



**PETER  
PAUL**

electronics co., inc.

世界一流的电磁阀  
World Class Solenoid Valves



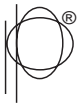
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**PETER  
PAUL**

PeterPaul (彼得保罗) 非常重视一个术语---“质量”，它表述了我们所有产品特质，60多年以来，我们反复以“质量第一”的理念经营PeterPaul产品，并在所有产品制造和服务的流程中给予贯穿，成就了我们在电磁阀尖端领域的发展和运营规模的稳步壮大。

PeterPaul (彼得保罗) 严格按照国际质量管理体系要求，给予企业组织架构完善，拥有从市场调研、研发设计、制造过程控制、售后服务组织等全员配备。PeterPaul (彼得保罗) 一直保持世界顶端材料、先进生产技术的引用；市场的准确情报提供给研发部门，保证了PeterPaul (彼得保罗) 不断创造新的高科技产品，高速制造，最高品质的产品。

PeterPaul (彼得保罗) 每一位员工将竭诚为您服务，无论是在产品咨询服务和交付，都是PeterPaul (彼得保罗) 非常重视其品质。

在未来，PeterPaul (彼得保罗) 的销售部门同仁将为您解答问题并给予解决问题。请随时拨打各代表处热线电话。因为您的选择，使PeterPaul (彼得保罗) 人感到自豪，让他们事业的成长，让他们的工作充满活力，这也是PeterPaul (彼得保罗) 人的荣誉。



**Paul S. Mangiafico**  
*President*



**Michael Mangiafico**  
*Executive Vice President*



**Josephine Mangiafico**  
*Secretary / Treasurer*



**Mark Mangiafico**  
总工程师



**Richard Ronzello**  
销售经理



77000 平方工厂 (总部) 位于康涅狄格州. 新不列颠



23500 平方的无尘电子工厂位于：美国波多黎各





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PeterPaul (彼得保罗)公司拥有几十万平方的现代化作业工场，包括具有一定规模的现代化的样板房、机加车间、模具中心等；同时PeterPaul公司拥有一支研发、生产、销售经验丰富的规模管理团队，然而PeterPaul产品现实最重要的环节就是人、机器；特别是研发团队，他们在各个专业领域里拥有多年的工作经验、奉献精神；为PeterPaul产品和服务的品质提供更有力的保证。



**Main Office, New Britain** 销售部门主办公室



**Engineering** 工艺工程部



**Lab** 实验室



**Model Shop** 模具车间



**Tool Room** 工装夹具车间



**Multiple Spindle Screw Machines** 自动机丝车间



**CNC Machining**



**CNC Machining** CNC 加工中心



**CNC Machining**





**Machine Shop** 自动加工车间



单主轴螺杆机



计算机控制的钝化线



**Welding** 自动焊接车间



**Inspection** 全检工序



**Ringer Test** 柱塞件检验测试工序



**Assembly** 组装车间



**Assembly Work Cell** 装配总检工序



**Packing Room** 包装车间



**Warehouse** 仓库



**Office, Puerto Rico** 位于Puerto Rico的办公室



**Coil Wrapping, Puerto Rico** 线圈包装车间



**Bobbin Molding and other parts, Puerto Rico**  
外壳支架成型以及其他配件加工车间



**Coil Winding, Puerto Rico**  
线圈绕组工序



**Coil Encapsulation, Puerto Rico**  
线圈封装工序

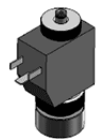


## 58系列产品

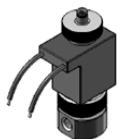
**PeterPaul产品线最小型系列** —  
低价格、低功耗、高性能。  
适用于固体状态的控制程序。



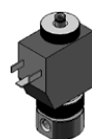
引线  
二位二通型



DIN插头  
二位二通型



引线  
二位三通型



手调式、DIN插头  
二位三通型



## 15系列产品

**小黑盒子** —  
磁性元件包裹在环氧树脂外壳里，  
保证其耐用性、可靠性。内部件为不锈钢  
或铝合金。



DIN 插头  
二位二通型



管道引线  
二位二通型



引线  
二位三通型

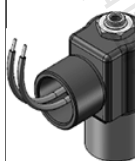


DIN 隐形插头  
二位三通型

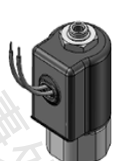


## 50系列产品

**微型多功能** —  
经济型空间而设计；无需大空间  
安装要求。典型应用包括：医疗设备、  
分析仪器、手持式设备等。



管道引线  
二位二通



扣环引线  
二位二通



扣环引线  
二位三通



管道引线  
二位三通



## 30系列产品

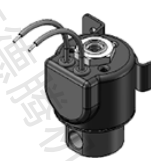
**兼顾成本和微型** -  
同时满足小尺寸和低价情况下的二通及三  
通系列电磁阀 该产品标准使用黄铜材质或不  
锈钢。



管道引线  
二位二通



扣环引线  
二位二通



扣环引线  
二位三通



管道引线  
二位三通



## 20系列产品

**稳定、可靠性强** -  
该系列的二通或三通  
电磁阀拥有成熟的精密控制  
性能，它的可靠性是电磁阀  
行业的标准创造者。



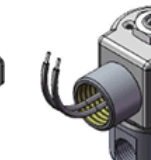
管道引线  
二位二通



扣环引线  
二位二通



扣环引线  
二位三通

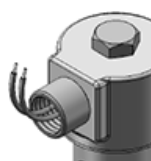


管道引线  
二位三通

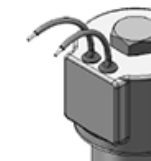


## 70系列产品

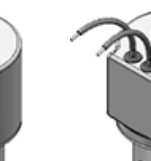
**超级电磁阀** -  
该系列的二通或三  
通电磁阀拥有更大通径尺  
寸选择，运行更稳定。



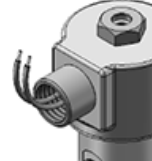
管道引线  
二位二通



扣环引线  
二位二通



扣环引线  
二位三通



管道引线  
二位三通







## EXPLOSION PROOF 防爆电磁阀系列

所有的防爆安全措施都经 UL 和 CSA 的防爆认证；并满足危险场所测试要求；且能保证在高的压力条件下能安全、连续运行。



E80系列  
直动式



E50系列  
二位二通型



E20系列  
二位三通 (EXH管排式)



EH20系列  
高压、防爆  
二位二通常闭型



EH20系列  
高压、防爆  
二位三通常闭型



EH20系列  
高压、防爆  
二位二通常开型

## HIGH PRESSURE ( 高压电磁阀系列 )

超高压下拥有零泄漏密封结构；承受压力可达10000PSI .



EH20系列  
高压防爆型



EH23系列  
二位三通常闭型



H20系列  
二位二通常闭型

## HIGH FLOW 高流速

大流量,大通径阀用于  
迅速转储或填充。



70系列  
大流量  
二位二通常闭型



80系列  
定时控制型



80系列  
内导式



80系列  
直动式

## 黑色的小盒子

以满足现代设计和行业应用程序的挑战

- 体积小
- 重量轻
- 经济型成本
- 工作压力 - 500PSI
- 高品质工艺设计制造



15系列产品经过UL、CSA国际安全认证机构认证。

15系列阀由二位二通常开、二位二通常闭，和二位三通多功能阀组成，以满足客户各种应用程序的要求。阀门可用于空气、惰性气体和液体等介质，压力范围：从真空到 500 PSI 压力范围；取决于孔口尺寸和配置。

不锈钢或铝合金的内部件。所有磁性元件装在耐久性和可靠性非常强的环氧树脂材料的外壳里可满足对于那些需要额外隔热要求的应用环境。溶解性介质可选择氟橡胶和其他弹性体。

### 电磁阀的温范围度：

标准阀：环境温度：-18°C ~ 40°C；介质温度：-18°C ~ 65°C

如需更多特殊温度应用，请联系中国办事处。

标准型电磁阀端口连接是：1/8" NPT.

其他特殊应用选项请联系中国办事处。

### 额定功率：

AC (交流电源) : 8.5 W

AC (交流电源) : 7.0 W (只适合：二位二通常闭型)

DC (直流电源) : 10.5W

整个线圈和磁结构是环氧封装；

端口连接为内螺纹，为了您的方便，我们还同时提供母螺纹连接（符合 NO.50-17029），电气线缆的线规为：24AWG。

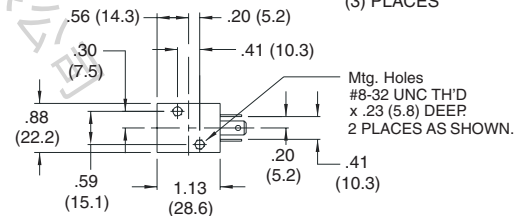
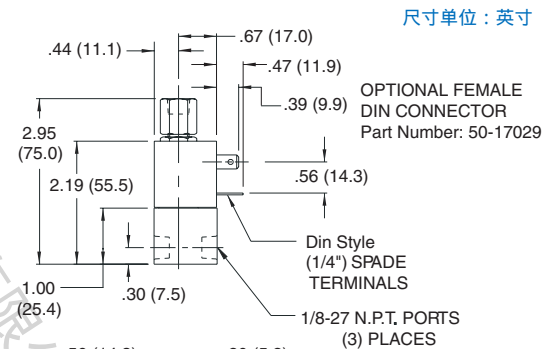
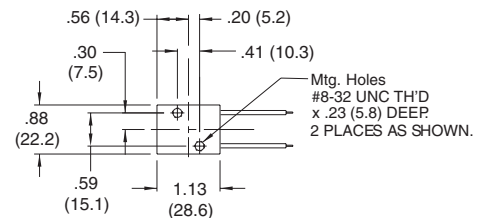
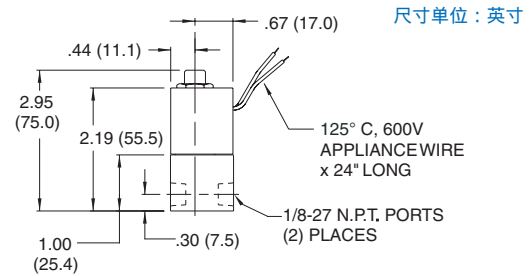
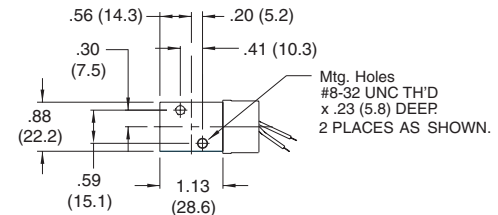
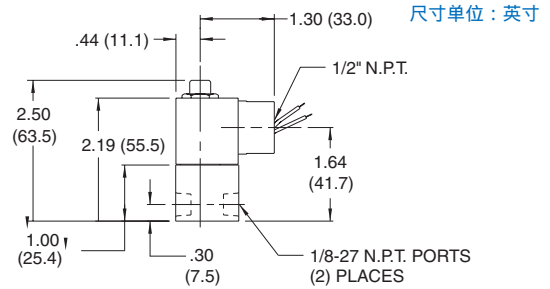
订购时，请注明阀的数量、电压和频率要求。（例如：152G2DEM-120v./60hz）；

阀重约为115g---130g之间，根据阀的部件选择不同而定。叠阀、黄铜和不锈钢阀体等选项请联系中国办事处。

维修包--请联系中国办事处。

FOR FLOW CHARTS SEE PAGES 95-97

电磁阀流量曲线图请查看95-97页







规格类型	工作原理	最大工作压力 (PSI)		通径 单位: 英寸		CV 系数		电磁阀型号 引线型电气连接	电磁阀型号 DIN型电气连接	电磁阀型号 管道引线型 电气连接
		AC	DC	INLET	EXH.	INLET	EXH.			
151系列 二位三通 常开型 **	断电状态 通电状态 	400 200 125 40	400 200 125 40		1/32 3/64 1/16 3/32		.020 .048 .075 .130	151G2XGM 151H2XGM 151J2XGM 151K2XGM	151G2XEM 151H2XEM 151J2XEM✓ 151K2XEM	151G2XCM 151H2XCM 151J2XCM 151K2XCM
152系列 二位三通 常闭型	断电状态 通电状态 	500 400 200 150	500 400 200 100	1/32 3/64 1/16 3/32		.022 .055 .075 .130	152G2DGM 152H2DGM 152J2DGM ✓ 152K2DGM	152G2DEM 152H2DEM 152J2DEM 152K2DEM	152G2DCM 152H2DCM 152J2DCM 152K2DCM	
153系列 二位三通 常闭型 直排大气	断电状态 通电状态 	200 150 150 100 60 50	200 150 150 100 60 50	1/32 3/64 3/64 1/16 3/32 3/32	1/32 3/64 1/16 1/16 3/32 3/32	.022 .055 .075 .075 .130 .130	.020 .048 .075 .075 .075 .130	153GG2DGM 153HH2DGM 153HJ2DGM 153JJ2DGM ✓ 153KJ2DGM 153KK2DGM	153GG2DEM 153HH2DEM 153HJ2DEM 153JJ2DEM 153KJ2DEM 153KK2DEM	153GG2DCM 153HH2DCM 153HJ2DCM 153JJ2DCM 153KJ2DCM 153KK2DCM
153系列 二位三通 常闭型 管道排气 **	断电状态 通电状态 	200 150 150 100 60 50	200 150 150 100 60 50	1/32 3/64 3/64 1/16 3/32 3/32	1/32 3/64 1/16 1/16 3/32 3/32	.022 .055 .075 .075 .130 .130	.020 .048 .075 .075 .075 .130	153GG2XGM 153HH2XGM 153HJ2XGM 153JJ2XGM ✓ 153KJ2XGM 153KK2XGM	153GG2XEM 153HH2XEM 153HJ2XEM 153JJ2XEM 153KJ2XEM 153KK2XEM	153GG2XCM 153HH2XCM 153HJ2XCM 153JJ2XCM 153KJ2XCM 153KK2XCM
154系列 二位三通 常开型 **	断电状态 通电状态 	150 125 100 75 50	150 125 100 75 50	1/32 3/64 1/16 1/16 3/32 3/32	1/32 3/64 1/16 1/16 3/32 3/32	.020 .048 .075 .075 .130 .130	.022 .055 .075 .075 .130 .130	154GG2XGM 154HH2XGM 154JJ2XGM 154JK2XGM 154KK2XGM	154GG2XEM 154HH2XEM 154JJ2XEM 154JK2XEM 154KK2XEM	154GG2XCM 154HH2XCM 154JJ2XCM 154JK2XCM 154KK2XCM
155系列 二位三通 换向控制 **	断电状态 通电状态 	300 200 100 75 75	200 150 75 40 40	1/32* 3/64* 1/16* 3/32* 3/32*	1/32 3/64 1/16 1/16 3/32	.022* .055* .075* .130* .130*	.020 .048 .075 .075 .130	155GG2XGM 155HH2XGM 155JJ2XGM 155KJ2XGM 155KK2XGM	155GG2XEM 155HH2XEM 155JJ2XEM 155KJ2XEM 155KK2XEM	155GG2XCM 155HH2XCM 155JJ2XCM 155KJ2XCM 155KK2XCM
156系列 二位三通 多功能型 **	断电状态 通电状态 	125 100 65 25	125 100 50 25	1/32* 3/64* 1/16* 3/32*	1/32 3/64 1/16 3/32	.022* .055* .075* .130*	.020 .048 .075 .130	156GG2XGM 156HH2XGM 156JJ2XGM 156KK2XGM	156GG2XEM 156HH2XEM 156JJ2XEM ✓ 156KK2XEM	156GG2XCM 156HH2XCM 156JJ2XCM 156KK2XCM

\*常闭型通径

\*\*介质(液体)的粘度可能会改变压力等级的评级 - 咨询中国办事处。

注: 上述检查(✓) 阀门是最流行的基于销售可能会在经销商库存。

### 二位二通常开型--规格书

#### 工作条件

介质：空气、水和其他流体使用标准密封件-BUNA（丁腈橡胶）密封,热水、蒸汽、汽油、等许多特殊应用的密封材料（由于流体的粘度变化可能会改变电磁阀的额定压力评级，请咨询中国办事处）

#### 温度范围：

标准阀的环境温度：-0癈（-18℃）~ 104癈（40℃）；介质温度：0癈（-18℃）~ 150癈（65℃）。

可选大大高于或远低于环境温度或介质温度的特殊应用，请咨询中国办事处。

**真空：**5微米(5μm) - 更高要求请仔细中国办事处。  
**泄漏：**标准阀--零泄漏；  
**爆破压力：**20、30、50系列 - 5000 PSI；70系列 - 4000 PSI；  
**最大工作压差：**见下列表格明细。

#### 电气特性：

**电压范围：**20系列：5 ~ 825V AC 50/60HZ；1.8 ~ 265V DC  
 30系列：5.2 ~ 650V AC 50/60HZ；2 ~ 240V DC  
 50系列：5.4 ~ 575V AC 50/60HZ；3 ~ 300V DC  
**额定功率：**70系列：12 ~ 1050V AC 50/60HZ；2.5 ~ 220V DC

系列	AC电源	DC电源	系列	AC电源	DC电源
20	9.5	8.7 W	50	7.0	6.0 W
30	8.0	8.0 W	70	16.0	18.0 W

**线圈结构：**非模压成型的A类，模压成型和封闭等级为F级（H级可选）

**电磁阀开关时间（气体）：**4 - 16毫秒。

#### 机械特性

**阀体材质：**不锈钢（标准）- 20、50和70系列；  
 不锈钢（可选）- 30系列；  
 黄铜（标准）- 30系列；  
 黄铜（可选）- 20、50、70系列-咨询工厂；  
 铝合金（可选）- 50系列 - 咨询工厂。

**通径尺寸：**请见列表；

**端口尺寸：**请见列表；

**电气连接：**扣环或1/2NPT管道连接--更多信息请咨询代表处；

**安全认证：**众多电磁阀型号经过UL/CSA认证-更多信息请咨询代表处。

更多选项 -- 二位二通常开型  
 更多选项请参考76-81  
 流量曲线图请参考95-97

#### 外亮引线选项--参考78页

**STRAIN RELIEF CONNECTOR**  
All Models

**SINGLE AUTOMOTIVE**  
All Models except 51

**DOUBLE AUTOMOTIVE**  
All Models except 51

**"AN" CONNECTOR**  
All Models

**SPLICE BOX HOUSING**  
All Models

**JIC HOUSING**  
Model 21

**YOKE**  
All Models

**MOUNTING BRACKET**  
All Models

#### 线圈选项--参考79页

**MOLDED COIL**  
All Models

**THIRD WIRE GROUND**  
All conduit Models

\*不超过250PSI

#### POTTED COIL & HOUSING

All Models

**SPADE TERMINAL COIL - MOLDED**  
Models 21, 31, 51

**HIGH TEMPERATURE MOLDED COIL**  
All Models

**EUROPEAN DIN STYLE COIL**  
Models 21, 31

#### 阀体选项--参考80页

**FINE METERING**  
Model 21

**METERING TO 3/32 ORIFICE**  
Model 21

**MANUAL OVERRIDE**  
21\*, 71

**METERED EX PORT**  
Models 21, 31  
Consult Factory

#### 端口选项--参考81页

**BOTTOM CAVITY PORT**  
All Models

**MANIFOLD MOUNT**  
All Models

**FLANGE MOUNT**  
Models 21, 71

#### 杂项选择--参考76页

**SILVER SHADING RING**  
All Models

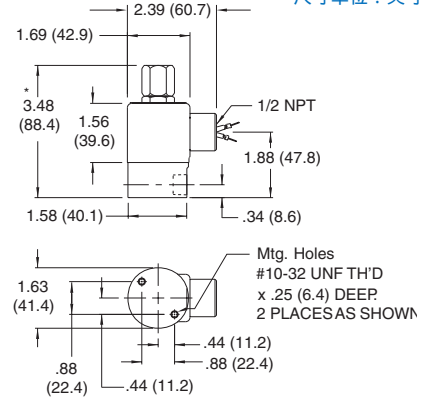
**ALUMINUM SHADING RING**  
All Models

**BUILT IN MUFFLER**  
All Models

**UNIVERSAL MOUNTING BRACKET**  
Models 21, 31, 51

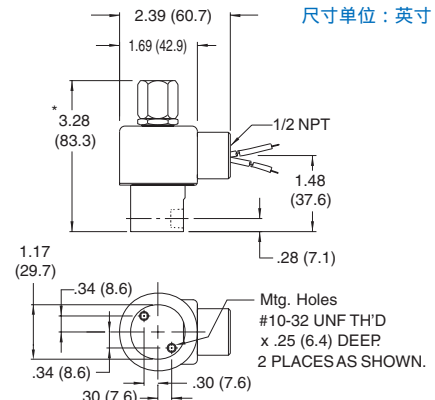
注：某些选项的可用性、选项组合可能会有所不同  
 单位数量的命令 - 咨询代表或工厂。

尺寸单位：英寸



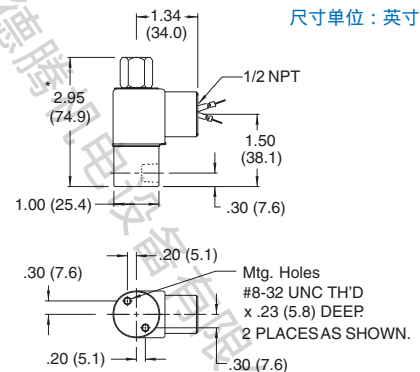
20系列二位二通常开型外形尺寸图

尺寸单位：英寸



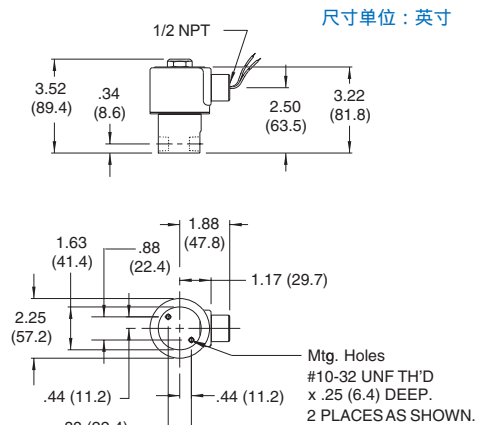
30系列二位二通常开型外形尺寸图

尺寸单位：英寸



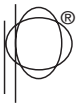
50系列二位二通常开型外形尺寸图

尺寸单位：英寸



70系列二位二通常开型外形尺寸图





## 20系列 -- 21型

最大压差 单位: PSI		通径规格 单位: 英寸	CV系数	电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	扣环引线外壳 阀净重: 0.5KG 1/8 NPT PORTS	1/4 NPT PORTS	管道引线外壳 阀净重: 0.5KG 1/8 NPT PORTS	1/4 NPT PORTS	
*400 (700)*	400 (700)	1/32	.024	21G7XGV	21G9ZGV	21G7XCV	21G9ZCV	K21GDX
235 (500)	235 (500)	3/64	.053	21H7XGV	21H9ZGV	21H7XCV	21H9ZCV	K21HDX
150 (350)	150 (350)	1/16	.095	21J7XGV	21J9ZGV	21J7XCV	21J9ZCV	K21JDX
100 (150)	100 (150)	3/32	.156	21K7XGV	21K9ZGV	21K7XCV	21K9ZCV ✓	K21KDX
35 (40)	35 (40)	1/8	.201	°21N7XGV	°21N9ZGV	°21N7XCV	°21N9ZCV	K21NDX



扣环引线外壳 二位二通常开      管道引线型外壳 二位二通常开

°VALVES WITH 1/8 SLEEVE ORIFICE ARE UL LISTED ONLY

## 30系列 -- 31型

最大压差 单位: PSI		通径规格 单位: 英寸	CV系数	电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	扣环引线外壳 阀净重: 0.5KG 1/2 NPT PORTS	1/2 NPT PORTS	管道引线外壳 阀净重: 0.5KG 1/2 NPT PORTS	1/2 NPT PORTS	
300	300	1/32	.024	31G5XGV	31G5XCV	31G5XCV	31G5XCV	K31GDX K31HDX
175	175	3/64	.052	31H5XGV	31H5XCV	31H5XCV	31H5XCV	K31JDX K31KDX
125	125	1/16	.095	31J5XGV	31J5XCV	31J5XCV	31J5XCV	
75	75	3/32	.160	31K5XGV ✓	31K5XCV	31K5XCV	31K5XCV	



扣环引线外壳 二位二通常开      二位二通常开 管道引线外壳

## 50系列 -- 51型

最大压差 单位: PSI		通径规格 单位: 英寸	CV系数	电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	扣环引线外壳 阀净重: 0.2KG 1/2 NPT PORTS	1/2 NPT PORTS	管道引线外壳 阀净重: 0.25KG 1/2 NPT PORTS	1/2 NPT PORTS	
400	200	1/32	.020	51G8XGB	51G8XCB	51G8XCB	51G8XCB	K51GDX K51HDX
200	100	3/64	.048	51H8XGB	51H8XCB	51H8XCB	51H8XCB	K51JDX K51KDX
125	60	1/16	.075	51J8XGB ✓	51J8XCB	51J8XCB	51J8XCB	
40	40	3/32	.150	51K8XGB	51K8XCB	51K8XCB	51K8XCB	



