●			●			●
in Helium					●			●			●
in Hydrogen				●				●			●
in Nitrogen				●				●			●
Argon											
in Helium		●	●	●	●	●	●	●	●	●	●
in Hydrogen		●	●	●	●	●	●	●	●	●	●
in Nitrogen		●	●	●	●	●	●	●	●	●	●
in Oxygen		●	●	●	●	●	●	●	●	●	●
Carbon Dioxide											
in Air		●	●	●	●	●	●	●	●	●	●
in Argon		●	●	●	●	●	●	●	●	●	●
in Helium		●	●	●	●	●	●	●	●	●	●
in Hydrogen		●	●	●	●	●	●	●	●	●	●
in Nitrogen		●	●	●	●	●	●	●	●	●	●
in Oxygen		●	●	●	●	●	●	●	●	●	●
Chlorine											
in Argon					●			●			●
in Helium					●			●			●
in Nitrogen					●			●			●
Helium											
in Argon		●	●	●	●	●	●	●	●	●	●
in Hydrogen		●	●	●	●	●	●	●	●	●	●
in Nitrogen		●	●	●	●	●	●	●	●	●	●
in Oxygen		●	●	●	●	●	●	●	●	●	●
Hydrogen											
in Argon		●	●	●	●	●	●	●	●	●	●
in Carbon Monoxide		●	●	●	●	●	●	●	●	●	●
in Helium		●	●	●	●	●	●	●	●	●	●
in Nitrogen		●	●	●	●	●	●	●	●	●	●
Hydrogen Chloride											
in Argon								●			●
in Helium								●			●
in Nitrogen								●			●
in Oxygen								●			●
Methane											
in Air (Any Grade)		●	●	●	●	●	●	●	●	●	●
in Argon		●	●	●	●	●	●	●	●	●	●
in Helium		●	●	●	●	●	●	●	●	●	●
in Hydrogen		●	●	●	●	●	●	●	●	●	●
in Nitrogen		●	●	●	●	●	●	●	●	●	●
Nitric Oxide											
in Argon					●			●			●
in Helium					●			●			●
in Nitrogen					●			●			●
Nitrogen											
in Argon		●	●	●	●	●	●	●	●	●	●
in Helium		●	●	●	●	●	●	●	●	●	●
in Hydrogen		●	●	●	●	●	●	●	●	●	●
in Oxygen		●	●	●	●	●	●	●	●	●	●
Oxygen											
in Argon		●	●	●	●	●	●	●	●	●	●
in Helium		●	●	●	●	●	●	●	●	●	●
in Nitrogen		●	●	●	●	●	●	●	●	●	●

## 纯种气体兼容通用性能表

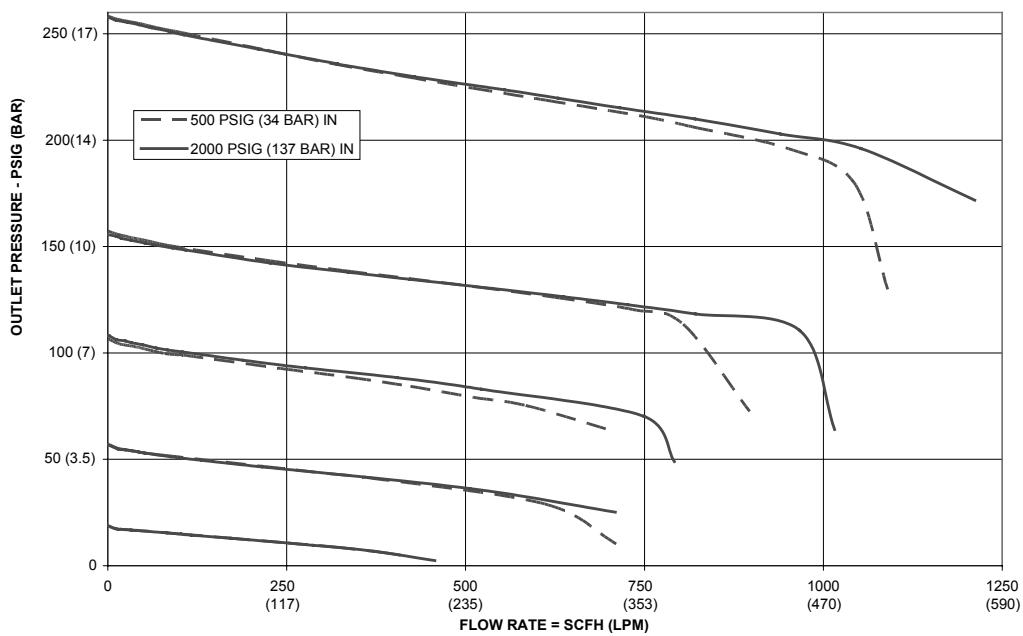
Pure Gases		Regulators						Flowmeters	
		AOO Series	BOO Series	COO Series		DOO Series		EOO Series	
		Brass	Chrome-plated brass	Chrome-plated brass	Stainless steel	Aluminum	Brass	Stainless steel	Chrome-plated brass
<b>Acetylene</b>	Purified, 99.6	$C_2H_2$							
	Zero/Ultra Zero								
	Dry								
<b>Ammonia</b>	Electronic, 99.999%	$NH_3$							
	Anhydrous, 99.99%								
<b>Argon</b>	Research, 99.9995%	Ar							
	Ultra High Purity, 99.999%								
	Pre-purified, 99.998								
	High Purity, 99.99%								
<b>n-Butane</b>	Research, 99.9% & CP 99.9%	$C_4H_{10}$							
<b>Carbon Dioxide</b>	Research, 99.998%	$CO_2$							
	Instrument, 99.99%								
	Bone Dry, 99.9%								
<b>Carbon Monoxide</b>	Research, 99.99%	CO							
	CP, 99.5%								
	Technical, 98.5%								
<b>Chlorine</b>	High Purity, 99.5% & CP, 99.7%	$Cl_2$							
<b>Ethane</b>	Research, 99.96% & CP, 99.7%	$C_2H_6$							
<b>Ethylene</b>	Research, 9.98%	$C_2H_4$							
	CP, 99.5%								
<b>Helium</b>	Research, 99.9999%	He							
	Ultra High Purity, 99.999%								
<b>Hydrogen</b>	Research, 99.9999%	$H_2$							
	Ultra High Purity, 99.999%								
	Pre-purified, 99.99								
	Extra Dry, 99.95%								
<b>Hydrogen Chloride</b>	Electronic, 99.99% & Technical, 99%	HCl							
<b>Hydrogen Sulfide</b>	CP, 99.5%	$H_2S$							

		Regulators					Flowmeters		
Pure Gas Compatibility Chart		AOO Series	BOO Series	COO Series		DOO Series		EOO Series	
Pure Gases		Brass	Chrome-plated brass	Chrome-plated brass	Stainless steel	Aluminum	Brass	Stainless steel	Chrome-plated brass
<b>Isobutane</b>	Research, 99.96% & CP, 99%	C <sub>4</sub> H <sub>10</sub>							
<b>Krypton</b>	Research, 99.995%	Kr							
<b>Methane</b>	Research, 99.99%	CH <sub>4</sub>							
	Ultra High Purity, 99.97%								
	CP, 99%								
	Technical, 98%								
<b>Methyl Chloride</b>	CP, 99.5%	CH <sub>3</sub> Cl							
<b>Neon</b>	Research, 99.999%	Ne							
<b>Nitric Oxide</b>	CP, 99%	NO <sub>2</sub>							
<b>Nitrogen</b>	Research, 99.9995%	N <sub>2</sub>							
	Ultra High Purity, 99.999%								
	Pre-purified, 99.998								
	High Purity, 99.99%								
<b>Nitrous Oxide</b>	Electronic, 99.99%	N <sub>2</sub> O							
	CP, 99%								
<b>Oxygen</b>	Research, 99.995%	O <sub>2</sub>							
	Ultra High Purity, 99.993%								
	Zero, 99.6%								
	Extra Dry, 99.6%								
<b>Phosphine</b>	Electronic, 99.995%	PH <sub>3</sub>							
<b>Propane</b>	Research, 99.99%	C <sub>3</sub> H <sub>8</sub>							
	Instrument, 99.5% & CP, 99%								
<b>Silane</b>	VLSI	SiH <sub>4</sub>							
	Semiconductor								
<b>Sulfur Hexafluoride</b>	CP, 99.8%	SF <sub>6</sub>							
<b>Xenon</b>	Research, 99.995%	Xe							

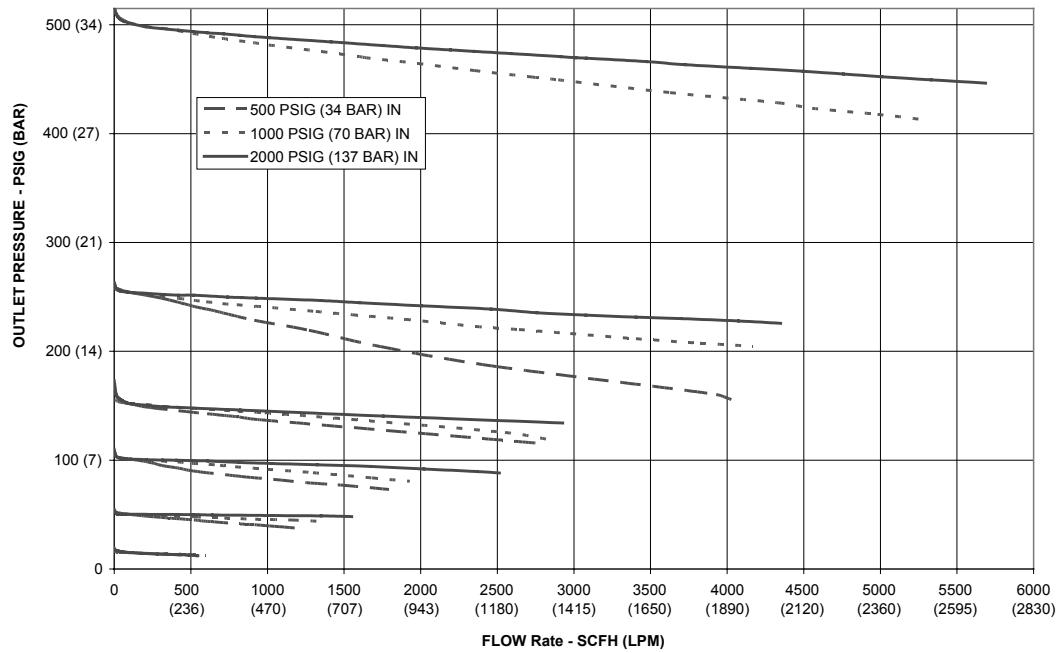
## Flow Curves for COB, COD, COE, COG, CBB, CBD, CBG, DOA, DOB, DOH, DAB, DBB, DBF, DBG, DBH, DBI Series