扣环引线外壳 二位二通常开      管道引线外壳 二位二通常开

## 70系列 -- 71型

最大压差 单位: PSI		通径规格 单位: 英寸	CV系数	电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	扣环引线外壳 阀净重: 1.0KG 1/4 NPT PORTS	1/4 NPT PORTS	管道引线外壳 阀净重: 1.05KG 1/4 NPT PORTS	1/4 NPT PORTS	
350	350	1/16	.09	71J9ZGV	71J9ZCV	71J9ZCV	71J9ZCV	K71JDX K71KDX
250	250	3/32	.22	71K9ZGV	71K9ZCV	71K9ZCV	71K9ZCV	K71NDX K71ODX
175	175	1/8	.35	71N9ZGV	71N9ZCV	71N9ZCV	71N9ZCV	K71PDX
125	125	5/32	.45	71O9ZGV	71O9ZCV	71O9ZCV	71O9ZCV	
100	100	3/16	.50	71P9ZGV	71P9ZCV	71P9ZCV	71P9ZCV	



扣环引线外壳 二位二通常开      管道引线外壳 二位二通常开

订购电磁阀和配件包时请提供完整的电压和频率参数，  
例如：电磁阀（71K9XGV-120V/60），修理包（K71KDX-AC）  
请参见修理包参考第82页

+括号内是指压力等级可选的扩展评级，具体信息请咨询中国办事处。

\*建议不超过500 PSI压力使用氟橡胶密封件，密封性能评级会发生变化。

注意：在产品型号后面标识（V）的，说明是热销产品，有现货库存。

### 技术规格书 --- 二位二通常闭型

#### 工作条件

**介 质：**空气、水和其他流体使用标准密封件-BUNA（丁腈橡胶）密封；热水、蒸汽、汽油等许多特殊介质需要特殊的密封材料请咨询中国办事处。

#### 温度范围：

标准阀的环境温度：-0癈（-18℃）~ 104癈（40℃）；介质温度：0癈（-18℃）~ 150癈（65℃）。

可选大大高于或远低于环境温度或介质温度应用，请咨询中国办事处。

**真 空：**至5微米（5 μm） - 更高要求请咨询中国办事处；

**泄 漏：**-- 零泄漏

**爆 破 压 力：**20、30、50系列 - 5000 PSI；70系列 - 4000 PSI

**最大工作压差：**见下列清单。

#### 电气特性

**电压范围：**20系列 5 ~ 825V AC 50-60HZ, 1.8 ~ 265V DC  
30系列 5.2 ~ 650V AC 50-60HZ, 2 ~ 240V DC  
50系列 5.4 ~ 575V AC 50-60HZ, 3 ~ 300V DC  
70系列 12 ~ 1050V AC 50-60HZ, 2.5 ~ 220V DC

#### 额定功率：

系列	D.C.	A.C.	系列	D.C.	A.C.
20	9.5	7.7 W	50	7.0	6.0 W
30	8.0	7.0 W	70	16.0	18.0 W

**线圈结构：**非模压成型的A类，模压成型和环氧树脂灌装型等级为F级（H级可选）；

**电磁阀开关时间（气体）** # - 16毫秒--全系列

#### 机械特性：

**阀体材质** 不锈钢（标准）- 20、50和70系列；  
不锈钢（可选）- 30系列；  
黄铜（标准）- 30系列；  
黄铜（可选）- 20、50、70系列-咨询中国办事处；  
铝合金（可选）- 50系列 - 咨询工厂

通径尺寸：请见列表

端口尺寸：请见列表

电气连接：扣环或1/2NPT管道连接--更多信息请咨询代表处

安全认证：经过UL、CSA国际机构安全认证-更多信息请咨询代表处。

#### 更多选项 -- 二位二通常闭型

更多选项请参考76-81

流量曲线图请参考95-97

外壳引线选项--参考78页

**STRAIN RELIEF CONNECTOR**  
All Models

**SINGLE AUTOMOTIVE**  
All Models except 52

**DOUBLE AUTOMOTIVE**  
All Models except 52

**"AN" CONNECTOR**  
All Models

**SPLICE BOX HOUSING**  
All Models

**JIC HOUSING**  
Model 22

**YOKE**  
All Models

**MOUNTING BRACKET**  
All Models

线圈选项--参考79页

**MOLDED COIL**  
All Models

**THIRD WIRE GROUND**  
All conduit Models

**POTTED COIL & HOUSING**  
All Models

**SPADE TERMINAL COIL - MOLDED**  
Models 22, 32, 52

**HIGH TEMPERATURE MOLDED COIL**  
All Models

**EUROPEAN DIN STYLE COIL**  
Model 22, 32

阀体选项--参考80页

**METERING TO 1/8 ORIFICE**  
Model 22, 32, 52

**METERING TO 1/4 ORIFICE**  
Model 22, 72

**METERED BYPASS**  
Model 22

**MANUAL OVERRIDE**  
Model 22\*, 72\*\*†

端口选项--参考81页

**BOTTOM ORIFICE PORT**  
All Models

**BOTTOM CAVITY PORT**  
Model 22\*\*, 32, 52, 72

**PORT 90° LEFT**  
Model 22, 32, 72

**MANIFOLD MOUNT**  
Model 22\*\*, 32, 52, 72

**FLANGE MOUNT**  
Models 22\*\*, 72

**PORT 90° RIGHT**  
Model 22, 32, 72

杂项选择--参考76页

**SILVER SHADING RING**  
All Models

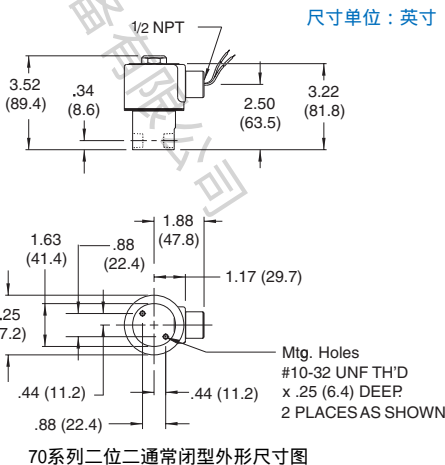
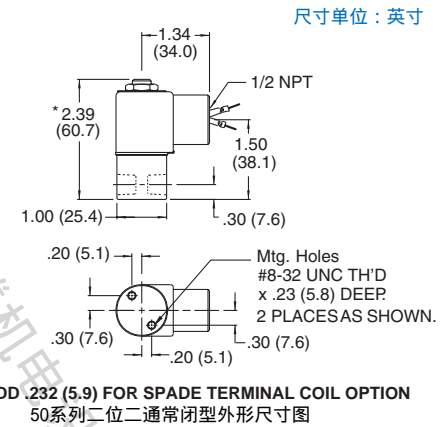
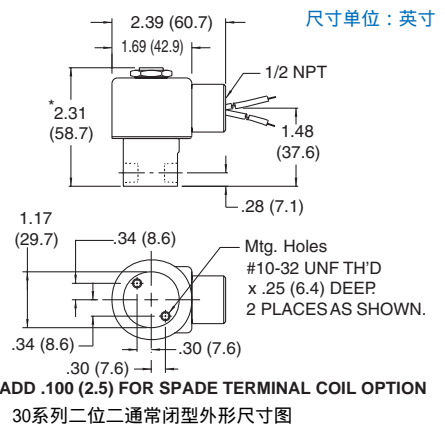
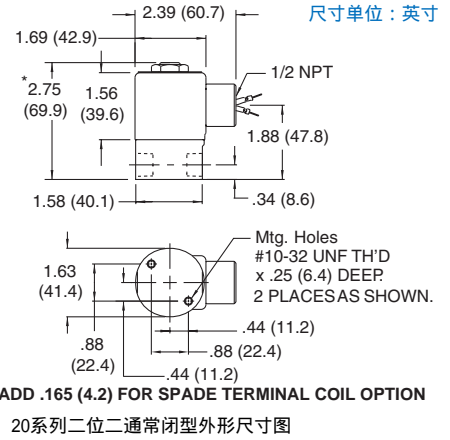
**ALUMINUM SHADING RING**  
All Models

**BUILT IN MUFFLER**  
All Models

**UNIVERSAL MOUNTING BRACKET**  
Models 22, 32, 52, 72

注：某些选项的可用性、选项组合可能会有所不同  
单位数量的命令 - 咨询代表或工厂。

\*不能超过250 PSI  
\*\*不能超过1/4英寸的通径大小  
†不能超过 300 PSI





## 20系列 — 22型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	
AC	DC	INLET EXH.	INLET EXH.		
500	500	1/32		.024	
250 (500)	250 (500)	3/64		.052	
200 (400)	200 (400)	1/16		.095	
125 (300)	125 (250)	3/32		.156	
100 (200)	100 (200)	1/8		.284	
75	50	5/32		.404	
50	25	3/16		.500	
20	5	1/4		.700	
15	-	5/16		1.000	

### 电磁阀型号

扣环引线外壳 阀净重: 0.5KG		管道引线外壳 阀净重: 0.6KG		维修包 WT. 0.25 LB
1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS	
22G7DGV	22G9DGV	22G7DCV	22G9DCV	K22GDD
22H7DGV	22H9DGV	22H7DCV	22H9DCV	K22HDD
22J7DGV	22J9DGV	22J7DCV	22J9DCV	K22JDD
22K7DGV	22K9DGV	22K7DCV	22K9DCV	K22KDD
22N7DGV	22N9DGV	22N7DCV	22N9DCV ✓	K22NDD
22O7DGV	22O9DGV	22O7DCV	22O9DCV	K22ODD
22P7DGV	22P9DGV	22P7DCV	22P9DCV	K22PDD
22R7DGV	22R9DGV	22R7DCV	22R9DCV	K22RDD
—	22S9DGV	—	22S9DCV	K22SDD



扣环引线外壳 二位二通常闭  
管道引线外壳 二位二通常闭

## 30系列 -- 32型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	
AC	DC	INLET EXH.	INLET EXH.		
*375 (650)	*375 (650)	1/32		.024	
*280 (650)	*280 (650)	3/64		.055	
275	250	1/16		.105	
180	100	3/32		.195	
130	80	7/64		.220	
90	50	1/8		.275	
60	25	5/32		.360	
40	15	3/16		.400	

### 电磁阀型号

扣环引线外壳 阀净重: 0.35KG		管道引线外壳 阀净重: 0.35KG		维修包 WT. 0.25 LB
1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS	
BRASS 铜	STAINLESS 不锈钢	BRASS STEEL	STAINLESS STEEL	
32G5DGV	—	32G5DCV	—	K32GDD
32H5DGV	32H8DGV	32H5DCV	32H8DCV	K32HDD
32J5DGV	32J8DGV	32J5DCV	32J8DCV	K32JDD
32K5DGV	32K8DGV	32K5DCV	32K8DCV	K32KDD
32L5DGV	32L8DGV	32L5DCV	32L8DCV	K32LDD
32N5DGV ✓	32N8DGV	32N5DCV	32N8DCV	K32NDD
32O5DGV	32O8DGV	32O5DCV	32O8DCV	K32ODD
32P5DGV	32P8DGV	32P5DCV	32P8DCV	K32PDD



扣环引线外壳 二位二通常闭  
管道引线外壳 二位二通常闭

## 50系列 -- 52型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	
AC	DC	INLET EXH.	INLET EXH.		
*500 (1000)	*250 (1000)	1/32		.022	
*400 (700)	150 (450)	3/64		.055	
200 (470)	100 (325)	1/16		.075	
150 (270)	75 (210)	5/64		.134	
100 (260)	45 (175)	3/32		.156	
75 (135)	25 (100)	1/8		.230	
40 (50)	10 (20)	5/32		.292	

### 电磁阀型号

扣环引线外壳 阀净重: 0.2KG		管道引线外壳 阀净重: 0.25KG		维修包 WT. 0.19 LB
1/8 NPT PORTS	1/4 NPT PORTS	1/8 NPT PORTS	1/4 NPT PORTS	
52G8DGB	—	52G8DCB	—	K52GDD
52H8DGB	—	52H8DCB	—	K52HDD
52J8DGB ✓	—	52J8DCB	—	K52JDD
52V8DGB	—	52V8DCB	—	K52VDD
52K8DGB	—	52K8DCB	—	K52KDD
52N8DGB	—	52N8DCB	—	K52NDD
52O8DGB	—	52O8DCB	—	K52ODD



扣环引线外壳 二位二通常闭  
管道引线外壳 二位二通常闭

## 70系列 -- 72型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	
AC	DC	INLET EXH.	INLET EXH.		
500	500	3/32		.22	
300	300	1/8		.35	
225	225	5/32		.45	
140	140	3/16		.55	
100	100	1/4		.78	

### 电磁阀型号

扣环引线外壳 阀净重: 0.9KG		管道引线外壳 阀净重: 0.95KG		维修包 WT. 0.38 LB
1/4 NPT PORTS	1/2 NPT PORTS	1/4 NPT PORTS	1/2 NPT PORTS	
72K9DGV	—	72K9DCV	—	K72KDD
72N9DGV	—	72N9DCV	—	K72NDD
72O9DGV	—	72O9DCV	—	K72ODD
72P9DGV	—	72P9DCV	—	K72PDD
72R9DGV ✓	—	72R9DCV	—	K72RDD



扣环引线外壳 二位二通常闭  
管道引线外壳 二位二通常闭

订购电磁阀和配件包时请提供完整的电压和频率参数，  
例如：电磁阀（72K9DGV-120V/60），修理包（K72KDD-AC）  
请参见修理包参考第82页

+括号内是指压力等级可选的扩展评级，具体信息请咨询工厂。

\*建议不超过500 PSI压力使用氟橡胶密封件。

注意：在产品型号后面标识(✓)的，说明是热销产品，有现货库存。



### 二位三通常闭型 -- 技术规格书

#### 工作条件

介质：空气、水和其他流体使用标准密封件-BUNA（丁腈橡胶）密封；热水、蒸汽、汽油等许多特殊介质特殊应用的密封材料 - 请咨询中国办事处。

#### 温度范围：

标准阀的环境温度：-0 °F (-18 )~104 °F (40 )；介质温度：0 °F (-18 )~150 °F (65 )。

可选大大高于或远低于环境温度或介质温度；有关具体信息，请向中国办事处咨询。

真空：至5微米 (5 μm) - 咨询中国办事处。

泄漏：--零泄漏。

爆破压力：20、30、50系列 - 5000 PSI；70系列 - 4000 PSI

最大工作压差：见下列表格。

#### 电气特性

**电压范围：**20系列 交流：5 ~ 825V AC 50/60HZ；直流：1.8 ~ 265V DC  
 30系列 交流：5.2 ~ 650V AC 50-60HZ；直流：2 ~ 240V DC  
 50系列 交流：5.4 ~ 575V AC 50-60HZ；直流：3 ~ 300V DC  
 70系列 交流：12 ~ 1050V AC 50-60HZ；直流：2.5 ~ 220V DC

#### 额定功率：

Series	D.C.	A.C.	Series	D.C.	A.C.
20	9.5	8.7 W	50	7.0	6.0 W
30	8.0	8.0 W	70	16.0	18.0 W

线圈结构：非模压成型的A类，模压成型和环氧树脂灌装型  
 等级为F级（H级可选）

电磁阀开关时间（气体）：4 - 16毫秒（ms）--全系列。

#### 机械特性

阀体：不锈钢（标准）- 20、50和70系列  
 不锈钢（可选）- 30系列  
 黄铜（标准）- 30系列  
 黄铜（可选）- 20、50、70系列-咨询工厂  
 铝合金（可选）- 50系列 - 咨询工厂

通径尺寸：请见列表

端口尺寸：请见列表

电气连接：扣环引线或1/2NPT管道连接--更多信息请咨询代表处

安全认证：电磁阀经过UL、CSA国际机构安全认证-更多信息请咨询代表处。

### 更多选项 -- 二位三通常闭型 (EXH端口直排外式)

更多选项请参考76-81

流量曲线图请参考95-97

外壳引线选项--参考78页

**STRAIN RELIEF CONNECTOR**  
 All Models

**SINGLE AUTOMOTIVE**  
 All Models except 53

**DOUBLE AUTOMOTIVE**  
 All Models except 53

**"AN" CONNECTOR**  
 All Models

**SPLICE BOX HOUSING**  
 All Models

**JIC HOUSING**  
 Model 23

**YOKE**  
 All Models

**MOUNTING BRACKET**  
 All Models

线圈选项--参考79页

**MOLDED COIL**  
 All Models

**POTTED COIL & HOUSING**  
 All Models

\*不能超过250 PSI  
 \*\*不能超过1/4英寸的通径大小

**THIRD WIRE GROUND**  
 All conduit Models

**SPADE TERMINAL COIL - MOLDED**  
 Models 23, 33, 53

**HIGH TEMPERATURE MOLDED COIL**  
 All Models

**EUROPEAN DIN STYLE**  
 Models 23, 33

阀体选项--参考80页

**METERING TO 1/8 ORIFICE**  
 Model 23, 33, 53

**METERING TO 1/4 ORIFICE**  
 Model 23, 73

**METERED BYPASS**  
 Model 23

**MANUAL OVERRIDE**  
 Model 23\*, 73\*\*

**METERED EXH. PORT**  
 Model 23, 33

注：某些选项的可用性、  
 选项组合可能会有所不同  
 - 咨询代表或工厂。

端口选项--参考81页

**BOTTOM ORIFICE PORT**  
 All Models

**BOTTOM CAVITY PORT**  
 Model 23\*\*, 33, 53, 73

**PORT 90° LEFT**  
 All Models except 53

**MANIFOLD MOUNT**  
 Model 23\*\*, 33, 53, 73

**FLANGE MOUNT**  
 Models 23\*\*, 73

**PORT 90° RIGHT**  
 All Models except 53

杂项选择--参考76页

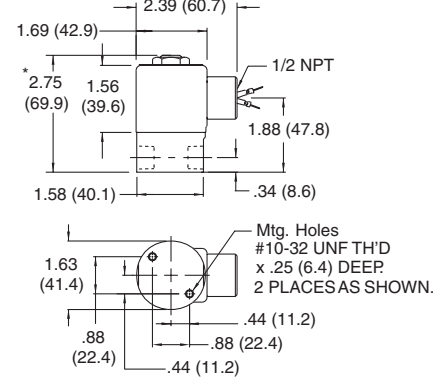
**SILVER SHADING RING**  
 All Models

**ALUMINUM SHADING RING**  
 All Models

**BUILT IN MUFFLER**  
 All Models

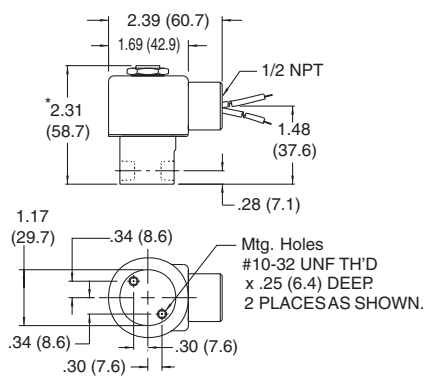
**UNIVERSAL MOUNTING BRACKET**  
 Models 23, 33, 53

尺寸单位：英寸



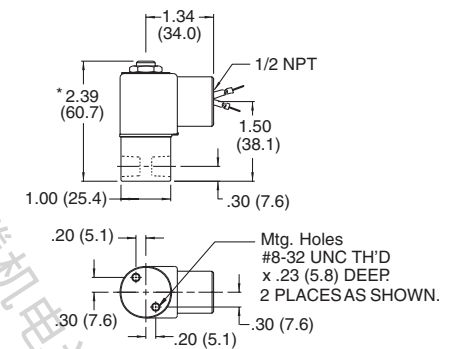
\*ADD .165 (4.2) FOR SPADE TERMINAL COIL OPTION  
 20系列二位三通常闭直排气型外形尺寸图

尺寸单位：英寸



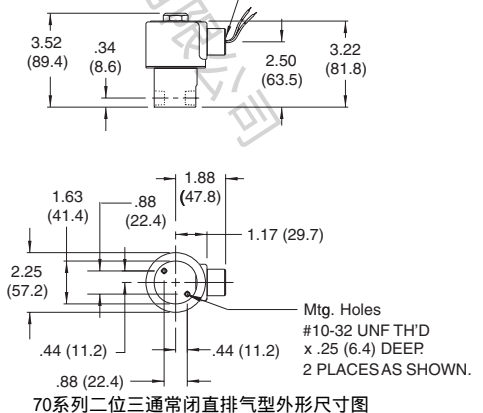
\*ADD .100 (2.5) FOR SPADE TERMINAL COIL OPTION  
 30系列二位三通常闭直排气型外形尺寸图

尺寸单位：英寸

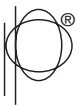


\*ADD .232 (5.9) FOR SPADE TERMINAL COIL OPTION  
 50系列二位三通常闭直排气型外形尺寸图

尺寸单位：英寸



70系列二位三通常闭直排气型外形尺寸图



## 20系列 -- 23型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.5KG 1/2 NPT PORTS		管道引线外壳 阀净重: 0.6KG 1/2 NPT PORTS		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/2 NPT PORTS	1/4 NPT PORTS	1/2 NPT PORTS	1/4 NPT PORTS	
400	400	1/32	1/32	.024	.024	23GG7DGV	23GG9DGV	23GG7DCV	23GG9DCV	K23GGD
150 (200)	150 (200)	3/64	1/16	.052	.095	23HJ7DGV	23HJ9DGV	23HJ7DCV	23HJ9DCV	K23HJD
100 (135)	100 (135)	1/16	1/16	.095	.095	23JJ7DGV	23JJ9DGV	23JJ7DCV	23JJ9DCV	K23JJJ
100 (135)	100 (135)	1/16	3/32	.095	.156	23JK7DGV	23JK9DGV ✓	23JK7DCV	23JK9DCV	K23JKD
75 (100)	75 (100)	3/32	3/32	.156	.156	23KK7DGV	23KK9DGV	23KK7DCV	23KK9DCV	K23KKD
50 (70)	50 (70)	1/8	3/32	.284	.156	23NK7DGV	23NK9DGV	23NK7DCV	23NK9DCV	K23NKD
35 (40)	35 (40)	1/8	1/8	.284	.201	°23NN7DGV	°23NN9DGV	°23NN7DCV	°23NN9DCV	°K23NND
20	20	3/16	3/32	.500	.156	23PK7DGV	23PK9DGV	23PK7DCV	23PK9DCV	K23PKD
20	20	3/16	1/8	.500	.201	°23PN7DGV	°23PN9DGV	°23PN7DCV	°23PN9DCV	°K23PND
15	—	1/4	3/32	.700	.156	23RK7DGV	23RK9DGV	23RK7DCV	23RK9DCV	K23RKD
15	—	1/4	1/8	.700	.201	°23RN7DGV	°23RN9DGV	°23RN7DCV	°23RN9DCV	°K23RND



扣环引线外壳 二位三通常闭  
管道引线外壳 二位三通常闭

\*VALVES WITH 1/8 SLEEVE ORIFICE ARE UL LISTED ONLY

## 30系列 -- 33型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.35KG 1/2 NPT PORTS*		管道引线外壳 阀净重: 0.35KG 1/2 NPT PORTS*		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/2 NPT PORTS*	1/4 NPT PORTS	1/2 NPT PORTS*	1/4 NPT PORTS	
300	300	1/32	1/32	.024	.024	33GG5DGV		33GG5DCV		K33GGD
175	175	3/64	1/16	.052	.095	33HJ5DGV		33HJ5DCV		K33HJD
125	125	1/16	1/16	.095	.095	33JJ5DGV		33JJ5DCV ✓		K33JJJ
75	75	3/32	3/32	.160	.160	33KK5DGV		33KK5DCV		K33KKD
50	50	1/8	3/32	.275	.160	33NK5DGV		33NK5DCV		K33NKD



扣环引线外壳 二位三通常闭  
管道引线外壳 二位三通常闭

## 50系列 -- 53型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.18KG 1/2 NPT PORTS*		管道引线外壳 阀净重: 0.2KG 1/2 NPT PORTS*		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/2 NPT PORTS*	1/4 NPT PORTS	1/2 NPT PORTS*	1/4 NPT PORTS	
200	200	1/32	1/32	.022	.020	53GG8DGB		53GG8DCB		K53GGD
150	150	3/64	3/64	.055	.048	53HH8DGB		53HH8DCB		K53HHD
150	150	3/64	1/16	.055	.075	53HJ8DGB		53HJ8DCB		K53HJD
100	100	1/16	1/16	.075	.075	53JJ8DGB ✓		53JJ8DCB		K53JJJ
60	60	3/32	1/16	.156	.075	53KJ8DGB		53KJ8DCB		K53KJD
50	50	3/32	3/32	.156	.150	53KK8DGB		53KK8DCB		K53KKD
30	30	1/8	1/16	.230	.075	53NJ8DGB		53NJ8DCB		K53NJD
30	30	1/8	3/32	.230	.150	53NK8DGB		53NK8DCB		K53NKD



扣环引线外壳 二位三通常闭  
管道引线外壳 二位三通常闭

## 70系列 -- 73型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.9KG 1/2 NPT PORTS*		管道引线外壳 阀净重: 0.95KG 1/2 NPT PORTS*		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/2 NPT PORTS*	1/4 NPT PORTS	1/2 NPT PORTS*	1/4 NPT PORTS	
350	350	1/16	1/16	.09	.09	73JJ9DGV		73JJ9DCV		K73JJJ
250	250	3/32	3/32	.22	.22	73KK9DGV		73KK9DCV		K73KKD
175	175	1/8	1/8	.35	.35	73NN9DGV		73NN9DCV		K73NND
125	125	5/32	5/32	.45	.45	73009DGV ✓		73009DCV		K7300D
100	100	3/16	3/16	.50	.50	73PP9DGV		73PP9DCV		K73PPD
50	50	1/4	3/16	.78	.50	73RP9DGV		73RP9DCV		K73RPD



扣环引线外壳 二位三通常闭  
管道引线外壳 二位三通常闭

订购电磁阀和配件包时请提供完整的电压和频率参数，  
例如：电磁阀（73KK9XGV-120V/60），修理包（K73KDX-AC）  
请参见修理包参考第82页

\*括号内是指压力等级可选的扩展评级，具体信息请咨询工厂。

\*建议不超过500 PSI压力使用氟橡胶密封件。

注意：在产品型号后面标识(✓)的，说明是热销产品，有现货库存。

### 二位三通常闭型 -- 技术规格书

#### 工作条件

介质：空气，水和其他流体使用标准密封件-BUNA（丁腈橡胶）密封；热水、蒸汽汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

#### 温度范围：

标准阀的环境温度：-0 °F (-18 ) ~104 °F (40 )；介质温度：0 °F (-18 ) ~150 °F (65 )。

可选大大高于或远低于环境温度和介质温度。有关具体信息，请向工厂咨询。

真空：至5微米 (5 μm) - 咨询工厂

泄漏：--零泄漏。

爆破压力：20、30、50系列 - 5000 PSI；70系列 - 4000 PSI

最大工作压差：见下列表格。

#### 电气特性

**电压范围：** 20系列 5 ~ 825V AC 50-60HZ, 1.8 ~ 265V DC  
 30系列 5.2 ~ 650V AC 50-60HZ, 2 ~ 240V DC  
 50系列 5.4 ~ 575V AC 50-60HZ, 3 ~ 300V DC  
 70系列 12 ~ 1050V AC 50-60HZ, 2.5 ~ 220V DC

#### 额定功率：

Series	D.C.	A.C.	Series	D.C.	A.C.
20	9.5	8.7 W	50	7.0	6.0 W
30	8.0	8.0 W	70	16.0	18.0 W

线圈结构：非模压成型的A类，模压成型和环氧树脂灌装型等级为F级（H级可选）

电磁阀开关时间（气体）：4 - 16毫秒（ms）--全系列。

#### 机械特性

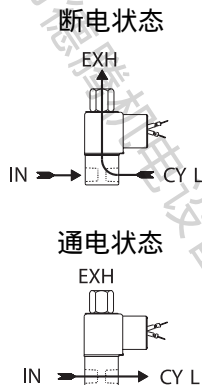
阀体材质：不锈钢（标准）- 20、50和70系列  
 不锈钢（可选）- 30系列  
 黄铜（标准）- 30系列  
 黄铜（可选）- 20、50、70系列-咨询工厂  
 铝合金（可选）- 50系列 - 咨询工厂

通径尺寸：请见列表

端口尺寸：请见列表

电气连接：扣环或1/2NPT管道连接--更多信息请咨询代表处。

安全认证：经过UL、CSA国际机构安全认证-更多信息请咨询代表处。



### 更多选项 -- 二位三通常闭型 (EXH端口管道排外式)

更多选项请参考76-81

流量曲线图请参考95-97

#### 外壳引线选项--参考78页

#### STRAIN RELIEF CONNECTOR

All Models

#### SINGLE AUTOMOTIVE

All Models except 53

#### DOUBLE AUTOMOTIVE

All Models except 53

#### "AN" CONNECTOR

All Models

#### SPLICE BOX HOUSING

All Models

#### JIC HOUSING

Model 23

#### YOKE

All Models

#### MOUNTING BRACKET

All Models

#### 线圈选项--参考79页

#### MOLDED COIL

All Models

#### POTTED COIL & HOUSING

All Models

#### THIRD WIRE GROUND

All conduit Models

#### SPADE TERMINAL COIL - MOLDED

Models 23, 33, 53

#### HIGH TEMPERATURE MOLDED COIL

All Models

#### EUROPEAN KIN STYLE COIL

Models 23, 33

#### 阀体选项--参考80页

#### METERING TO 1/8 ORIFICE

Model 23, 33, 53

#### METERING TO 1/4 ORIFICE

Model 23, 73

#### METERED BYPASS Consult Factory

Model 23

#### MANUAL OVERRIDE

Model 23\*, 73\*\*

#### METERED EXH. PORT

Model 23, 33

#### 端口选项--参考81页

#### BOTTOM ORIFICE PORT

All Models

#### BOTTOM CAVITY PORT

Model 23, 33, 53, 73\*\*

#### PORT 90° LEFT

All Models except 53

#### MANIFOLD MOUNT

Model 23\*\*, 33, 53, 73

#### FLANGE MOUNT

Models 23\*\*, 73

#### PORT 90° RIGHT

All Models except 53

#### 杂项选择--参考76页

#### SILVER SHADING RING

All Models

#### ALUMINUM SHADING RING

All Models

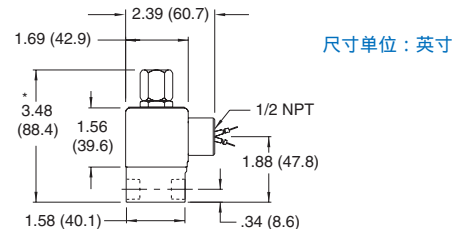
#### BUILT IN MUFFLER

All Models

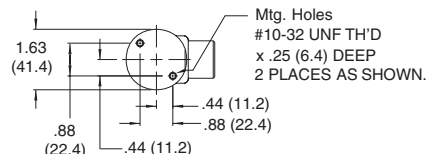
#### UNIVERSAL MOUNTING BRACKET

Models 23, 33, 53

注：某些选项的可用性、选项组合可能会有所不同  
 单位数量的命令 - 咨询代表或工厂。

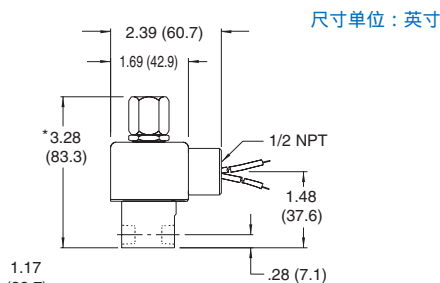


尺寸单位：英寸

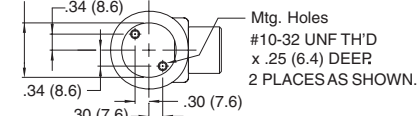


20系列二位三通常闭管道排气型外形尺寸图

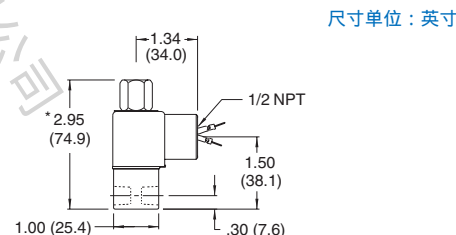
\* ADD .165 (4.2) FOR SPADE TERMINAL COIL OPTION



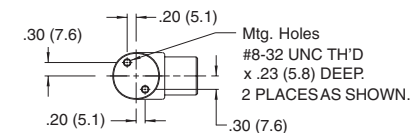
尺寸单位：英寸



\* ADD .100 (2.5) FOR SPADE TERMINAL COIL OPTION  
 30系列二位三通常闭管道排气型外形尺寸图

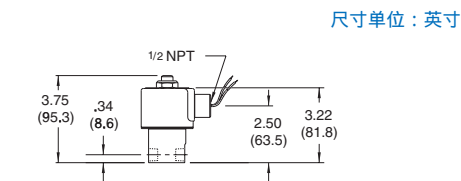


尺寸单位：英寸

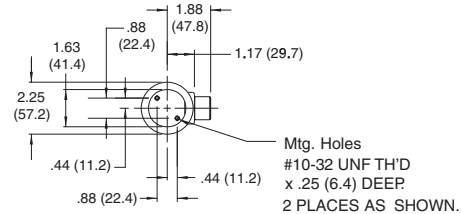


\*ADD .232 (5.9) FOR SPADE TERMINAL COIL OPTION

50系列二位三通常闭管道排气型外形尺寸图



尺寸单位：英寸



70系列二位三通常闭管道排气型外形尺寸图

\*不能超过250 PSI

\*\*不能超过1/4英寸的通径大小



## 20系列 -- 23型

最大压差 单位: PSI		口径规格 单位: 英寸		CV系数		电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.		INLET EXH.		扣环引线外壳 阀净重: 0.5KG 1/8 NPT PORTS		管道引线外壳 阀净重: 0.6KG 1/8 NPT PORTS		
400	400	1/32	1/32	.024	.024	23GG7XGV	23GG9ZGV	23GG7XCV	23GG9ZCV	K23GGX
150 (200)	150 (200)	3/64	1/16	.052	.095	23HJ7XGV	23HJ9ZGV	23HJ7XCV	23HJ9ZCV	K23HJX
100 (135)	100 (135)	1/16	1/16	.095	.095	23JJ7XGV	23JJ9ZGV	23JJ7XCV	23JJ9ZCV	K23JJX
100 (135)	100 (135)	1/16	3/32	.095	.156	23JK7XGV	23JK9ZGV ✓	23JK7XCV	23JK9ZCV	K23JKX
75 (100)	75 (100)	3/32	3/32	.156	.156	23KK7XGV	23KK9ZGV	23KK7XCV	23KK9ZCV	K23KKX
50 (70)	50 (70)	1/8	3/32	.284	.156	23NK7XGV	23NK9ZGV	23NK7XCV	23NK9ZCV	K23NKX
35 (40)	35 (40)	1/8	1/8	.284	.201	°23NN7XGV	°23NN9ZGV	°23NN7XCV	°23NN9ZCV	K23NNX
20	20	3/16	3/32	.500	.156	23PK7XGV	23PK9ZGV	23PK7XCV	23PK9ZCV	K23PKX
20	20	3/16	1/8	.500	.201	°23PN7XGV	°23PN9ZGV	°23PN7XCV	°23PN9ZCV	K23PNX
15	-	1/4	3/32	.700	.156	23RK7XGV	23RK9ZGV	23RK7XCV	23RK9ZCV	K23RKX
15	-	1/4	1/8	.700	.201	°23RN7XGV	°23RN9ZGV	°23RN7XCV	°23RN9ZCV	K23RNX

° VALVES WITH 1/8 SLEEVE ORIFICE ARE UL LISTED ONLY



扣环引线外壳 二位三通常闭      管道引线外壳 二位三通常闭

## 30系列 -- 33型

最大压差 单位: PSI		口径规格 单位: 英寸		CV系数		电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.		INLET EXH.		扣环引线外壳 阀净重: 0.35KG 1/8 NPT PORTS		管道引线外壳 阀净重: 0.36KG 1/8 NPT PORTS		
300	300	1/32	1/32	.024	.024	33GG5XGV	33GG5XCV	33GG5XCV	33GG5XCV	K33GGX
175	175	3/64	1/16	.052	.095	33HJ5XGV	33HJ5XCV	33HJ5XCV	33HJ5XCV	K33HJX
125	125	1/16	1/16	.095	.095	33JJ5XGV	33JJ5XCV ✓	33JJ5XCV	33JJ5XCV	K33JJX
75	75	3/32	3/32	.160	.160	33KK5XGV	33KK5XCV	33KK5XCV	33KK5XCV	K33KKX
50	50	1/8	3/32	.275	.160	33NK5XGV	33NK5XCV	33NK5XCV	33NK5XCV	K33NKX



扣环引线外壳 二位三通常闭      管道引线外壳 二位三通常闭

## 50系列 -- 53型

最大压差 单位: PSI		口径规格 单位: 英寸		CV系数		电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.		INLET EXH.		扣环引线外壳 阀净重: 0.18KG 1/8 NPT PORTS		管道引线外壳 阀净重: 0.20KG 1/8 NPT PORTS		
200	200	1/32	1/32	.022	.020	53GG8XGB	53GG8XCB	53GG8XCB	53GG8XCB	K53GGX
150	150	3/64	3/64	.055	.048	53HH8XGB	53HH8XCB	53HH8XCB	53HH8XCB	K53HHX
150	150	3/64	1/16	.055	.075	53HJ8XGB	53HJ8XCB	53HJ8XCB	53HJ8XCB	K53HJX
100	100	1/16	1/16	.075	.075	53JJ8XGB ✓	53JJ8XCB	53JJ8XCB	53JJ8XCB	K53JJX
60	60	3/32	1/16	.156	.075	53KJ8XGB	53KJ8XCB	53KJ8XCB	53KJ8XCB	K53KJX
50	50	3/32	3/32	.156	.150	53KK8XGB	53KK8XCB	53KK8XCB	53KK8XCB	K53KKX
30	30	1/8	1/16	.230	.075	53NJ8XGB	53NJ8XCB	53NJ8XCB	53NJ8XCB	K53NJX
30	30	1/8	3/32	.230	.150	53NK8XGB	53NK8XCB	53NK8XCB	53NK8XCB	K53NKX



扣环引线外壳 二位三通常闭      管道引线外壳 二位三通常闭

## 70系列 -- 73型

最大压差 单位: PSI		口径规格 单位: 英寸		CV系数		电磁阀型号				维修包 WT. 0.25
AC	DC	INLET EXH.		INLET EXH.		扣环引线外壳 阀净重: 0.90KG 1/4 NPT PORTS		管道引线外壳 阀净重: 0.96KG 1/4 NPT PORTS		
350	350	1/16	1/16	.09	.09	73JJ9ZGV	73JJ9ZCV	73JJ9ZCV	73JJ9ZCV	K73JJX
250	250	3/32	3/32	.22	.22	73KK9ZGV	73KK9ZCV	73KK9ZCV	73KK9ZCV	K73KKX
175	175	1/8	1/8	.35	.35	73NN9ZGV	73NN9ZCV	73NN9ZCV	73NN9ZCV	K73NNX
125	125	5/32	5/32	.45	.45	73009ZGV ✓	73009ZCV	73009ZCV	73009ZCV	K7300X
100	100	3/16	3/16	.50	.50	73PP9ZGV	73PP9ZCV	73PP9ZCV	73PP9ZCV	K73PPX
50	50	1/4	3/16	.78	.50	73RP9ZGV	73RP9ZCV	73RP9ZCV	73RP9ZCV	K73RPX



扣环引线外壳 二位三通常闭      管道引线外壳 二位三通常闭

订购电磁阀和配件包时请提供完整的电压和频率参数，  
例如：电磁阀（73KK9ZGV-120V/60），修理包（K73KDX-AC）  
请参见修理包参考第82页

+括号内是指压力等级可选的扩展等级，具体信息请咨询工厂。

\*建议不超过500 PSI压力使用氟橡胶密封件。

注意：在产品型号后面标识(✓)的，说明是热销产品，有现货库存。

### 二位三通常开型 -- 技术规格书

#### 工作条件

介质：空气，水和其他流体使用标准密封件-BUNA丁腈橡胶密封，热水、蒸汽、汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

#### 温度范围：

标准阀的环境温度：-0°F (-18 ) ~104°F (40 ) ；介质温度：0°F (-18 )~150°F (65 )。

可选大大高于或远低于环境温度和介质温度。有关具体信息，请向工厂咨询。

真空：至5微米 - 咨询工厂

泄漏：--零泄漏。

爆破压力：20、30、50系列 - 5000 PSI ；70系列 - 4000 PSI

最大工作压差：见下列表。

#### 电气特性

电压范围：20系列 5 ~ 825V AC 50-60HZ, 1.8 ~ 265V DC  
 30系列 5.2 ~ 650V AC 50-60HZ, 2 ~ 240V DC  
 50系列 5.4 ~ 575V AC 50-60HZ, 3 ~ 300V DC  
 70系列 12 ~1050V AC 50-60HZ, 2.5 ~ 220V DC

#### 额定功率：

Series	D.C.	A.C.	Series	D.C.	A.C.
20	9.5	8.7 W	50	7.0	6.0 W
30	8.0	8.0 W	70	16.0	18.0 W

线圈结构：非模压成型的A类，模压成型和环氧树脂灌装型  
 等级为F级（H级可选）

电磁阀开关时间（气体）：4 - 16毫秒--全系列

#### 机械特性

阀体材质：不锈钢（标准）- 20、50和70系列

不锈钢（可选）- 30系列

黄铜（标准）- 30系列

黄铜（可选）- 20、50、70系列-咨询工厂

铝合金（可选）- 50系列 - 咨询工厂

通径尺寸：请见列表

端口尺寸：请见列表

电气连接：扣环引线或1/2NPT管道连接--更多信息请咨询代表处

安全认证：都经过UL、CSA国际机构安全认证-更多信息请咨询代表处。

#### 更多选项 -- 二位三通常开型

更多选项请参考76-81

流量曲线图请参考95-97

外壳引线选项--参考78页

**STRAIN RELIEF CONNECTOR**  
All Models

**SINGLE AUTOMOTIVE**  
All Models except 54

**DOUBLE AUTOMOTIVE**  
All Models except 54

**"AN" CONNECTOR**  
All Models

**SPLICE BOX HOUSING**  
All Models

**JIC HOUSING**  
Model 24

**YOKE**  
All Models

**MOUNTING BRACKET**  
All Models

\*不能超过250 PSI

注：某些选项的可用性、选项组合可能会有所不同  
 单位数量的命令 - 咨询代表或工厂。

线圈选项--参考79页

**MOLDED COIL**  
All Models

**THIRD WIRE GROUND**  
All conduit Models  
**POTTED COIL & HOUSING**  
All Models

**SPADE TERMINAL COIL - MOLDED**  
Models 24, 34, 54

**HIGH TEMPERATURE MOLDED COIL**  
All Models

**EUROPEAN DIN STYLE COIL**  
Models 24, 34

阀体选项--参考80页

**METERING TO 1/8" ORIFICE**  
Models 24, 34, 54

**METERING TO 3/16" ORIFICE**  
Model 74

**MANUAL OVERRIDE**  
24\*, 74

端口选项--参考81页

**BOTTOM ORIFICE PORT**  
All Models

**BOTTOM CAVITY PORT**  
All Models

**PORT 90° LEFT**  
All Models except 54

**MANIFOLD MOUNT**  
All Models

**FLANGE MOUNT**  
Models 24, 74

**PORT 90° RIGHT**  
All Models except 54

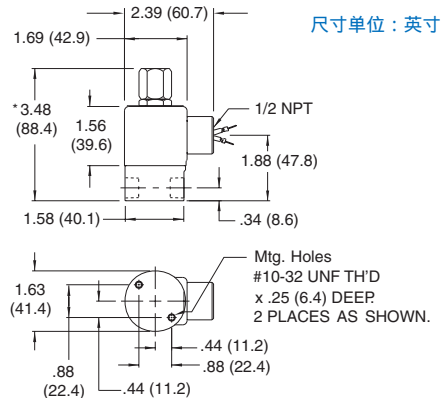
杂项选择--参考76页

**SILVER SHADING RING**  
All Models

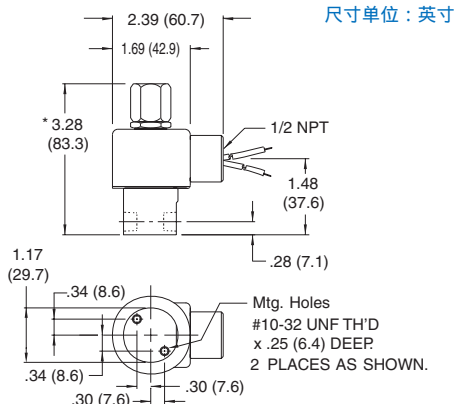
**ALUMINUM SHADING RING**  
All Models

**BUILT IN MUFFLER**  
All Models

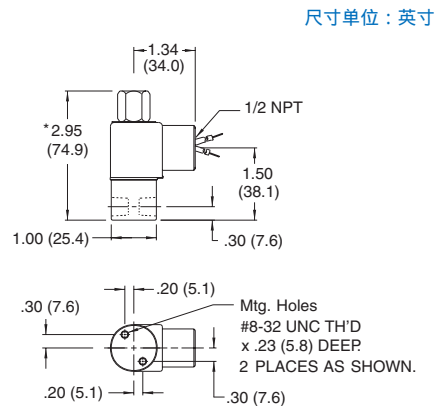
**UNIVERSAL MOUNTING BRACKET**  
Models 24, 34, 54



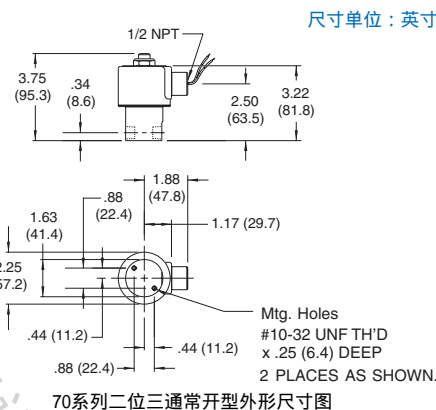
20系列二位三通常开型外形尺寸图



\*ADD .100 (2.5) FOR SPADE TERMINAL COIL OPTION  
 30系列二位三通常开型外形尺寸图



\*ADD .232 (5.9) FOR SPADE TERMINAL COIL OPTION  
 50系列二位三通常开型外形尺寸图



70系列二位三通常开型外形尺寸图



## 20系列 -- 24型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		电磁阀型号				维修包
AC	DC	INLET EXH.	INLET EXH.			扣环引线外壳 阀净重: 0.5KG 1/4 NPT PORTS	1/4 NPT PORTS	管道引线外壳 阀净重: 0.6KG 1/4 NPT PORTS	1/4 NPT PORTS	WT. 0.25
400	400	1/32	1/32	.024	.024	24GG7XGV	24GG9ZGV	24GG7XCV	24GG9ZCV	K24GGX
150 (225)	150	3/64	1/16	.052	.095	24HJ7XGV	24HJ9ZGV	24HJ7XCV	24HJ9ZCV	K24HJX
100 (150)	100	1/16	1/16	.095	.095	24JJ7XGV	24JJ9ZGV	24JJ7XCV	24JJ9ZCV	K24JJX
100 (150)	100	1/16	3/32	.095	.156	24JK7XGV	24JK9ZGV ✓	24JK7XCV	24JK9ZCV	K24JKX
100 (125)	100	1/16	1/8	.095	.284	24JN7XGV	24JN9ZGV	24JN7XCV	24JN9ZCV	K24JNX
75 (90)	75	3/32	1/8	.156	.284	24KN7XGV	24KN9ZGV	24KN7XCV	24KN9ZCV	K24KNX
30	30	1/8	1/8	.201	.284	°24NN7XGV	°24NN9ZGV	°24NN7XCV	°24NN9ZCV	K24NNX

°VALVES WITH 1/8 SLEEVE ORIFICE ARE UL LISTED ONLY



扣环引线外壳 二位三通常开      管道引线外壳 二位三通常开

## 30系列 -- 34型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		电磁阀型号				维修包
AC	DC	INLET EXH.	INLET EXH.			扣环引线外壳 阀净重: 0.35KG 1/4 NPT PORTS	1/4 NPT PORTS	管道引线外壳 阀净重: 0.36KG 1/4 NPT PORTS	1/4 NPT PORTS	WT. 0.25
300	300	1/32	1/32	.024	.024	34GG5XGV		34GG5XCV		K34GGX
175	175	3/64	1/16	.052	.095	34HJ5XGV		34HJ5XCV ✓		K34HJX
100	100	1/16	3/32	.095	.160	34JK5XGV		34JK5XCV		K34JKX
60	60	3/32	1/8	.160	.275	34KN5XGV		34KN5XCV		K34KNX