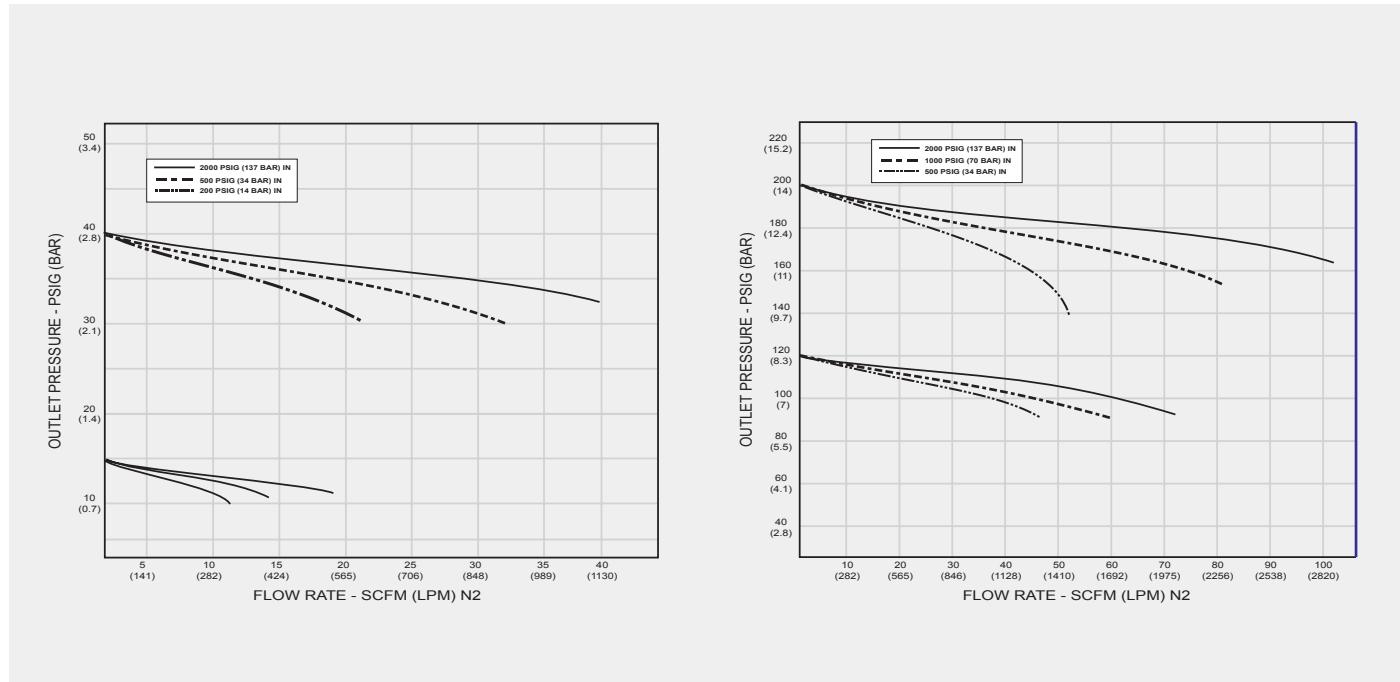
## Flow Curves for CAB, CAE, CCB, DAA, DAB, DCO, DCB Series



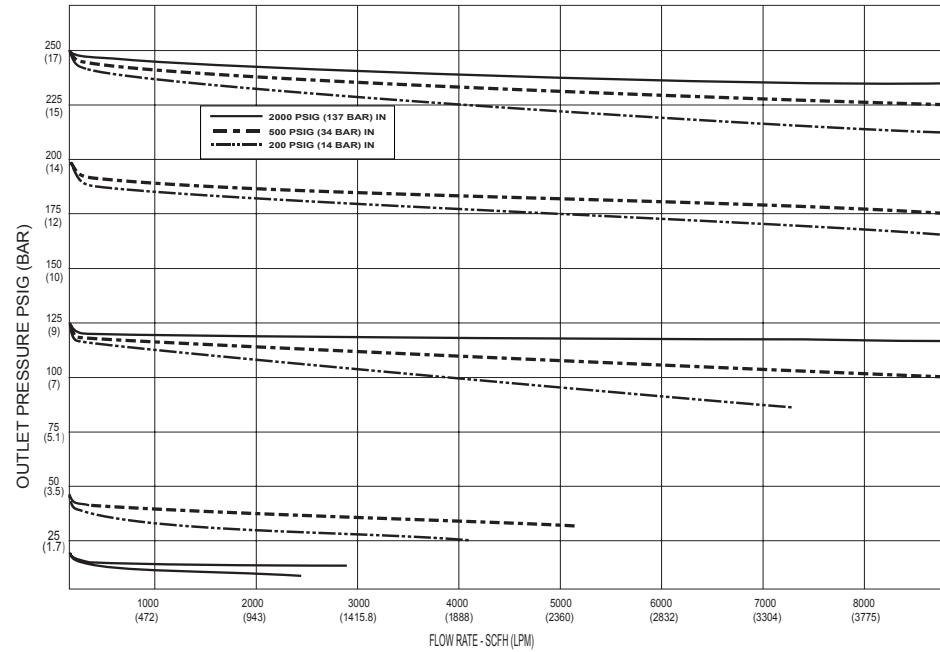
## Flow Curves for DOC, DOE, DBE, DCE, DDE Series



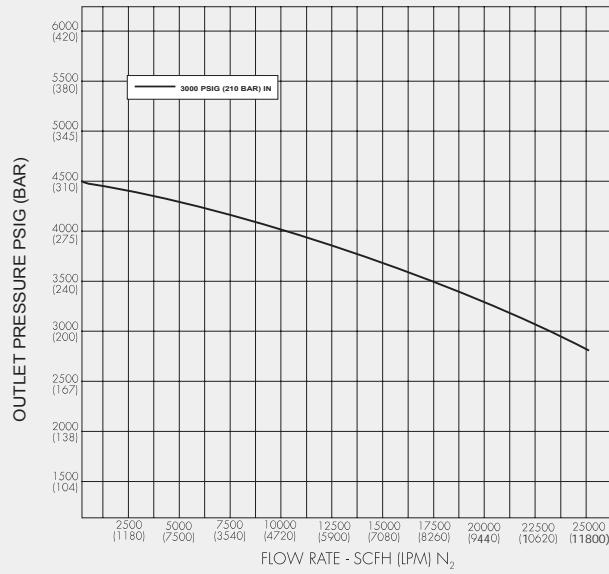
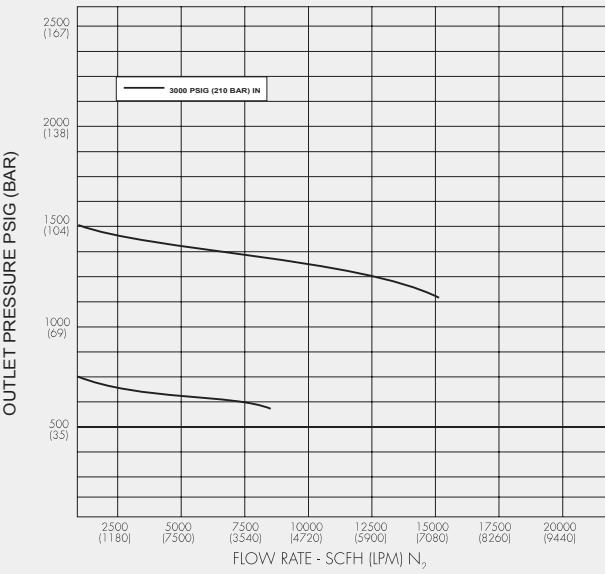
## Flow Curves for DEE Series