二位三通常开 扣环引线外壳      管道引线外壳 二位三通常开

## 50系列 -- 54型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		电磁阀型号				维修包
AC	DC	INLET EXH.	INLET EXH.			扣环引线外壳 阀净重: 0.18KG 1/4 NPT PORTS	1/4 NPT PORTS	管道引线外壳 阀净重: 0.20KG 1/4 NPT PORTS	1/4 NPT PORTS	WT. 0.25
150	150	1/32	1/32	.020	.022	54GG8XGB		54GG8XCB		K54GGX
125	125	3/64	3/64	.048	.055	54HH8XGB ✓		54HH8XCB		K54HHX
100	75	1/16	1/16	.075	.075	54JJ8XGB		54JJ8XCB		K54JJX
75	45	1/16	3/32	.075	.156	54JK8XGB		54JK8XCB		K54JKX
50	50	3/32	3/32	.150	.156	54KK8XGB		54KK8XCB		K54KKX
40	25	3/32	1/8	.150	.230	54KN8XGB		54KN8XCB		K54KNX



扣环引线外壳 二位三通常开      管道引线外壳 二位三通常开

## 70系列 -- 74型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		电磁阀型号				维修包
AC	DC	INLET EXH.	INLET EXH.			扣环引线外壳 阀净重: 0.90KG 1/4 NPT PORTS	1/4 NPT PORTS	管道引线外壳 阀净重: 0.96KG 1/4 NPT PORTS	1/4 NPT PORTS	WT. 0.25
350	350	1/16	1/16	.09	.09	74JJ9ZGV		74JJ9ZCV		K74JJX
250	250	3/32	3/32	.22	.22	74KK9ZGV		74KK9ZCV		K74KKX
175	175	1/8	1/8	.35	.35	74NN9ZGV		74NN9ZCV		K74NNX
125	125	5/32	5/32	.45	.45	74009ZGV		74009ZCV		K7400X
100	100	3/16	3/16	.50	.50	74PP9ZGV ✓		74PP9ZCV		K74PPX



扣环引线外壳 二位三通常开      管道引线外壳 二位三通常开

订购电磁阀和配件包时请提供完整的电压和频率参数。  
例如: 电磁阀 (74KK9ZGV-120V/60), 修理包 (K74JJX-AC)  
请参见修理包参考第82页

+括号内是指压力等级可选的扩展评级, 具体信息请咨询工厂。

\*建议不超过500 PSI压力使用氟橡胶密封件。

注意: 在产品型号后面标识(✓)的, 说明是热销产品, 有现货库存。

### 二位三通换向控制型 -- 技术规格书

#### 工作条件

介质：空气，水和其他流体使用标准密封件-BUNA丁腈橡胶密封,热水、蒸汽汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

#### 温度范围：

标准阀的环境温度：-0 °F (-18 )~104 °F (40 )；介质温度：0 °F (-18 )~150 °F (65 )。

可选大大高于或远低于环境温度 and 介质温度。有关具体信息，请向工厂咨询。

真空：至5微米 - 咨询工厂

泄漏：--零泄漏

爆破压力：20、30、50系列 - 5000 PSI；70系列 - 4000 PSI

最大工作压差：见目录清单。

#### 电气特性

电压范围：20系列 5 ~ 825V AC 50-60HZ, 1.8 ~ 265V DC  
 30系列 5.2 ~ 650V AC 50-60HZ, 2 ~ 240V DC  
 50系列 5.4 ~ 575V AC 50-60HZ, 3 ~ 300V DC  
 70系列 12 ~ 1050V AC 50-60HZ, 2.5 ~ 220V DC

#### 额定功率：

Series	D.C.	A.C.	Series	D.C.	A.C.
20	9.5	8.7 W	50	7.0	6.0 W
30	8.0	8.0 W	70	16.0	18.0 W

线圈结构：非模压成型的A类，模压成型和环氧树脂灌装型  
 等级为F级（H级可选）

电磁阀开关时间（气体）：4 - 16毫秒--全系列

#### 机械特性

阀体材质：不锈钢（标准）- 20、50和70系列  
 不锈钢（可选）- 30系列  
 黄铜（标准）- 30系列  
 黄铜（可选）- 20、50、70系列-咨询工厂  
 铝（可选）- 50系列 - 咨询工厂

通径尺寸：请见列表

端口尺寸：请见列表

电气连接：扣环引线或1/2NPT管道连接--更多信息请咨询代表处

安全认证：经过UL、CSA国际机构安全认证-更多信息请咨询代表处。

### 更多选项 -- 二位三通换向控制型

更多选项请参考76-81

流量曲线图请参考95-97

#### 外壳引线选项--参考78页

**STRAIN RELIEF CONNECTOR**  
All Models

**SINGLE AUTOMOTIVE**  
All Models except 55

**DOUBLE AUTOMOTIVE**  
All Models except 55

**"AN" CONNECTOR**  
All Models

**SPLICE BOX HOUSING**  
All Models

**JIC HOUSING**  
Model 25

**YOKE**  
All Models

**MOUNTING BRACKET**  
All Models

#### 线圈选项--参考79页

**MOLDED COIL**  
All Models

**THIRD WIRE GROUND**  
All conduit Models

**POTTED COIL & HOUSING**  
All Models

**SPADE TERMINAL COIL - MOLDED**  
Models 25, 35, 55

**HIGH TEMPERATURE MOLDED COIL**  
All Models

**EUROPEAN DIN STYLE COIL**  
Models 25, 35

#### 阀体选项--参考80页

**METERING TO 1/8" ORIFICE**  
Models 25, 35, 55

**METERING TO 3/16" ORIFICE**  
Model 75

**METERED BYPASS**  
Model 25

**MANUAL OVERRIDE**  
Models 25, 75

\*不能超过250 PSI

注：某些选项的可用性、选项组合可能会有所不同

单位数量的命令 - 咨询代表或工厂。

#### 端口选项--参考81页

**BOTTOM ORIFICE PORT**  
All Models

**BOTTOM CAVITY PORT**  
All Models

**PORT 90° LEFT**  
All Models except 55

**MANIFOLD MOUNT**  
All Models

**FLANGE MOUNT**  
Models 25, 75

**PORT 90° RIGHT**  
All Models except 55

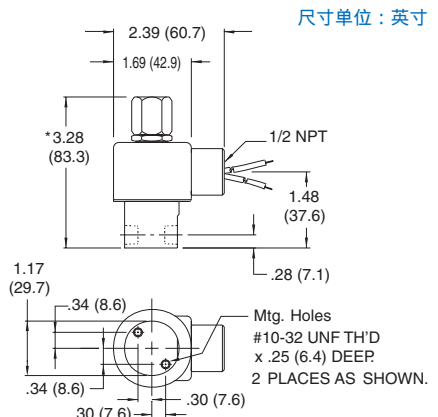
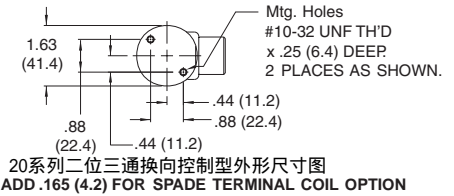
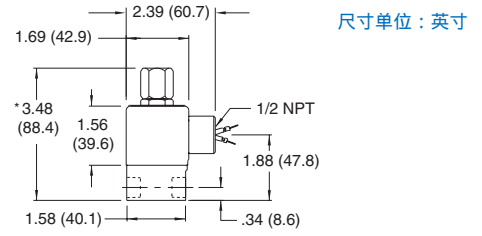
#### 杂项选择--参考76页

**SILVER SHADING RING**  
All Models

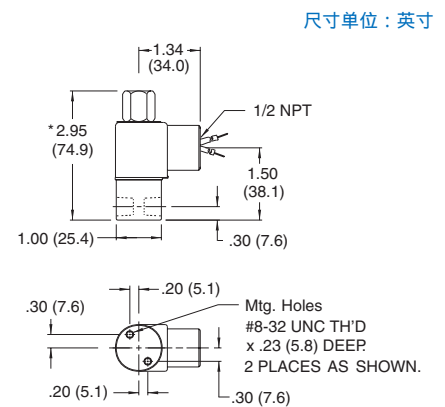
**ALUMINUM SHADING RING**  
All Models

**BUILT IN MUFFLER**  
All Models

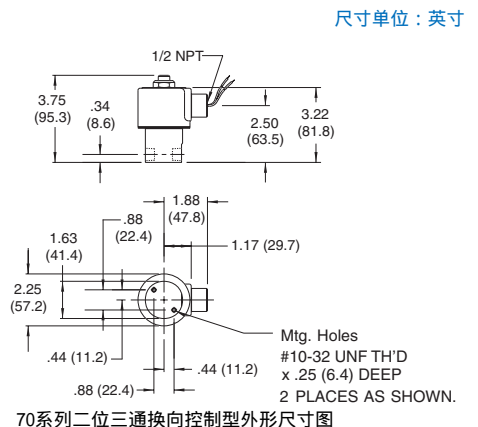
**UNIVERSAL MOUNTING BRACKET**  
Models 25, 35, 55



\*ADD.100 (2.5) FOR SPADE TERMINAL COIL OPTION  
 30系列二位三通换向控制型外形尺寸图



\*ADD.232 (5.9) FOR SPADE TERMINAL COIL OPTION  
 50系列二位三通换向控制型外形尺寸图





## 20系列 -- 25型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.5KG 1/4 NPT PORTS		管道引线外壳 阀净重: 0.6KG 1/4 NPT PORTS		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	
500	500	1/32*	1/32	.024*	.024	25GG7XGV	25GG9ZGV	25GG7XCV	25GG9ZCV	K25GGX
235 (400)	235 (300)	3/64*	3/64	.052*	.052	25HH7XGV	25HH9ZGV	25HH7XCV	25HH9ZCV	K25HHX
200 (225)	200 (200)	1/16*	3/64	.095*	.052	25JH7XGV	25JH9ZGV	25JH7XCV	25JH9ZCV	K25JHX
150 (225)	150 (200)	1/16*	1/16	.095*	.095	25JJ7XGV ✓	25JJ9ZGV	25JJ7XCV	25JJ9ZCV	K25JJX
100 (150)	100 (125)	3/32*	3/32	.156*	.156	25KK7XGV	25KK9ZGV	25KK7XCV	25KK9ZCV	K25KKX
100 (125)	100	1/8*	3/32	.284*	.156	25NK7XGV	25NK9ZGV	25NK7XCV	25NK9ZCV	K25NKX
35 (40)	35 (40)	1/8*	1/8	.284*	.201	25NN7XGV	25NN9ZGV	25NN7XCV	25NN9ZCV	K25NNX

\* VALVES WITH 1/8 SLEEVE ORIFICE ARE UL LISTED ONLY



扣环引线外壳 二位三通换向阀  
管道引线外壳 二位三通换向阀

## 30系列 -- 35型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.35KG 1/4 NPT PORTS		管道引线外壳 阀净重: 0.36KG 1/4 NPT PORTS		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	
300	300	1/32*	1/32	.024*	.024	35GG5XGV	35GG5XCV	35GG5XCV	35GG5XCV	K35GGX
175	175	3/64*	1/16	.052*	.095	35HJ5XGV ✓	35HJ5XCV	35HJ5XCV	35HJ5XCV	K35HJX
125	125	1/16*	1/16	.095*	.095	35JJ5XGV	35JJ5XCV	35JJ5XCV	35JJ5XCV	K35JJX
75	75	3/32*	3/32	.160*	.160	35KK5XGV	35KK5XCV	35KK5XCV	35KK5XCV	K35KKX
50	50	1/8*	3/32	.275*	.160	35NK5XGV	35NK5XCV	35NK5XCV	35NK5XCV	K35NKX



扣环引线外壳 二位三通换向阀  
管道引线外壳 二位三通换向阀

## 50系列 -- 55型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.18KG 1/4 NPT PORTS		管道引线外壳 阀净重: 0.20KG 1/4 NPT PORTS		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	
300	200	1/32*	1/32	.022*	.020	55GG8XGB	55GG8XCB	55GG8XCB	55GG8XCB	K55GGX
200	100	3/64*	3/64	.055*	.048	55HH8XGB	55HH8XCB	55HH8XCB	55HH8XCB	K55HHX
100	50	1/16*	1/16	.075*	.075	55JJ8XGB ✓	55JJ8XCB	55JJ8XCB	55JJ8XCB	K55JJX
75	25	3/32*	1/16	.156*	.075	55KJ8XGB	55KJ8XCB	55KJ8XCB	55KJ8XCB	K55KJX
75	40	3/32*	3/32	.156*	.150	55KK8XGB	55KK8XCB	55KK8XCB	55KK8XCB	K55KKX
45	25	1/8*	3/32	.230*	.150	55NK8XGB	55NK8XCB	55NK8XCB	55NK8XCB	K55NKX



扣环引线外壳 二位三通换向阀  
管道引线外壳 二位三通换向阀

## 70系列 -- 75型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数		扣环引线外壳 阀净重: 0.90KG 1/4 NPT PORTS		管道引线外壳 阀净重: 0.96KG 1/4 NPT PORTS		维修包 WT. 0.25
AC	DC	INLET EXH.	INLET EXH.	INLET EXH.	INLET EXH.	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	1/4 NPT PORTS	
350	350	1/16*	1/16	.09*	.09	75JJ9ZGV	75JJ9ZCV	75JJ9ZCV	75JJ9ZCV	K75JJX
250	250	3/32*	3/32	.22*	.22	75KK9ZGV	75KK9ZCV	75KK9ZCV	75KK9ZCV	K75KKX
175	175	1/8*	1/8	.35*	.35	75NN9ZGV	75NN9ZCV	75NN9ZCV	75NN9ZCV	K75NNX
125	125	5/32*	5/32	.45*	.45	75OO9ZGV ✓	75OO9ZCV	75OO9ZCV	75OO9ZCV	K75OOX
100	100	3/16*	3/16	.50*	.50	75PP9ZGV	75PP9ZCV	75PP9ZCV	75PP9ZCV	K75PPX



扣环引线外壳 二位三通换向阀  
管道引线外壳 二位三通换向阀

订购电磁阀和配件包时请提供完整的电压和频率参数,  
例如: 电磁阀 (75KK9ZGV-120V/60), 修理包 (K75JJX-AC)  
请参见修理包参考第82页

+括号内是指压力等级可选的扩展评级, 具体信息请咨询工厂。

\*建议不超过500 PSI压力使用氟橡胶密封件。

注意: 在产品型号后面标识(✓)的, 说明是热销产品, 有现货库存。

### 二位三通多功能型 -- 技术规格书

#### 工作条件

介质：空气，水和其他流体使用标准密封件-BUNA（丁腈橡胶）密封，热水、蒸汽、汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

#### 温度范围：

标准阀的环境温度：-0 °F (-18 )~104 °F (40 )；介质温度：0 °F (-18 )~150 °F (65 )。

可选大大高于或远低于环境温度 and 介质温度。有关具体信息，请向工厂咨询。

真空：至5微米 - 咨询工厂

泄漏：--零泄漏

爆破压力：20、30、50系列 - 5000 PSI；70系列 - 4000 PSI

最大工作压差：见下列表。

#### 电气特性

电压范围：20系列 5 ~ 825V AC 50-60HZ, 1.8 ~ 265V DC  
 30系列 5.2 ~ 650V AC 50-60HZ, 2 ~ 240V DC  
 50系列 5.4 ~ 575V AC 50-60HZ, 3 ~ 300V DC  
 70系列 12 ~ 1050V AC 50-60HZ, 2.5 ~ 220V DC

#### 额定功率：

Series	D.C.	A.C.	Series	D.C.	A.C.
20	9.5	8.7 W	50	7.0	6.0 W
30	8.0	8.0 W	70	16.0	18.0 W

线圈结构：非模压成型的A类，模压成型和环氧树脂灌装  
 等级为F级（H级可选）

电磁阀开关时间（气体）：4 - 16毫秒--全系列

#### 机械特性

阀体材质：不锈钢（标准）- 20、50和70系列  
 不锈钢（可选）- 30系列  
 黄铜（标准）- 30系列  
 黄铜（可选）- 20、50、70系列-咨询工厂  
 铝合金（可选）- 50系列 - 咨询工厂

通径尺寸：请见列表

端口尺寸：请见列表

电气连接：扣环引线或1/2NPT管道连接--更多信息请咨询代表处

安全认证：经过UL、CSA国际机构安全认证-更多信息请咨询代表处。

### 更多选项 -- 二位三通多功能型

更多选项请参考76-81

流量曲线图请参考95-97

外壳引线选项--参考78页

**STRAIN RELIEF CONNECTOR**  
All Models

**SINGLE AUTOMOTIVE**  
All Models except 56

**DOUBLE AUTOMOTIVE**  
All Models except 56

**"AN" CONNECTOR**  
All Models

**SPLICE BOX HOUSING**  
All Models

**JIC HOUSING**  
Model 26

**YOKE**  
All Models

**MOUNTING BRACKET**  
All Models

线圈选项--参考79页

**MOLDED COIL**  
All Models

**THIRD WIRE GROUND**  
All conduit Models

**POTTED COIL & HOUSING**  
All Models

**SPADE TERMINAL COIL - MOLDED**  
Models 26, 36, 56

**SPADE TERMINAL COIL -NON-MOLDED**  
Models 26, 36, 56

**HIGH TEMPERATURE MOLDED COIL**  
All Models

**EUROPEAN DIN STYLE COIL**  
Models 26, 36

阀体选项--参考80页

**METERING TO 3/32" ORIFICE**  
Models 56

**METERING TO 1/8" ORIFICE**  
Model 26, 36

**METERING TO 3/16" ORIFICE**  
Model 76

**METERED BYPASS**  
Model 26

**MANUAL OVERRIDE**  
Models 26, 76

注：某些选项的可用性、选项组合可能会有所不同  
 单位数量的命令 - 咨询代表或工厂。

端口选项--参考81页

**BOTTOM ORIFICE PORT**  
All Models

**BOTTOM CAVITY PORT**  
All Models

**PORT 90° LEFT**  
Models 26, 36, 76

**MANIFOLD MOUNT**  
All Models

**FLANGE MOUNT**  
Models 26, 76

**PORT 90° RIGHT**  
Models 26, 36, 76

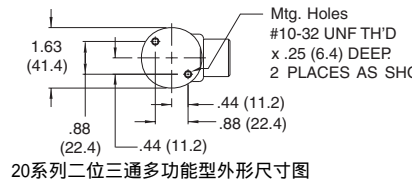
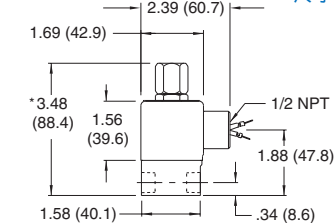
杂项选择--参考76页

**SILVER SHADING RING**  
All Models

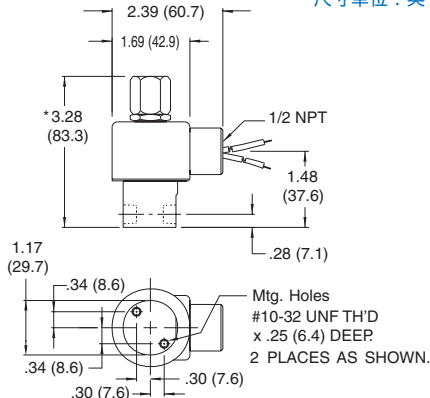
**ALUMINUM SHADING RING**  
All Models

**UNIVERSAL MOUNTING BRACKET**  
Models 26, 36, 56

尺寸单位：英寸

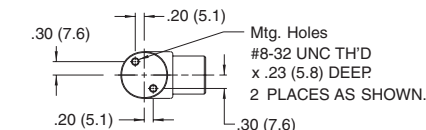
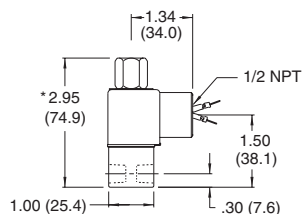


尺寸单位：英寸



\*ADD .100 (2.5) FOR SPADE TERMINAL COIL OPTION

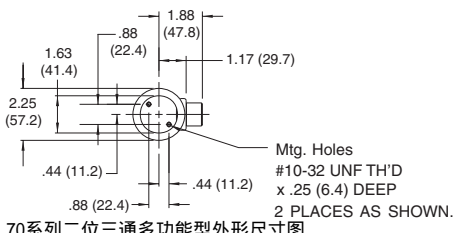
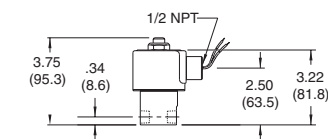
尺寸单位：英寸



\*ADD .232 (5.9) FOR SPADE TERMINAL COIL OPTION

50系列二位三通多功能型外形尺寸图

尺寸单位：英寸



\*不能超过250 PSI

## 20系列 -- 26型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	电磁阀型号				维修包 WT. 0.25	
AC	DC	INLET	EXH.	INLET EXH.	扣环引线外壳 阀净重: 0.5KG 1/8 NPT PORTS	1/4 NPT PORTS	管道引线外壳 阀净重: 0.6KG 1/8 NPT PORTS	1/4 NPT PORTS		
400	400	1/32*	1/32	.024*	.024	26GG7XGV	26GG9ZGV	26GG7XCV	26GG9ZCV	K26GGX
150	150	3/64*	3/64	.052*	.052	26HH7XGV	26HH9ZGV	26HH7XCV	26HH9ZCV	K26HHX
100	100	1/16*	1/16	.095*	.095	26JJ7XGV	26JJ9ZGV	26JJ7XCV	26JJ9ZCV ✓	K26JJX
75	75	3/32*	3/32	.156*	.156	26KK7XGV	26KK9ZGV	26KK7XCV	26KK9ZCV	K26KKX
35	35	1/8*	1/8	.284*	.201	26NN7XGV	26NN9ZGV	26NN7XCV	26NN9ZCV	K26NNX

\* VALVE WITH 1/8 SLEEVE ORIFICE ARE UL LISTED ONLY



二位三通多功能阀 扣环引线外壳      二位三通多功能阀 管道引线外壳

## 30系列 -- 36型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	电磁阀型号				维修包 WT. 0.25
AC	DC	INLET	EXH.	INLET EXH.	扣环引线外壳 阀净重: 0.35KG 1/8 NPT PORTS		管道引线外壳 阀净重: 0.36KG 1/8 NPT PORTS		
300	300	1/32*	1/32	.024*	.024	36GG5XGV	36GG5XCV		K36GGX
150	150	3/64*	3/64	.052*	.052	36HH5XGV	36HH5XCV ✓		K36HHX
75	75	1/16*	1/16	.095*	.095	36JJ5XGV	36JJ5XCV		K36JJX
50	30	3/32*	3/32	.160*	.160	36KK5XGV	36KK5XCV		K36KKX



二位三通多功能阀 扣环引线外壳      管道引线外壳 二位三通多功能阀

## 50系列 -- 56型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	电磁阀型号				维修包 WT. 0.25
AC	DC	INLET	EXH.	INLET EXH.	扣环引线外壳 阀净重: 0.18KG 1/8 NPT PORTS		管道引线外壳 阀净重: 0.20KG 1/8 NPT PORTS		
125	125	1/32*	1/32	.022*	.020	56GG8XGB	56GG8XCB		K56GGX
100	100	3/64*	3/64	.055*	.048	56HH8XGB	56HH8XCB		K56HHX
65	50	1/16*	1/16	.075*	.075	56JJ8XGB ✓	56JJ8XCB		K56JJX
25	25	3/32*	3/32	.156*	.150	56KK8XGB	56KK8XCB		K56KKX



扣环引线外壳 二位三通多功能阀      管道引线外壳 二位三通多功能阀

## 70系列 -- 76型

最大压差 单位: PSI		通径规格 单位: 英寸		CV系数	电磁阀型号				维修包 WT. 0.25
AC	DC	INLET	EXH.	INLET EXH.	扣环引线外壳 阀净重: 0.90KG 1/4 NPT PORTS		管道引线外壳 阀净重: 0.96KG 1/4 NPT PORTS		
225	225	1/16*	1/16	.09*	.09	76JJ9ZGV	76JJ9ZCV		K76JJX
150	150	3/32*	3/32	.22*	.22	76KK9ZGV	76KK9ZCV ✓		K76KKX
100	100	1/8*	1/8	.35*	.35	76NN9ZGV	76NN9ZCV		K76NNX
75	75	5/32*	5/32	.45*	.45	76009ZGV	76009ZCV		K7600X
60	60	3/16*	3/16	.50*	.50	76PP9ZGV	76PP9ZCV		K76PPX



二位三通多功能阀 扣环引线外壳      二位三通多功能阀 管道引线外壳

订购电磁阀和配件包时请提供完整的电压和频率参数，  
例如：电磁阀（76KK9ZGV-120V/60），修理包（K76JJX-AC）  
请参见修理包参考第82页

+括号内是指压力等级可选的扩展评级，具体信息请咨询工厂。

\*建议不超过500 PSI压力使用氟橡胶密封件。

注意：在产品型号后面标识(✓)的，说明是热销产品，有现货库存。



### 技术规格书 --- 二位二通 & 二位三通 防爆型

#### 工作条件

介质：空气，水和其他流体使用标准密封件-BUNA(丁腈橡胶)密封;热水、蒸汽汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

#### 温度范围：

标准环境的环境温度：-0 ° F (-18 ) ~104 ° F (40 )；介质温度：0 ° F (-18 ) ~150 ° F (65 )。

可选大大高于或远低于环境温度和介质温度。有关具体信息，请向工厂咨询。

真空：至5微米 (5 μm) - 咨询代表处。

泄漏：--零泄漏。

爆破压力：5000 PSI

最大工作压差：见下列表格。

#### 电气特性

电磁阀电源电压：交流：5 ~ 825V AC 50/60HZ; 直流：1.8~265V DC

#### 额定功率：

D.C电源	A.C电源
9.5	7.3 W

线圈结构：模压成型和环氧树脂封装型，或三线接地连接。

电磁阀开关时间（气体）：4 - 16毫秒 (ms)--全系列。

#### 机械特性

阀体：不锈钢（标准），可选铝合金或铜材，请咨询代表处。

通径尺寸：请见列表

接口尺寸：请见列表

电气连接：1/2NPT管道连接--更多信息请咨询代表处

安全认证：都经过UL、CSA国际机构安全认证-更多信息请咨询代表处

Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G;  
Div 2 Groups A,B,C,D,E,F, and G.

**更多选项 -- 二位三通多功能型**  
更多选项请参考76-81  
流量曲线图请参考95-97

外壳引线选项--参考78页

**MOUNTING BRACKET**  
All Models

线圈选项--参考79页

**MOLDED COIL**  
Standard

**POTTED COIL & HOUSING**  
All models

**HIGH TEMPERATURE MOLDED COIL**  
All Models

**THIRD WIRE GROUND**  
All Models

阀体选项--参考80页

**FINE METERING**  
All Models

**METERING TO 1/8" ORIFICE**  
All Models

**METERING TO 1/4" ORIFICE**  
Models E22, E23

**METERED BYPASS**  
Models E22, E23

**MANUAL OVERRIDE**  
All Models\*

**METERED EXHAUST PORT**  
Model E23

端口选项--参考81页

**BOTTOM ORIFICE PORT**  
Models E22\*\*, E23\*\*

**BOTTOM CAVITY PORT**  
Models E22\*\*, E23\*\*

**PORT 90° LEFT**  
Models E22, E23

**MANIFOLD MOUNT**  
Models E22\*\*, E23\*\*

**FLANGE MOUNT**  
Models E22\*\*, E23\*\*

**PORT 90° RIGHT**  
Models E22, E23

杂项选择--参考76页

**SILVER SHADING RING**  
All Models

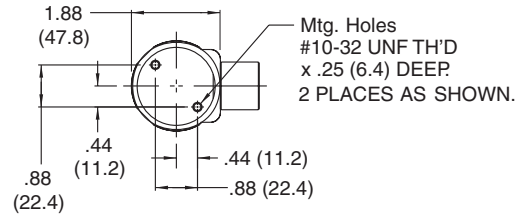
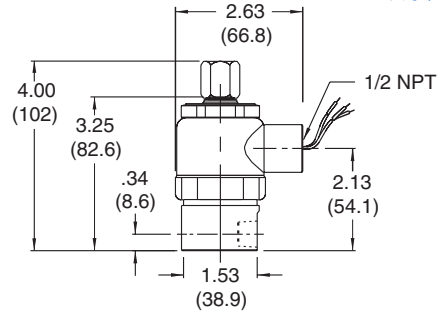
**ALUMINUM SHADING RING**  
All Models

**BUILT IN MUFFLER**  
All Models

\*不能超过250 PSI  
\*\*不能超过1/4英寸的通径大小

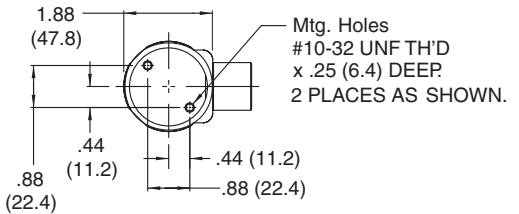
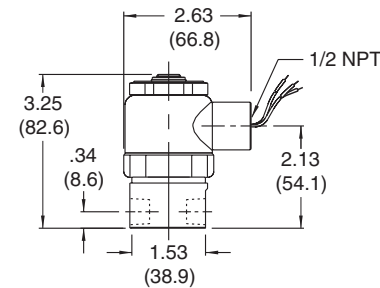
注：某些选项的可用性  
选项组合可能会有所不同  
单位数量的命令 - 咨询代表或工厂。

尺寸单位：英寸



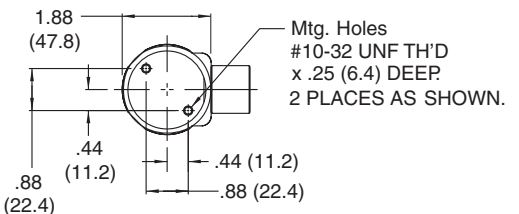
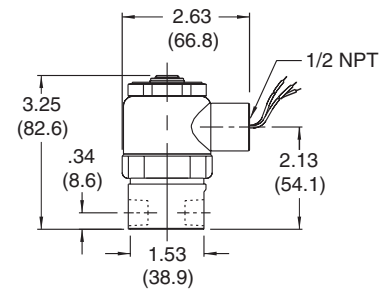
E21型二位二通常开防爆型外形尺寸图

尺寸单位：英寸



E22型二位二通常闭防爆型外形尺寸图

尺寸单位：英寸

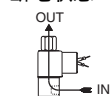


E23型二位三通通常闭防爆型外形尺寸图

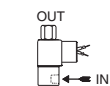
# SOLENOID VALVES . . .

## SERIES 20 — MODEL E21—2-WAY NORMALLY OPEN 20系列 -- E21型 -- 二位二通常开防爆型

断电状态



通电状态



	+ 最大工作 压差 (PSI)		通 径 单位 (英寸)		CV系数
	AC	DC	SIZE		
	400 (700)	400 (700)	1/32		.024
	235 (500)	235 (500)	3/64		.053
	150 (350)	150 (350)	1/16		.095
	100 (150)	100 (150)	3/32		.156
	35 (40)	35 (40)	1/8		.227



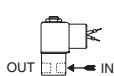
电磁阀型号  
管道引线外壳

1/8 NPT PORTS	1/4 NPT PORTS
E21G7XCCM	E21G9ZCCM
E21H7XCCM	E21H9ZCCM
E21J7XCCM	E21J9ZCCM
E21K7XCCM	E21K9ZCCM ✓
°E21N7XCCM	°E21N9ZCCM

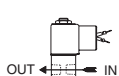
°VALVES WITH 1/8 SLEEVE ORIFICE ARE NOT UL NOR CSA LISTED

## SERIES 20 — MODEL E22—2-WAY NORMALLY CLOSED 20系列 -- E22型 -- 二位二通常闭防爆型

断电状态



通电状态



	+ 最大工作 压差 (PSI)		通 径 单位 (英寸)		CV系数
	AC	DC	SIZE		
	500	500	1/32		.024
	250 (500)	250 (500)	3/64		.052
	200 (400)	200 (400)	1/16		.095
	125 (300)	125 (250)	3/32		.156
	100 (200)	100 (200)	1/8		.284
	75	50	5/32		.404
	50	25	3/16		.500
	20	5	1/4		.700

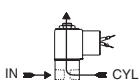


电磁阀型号  
管道引线外壳

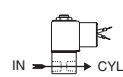
1/8 NPT PORTS	1/4 NPT PORTS
E22G7DCCM	E22G9DCCM
E22H7DCCM	E22H9DCCM
E22J7DCCM	E22J9DCCM
E22K7DCCM	E22K9DCCM
E22N7DCCM	E22N9DCCM ✓
E22O7DCCM	E22O9DCCM
E22P7DCCM	E22P9DCCM
E22R7DCCM	E22R9DCCM ✓

## SERIES 20 — MODEL E23—3-WAY NORMALLY CLOSED — EXHAUST TO ATMOSPHERE 20系列 -- E23型 -- 二位三通常闭防爆型 (EXH端口直排外式)

断电状态



通电状态



	+ 最大工作 压差 (PSI)		通 径 单位 (英寸)		CV系数	
	AC	DC	INLET EXH. INLET EXH.			
	400	400	1/32	1/32	.024	.024
	150 (200)	150 (200)	3/64	1/16	.052	.095
	100 (135)	100 (135)	1/16	1/16	.095	.095
	100 (135)	100 (135)	1/16	3/32	.095	.156
	75 (100)	75 (100)	3/32	3/32	.156	.156
	50 (70)	50 (70)	1/8	3/32	.284	.156
	35 (40)	35 (40)	1/8	1/8	.284	.227
	20	20	3/16	3/32	.500	.156
	20	20	3/16	1/8	.500	.227
	15	—	1/4	3/32	.700	.156
	15	—	1/4	1/8	.700	.227



电磁阀型号  
管道引线外壳

1/8 NPT PORTS	1/4 NPT PORTS
E23GG7DCCM	E23GG9DCCM
E23HJ7DCCM	E23HJ9DCCM
E23JJ7DCCM	E23JJ9DCCM
E23JK7DCCM	E23JK9DCCM
E23KK7DCCM	E23KK9DCCM ✓
E23NK7DCCM	E23NK9DCCM
°E23NN7DCCM	E23NN9DCCM
E23PK7DCCM	E23PK9DCCM
°E23PN7DCCM	E23PN9DCCM
E23RK7DCCM	E23RK9DCCM
°E23RN7DCCM	E23RN9DCCM

°VALVES WITH 1/8 SLEEVE ORIFICE ARE NOT UL NOR CSA LISTED

订购电磁阀和配件包时请提供完整的电压和频率参数，

例如：电磁阀 (E23GG7DCCM-120V/60)

+括号内是指压力等级可选的扩展评级，具体信息请咨询工厂。

注意：在产品型号后面标识(✓)的，说明是热销产品，有现货库存。

### 二位三通防爆型 -- 技术规格书

#### 工作条件

介质：空气，水和其他流体使用标准密封件-BUNA（丁腈橡胶）密封，热水、蒸汽汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

#### 温度范围：

标准阀的环境温度：-0 °F (-18 ) ~ 221 °F (105 )；介质温度：0 °F (-18 ) ~ 221 °F (105 )。

可选大大高于或远低于环境温度 and 介质温度。有关具体信息，请向工厂咨询。

真空：至5微米 (5 μm) - 咨询工厂

泄漏：零泄漏。

爆破压力：5000 PSI

最大工作压差：见下列表格。

#### 电气特性

电压范围：5 ~ 825V AC 50-60HZ, 1.8 ~ 265V DC

#### 额定功率：

D.C.	A.C.
9.5	7.3 W

线圈结构：模压成型和环氧树脂灌装型，或三线接地连接。

电磁阀开关时间（气体）：4 - 16毫秒（ms）--全系列。

#### 机械特性

阀体：不锈钢（标准）、可选铝合金，请咨询中国办事处。

通径尺寸：请见列表

端口尺寸：请见列表

电气连接：1/2NPT管道连接--更多信息请咨询代表处

安全认证：都经过UL、CSA国际机构安全认证--更多信息请咨询代表处。

Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G;

Div 2 Groups : A,B,C,D,E,F, and G.

### 更多选项 -- 二位三通防爆型

更多选项请参考76-81

流量曲线图请参考95-97

#### 外壳引线选项--参考78页

**MOUNTING BRACKET**  
All Models

#### 线圈选项--参考79页

**MOLDED COIL**  
Standard

**POTTED COIL & HOUSING**  
All models

**HIGH TEMPERATURE MOLDED COIL**  
All Models

#### 阀体选项--参考80页

**METERING TO 1/8" ORIFICE**  
All Models

**METERING TO 1/4" ORIFICE**  
Models E23

**METERED BYPASS**  
Models E23, E25, E26

**MANUAL OVERRIDE**  
All Models\*

**METERED EXHAUST PORT**  
Model E23, E25, E26

#### 端口选项--参考81页

**BOTTOM ORIFICE PORT**  
All Models

**BOTTOM CAVITY PORT**  
Models E23\*\*, E24, E25, E26

**PORT 90° LEFT**  
All Models

**MANIFOLD MOUNT**  
Models E23\*\*, E24, E25, E26

**FLANGE MOUNT**  
Models E23\*\*, E24, E25, E26

**PORT 90° RIGHT**  
All Models

#### 杂项选择--参考76页

**SILVER SHADING RING**  
All Models

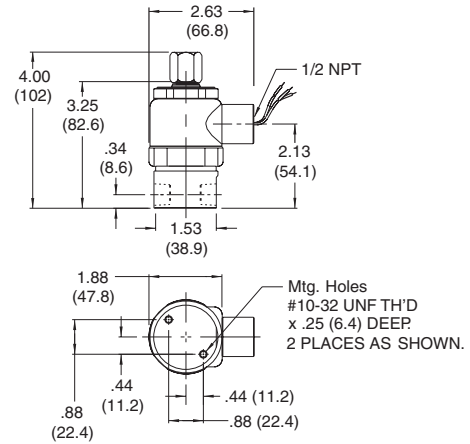
**ALUMINUM SHADING RING**  
All Models

**BUILT IN MUFFLER**  
All Models

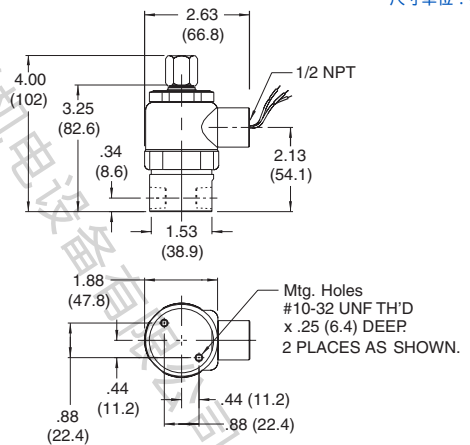
\*不能超过250 PSI  
\*\*不能超过1/4英寸的通径大小

注：某些选项的可用性、选项组合可能会有所不同  
单位数量的命令 - 咨询代表或工厂。

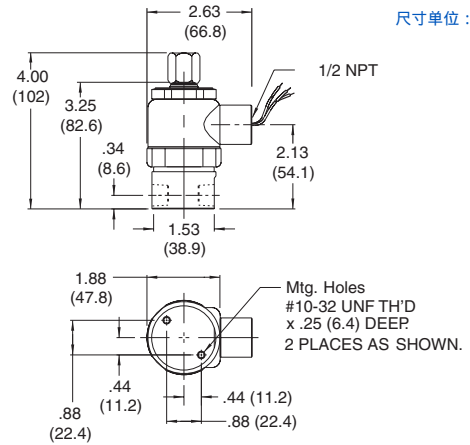
尺寸单位：英寸



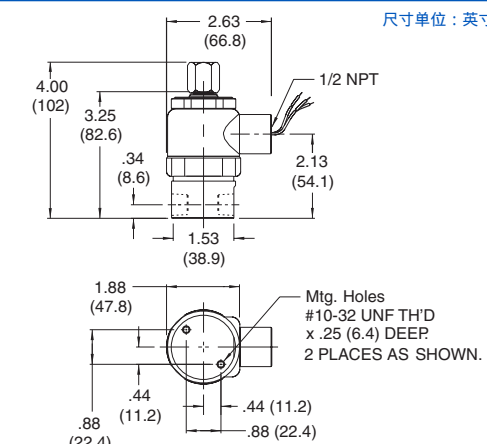
尺寸单位：英寸



尺寸单位：英寸



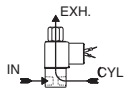
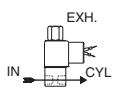
尺寸单位：英寸





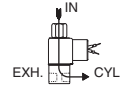
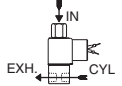
# SOLENOID VALVES . . .

## 20系列 -- E23型 - 二位三通常闭型 - EXH管道排外式

断电状态	+ 最大工作压差 (PSI)		通径单位 (英寸)		CV系数		电磁阀型号	
	AC	DC	INLET	EXH.	INLET	EXH.	1/8 NPT PORTS	1/4 NPT PORTS
	400	400	1/32	1/32	.024	.024	E23GG7XCCM	E23GG9ZCCM
	150 (200)	150 (200)	3/64	1/16	.052	.095	E23HJ7XCCM	E23HJ9ZCCM
	100 (135)	100 (135)	1/16	1/16	.095	.095	E23JJ7XCCM	E23JJ9ZCCM
通电状态	100 (135)	100 (135)	1/16	3/32	.095	.156	E23JK7XCCM	E23JK9ZCCM
	75 (100)	75 (100)	3/32	3/32	.156	.156	E23KK7XCCM	E23KK9ZCCM ✓
	50 (70)	50 (70)	1/8	3/32	.284	.156	E23NK7XCCM	E23NK9ZCCM
	35 (40)	35 (40)	1/8	1/8	.284	.227	°E23NN7XCCM	E23NN9ZCCM
	20	20	3/16	3/32	.500	.156	E23PK7XCCM	E23PK9ZCCM
	20	20	3/16	1/8	.500	.227	°E23PN7XCCM	°E23PN9ZCCM
	15	15	1/4	3/32	.700	.156	E23RK7XCCM	E23RK9ZCCM
	15	15	1/4	1/8	.700	.227	°E23RN7XCCM	°E23RN9ZCCM

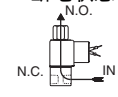
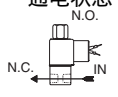
°VALVES WITH 1/8 SLEEVE ORIFICE ARE NOT UL NOR CSA APPROVED

## 20系列 -- E24型 - 二位三通常开型

断电状态	+ 最大工作压差 (PSI)		通径单位 (英寸)		CV系数		电磁阀型号	
	AC	DC	INLET	EXH.	INLET	EXH.	1/8 NPT PORTS	1/4 NPT PORTS
	400	400	1/32	1/32	.024	.024	E24GG7XCCM	E24GG9ZCCM
	150 (225)	150	3/64	1/16	.052	.095	E24HJ7XCCM	E24HJ9ZCCM
通电状态	100 (150)	100	1/16	1/16	.095	.095	E24JJ7XCCM	E24JJ9ZCCM
	100 (125)	100	1/16	1/8	.095	.284	E24JN7XCCM	E24JN9ZCCM
	75 (90)	75	3/32	1/8	.156	.284	E24KN7XCCM	E24KN9ZCCM ✓
	30	30	1/8	1/8	.227	.284	°E24NN7XCCM	°E24NN9ZCCM

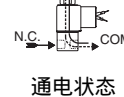
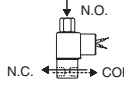
°VALVES WITH 1/8 SLEEVE ORIFICE ARE NOT UL NOR CSA APPROVED

## 20系列 -- E25型 - 二位三通换向型

断电状态	+ 最大工作压差 (PSI)		通径单位 (英寸)		CV系数		电磁阀型号	
	AC	DC	INLET	EXH.	INLET	EXH.	1/8 NPT PORTS	1/4 NPT PORTS
	500	500	1/32*	1/32	.024*	.024	E25GG7XCCM	E25GG9ZCCM
	235 (400)	235 (300)	3/64*	3/64	.052*	.052	E25HH7XCCM	E25HH9ZCCM
通电状态	200 (225)	200 (200)	1/16*	3/64	.095*	.052	E25JH7XCCM	E25JH9ZCCM
	150 (225)	150 (200)	1/16*	1/16	.095*	.095	E25JJ7XCCM	E25JJ9ZCCM
	100 (150)	100 (125)	3/32*	3/32	.156*	.156	E25KK7XCCM	E25KK9ZCCM
	100 (125)	100	1/8*	3/32	.284*	.156	E25NK7XCCM	E25NK9ZCCM ✓
	35 (40)	35 (40)	1/8*	1/8	.284*	.227	°E25NN7XCCM	°E25NN9ZCCM

°VALVES WITH 1/8 SLEEVE ORIFICE ARE NOT UL NOR CSA APPROVED

## 20系列 -- E26型 - 二位三通多功能型

断电状态	+ 最大工作压差 (PSI)		通径单位 (英寸)		CV系数		电磁阀型号	
	AC	DC	INLET	EXH.	INLET	EXH.	1/8 NPT PORTS	1/4 NPT PORTS
	400	400	1/32*	1/32	.024*	.024	E26GG7XCCM	E26GG9ZCCM
	150	150	3/64*	3/64	.052*	.052	E26HH7XCCM	E26HH9ZCCM
通电状态	100	100	1/16*	1/16	.095*	.095	E26JJ7XCCM	E26JJ9ZCCM ✓
	75	75	3/32*	3/32	.156*	.156	E26KK7XCCM	E26KK9ZCCM
	35	35	1/8*	1/8	.284*	.277	°E26NN7XCCM	°E26NN9ZCCM

°VALVES WITH 1/8 SLEEVE ORIFICE ARE NOT UL NOR CSA APPROVED

\*常闭型通径

订购电磁阀和配件包时请提供完整的电压和频率参数，  
例如：电磁阀 (E26GG7XCCM-120V/60)

+括号内是指压力等级可选的扩展评级，具体信息请咨询工厂。

注意：在产品型号后面标识(✓)的，说明是热销产品，有现货库存。



H21型

H21型-- 外形与21型一样

二位二通常开型

电压范围：仅限直流（DC）电源

最大工作压差：2000PSI（气体或液体）

通径尺寸：0.6mm

CV系数：0.010

过滤要求：60微米以下

爆破压力：5000PSI

温度范围：标配阀：-（-18）~ 104（40）环境温度；

0（-18）~150（65）介质温度，其他特殊

环境温度以及介质温度选项要求请联系代表处。



EH21型

### EXCLUSIVE FEATURES INCLUDE:

A precision stainless steel PLUNGER that supplies the necessary impact force to energize valve.

A Kel-F® PIN\* which functions as a sealing element, that is carefully machined for maximum concentricity and fine finish.

The ORIFICE GUIDE is one piece, for near perfect alignment. This means bubble-tight sealing from low pressures right up to maximum pressure rating with the bonus of longer life. The one piece Orifice/Guide can be pressed into almost any standard cavity making it available as an operator for special customer installations.

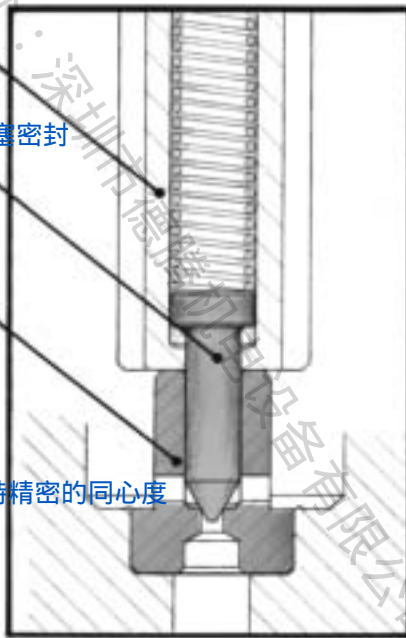
\* Other pin materials available. consult factory

PATENTED

高精度不锈钢

锥形柱塞密封

柱塞与通道口保持精密的同心度



### OTHER FEATURES INCLUDE:

结果简单：只有2个活动部件

端口连接口径：1/8或1/4NPT

### 工作原理

当电磁阀处于通电状态时，密封柱塞被弹簧拉向密封套筒；阀运动到关闭状态。

当电磁阀断电时；弹簧的强有力弹性将密封柱塞杆拉回弹簧初始状态，阀回到断开状态。

介质:气体 压力 PSI	通径尺寸 单位:英寸	阀门CV系数	高压防爆 电磁阀型号	介质:液体 压力 PSI	通径尺寸 单位:英寸	阀门CV系数	高压防爆 电磁阀型号
3000	1/32	.022	EH21G7DCCM	3000	1/32	.022	EH21G7DCCM
2500	3/64	.041	EH21H7DCCMG	1500	3/64	.041	EH21H7DCCML
1350	1/16	.061	EH21J7DCCMG	850	1/16	.061	EH21J7DCCML
450	3/32	.084	EH21K7DCCMG	300	3/32	.084	EH21K7DCCML

### 其他选项 -- 二位二通常开型高压电磁阀

线圈选项 - 请参照79页

MOLDED COIL

POTTED COIL & HOUSING

POTTED COIL & HOUSING

HIGH TEMPERATURE MOLDED COIL

其他选项 - 请参照76页

SILVER SHADING RING

ALUMINUM SHADING RING

注：某些选项的可用性、选项组合可能会有所不同  
单位数量的命令 - 咨询代表或工厂。



## 技术规格书

### EH21型

二位二通常开型电磁阀的高压零泄漏环境中应用，工作方式：直动式。

### 工作环境

介 质：空气、水、其他非腐蚀性介质--Buna(丁晴橡胶) 材质密封，汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

过 滤：小于60微米。

爆破压力：5000 PSI

最大工作压差：3000 PSI

温度范围：标准阀的环境温度：-0 °F (-18 )~104 °F (105 )；

介质温度：0 °F (-18 )~150 °F (65 )。可选高于或远低于环境温度和介质温度。有关具体信息，请向工厂咨询。

认证标准：Valves are U.L. Listed and CSA Certified for Hazardous Locations—Class I, Div 1, Groups C and D - Class II, Div 1, Groups E, F, and G; Div 2 Groups A,B,C,D,E,F, and G.