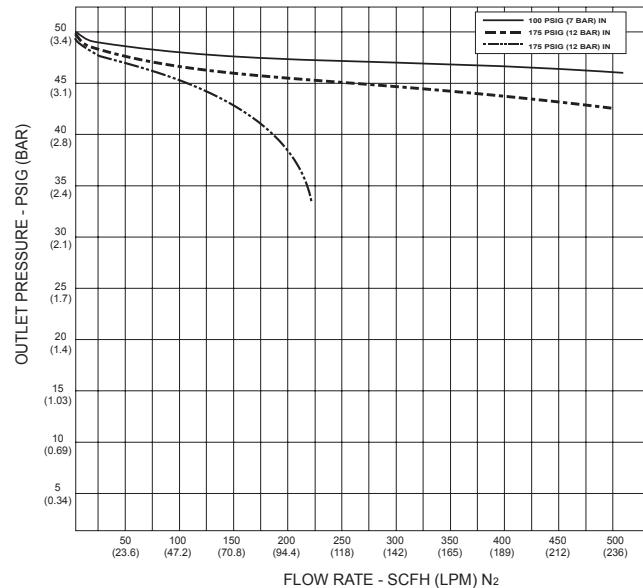
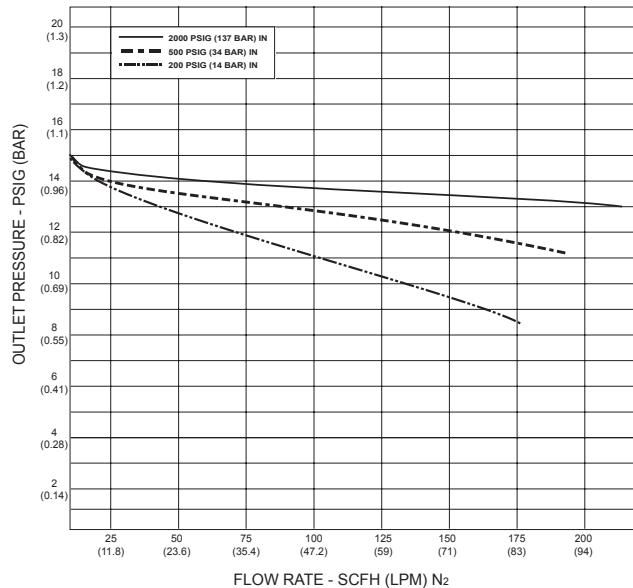
### Flow Curves for DHC, DHD, DHE, DHF Series



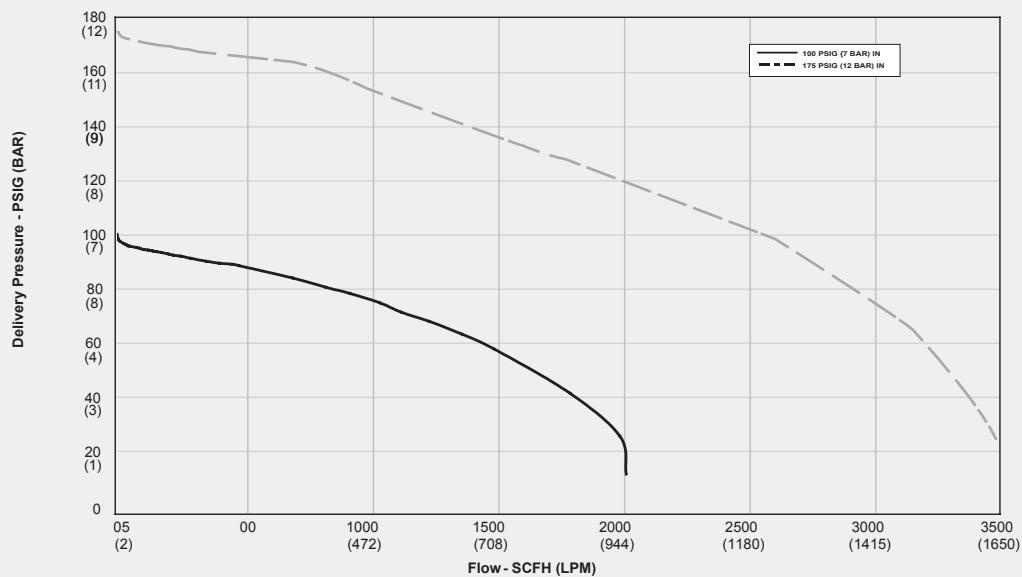
### Flow Curves for DIB, DIC Series



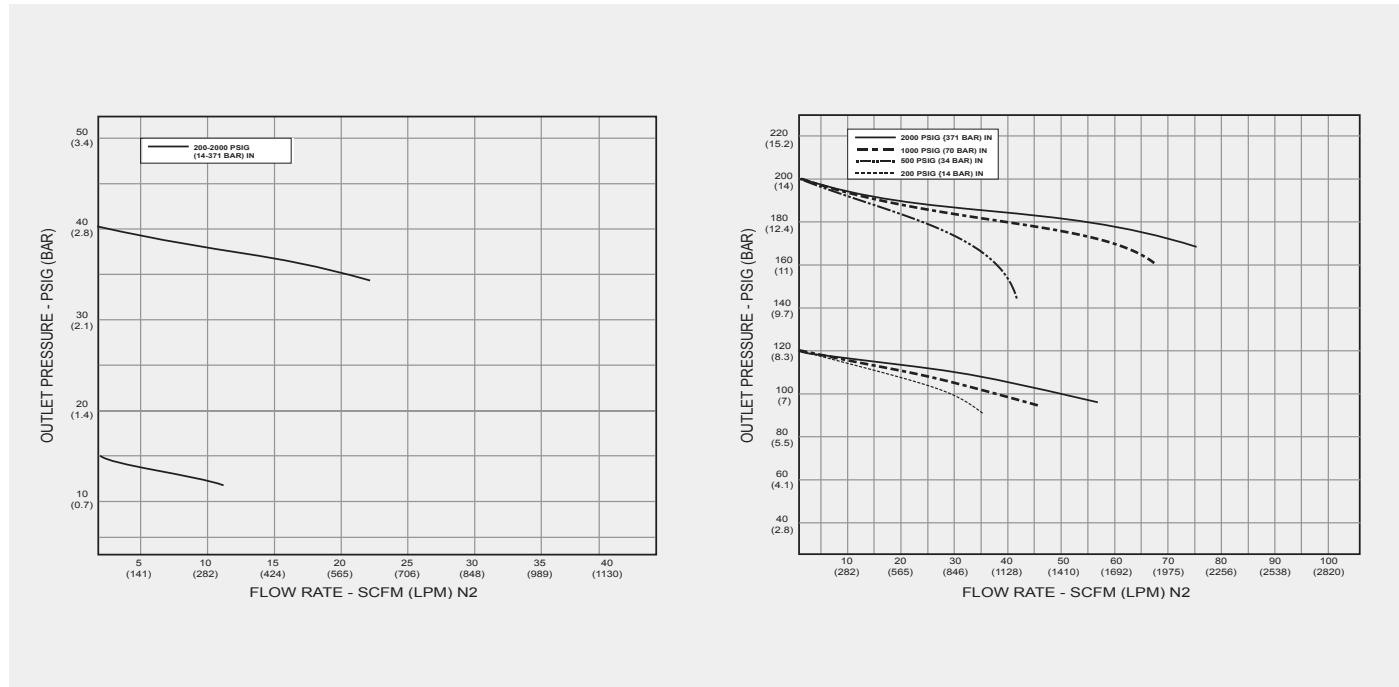
## Flow Curves for CBE Series



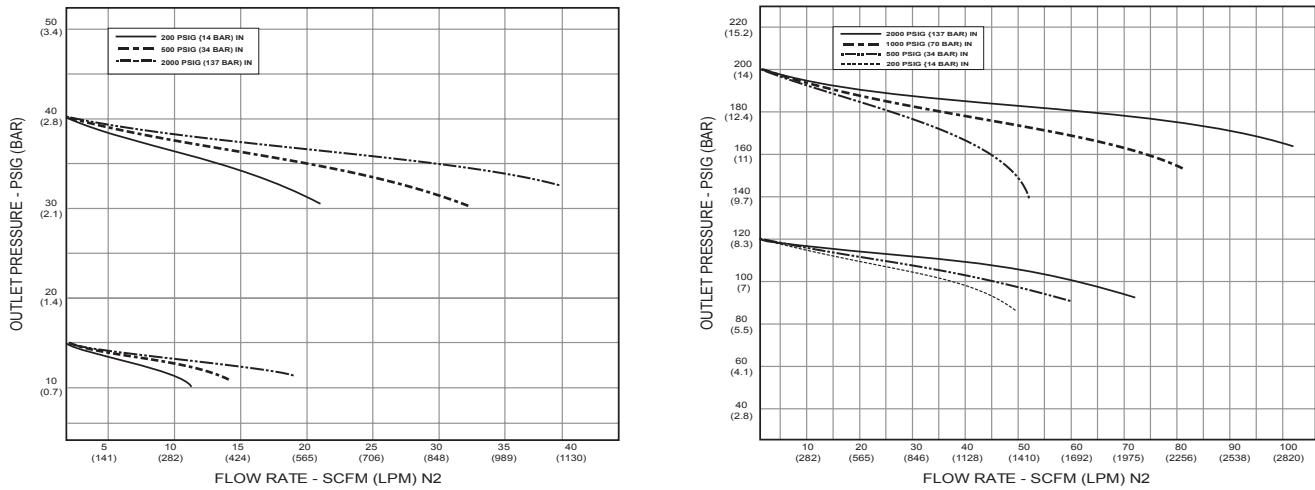
## Flow Curves for COH Series



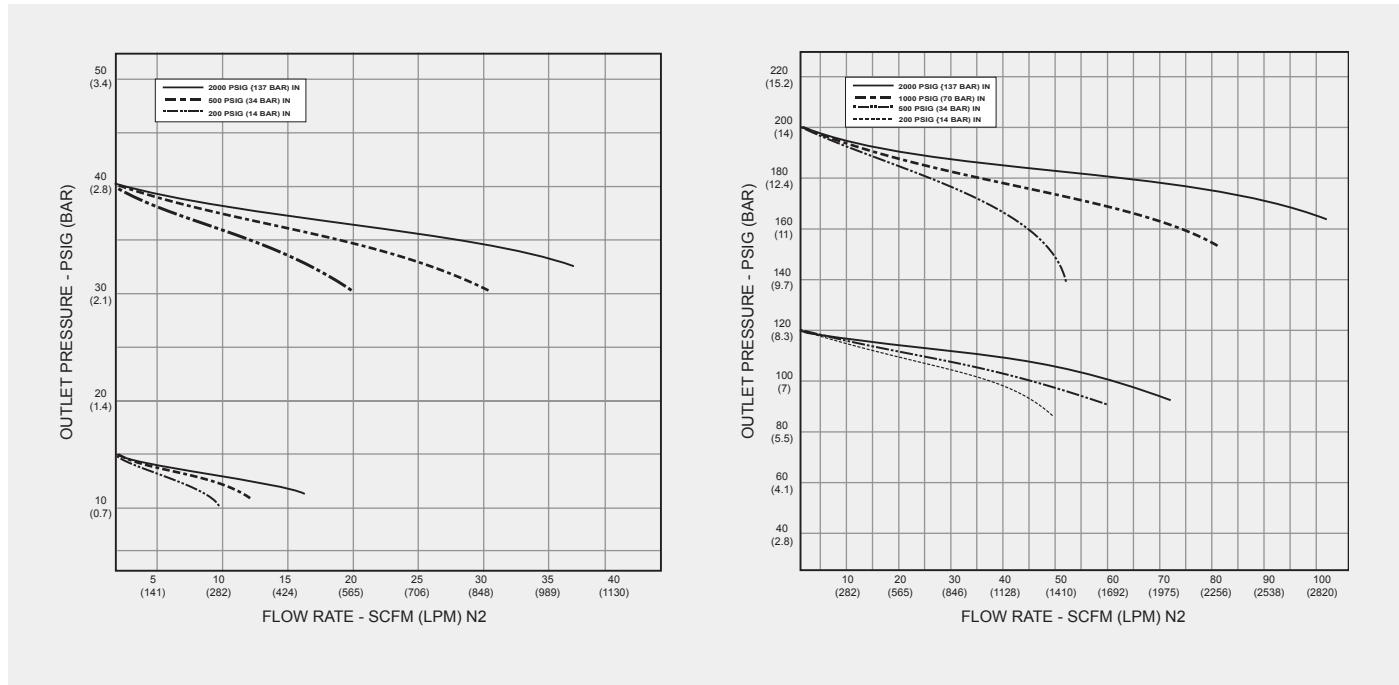