### 电气特性

电压范围：5 ~ 825 V AC, 50-60 Hz；

1.8 ~ 265 V DC.

额定功率：A.C.=7.3 W D.C = 9.5 W

线圈配置：模压线圈或灌装、第三线接地（标配）。

### 机械特性

阀体材质：不锈钢，可选镁铝合金，请咨询中国办事处。

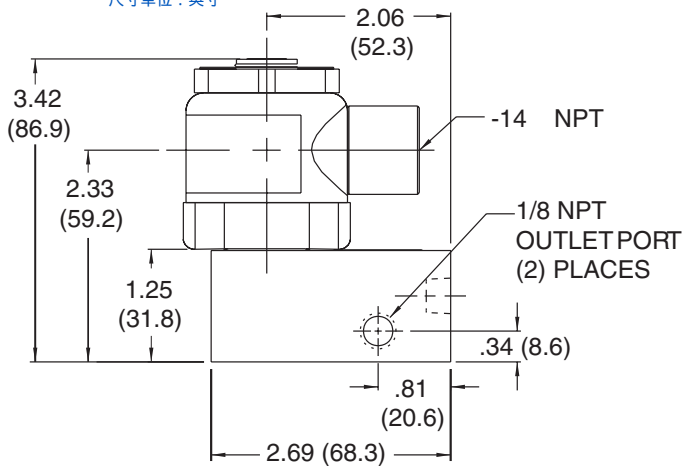
通径尺寸：1/32" - 3/32"

端口连接尺寸 1/8" NPT

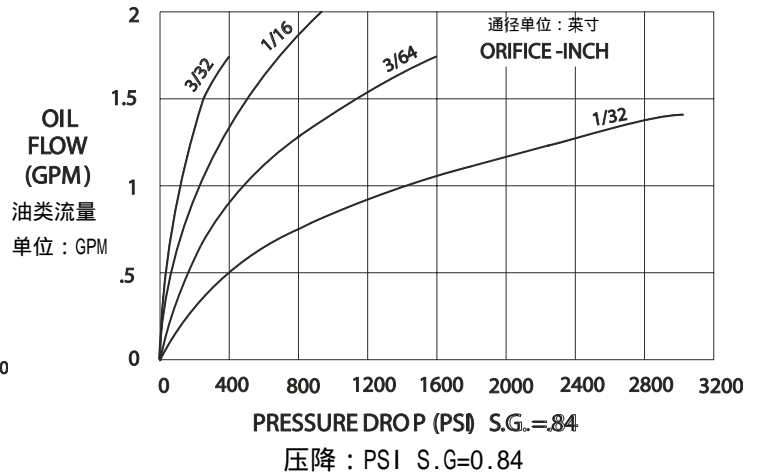
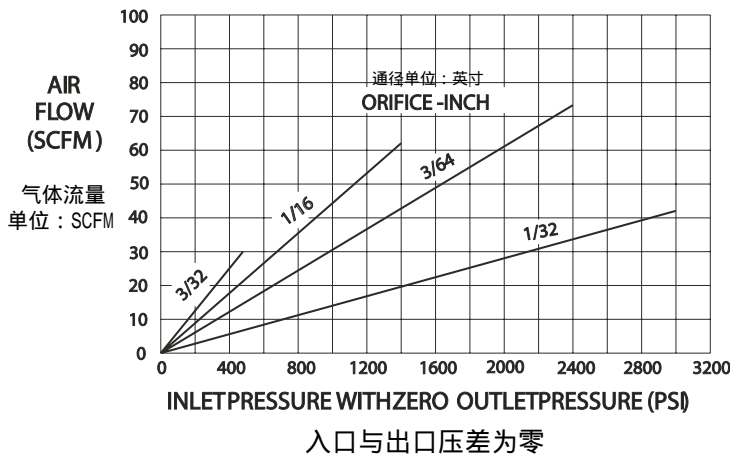
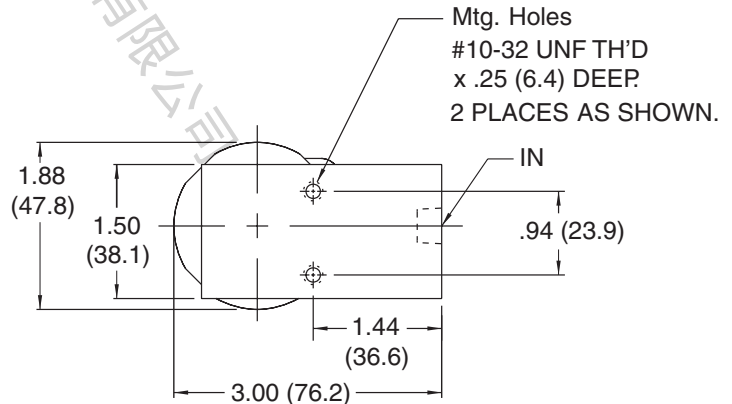
电气连接：Explosion Proof-1/2" NPT conduit

安装：阀门必须安装在垂直30°

尺寸单位：英寸



尺寸单位：英寸





# 20系列 H22 & EH22 型 二位二通常闭高压型



H22



EH22

EXCLUSIVE FEATURES INCLUDE: **高强度、高精度不锈钢结构件**

A precision stainless steel PLUNGER that supplies the necessary impact force to energize valve.

A Kel-F® PIN\* which functions as a sealing element, that is carefully machined for maximum concentricity and fine finish.

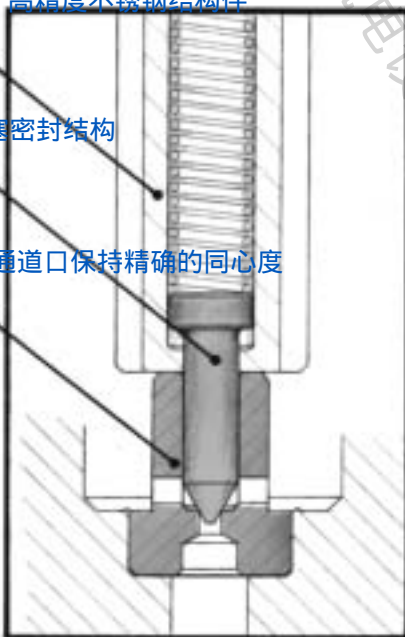
The ORIFICE GUIDE is one piece, for near perfect alignment. This means bubble-tight sealing from low pressures right up to maximum pressure rating with the bonus of longer life. The one piece Orifice/Guide can be pressed into almost any standard cavity making it available as an operator for special customer installations.

† Other pin materials available. consult factory

PATENTED

锥形柱塞密封结构

柱塞与通道口保持精确的同心度



结果简单：只有2个活动部件

端口连接口径：1/8或1/4NPT

工作原理

当电磁阀处于通电状态时，密封柱塞被弹簧拉向密封套筒；阀运动到关闭状态。当电磁阀断电时；弹簧的强有力弹性将密封柱塞杆拉回弹簧初始状态，阀回到断开状态。

可用选项：二位二通常闭高压阀门

外壳选项 -- 请参考78页

\*STRAIN RELIEF CONNECTOR

\*SINGLE AUTOMOTIVE

\*DOUBLE AUTOMOTIVE

\*"AN" CONNECTOR

\*不适用于防爆外壳

MOUNTING BRACKET

线圈选项 -- 请参考79页

MOLDED COIL

POTTED COIL & HOUSING

其他选项 -- 请参考76页

HIGH TEMPERATURE MOLDED COIL

SILVER SHADING RING

ALUMINUM SHADING RING

注：某些选项的可用性、选项组合可能会有所不同  
单位数量的命令 - 咨询代表或工厂。

注意：订货时，必须提供确定电压和频率来确定具体型号（例如：H22G7DCV - 120/60）

对于执行部件，新增"0"前缀气门数（例如：0H22GADGV-C120/60）

## 20系列 H22型 二位二通常闭高压型

工作压差值		通径尺寸 单位：英寸	CV系数	电磁阀型号 (介质：气体)					
AC	DC			扣环引线外壳		管道引线外壳		防爆型	
				1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT
3000	3000	1/32	.022	H22G7DGV	H22G9DGV	H22G7DCV	H22G9DCV	EH22G7DCCM	EH22G9DCCM
2500	1500	3/64	.041	H22H7DGVG	H22H9DGVG	H22H7DCVG	H22H9DCVG	EH22H7DCCMG	EH22H9DCCMG
1750	500	1/16	.065	H22J7DGVG	H22J9DGVG	H22J7DCVG	H22J9DCVG	EH22J7DCCMG	EH22J9DCCMG
650	100	3/32	.100	H22K7DGVG	H22K9DGVG	H22K7DCVG	H22K9DCVG	EH22K7DCCMG	EH22K9DCCMG

工作压差值		通径尺寸 单位：英寸	CV系数	电磁阀型号 (介质：液体)					
AC	DC			扣环引线外壳		管道引线外壳		防爆型	
				1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT	1/8 NPT	1/4 NPT
3000	3000	1/32	.022	H22G7DGV	H22G9DGV	H22G7DCV	H22G9DCV	EH22G7DCCM	EH22G9DCCM
1500	1500	3/64	.041	H22H7DGV	H22H9DGV	H22H7DCV	H22H9DCV	EH22H7DCCML	EH22H9DCCML
1000	500	1/16	.065	H22J7DGV	H22J9DGV	H22J7DCV	H22J9DCV	EH22J7DCCML	EH22J9DCCML
300	100	3/32	.100	H22K7DGV	H22K9DGV	H22K7DCV	H22K9DCV	EH22K7DCCML	EH22K9DCCML

### 技术规格书

#### SERIES 20—MODEL H22

#### 工作条件

介质 空气、水、其他非腐蚀性气体Buna(丁晴橡胶)密封；特殊介质应用，汽油等许多特殊介质，需要特殊的密封材料 - 请咨询销售代表或工厂。

温度范围：标准阀的环境温度：-0 °F (-18 )~ 104 °F (45 )；

介质温度：0 °F (-18 )~ 150 °F (65 )。可选高于或远低于环境温度和介质温度。有关具体信息，请向工厂咨询。

爆破压力：20000 PSI

最大工作压差：10000 PSI

+建议：为确保无故障运行，过滤要求低于60微米或更小。

安全认证：电磁阀经过UL 和 CSA 的防爆认证 -- Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2 Groups A,B,C,D,E,F, and G.

#### 电气特性

电压范围：5 ~ 825 V AC, 50-60 Hz. 1.8 ~ 265 VDC

额定功率：

	H22	EH 22
A.C.	7.7 w	7.3 w
D.C.	9.5 w	9.5 w

线圈构造：模压线圈或第三线接地（标配）

电磁阀开关：4 - 16 毫秒 (ms) .

#### 机械特性

阀体材质：不锈钢，可选镁铝合金请咨询中国办事处。

通径尺寸：1/32" - 3/32"

端口连接尺寸：1/8" and 1/4" NPT

电气连接：标准型阀是扣环引线型或管道引线型外壳；

防爆型阀是管道引线或第三线接地；接线盒或其他应用可选。

#### 标准型



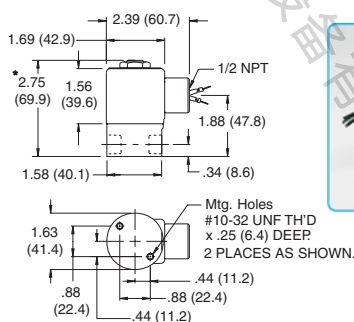
扣环引线型

WT. 1.06 LB.

管道引线型

WT. 1.13 LB.

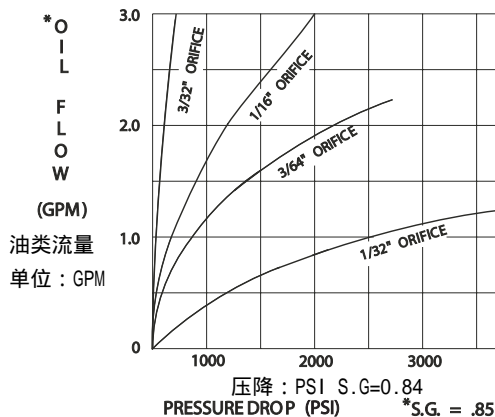
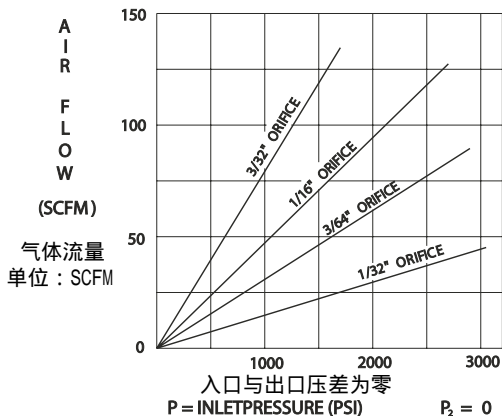
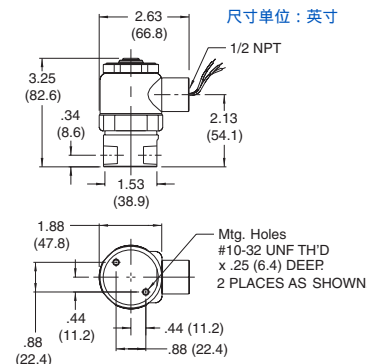
尺寸单位：英寸



#### 防爆型



WT. 1.56 LB.  
管道引线型



## 二位三通控制型超高压电磁阀（双向多功能控制型）



EH23



H24型高压电磁阀

二位三通常开型  
 线圈电压：只适合直流DC；  
 CV系数（进口）：0.010；  
 CV系数（EXH口）：0.024；  
 最大工作压差：1000PSI（气体或液体）  
 口径尺寸：0.6mm X1/32"

H22型电磁阀的成功使用使得Peter Paul 电子公司添加了一种新的双作用电磁阀，它允许更高工作压力下用双电磁头控制多管路，比常规单作用控制压力更大，应用更广。

对于像二位三通常闭型电磁阀，操作电压必须是由通电、断电交替转换，同时要保证“IN”端口压力大于或等于“CYL”端口的压力。

**EXCLUSIVE FEATURES INCLUDE:**

A precision stainless steel PLUNGER that supplies the necessary impact force to energize valve.

A Kel-F® PIN\* which functions as a sealing element, that is carefully machined for maximum concentricity and fine finish.

The ORIFICE GUIDE is one piece, for near perfect alignment. This means bubble-tight sealing from low pressures right up to maximum pressure\* rating with the bonus of longer life.

All internal connections are contained in the valve body. No need for sleeve adaptors or connecting tubes. All port connections are in the valve body.

\* Other pin materials available. consult factory

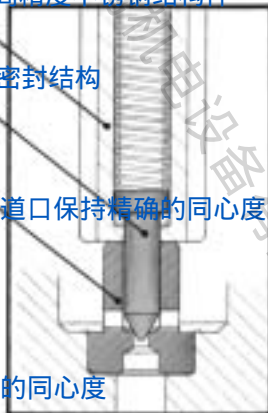
PATENTED

高强度、高精度不锈钢结构件

锥形柱塞密封结构

柱塞与通道口保持精确的同芯度

柱塞与通道口保持精密的同芯度



结果简单：只有2个活动部件

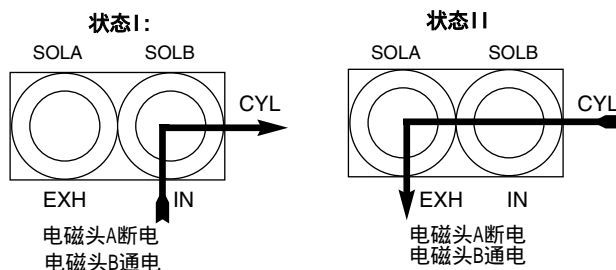
端口连接口径：1/4NPT

允许在爆炸区域、需防水或者标准安全区域使用

工作原理

当电磁阀处于通电状态时，密封柱塞被弹簧拉向密封套筒；阀运动到关闭状态。当电磁阀断电时；弹簧的强有力弹性将密封柱塞杆拉回弹簧初始状态，阀回到断开状态。

### Here is how it's done...



注：当两个电磁铁同时通电时所有端口都打开，  
当两个电磁铁同时断电时所有端口关闭。

### 更多选项 --- 二位三通高压电磁阀

外壳选项 -- 请参考78页

\*STRAIN RELIEF CONNECTOR

\* "AN" CONNECTOR

线圈选项 -- 请参考79页

MOLDED COIL

POTTED COIL & HOUSING

HIGH TEMPERATURE MOLDED COIL

其他选项 -- 请参考76页

SILVER SHADING RING

ALUMINUM SHADING RING

\*Not available with explosion proof housing

MODEL EH23-EXPLOSION PROOF VERSION is U.L. Listed and CSA Certified for hazardous locations—Class I, Groups C & D; Class II, Groups E, F, AND G - Consult factory.

Note: Availability of certain options or combination of options may vary with quantity of units ordered- Consult representative or factory.





压力额定值*		通径尺寸 单位：英寸	CV系数	电磁阀型号 (介质：气体类)		压力额定值*		通径尺寸 单位：英寸	CV系数	电磁阀型号 (介质：液体类)	
AC	DC	SIZE	FACTOR	高压标准型	高压防爆型	AC	DC	SIZE	FACTOR	高压标准型	高压防爆型
3000	3000	1/32	.022	H23GG19DCV	EH23GG19DCCM	3000	3000	1/32	.022	H23GG19DCV	EH23GG19DCCM
2500	1500	3/64	.041	H23HH19DCVG	EH23HH19DCCMG	1500	1500	3/64	.050	H23HH19DCVL	EH23HH19DCCML
1750	500	1/16	.065	H23JJ19DCVG	EH23JJ19DCCMG	1000	500	1/16	.070	H23JJ19DCVL	EH23JJ19DCCML
650	100	3/32	.100	H23KK19DCVG	EH23KK19DCCMG	300	100	3/32	.130	H23KK19DCVL	EH23KK19DCCML

订购电磁阀和配件包时请提供完整的电压和频率参数，  
例如：电磁阀 (H23GG19DCV-120V/60)

## 技术规格书

### SERIES 20—MODEL H23

高压二位三通电磁阀必须垂直30°角度安装。

### 工作条件

+介质：空气和其他非腐蚀性气体，水和油。

阀门温度范围：标准阀的环境温度：-0°F (-18 ) 至104°F (105 )；  
介质温度：0°F (-18 ) 到150°F (65 )。可选高于  
或远低于环境温度和介质温度。有关具体信息，  
请向工厂咨询。

爆破压力：10000 PSI

最大工作压差：5000 PSI

+建议：为确保无故障运行，过滤要求低于60微米或更小。

安全认证：电磁阀经过UL 和 CSA 的防爆认证 -- Class I,  
Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2 Groups  
A,B,C,D,E,F, and G.

### 电气特性

电压范围：5 ~ 825 VAC, 50-60 Hz；1.8 ~ 265 VDC

额定功率：  
A.C. 7.3 watts  
D.C. 9.5 watts

线圈构造：模压线圈或第三线接地（标配）

电磁阀开关时间：4 - 16 毫秒 (ms)。

### 机械特性

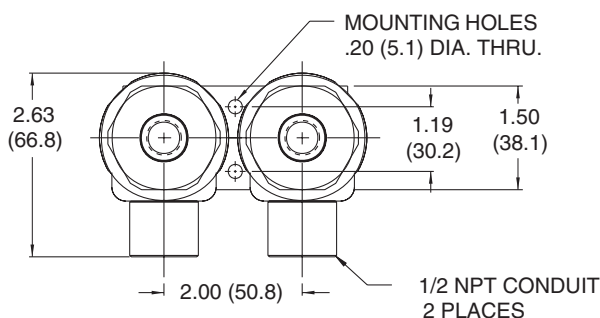
阀体材质：不锈钢，可选镁铝合金请咨询中国办事处。

通径尺寸：1/32" - 3/32"

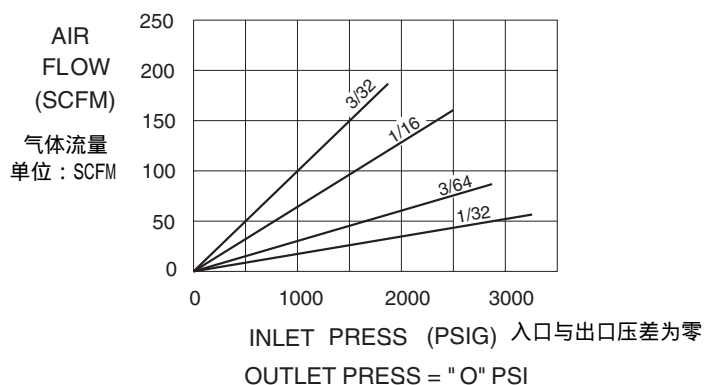
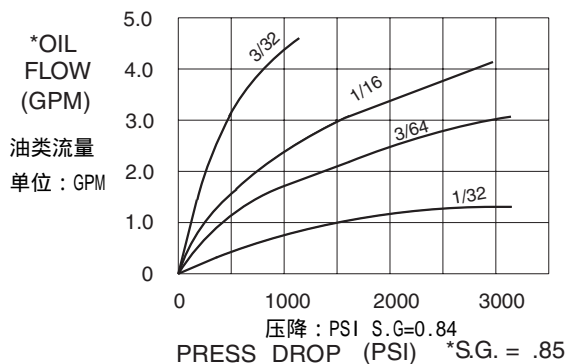
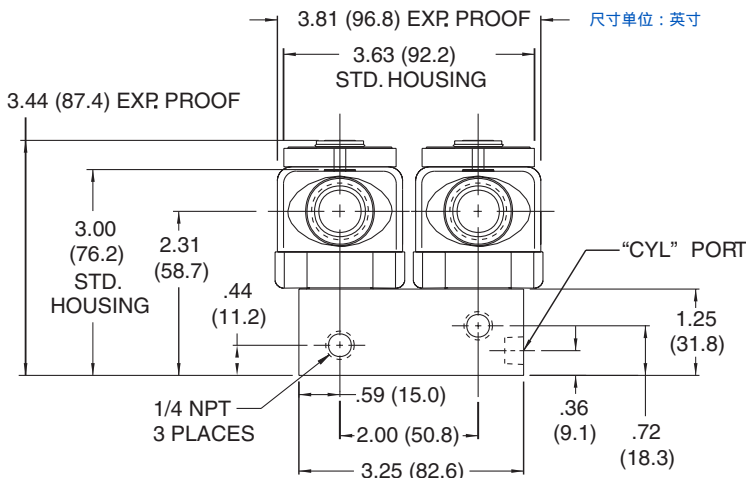
端口连接尺寸：1/8" and 1/4" NPT

电气连接：标准型阀是扣环引线型或管道引线型外壳；  
防爆型阀是管道引线或第三线接地；防爆接线盒可选。

尺寸单位：英寸



尺寸单位：英寸



满足当今客户微小空间和能耗的需求。

### 应用 :

Peter Paul 已经开发出了经过UL、CSA国际机构安全认证的,低功耗、微型防爆型阀,以最极小的体积和功耗在不危险的环境中使用。该阀是最小的防爆型电磁阀。

50 EW系列微型阀使用环氧树脂灌装线圈;线圈评级为:温度、防爆、防护等级评级为: NEMA4X级以上; EW50系列阀 作为一个通用气动、液压阀使用。



### 技术规格 --

#### 工作条件

介质: 空气、水或其非腐蚀性介质, 标准配BUNA (丁腈橡胶) 材质密封。

热水、蒸汽、汽油、液压油等其他流体介质需求特殊密封材质, 请咨询代表处或工厂。

阀门温度范围: 标准阀的环境温度:  $-0^{\circ}\text{F} (-18^{\circ}\text{C}) \sim 104^{\circ}\text{F} (40^{\circ}\text{C})$ ; 介质温度:  $0^{\circ}\text{F} (-18^{\circ}\text{C}) \sim 150^{\circ}\text{F} (65^{\circ}\text{C})$ 。可选高于或远低于环境温度 and 介质温度。有关具体信息, 请向工厂咨询。

最大工作压差: 见下列目录表

爆破压力: 5000 PSI

密封等级: 零泄漏

真空度: 至5微米 - 其他请咨询代表处或工厂

#### 电气特性

电压范围: 24 ~ 277 V AC 50-60 HZ; 6 ~ 200 VDC.

额定功率: **Series 50**

EW 5.0 watts AC and DC

线圈配置: 标准配置膜压线圈及24#引线

电磁阀开关时间: 4-16毫秒 (ms).