## Flow Curves for BAB Series



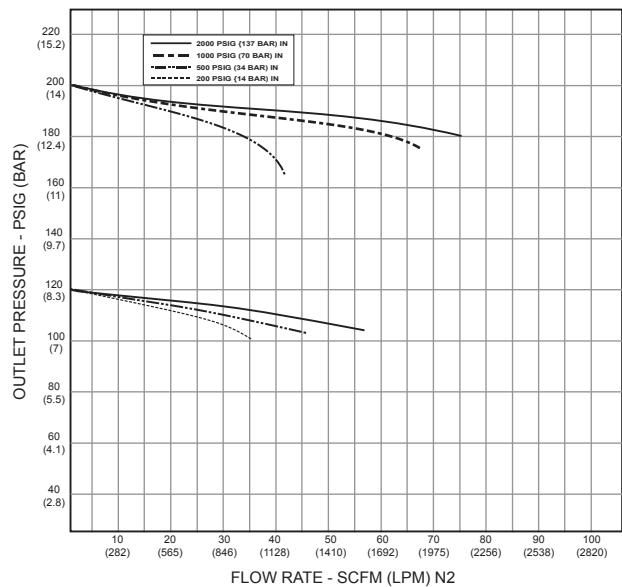
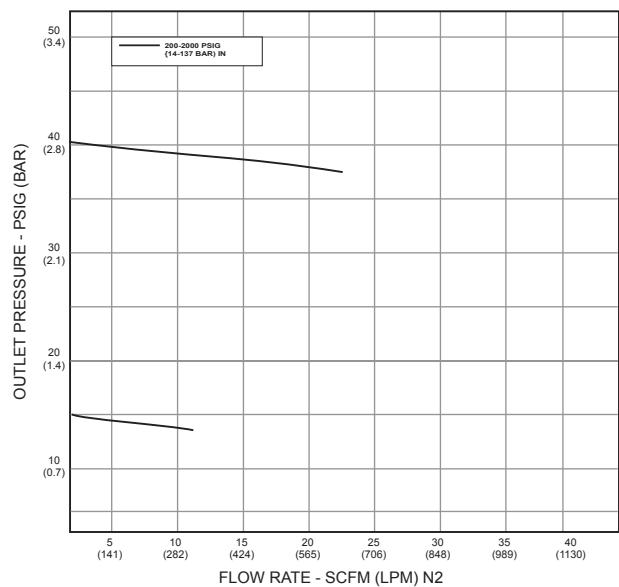
## Flow Curves for BOE, BOF Series



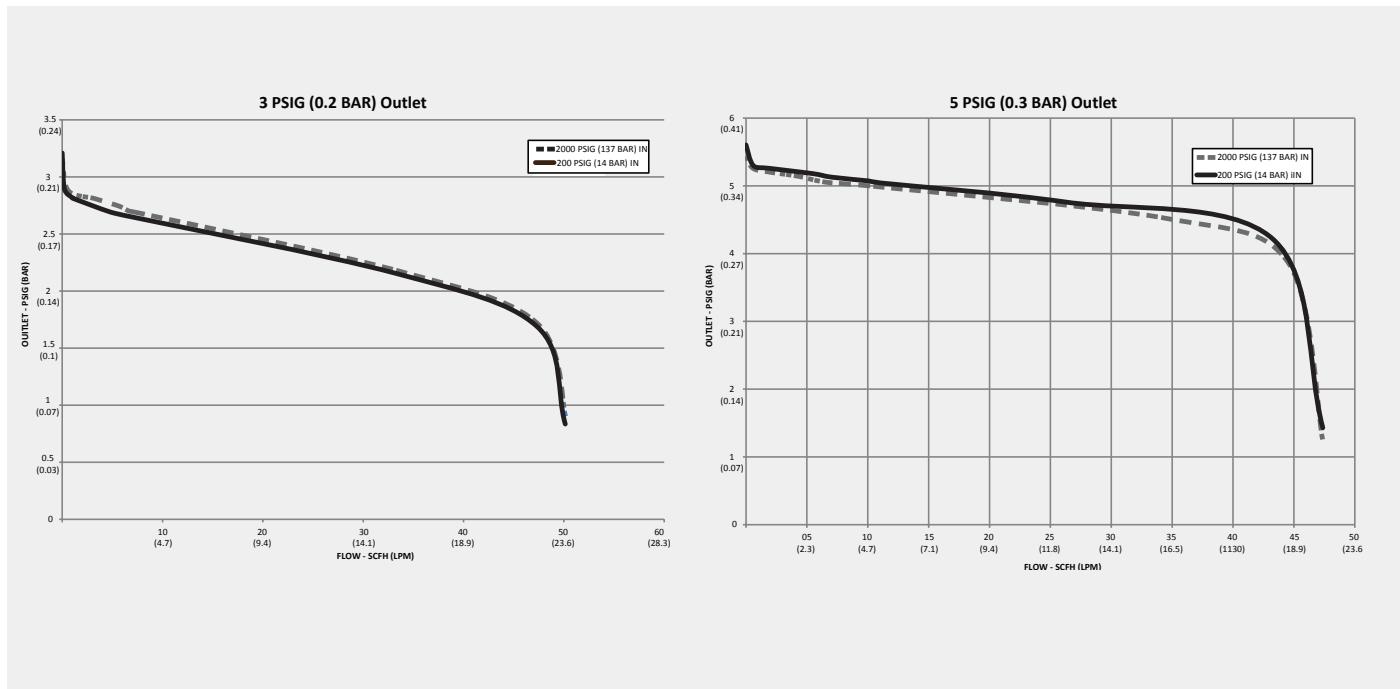
## Flow Curves for AOA1 and BOB Series Single Stage