流速: 高达 600 CPM

占空比: 连续或间歇

#### 机械特性

阀体材质: 所有的内饰件不锈钢

通径尺寸: 见下列目录表

端口连接规格: 1/8 NPT

电气连接: 膜压封装工艺, 1/2NPT管道连接或第三条接地线。

安全标准: EW系列电磁阀都经过UL防爆等安全认证: U.L. 等级 - Class I, Div 1, Groups A, B, C and D - Class II, Div 1 Groups E, F, and G; Div 2 Groups A, B, C, D, E, F and G. "T" 温度评级, 可达: T4

工作寿命: 大于2000万次, 取决于应用、润滑等。

阀门重量: 平均只有250克重

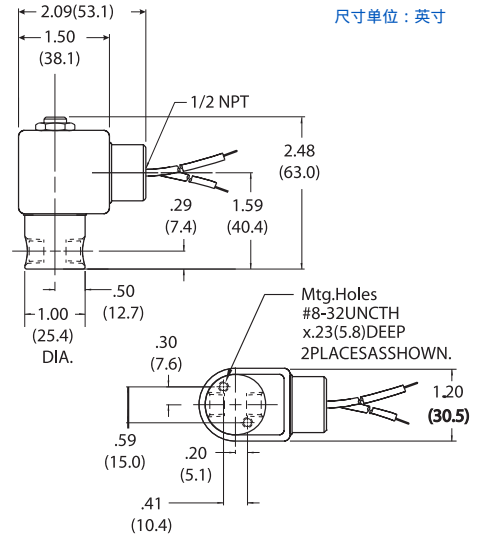
维修包: 联系代表处或工厂

流量曲线图请查看95-97页

#### 微型防爆电磁阀电磁铁 (电动机) 选项

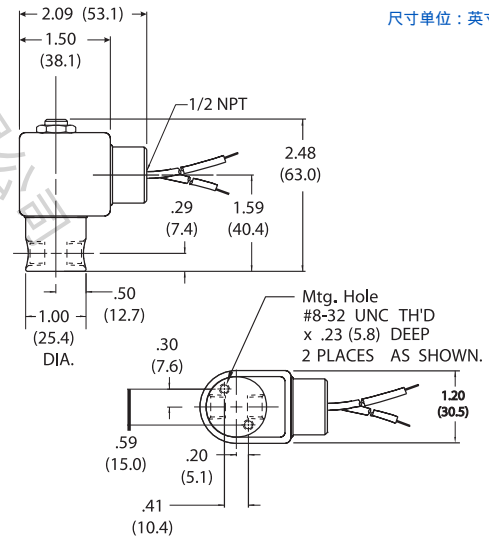
我们开发一系列产品线, 包括可供客户选择的单独的电磁铁 (电动部分机构) 我们还有提供OEM服务, 欢迎来电咨询代表处。

尺寸单位: 英寸



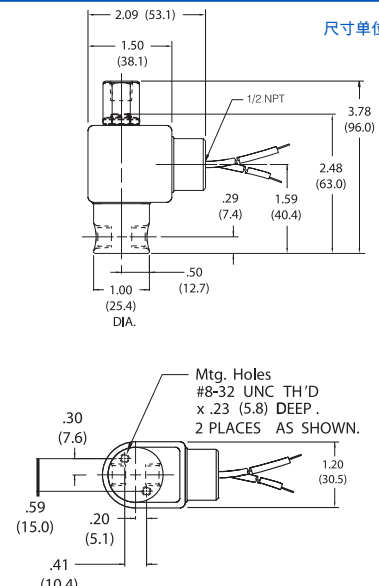
二位二通常闭型

尺寸单位: 英寸

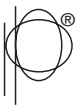


二位三通常闭EXH端口直排外式

尺寸单位: 英寸



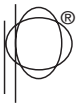
二位三通EXH端口管道排外式



规格类型	流程配置	电磁阀型号	最大工作压力差		通径单位：英寸		CV系数	
			AC	DC	INLET	EXH.	INLET	EXH.
EW51型 二位二通 常开型  **	断电状态  通电状态 	EW51G8XCCP	700	700		1/32		.020
		EW51H8XCCP	500	500		3/64		.048
		EW51J8XCCP	200	200		1/16		.075
		EW51V8XCCP	135	135		5/64		.134
		EW51K8XCCP	100	100		3/32		.150
EW52型 二位二通 常闭型	断电状态  通电状态 	EW52G8DCCP	1000	1000	1/32		.022	
		EW52H8DCCP	500	500	3/64		.055	
		EW52J8DCCP	400	250	1/16		.075	
		EW52V8DCCP	200	200	3/64		.134	
		EW52K8DCCP	150	150	3/32		.156	
		EW52N8DCCP	125	75	1/8		.230	
		EW52O8DCCP	50	10	5/32		.292	
EW53型 二位三通 常闭型 直排外式	断电状态  通电状态 	EW53GG8DCCP	250	250	1/32	1/32	.022	.020
		EW53HH8DCCP	150	150	3/64	3/64	.055	.048
		EW53HJ8DCCP	150	150	3/64	1/16	.055	.075
		EW53JJ8DCCP	100	100	1/16	1/16	.075	.075
		EW53KK8DCCP	50	50	3/32	3/32	.150	.150
EW53型 二位三通 常闭型 管道排外式  **	断电状态  通电状态 	EW53GG8XCCP	250	250	1/32	1/32	.022	.020
		EW53HH8XCCP	150	150	3/64	3/64	.055	.048
		EW53HJ8XCCP	150	150	3/64	1/16	.055	.075
		EW53JJ8XCCP	100	100	1/16	1/16	.075	.075
		EW53KK8XCCP	50	50	3/32	3/32	.150	.150
EW53型 二位三通 常开型  **	断电状态  通电状态 	EW54GG8XCCP	200	150	1/32	1/32	.020	.022
		EW54HH8XCCP	125	90	3/64	3/64	.048	.055
		EW54JJ8XCCP	100	60	1/16	1/16	.075	.075
		EW54VV8XCCP	75	40	5/64	5/64	.134	.134
		EW54KK8XCCP	50	25	3/32	3/32	.150	.150
EW54型 二位三通 换向控制型  **	断电状态  通电状态 	EW55GG8XCCP	300	225	1/32*	1/32	.022*	.020
		EW55HH8XCCP	250	80	3/64*	3/64	.055*	.048
		EW55JJ8XCCP	125	40	1/16*	1/16	.075*	.075
		EW55VV8XCCP	70	25	5/64*	5/64	.134*	.134
		EW55KK8XCCP	55	20	3/32*	3/32	.150*	.150
EW55型 二位二通 多功能型  **	断电状态  通电状态 	EW56GG8XCCP	125	100	1/32*	1/32	.022*	.020
		EW56HH8XCCP	100	40	3/64*	3/64	.055*	.048
		EW56JJ8XCCP	65	20	1/16*	1/16	.075*	.075
		EW56VV8XCCP	45	15	5/64*	5/64	.134*	.134
		EW56KK8XCCP	40	10	3/32*	3/32	.150*	.150

\*常闭型通径

\*\*压力等级可能因液体的粘度不同而变化 - 咨询工厂的评级。



PETER PAUL

# SERIES E50型 微型防爆电磁阀

满足当今的经济的空间和节能需求，用于危险区域的微型防爆电磁阀。

## 应用

能满足普通的气动和液压安全阀应用程序。然而通过使用不同的密封；这些阀门的通用性提高到包括处理的热空气，热水，制冷剂和许多其他的流体介质。

## 技术规格 --

### 工作条件

介质：空气和其他液体，标准配BUNA丁腈橡胶密封。  
热水、蒸汽、汽油、液压油等其他流体介质需求特殊密封材质，请咨询代表处或工作。

阀门温度范围：标准阀的环境温度：-0 °F (-18 )~104 °F (45 )；  
介质温度：0 °F (-18 )~150 °F (65 )。可选高于或远低于环境温度和介质温度。有关具体信息，请向工厂咨询。

最大工作压差：见下列目录表

爆破压力：5000 PSI

密封等级：零泄漏

真空度：至5微米 - 其他请咨询代表处或工厂

## 电气特性

线圈电压： 5.4 ~ 575 V AC 50-60 HZ； 3.0 ~ 300 VDC.

额定功率：

D.C. 直流电源	A.C.交流电源	
	2 WNC	3 Way & 2 WNO
7.2 Watts	4.0 Watts	5.6Watts

线圈配置：标准配置膜压线圈及24#引线

电磁阀开关时间：4-16毫秒

流速： Up to 600 CPM

占空比： 连续或间歇

## 机械特性

材质配置：所有阀体、内部构件都为不锈钢。

口径尺寸：见下列目录表

端口连接规格：1/8 NPT

电气连接：封装压膜工艺，1/2NPT管道连接或第三条接地线。

认证标准：E50系列电磁阀都经过防爆等安全认证：U.L.安全等级—Class I, Div 1, Groups A, B, C and D - Class II, Div 1 Groups E, F, and G; Div 2 Groups A, B, C, D, E, F and G. “T” 温度评级，可达：T4

工作寿命：大于2000万次，取决于应用、润滑等。

阀门重量：平均只有250克重

维修包：联系代表处或工厂

选项：可以选择全不锈钢部件材质，同时可以选择配套消音器、过滤器  
包括选项线圈类型。

流量曲线图请查看95-97页

## 微型防爆电磁阀电磁铁（电动机）选项

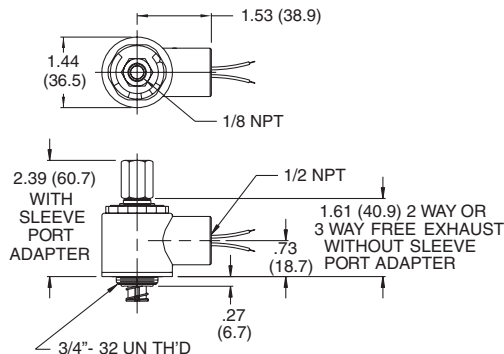
我们开发一系列产品线，包括可供客户选择的单独的

电磁铁（电动部分机构）我们还有提供OEM服务，

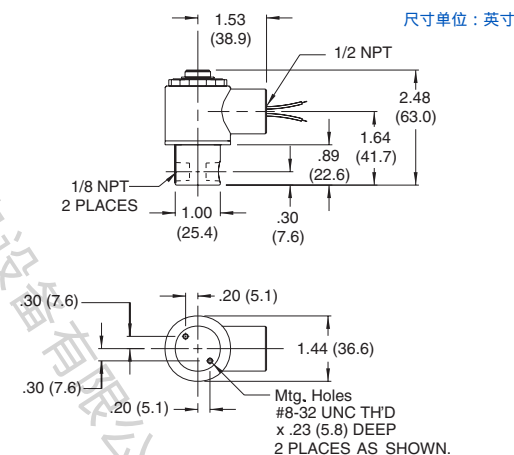
欢迎来电咨询代表处。



尺寸单位：英寸

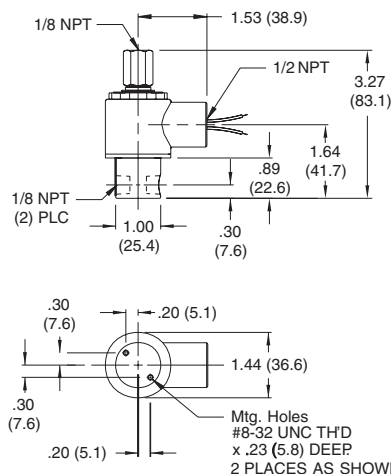


电磁铁组件



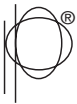
二位二通常闭型直排外式

尺寸单位：英寸



二位三通常闭型管道排外式

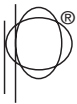




规格类型	流程配置	电磁阀型号	最大工作压差		通径 单位：英寸		CV系数	
			AC	DC	INLET	EXHAUST	INLET	EXHAUST
E51型 二位二通 常开型  **	断电状态  通电状态 	E51G8XCCM	400	200		1/32		.020
		E51H8XCCM	200	100		3/64		.048
		E51J8XCCM	125	60		1/16		.075
		E51K8XCCM	40	40		3/32		.150
E52型 二位二通 常闭型	断电状态  通电状态 	E52G8DCCM	500	250	1/32		.022	
		E52H8DCCM	400	150	3/64		.055	
		E52J8DCCM	200	100	1/16		.075	
		E52K8DCCM ✓	100	45	3/32		.156	
E52N8DCCM	75	25	1/8		.230			
E53型 二位三通 常闭型 直排外式	断电状态  通电状态 	E53GG8DCCM	200	200	1/32	1/32	.022	.020
		E53HH8DCCM	150	150	3/64	3/64	.055	.048
		E53HJ8DCCM ✓	150	150	3/64	1/16	.055	.075
		E53JJ8DCCM	100	100	1/16	1/16	.075	.075
		E53KJ8DCCM	60	60	3/32	1/16	.156	.075
		E53KK8DCCM	50	50	3/32	3/32	.156	.156
		E53NJ8DCCM	30	30	1/8	1/16	.230	.075
E53NK8DCCM	30	30	1/8	3/32	.230	.156		
E53型 二位三通 常闭型 管道排外式  **	断电状态  通电状态 	E53GG8XCCM	200	200	1/32	1/32	.022	.020
		E53HH8XCCM	150	150	3/64	3/64	.055	.048
		E53HJ8XCCM ✓	150	150	3/64	1/16	.055	.075
		E53JJ8XCCM	100	100	1/16	1/16	.075	.075
		E53KJ8XCCM	60	60	3/32	1/16	.156	.075
		E53KK8XCCM	50	50	3/32	3/32	.156	.156
		E53NJ8XCCM	30	30	1/8	1/16	.230	.075
E53NK8XCCM	30	30	1/8	3/32	.230	.075		
E54型 二位三通 常开型  **	断电状态  通电状态 	E54GG8XCCM	150	150	1/32	1/32	.020	.022
		E54HH8XCCM ✓	125	125	3/64	3/64	.048	.055
		E54JJ8XCCM	100	75	1/16	1/16	.075	.075
		E54JK8XCCM	75	45	1/16	3/32	.075	.156
		E54KK8XCCM	50	50	3/32	3/32	.156	.156
		E54JN8XCCM	50	30	1/16	1/8	.075	.230
E54KN8XCCM	40	25	3/32	1/8	.156	.230		
E55型 二位三通 换向控制型  **	断电状态  通电状态 	E55GG8XCCM	300	200	1/32*	1/32	.022*	.020
		E55HH8XCCM	200	100	3/64*	3/64	.055*	.048
		E55JJ8XCCM	100	50	1/16*	1/16	.075*	.075
		E55KJ8XCCM ✓	75	25	3/32*	1/16	.156*	.075
		E55KK8XCCM	75	40	3/32*	3/32	.156*	.156
		E55NJ8XCCM	65	20	1/8*	1/16	.230*	.075
E55NK8XCCM	45	20	1/8*	3/32	.230*	.06		
E56型 二位三通 多功能型  **	断电状态  通电状态 	E56GG8XCCM	125	125	1/32*	1/32	.022*	.020
		E56HHXCCM	100	100	3/64*	3/64	.055*	.048
		E56JJ8XCCM	65	50	1/16*	1/16	.075*	.075
		E56KK8XCCM ✓	25	25	3/32*	3/32	.156*	.156

\*带该标志的为常闭型通径，如果超过3/32尺寸以上请联系代表处或工厂  
 \*\*压力等级可能因液体的粘度不同而变化 - 咨询工厂的评级。

注意：在电磁阀型号后面标示 ( ✓ ) 表示常用型号，有现货库存销售。



PETER PAUL

# SERIES EL50 微型防爆电磁阀 (AC和DC 功率:1.8W) SERIES ELL50 微型防爆电磁阀 (DC-功率:0.85W)

满足当今的经济的空间和节能需求，用于危险区域的微型防爆电磁阀。

## 应用

能满足普通的气动和液压安全阀应用程序。然而通过使用不同的密封；这些阀门的通用性提高到包括处理的热空气，热水，制冷剂 and 许多其他的流体介质。

## 技术规格 --

### 工作条件

介质：空气和其他液体，标准配BUNA（丁腈橡胶）密封。  
热水、蒸汽、汽油、液压油等其他流体介质需求特殊密封材质，请咨询代表处或工厂。  
阀门温度范围：标准阀的环境温度：-0 °F (-18 °C) ~ 104 °F (40 °C)；  
介质温度：0 °F (-18 °C) ~ 150 °F (65 °C)。可选高于或远低于环境温度 and 介质温度。有关具体信息，请向工厂咨询。

最大工作压差：见下列目录表  
爆破压力：5000 PSI  
密封等级：零泄漏  
真空度：至5微米 - 其他请咨询代表处或工厂

## 电气特性

电压范围：5 ~ 120 V DC ; 12 ~ 240 V AC .60HZ.

额定功率：  
EL50 1.8 watts AC and DC  
ELL50 .85 watts DC

线圈配置：标准配置膜压线圈及24#引线

电磁阀开关时间：4-16毫秒

流速：Up to 600 CPM

占空比：连续或间歇

## 机械特性

电磁阀材质：所有阀体及内部构件均不锈钢。

通径尺寸：见下列目录表

端口连接规格：1/8 PTF

1/8 NPT - 特殊管道连接方式请联系中国办事处。

电气连接：膜压封装工艺线圈，1/2NPT管道连接或第三条接地线。

安全认证：EL&ELL系列电磁阀都经过UL、CSA防爆安全认证，防爆评级如下：  
—Class I, Div 1, Group C and D - Class II, Div 1, Groups E, F, and G; Div 2 Groups A,B,C,D,E,F, and G.

工作寿命：大于2000万次，取决于应用、润滑等。

阀门重量：平均只有250克重

维修包：联系代表处或工厂

选项：可以选择全不锈钢部件材质，同时可以选择配套消音器、过滤器  
包括选项线圈类型。

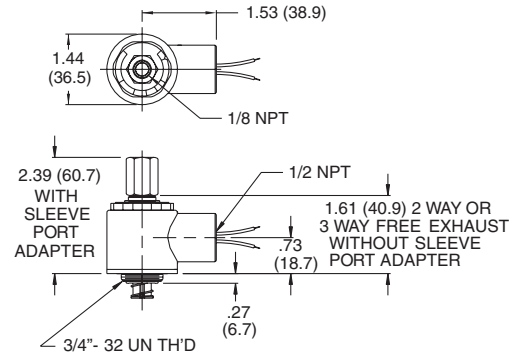
## 流量曲线图请查看95-97页

## 微型防爆电磁阀电磁铁选项

我们开发一系列产品线，包括可供客户选择的单独的电磁铁（电动部分机构）我们还有提供OEM服务，  
欢迎来电咨询代表处。

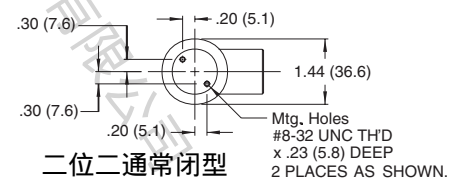
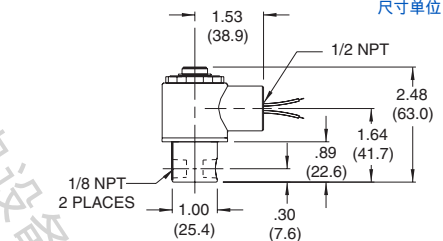


尺寸单位：英寸



电磁铁组件

尺寸单位：英寸

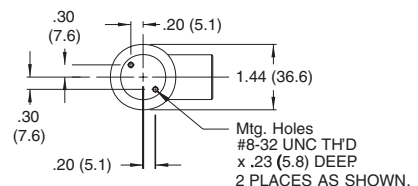
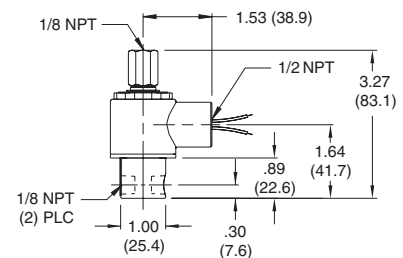


二位二通常闭型

二位三通常闭

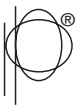
直排外式

尺寸单位：英寸

















二位三通常闭型

管道排外式



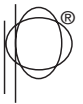
## EL50系列 防爆电磁阀型号

规格类型	流程配置	电磁阀型号	最大工作压差		通径 单位：英寸		CV系数	
			AC	DC	INLET	EXHAUST	INLET	EXHAUST
EL51型 二位二通 常开型  **	断电状态 	EL51G8XCM	200	200		1/32		.020
	通电状态 	EL51H8XCM	120	120		3/64		.048
	通电状态 	EL51J8XCM	50	50		1/16		.075
EL52型 二位二通 常闭型	断电状态 	EL52G8DCM	120	120	1/32		.022	
	通电状态 	EL52H8DCM	80	80	3/64		.055	
	通电状态 	EL52J8DCM	50	50	1/16		.075	
EL53型 二位三通 常闭型 直排外式	断电状态 	EL53GG8DCM	120	120	1/32	1/32	.022	.020
	通电状态 	EL53GH8DCM	120	120	1/32	3/64	.022	.048
	通电状态 	EL53HH8DCM	60	60	3/64	3/64	.055	.048
	通电状态 	EL53JJ8DCM	30	30	1/16	1/16	.075	.075
EL53型 二位三通 常闭型 管道排外式  **	断电状态 	EL53GG8XCM	120	120	1/32	1/32	.055	.048
	通电状态 	EL53GH8XCM	120	120	1/32	3/64	.022	.048
	通电状态 	EL53HH8XCM	60	60	3/64	3/64	.055	.048
	通电状态 	EL53JJ8XCM	30	30	1/16	1/16	.075	.075

## ELL50系列 防爆电磁阀型号

规格类型	流程配置	电磁阀型号	最大工作压差	通径 单位：英寸		CV系数	
			GAS ONLY	INLET	EXHAUST	INLET	EXHAUST
ELL52型 二位二通 常闭型	断电状态 	ELL52G8DCCM	120	1/32			
通电状态 							
ELL53型 二位三通 常闭型 直排外式	断电状态 	ELL53GG8DCCM	120	1/32	1/32		
	通电状态 						
ELL53型 二位三通 常闭型 管道排外式	断电状态 	ELL53GG8XCCM	120	1/32	1/32		
通电状态 							

\*\*压力等级可能因液体的粘度不同而变化 - 咨询工厂的评级。



PETER PAUL

SERIES ELW 50 (AC或DC 功率 : 1.8W)

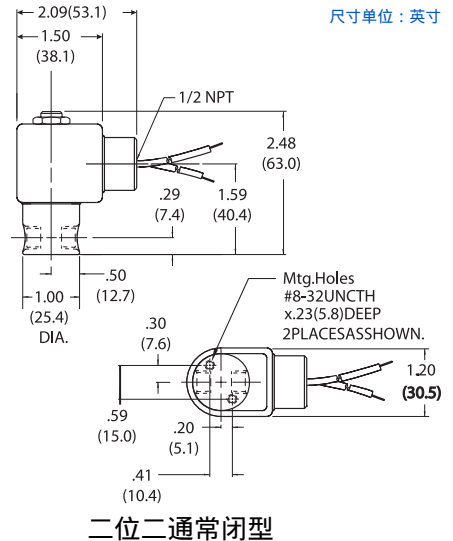
SERIES ELLW 50 (DC-功率 : 0.50W)

# 微型防爆电磁阀

满足当今的经济的空间和节能需求，用于危险区域的微型防爆电磁阀。

## 应用：

Peter Paul已经开发出了经过UL、CSA国际机构安全认证的，低功耗、微型防爆电磁阀，以最极小的体积和功耗在不危险的环境中使用。该阀是最小的防爆型电磁阀。50 EW系列微型阀使用环氧树脂灌装线圈；线圈评级为：温度、防爆、防护等级评级为：NEMA4X级以上；EW50系列阀作为一个通用气动、液压阀使用。



## 技术规格 --

### 工作条件

介质：空气和其他液体，标准配BUNA（丁腈橡胶）密封。  
热水、蒸汽、汽油、液压油等其他流体介质需求特殊密封材质，请咨询代表处或工作。

阀门温度范围：标准阀的环境温度：-0°F (-18 °) ~ 104°F (45 °)；  
介质温度：0°F (-18 °) ~ 150°F (65 °)。可选高于或远低于环境温度和介质温度。有关具体信息，请向工厂咨询。

最大工作压差：见下列目录表

爆破压力：5000 PSI

密封等级：零泄漏

真空度：至5微米 - 其他请咨询代表处或工厂

### 电气特性

电压范围：24 ~ 277 V AC 50-60 HZ；6 ~ 120 VDC.