## Flow Curves for AOA2 Series Dual Stage



## Flow Curves for BAC



## 附录-常用单位换算表1

长度	A	CM	FT	IN	M	MICRON	mm	YD
Multiply By								
A	-----	$1 \times 10^{-8}$	$3.28 \times 10^{-9}$	$3.93 \times 10^{-9}$	$1 \times 10^{-10}$	$1 \times 10^{-4}$	$1 \times 10^{-7}$	$1.09 \times 10^{-10}$
CM	$1 \times 10^8$	-----	$3.28 \times 10^{-2}$	$3.94 \times 10^{-1}$	$1 \times 10^{-2}$	$1 \times 10^4$	10	$1.09 \times 10^{-2}$
FT	$3.04 \times 10^9$	$3.048 \times 10^1$	-----	$1.2 \times 10^1$	$3.04 \times 10^{-1}$	$3.04 \times 10^5$	$3.04 \times 10^2$	$3.33 \times 10^{-1}$
IN	$2.54 \times 10^8$	$2.54 \times 10^0$	$8.33 \times 10^{-2}$	-----	$2.54 \times 10^2$	$2.54 \times 10^4$	$2.54 \times 10^1$	$2.77 \times 10^2$
M	$1 \times 10^{10}$	$1 \times 10^2$	$3.281 \times 10^0$	$3.93 \times 10^1$	-----	$1 \times 10^6$	$1 \times 10^3$	$1.09 \times 10^0$
MICRON	$1 \times 10^4$	$1 \times 10^{-4}$	$3.28 \times 10^{-6}$	$3.93 \times 10^{-5}$	$1 \times 10^{-6}$	-----	$1 \times 10^{-3}$	$1.09 \times 10^{-6}$
mm	$1 \times 10^7$	$1 \times 10^{-3}$	$3.28 \times 10^{-3}$	$3.93 \times 10^{-2}$	$1 \times 10^{-2}$	$1 \times 10^3$	-----	$1.09 \times 10^{-3}$
YD	$9.14 \times 10^9$	$9.14 \times 10^1$	$3 \times 10^0$	$3.6 \times 10^1$	$9.14 \times 10^{-1}$	$9.14 \times 10^5$	$9.14 \times 10^2$	-----

流量	CM <sup>3</sup> /MIN	CM <sup>3</sup> /SEC	FT <sup>3</sup> /HR	FT <sup>3</sup> /MIN	M <sup>3</sup> /HR	M <sup>3</sup> /MIN	L/HR	L/MIN
Multiply By								
CM <sup>3</sup> /MIN	-----	$1.66 \times 10^{-2}$	$2.12 \times 10^{-3}$	$3.53 \times 10^{-5}$	$6 \times 10^{-5}$	$1 \times 10^{-6}$	$6.0 \times 10^{-2}$	$1 \times 10^{-3}$
CM <sup>3</sup> /SEC	$6 \times 10^1$	-----	$1.27 \times 10^{-1}$	$2.12 \times 10^{-3}$	$3.6 \times 10^{-3}$	$6 \times 10^{-5}$	$3.6 \times 10^0$	$6 \times 10^{-2}$
FT <sup>3</sup> /HR	$4.72 \times 10^2$	$7.87 \times 10^1$	-----	$1.67 \times 10^{-2}$	$2.83 \times 10^{-2}$	$4.72 \times 10^{-4}$	$2.83 \times 10^1$	$4.72 \times 10^{-1}$
FT <sup>3</sup> /MIN	$2.83 \times 10^4$	$4.72 \times 10^2$	$6.0 \times 10^1$	-----	$1.7 \times 10^1$	$2.83 \times 10^{-2}$	$1.7 \times 10^{-2}$	$2.83 \times 10^1$
M <sup>3</sup> /HR	$1.67 \times 10^4$	$2.78 \times 10^2$	$3.53 \times 10^1$	$5.89 \times 10^{-2}$	-----	$1.67 \times 10^{-2}$	$1 \times 10^3$	$1.67 \times 10^1$
M <sup>3</sup> /MIN	$1 \times 10^6$	$1.67 \times 10^4$	$2.12 \times 10^3$	$3.53 \times 10^1$	$6.0 \times 10^1$	-----	$6.0 \times 10^4$	$1 \times 10^3$
L/HR	$1.67 \times 10^1$	$2.78 \times 10^{-1}$	$3.53 \times 10^{-2}$	$5.89 \times 10^{-4}$	$1 \times 10^{-3}$	$1.67 \times 10^{-5}$	-----	$1.67 \times 10^{-2}$
L/MIN	$1 \times 10^3$	$1.67 \times 10^1$	$2.12 \times 10^0$	$3.53 \times 10^{-2}$	$6.0 \times 10^{-2}$	$1 \times 10^{-3}$	$6.0 \times 10^1$	-----

压力	ATM	BAR	FT OF H2O	IN OF HG	IN OF H2O	KG/CM2	kPa	mm OF HG	PSI
Multiply By									
ATM	-----	1.013	33.932	29.921	407.183	1.033	101.317	760	14.696
BAR	0.987	-----	33.488	29.53	401.859	1.019	100	750.062	14.504
FT. OF H2O	0.029	0.029	-----	0.883	12	0.03	2.989	22.419	0.433
IN OF HG	0.033	0.034	1.134	-----	13.6	0.035	3.377	25.4	0.491
IN OF H2O	0.002	0.002	0.083	0.074	-----	0.003	0.025	1.868	0.036
KG/CM2	0.968	0.981	32.808	28.959	393.701	-----	98.039	735.559	14.223
kPa	0.009	0.01	0.335	0.296	4.015	0.01	-----	7.501	0.145
mm OF HG	0.001	0.001	0.045	0.039	0.535	0.001	0.133	-----	0.019
PSI	0.06805	0.06895	2.3089	2.036	27.7085	0.07031	6.89465	51.175	-----

Weight	GM	KG	MG	OZ	LBS	TON
Multiply By						
GM	-----	0.001	1000	0.035	0.002	$1.1 \times 10^{-6}$
KG	1000	-----	$1 \times 10^6$	$3.53 \times 10^1$	2.205	0.001
MG	0.001	$1 \times 10^{-6}$	-----	$3.53 \times 10^{-4}$	$2.205 \times 10^{-6}$	$1.1 \times 10^{-9}$
OZ	$2.83 \times 10^1$	$2.83 \times 10^{-2}$	$2.83 \times 10^4$	-----	$6.25 \times 10^{-2}$	$3.13 \times 10^{-5}$
LBS	$4.54 \times 10^2$	$4.54 \times 10^1$	$4.54 \times 10^5$	16	-----	$5.0 \times 10^{-4}$
TON	$9.07 \times 10^5$	$9.07 \times 10^2$	$9.07 \times 10^8$	$3.2 \times 10^4$	$2.0 \times 10^3$	-----

## 附录-常用单位换算表

### 附录-常用单位换算表2

容 积	CM3 (ML)	FT3	IN3	M3	US GAL.	L
Multiply By						
CM3 (ML)	-----	$3.53 \times 10^{-5}$	$6.10 \times 10^{-2}$	$1 \times 10^{-6}$	$2.56 \times 10^{-3}$	$1 \times 10^{-3}$
FT3	$2.83 \times 10^{-4}$	-----	$1.73 \times 10^{-3}$	$2.83 \times 10^{-2}$	7.48	28.32
IN3	1.64	$5.79 \times 10^{-6}$	-----	$1.64 \times 10^{-5}$	$4.33 \times 10^{-3}$	$1.64 \times 10^{-2}$
M3	$1 \times 10^{-6}$	3.53	$6.10 \times 10^{-4}$	-----	$2.64 \times 10^{-2}$	$1 \times 10^{-3}$
US GAL.	$3.79 \times 10^{-3}$	$1.34 \times 10^{-1}$	$2.31 \times 10^{-2}$	$3.79 \times 10^{-3}$	-----	3.79
L	$1 \times 10^{-3}$	$3.54 \times 10^{-2}$	$6.10 \times 10^{-1}$	$1 \times 10^{-3}$	$2.64 \times 10^{-1}$	-----

温 度	°C	°F	Multiply By	°K	°R
°C + 17.78	-----	1.8	-----	-----	-----
°C + 273.16	-----	-----	-----	1	-----
°F - 32	0.55556	-----	-----	-----	-----
°F + 459.72	-----	-----	-----	-----	1
°K + 273.16	1	-----	-----	-----	-----
°R - 459.72	-----	1	-----	-----	-----

Density	GMS/CM <sup>3</sup>	KG/CM <sup>3</sup>	LBS/FT <sup>3</sup>	LBS/IN <sup>3</sup>	LBS/US GAL.
Multiply By					
GMS/CM <sup>3</sup>	-----	1000	$6.24 \times 10^{-1}$	$3.61 \times 10^{-2}$	8.35
KG/CM <sup>3</sup>	$1 \times 10^{-3}$	-----	$6.24 \times 10^{-2}$	$3.61 \times 10^{-3}$	$8.35 \times 10^{-3}$
LBS/FT <sup>3</sup>	$1.60 \times 10^{-2}$	$1.60 \times 10^{-1}$	-----	$3.61 \times 10^{-5}$	$1.33 \times 10^{-1}$
LBS/IN <sup>3</sup>	$2.77 \times 10^{-1}$	$2.77 \times 10^{-4}$	$1.73 \times 10^{-3}$	-----	$2.31 \times 10^{-2}$
LBS/US GAL.	$1.2 \times 10^{-1}$	$1.2 \times 10^{-2}$	7.48	$4.33 \times 10^{-3}$	-----

### Concentration

Concentration	Equivalent
1,000,000 ppm	100%
100,000 ppm	10%
10,000 ppm	1%
1,000 ppm	0.10%
100 ppm	0.01%
10 ppm	0.00%
1 ppm	0.00%
1,000 ppb	1 ppm
100 ppb	0.1 ppm
10 ppb	0.001 ppm

### Scientific Notatio

Notation	Equivalent	Notation	Equivalent
$1 \times 10^{10}$	10,000,000,000	$1 \times 10^{-1}$	0.1
$1 \times 10^9$	1,000,000,000	$1 \times 10^{-2}$	0.01
$1 \times 10^8$	100,000,000	$1 \times 10^{-3}$	0.001
$1 \times 10^7$	10,000,000	$1 \times 10^{-4}$	0.0001
$1 \times 10^6$	1,000,000	$1 \times 10^{-5}$	0.00001
$1 \times 10^5$	100,000	$1 \times 10^{-6}$	0.000001
$1 \times 10^4$	10,000	$1 \times 10^{-7}$	0.0000001
$1 \times 10^3$	1,000	$1 \times 10^{-8}$	0.00000001
$1 \times 10^2$	100	$1 \times 10^{-9}$	0.000000001
$1 \times 10^1$	10	$1 \times 10^{-10}$	0.0000000001

### Physical Constants

	Value	Units-
Avagadro's Number	$6.022 \times 10^{23}$	molecules/gm-mole
Gas Law Constant	1.98719	cal/(gm-mol)(°K)
	1.98719	Btu/(lbs-mole)(°R)
	82.0568	(cm <sup>3</sup> )(atm)/(gm-mole)(°K)
	0.082 0568	(L)(atm)/(gm-mole)(°K)
	10.7314	(ft <sup>3</sup> )(lb)/(in <sup>2</sup> )(lbs-mole)(°R)
	0.730228	(ft <sup>3</sup> )(atm)/(lbs-mole)(°R)