额定功率：**Series 50**

ELW 1.8 watts AC and DC

ELLW .50 watts DC only

线圈配置：标准配置膜压线圈及24#引线

电磁阀开关时间 4-16毫秒

流速：Up to 600 CPM

占空比：连续或间歇

### 机械特性

电磁阀材质 所有的内饰件不锈钢

通径尺寸：见下列目录表

端口连接规格：1/8 PTF

1/8 NPT - 更多接口规格选项请联系中国办事处。

电气连接：膜压封装工艺，1/2NPT管道连接或第三条接地线。

安全标准：所有的ELW&ELLW电磁阀都经过 U.L.防爆认证，防爆评级Class I, Div 1, Groups A, B, C and D - Class II, Div 1 Groups E, F, and G; Div 2 Groups A, B, C, D, E, F and G. "T" 温度评级可达：T5

电磁阀寿命 大于2000万次，取决于应用、润滑等。

阀门重量：平均只有250克重

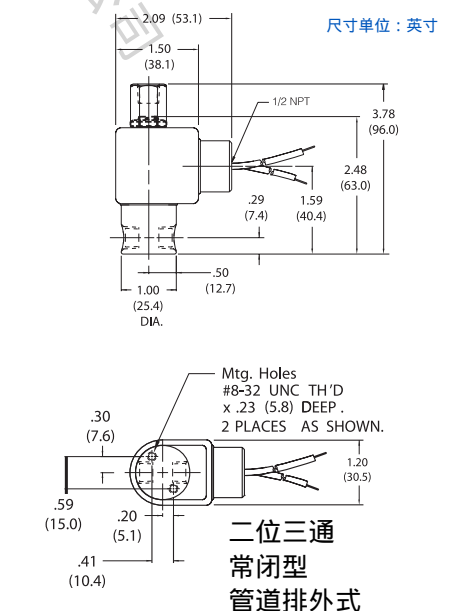
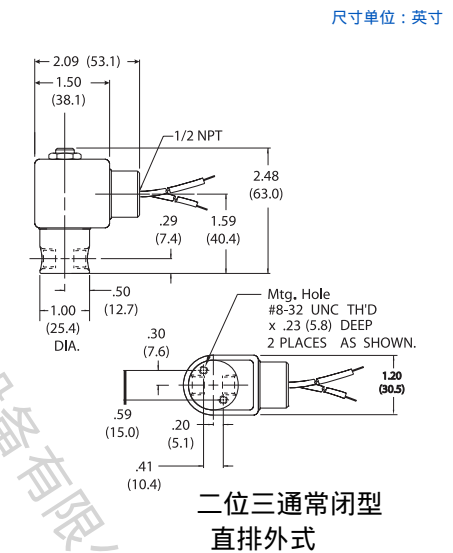
维修包：联系代表处或工厂

选项：可以选择全不锈钢部件材质，同时可以选择配套消音器、过滤器  
包括选项线圈类型。

流量曲线图请查看95-97页

## 微型防爆电磁阀电磁铁（电动机）选项

我们开发一系列产品线，包括可供客户选择的单独的电磁铁（电动部分机构）我们还有提供OEM服务，欢迎来电咨询代表处。

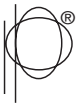






表A	规格类型	流程配置	电磁阀型号 后缀G代表介质为气体； 后缀L代表介质为液体	ELW 1.8 Watts		最大工作压力差							
				通 径 单位：英寸		气体介质		液体介质					
				Inlet	Exhaust	AC	DC	AC	DC				
ELW51型 二位三通 常开型	断电状态 	通电状态 	ELW51G8XCCP		G 1/32	300	200	300	200				
			ELW51H8XCCP (G or L)		H 3/64	270	120	120	65				
			ELW51J8XCCP (G or L)		J 1/16	135	50	40	30				
			ELW51V8XCCP (G or L)		V 5/64	70	35	30	20				
			ELW51K8XCCP (G or L)		K 3/32	55	30	25	15				
ELW52型 二位三通 常闭型	断电状态 	通电状态 	ELW52G8DCCP	G	1/32	600	200	600	200				
			ELW52H8DCCP	H	3/64	250	80	250	80				
			ELW52J8DCCP	J	1/16	150	50	150	50				
			ELW52V8DCCP	V	5/64	100	25	100	25				
			ELW52K8DCCP	K	3/32	85	20	85	20				
			ELW52N8DCCP	N	1/8	50		50					
			ELW52O8DCCP	O	5/32	15		15					
ELW53型 二位三通 常闭型 直排外式	断电状态 	通电状态 	ELW53GG8DCCP	G	1/32	G 1/32	215	135	215	135			
			ELW53GH8DCCP (G or L)	G	1/32	H 3/64	215	120	120	65			
			ELW53GJ8DCCP (G or L)	G	1/32	J 1/16	135	50	40	30			
			ELW53GV8DCCP (G or L)	G	1/32	V 5/64	70	35	30	20			
			ELW53GK8DCCP (G or L)	G	1/32	K 3/32	55	30	25	15			
			ELW53HH8DCCP (G or L)	H	3/64	H 3/64	120	70	120	65			
			ELW53HJ8DCCP (G or L)	H	3/64	J 1/16	120	50	40	30			
			ELW53HV8DCCP (G or L)	H	3/64	V 5/64	70	35	30	20			
			ELW53HK8DCCP (G or L)	H	3/64	K 3/32	55	30	25	15			
			ELW53JJ8DCCP (G or L)	J	1/16	J 1/16	85	40	40	30			
			ELW53JV8DCCP (G or L)	J	1/16	V 5/64	70	35	30	20			
			ELW53JK8DCCP (G or L)	J	1/16	K 3/32	55	30	25	15			
			ELW53VV8DCCP (G or L)	V	5/64	V 5/64	50	30	30	20			
			ELW53VK8DCCP (G or L)	V	5/64	K 3/32	50	30	25	15			
			ELW53KK8DCCP (G or L)	K	3/32	K 3/32	35	20	25	15			
			ELW53型 二位三通 常闭型 管道排外式	断电状态 	通电状态 	ELW53GG8XCCP	G	1/32	G 1/32	215	135	215	135
						ELW53GH8XCCP (G or L)	G	1/32	H 3/64	215	120	120	65
ELW53GJ8XCCP (G or L)	G	1/32				J 1/16	135	50	40	30			
ELW53GV8XCCP (G or L)	G	1/32				V 5/64	70	35	30	20			
ELW53GK8XCCP (G or L)	G	1/32				K 3/32	55	30	25	15			
ELW53HH8XCCP (G or L)	H	3/64				H 3/64	120	70	120	65			
ELW53HJ8XCCP (G or L)	H	3/64				J 1/16	120	50	40	30			
ELW53HV8XCCP (G or L)	H	3/64				V 5/64	70	35	30	20			
ELW53HK8XCCP (G or L)	H	3/64				K 3/32	55	30	25	15			
ELW53JJ8XCCP (G or L)	J	1/16				J 1/16	85	40	40	30			
ELW53JV8XCCP (G or L)	J	1/16				V 5/64	70	35	30	20			
ELW53JK8XCCP (G or L)	J	1/16				K 3/32	55	30	25	15			
ELW53VV8XCCP (G or L)	V	5/64				V 5/64	50	30	30	20			
ELW53VK8XCCP (G or L)	V	5/64				K 3/32	50	30	25	15			
ELW53KK8XCCP (G or L)	K	3/32				K 3/32	35	20	25	15			

表 B	规格类型	流程配置	电磁阀型号	ELLW .50 Watts		只适用气体介质
				Inlet	Exhaust	DC
ELLW52型 二位三通 常闭型	断电状态 	通电状态 	ELLW52G8DCCP	G 1/32		120
ELLW53型 二位三通 常闭型 直排外式	断电状态 	通电状态 	ELLW53GG8DCCP	G 1/32	G 1/32	120
ELLW53型 二位三通 常闭型 管道排外式	断电状态 	通电状态 	ELLW53GG8XCCP	G 1/32	G 1/32	120

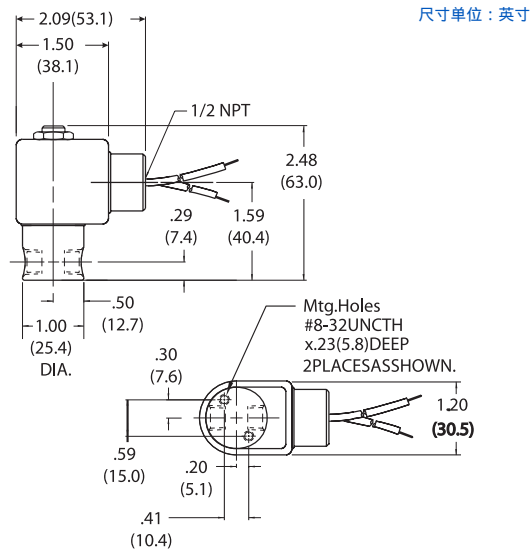


**PETER PAUL**

# SERIES SLW 50 超低功耗 (AC或DC 功耗 : 1.8W) SERIES SLLW 50 超低功耗 (DC-功耗 : 0.50W)

满足当今的经济的空间和节能需求的微型电磁阀.

**应用 :** 50 SLLW系列微型阀与封装线圈Peter Paul 已经开发出了经过UL认证的, 低功耗、微型阀, 以最极小的体积和功耗在不稳定的环境中使用。该阀是最小的低功耗型电磁阀, 最好的一个体积的, 高作为一个通用的气动和液压阀条件。温度在试验的评级。  
注意: 该SLLW系列电磁阀非安全阀。



二位二通常闭型

**技术规格 --  
工作条件**

介质: 空气、水等非腐蚀性介质, 标准配BUNA (丁腈橡胶) 密封。  
热水、蒸汽、汽油、液压油等其他流体介质需求特殊密封材质, 请咨询代表处或工厂。

温度范围: 标准阀的环境温度:  $-0^{\circ}\text{F} (-18^{\circ}\text{C}) \sim 104^{\circ}\text{F} (40^{\circ}\text{C})$  ;  
介质温度:  $0^{\circ}\text{F} (-18^{\circ}\text{C}) \sim 150^{\circ}\text{F} (65^{\circ}\text{C})$  。可选高于或远低于环境温度和介质温度。有关具体信息, 请向工厂咨询。

最大工作压差: 见下列目录表

爆破压力: 5000 PSI

密封等级: 零泄漏

真空度: 至5微米 - 其他请咨询代表处或工厂

**电气特性**

电压范围: 24 ~ 277 V AC 50-60 HZ. ; 6 ~ 120 VDC.

**额定功率: Series 50**

SLW 1.8 watts AC and DC

SLLW .50 watts DC only

线圈配置: 标准配置模压线圈及24#引线

电磁阀开关时间: 4-16毫秒

流速: Up to 600 CPM

占空比: 连续或间歇

**机械特性**

材质: 所有的内饰件不锈钢

通径尺寸: 见下列目录表

端口连接规格:  $\frac{1}{8}$  PTF

$\frac{1}{8}$  NPT - available (consult factory)

外壳配置: 封装压膜工艺, 1/2NPT管道连接或第三条接地线。

工作寿命: 大于2000万次, 取决于应用、润滑等。

阀门重量: 平均只有250克重

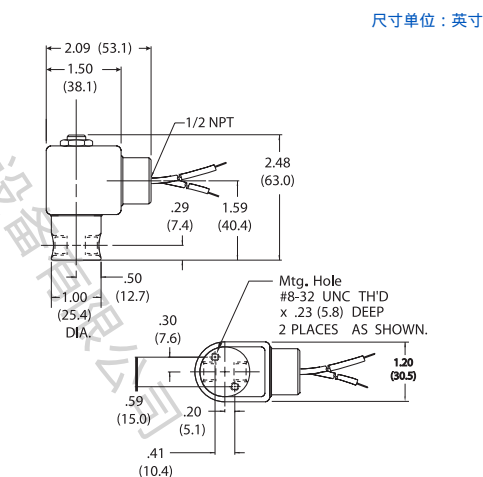
维修包: 联系代表处或工厂

选项: 可以选择全不锈钢部件材质, 同时可以选择配套消音器、过滤器  
包括选项线圈类型。

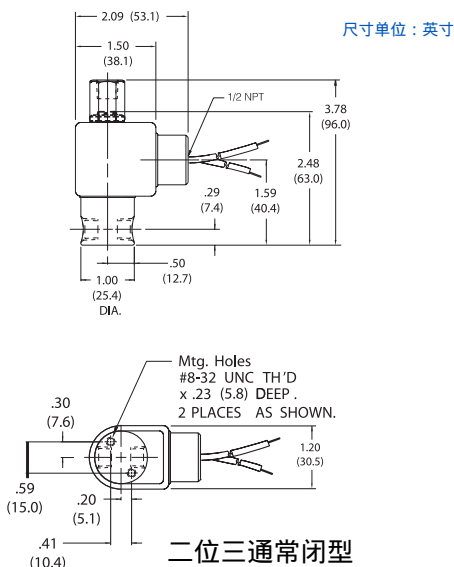
**流量曲线图请查看95-97页**

**微型防爆电磁阀电磁铁 (电动机) 选项**

我们开发一系列产品线, 包括可供客户选择的单独的电磁铁 (电动部分机构) 我们还有提供OEM服务, 欢迎来电咨询代表处。



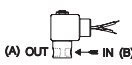
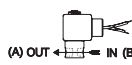
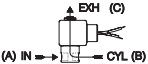
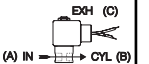


二位三通常闭型  
直排外式



二位三通常闭型  
管道排外式



表A	规格类型	流程配置	电磁阀型号 后缀	SLW 1.8 Watts		最大工作压力差			
				通径 单位: 英寸		Gas		Liquid	
				Inlet	Exhaust	AC	DC	AC	DC
SLE51型 二位三通 常开型	断电状态  通电状态 	SLW51G8XCCP SLW51H8XCCP (G or L) SLW51J8XCCP (G or L) SLW51V8XCCP (G or L) SLW51K8XCCP (G or L)		G 1/32	300	200	300	200	
				H 3/64	270	120	120	65	
				J 1/16	135	50	40	30	
				V 5/64	70	35	30	20	
				K 3/32	55	30	25	15	
SLW52型 二位三通 常闭型	断电状态  通电状态 	SLW52G8DCCP SLW52H8DCCP SLW52J8DCCP SLW52V8DCCP SLW52K8DCCP SLW52N8DCCP SLW52O8DCCP	G 1/32		600	200	600	200	
			H 3/64		250	80	250	80	
			J 1/16		150	50	150	50	
			V 5/64		100	25	100	25	
			K 3/32		85	20	85	20	
			N 1/8		50		50		
			O 5/32		15		15		
SLW53型 二位三通 常闭型 直排外式	断电状态  通电状态 	SLW53GG8DCCP SLW53GH8DCCP (G or L) SLW53GJ8DCCP (G or L) SLW53GV8DCCP (G or L) SLW53GK8DCCP (G or L) SLW53HH8DCCP (G or L) SLW53HJ8DCCP (G or L) SLW53HV8DCCP (G or L) SLW53HK8DCCP (G or L) SLW53JJ8DCCP (G or L) SLW53JV8DCCP (G or L) SLW53JK8DCCP (G or L) SLW53VV8DCCP (G or L) SLW53VK8DCCP (G or L) SLW53KK8DCCP (G or L)	G 1/32	G 1/32	215	135	215	135	
			G 1/32	H 3/64	215	120	120	65	
			G 1/32	J 1/16	135	50	40	30	
			G 1/32	V 5/64	70	35	30	20	
			G 1/32	K 3/32	55	30	25	15	
			H 3/64	H 3/64	120	70	120	65	
			H 3/64	J 1/16	120	50	40	30	
			H 3/64	V 5/64	70	35	30	20	
			H 3/64	K 3/32	55	30	25	15	
			J 1/16	J 1/16	85	40	40	30	
			J 1/16	V 5/64	70	35	30	20	
			J 1/16	K 3/32	55	30	25	15	
			V 5/64	V 5/64	50	30	30	20	
			V 5/64	K 3/32	50	30	25	15	
			K 3/32	K 3/32	35	20	25	15	
SLW53型 二位三通 常闭型 管道排外式	断电状态  通电状态 	SLW53GG8XCCP SLW53GH8XCCP (G or L) SLW53GJ8XCCP (G or L) SLW53GV8XCCP (G or L) SLW53GK8XCCP (G or L) SLW53HH8XCCP (G or L) SLW53HJ8XCCP (G or L) SLW53HV8XCCP (G or L) SLW53HK8XCCP (G or L) SLW53JJ8XCCP (G or L) SLW53JV8XCCP (G or L) SLW53JK8XCCP (G or L) SLW53VV8XCCP (G or L) SLW53VK8XCCP (G or L) SLW53KK8XCCP (G or L)	G 1/32	G 1/32	215	135	215	135	
			G 1/32	H 3/64	215	120	120	65	
			G 1/32	J 1/16	135	50	40	30	
			G 1/32	V 5/64	70	35	30	20	
			G 1/32	K 3/32	55	30	25	15	
			H 3/64	H 3/64	120	70	120	65	
			H 3/64	J 1/16	120	50	40	30	
			H 3/64	V 5/64	70	35	30	20	
			H 3/64	K 3/32	55	30	25	15	
			J 1/16	J 1/16	85	40	40	30	
			J 1/16	V 5/64	70	35	30	20	
			J 1/16	K 3/32	55	30	25	15	
			V 5/64	V 5/64	50	30	30	20	
			V 5/64	K 3/32	50	30	25	15	
			K 3/32	K 3/32	35	20	25	15	

表 B	规格类型	流程配置	电磁阀型号	SLLW .50 Watts		Gas Only
				Inlet	Exhaust	DC
SLLW52型 二位三通 常闭型	断电状态  通电状态 	SLLW52G8DCCP	G 1/32		120	
SLLW53型 二位三通 常闭型 直排外式	断电状态  通电状态 	SLLW53GG8DCCP	G 1/32	G 1/32	120	
SLLW53型 二位三通 常闭型 管道排外式	断电状态  通电状态 	SLLW53GG8XCCP	G 1/32	G 1/32	120	

**应用：** 50 SLLW系列微型阀与封装线圈Peter Paul 已经开发出了经过UL认证的，低功耗、微型阀，以最极小的体积和功耗在不稳定的环境中使用。该阀是最小的低功耗型电磁阀，最好的一个体积的，高作为一个通用的气动和液压阀条件。温度在试验的评级。  
注意：该SLLW系列电磁阀非安全阀。



### 技术规格 --

#### 工作条件

介质：空气和其他液体，标准配BUNA丁腈橡胶密封。  
热水、蒸汽、汽油、液压油等其他流体介质需求特殊密封材质，请咨询代表处或工厂。

温度范围：标准阀的环境温度：-0 °F (-18 °C) ~ 104 °F (40 °C) ；  
介质温度：0 °F (-18 °C) ~ 150 °F (65 °C) 。可选高于或远低于环境温度 and 介质温度。有关具体信息，  
请向工厂咨询。

最大工作压差：见下列目录表

爆破压力：5000 PSI

密封等级：零泄漏

真空度：至5微米 - 其他请咨询代表处或工厂

#### 电气特性

电压范围：24 ~ 277 V AC 50-60 HZ. ; 6 ~ 120 VDC.

额定功率：**Series 50**

LW 2.5 watts AC and DC

LLW 0.65 watts DC only

线圈配置：标准配置模压线圈及24#引线

电磁阀开关时间：4-16毫秒

流速：Up to 600 CPM

占空比：连续或间歇

#### 机械特性

材质：所有的内饰件不锈钢

通径尺寸：见下列目录表

端口连接规格：1/8 PTF  
1/8 NPT - 特殊要求请咨询中国办事处。

外壳配置：扣环引线连接或1/2NPT管道引线连接外壳 ---其他请咨询代表处

工作寿命：大于2000万次，取决于应用、润滑等。

阀门重量：平均只有250克重

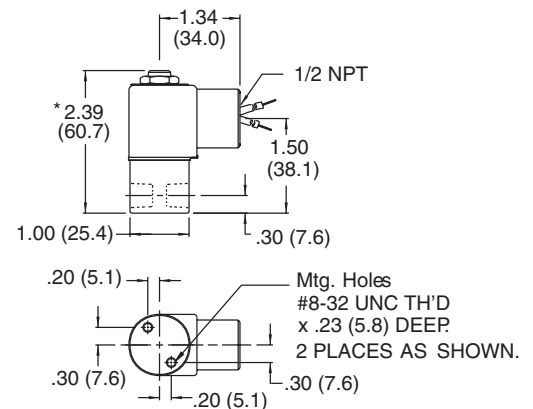
选项：可以选择全不锈钢部件材质，同时可以选择配套消音器、过滤器  
包括选项线圈类型。

#### 流量曲线图请查看95-97页

#### 微型防爆电磁阀电磁铁（电动机机构）选项

我们开发一系列产品线，包括可供客户选择的单独的电磁铁（电动部分机构）我们还有提供OEM服务，  
欢迎来电咨询代表处。

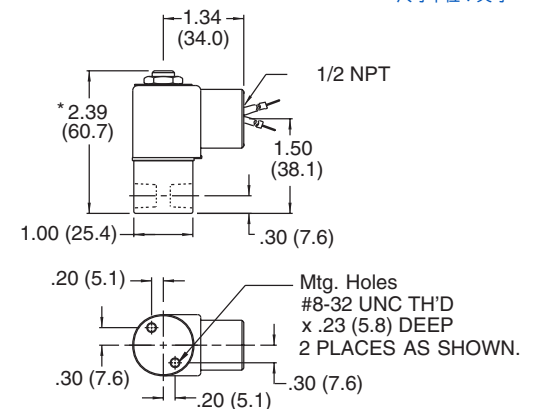
尺寸单位：英寸



\*ADD .232 (5.9) FOR SPADE TERMINAL COIL OPTION

#### 二位二通常闭型

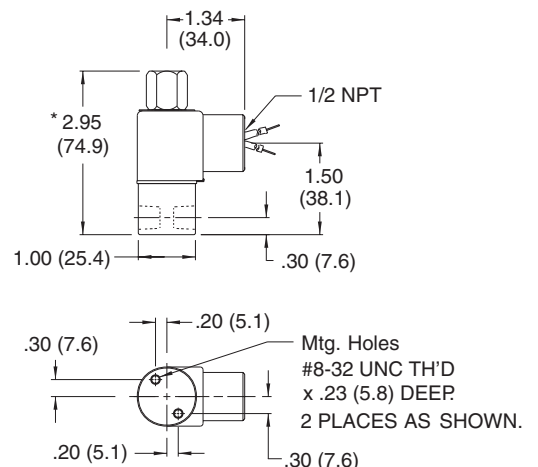
尺寸单位：英寸



\*ADD .232 (5.9) FOR SPADE TERMINAL COIL OPTION

#### 二位三通常闭型 直排外式

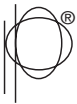
尺寸单位：英寸



\*ADD .232 (5.9) FOR SPADE TERMINAL COIL OPTION

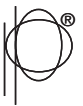
#### 二位三通常闭型 管道排外式





表A 规格类型	流程配置	电磁阀型号	LW 2.5 Watts		最大工作压力差			
			通 径 单位: 英寸		Gas		Liquid	
			Inlet	Exhaust	AC	DC	AC	DC
LW 51型 二位三通 常开型	断电状态  通电状态 	LW51G8XGB		G 1/32	300	200	300	200
		LW51H8XGB (G or L)		H 3/64	270	120	120	65
		LW51J8XGB (G or L)		J 1/16	135	50	40	30
		LW51V8XGB (G or L)		V 5/64	70	35	30	20
		LW51K8XGB (G or L)		K 3/32	55	30	25	15
LW 52型 二位三通 常闭型	断电状态  通电状态 	LW52G8DGB	G	1/32	600	200	600	200
		LW52H8DGB	H	3/64	250	80	250	80
		LW52J8DGB	J	1/16	150	50	150	50
		LW52V8DGB	V	5/64	100	25	100	25
		LW52K8DGB	K	3/32	85	20	85	20
		LW52N8DGB	N	1/8	50		50	
		LW52O8DGB	O	5/32	15		15	
LW 53型 二位三通 常闭型 直排外式	断电状态  通电状态 	LW53G8DGB	G	1/32	215	135	215	135
		LW53GH8DGB (G or L)	G	1/32	215	120	120	65
		LW53GJ8DGB (G or L)	G	1/32	135	50	40	30
		LW53GV8DGB (G or L)	G	1/32	70	35	30	20
		LW53GK8DGB (G or L)	G	1/32	55	30	25	15
		LW53HH8DGB (G or L)	H	3/64	120	70	120	65
		LW53HJ8DGB (G or L)	H	3/64	120	50	40	30
		LW53HV8DGB (G or L)	H	3/64	70	35	30	20
		LW53HK8DGB (G or L)	H	3/64	55	30	25	15
		LW53JJ8DGB (G or L)	J	1/16	85	40	40	30
		LW53JV8DGB (G or L)	J	1/16	70	35	30	20
		LW53JK8DGB (G or L)	J	1/16	55	30	25	15
		LW53VV8DGB (G or L)	V	5/64	50	30	30	20
		LW53VK8DGB (G or L)	V	5/64	50	30	25	15
		LW53KK8DGB (G or L)	K	3/32	35	20	25	15
LW 53型 二位三通 管道排外式	断电状态  通电状态 	LW53G8XGB	G	1/32	215	135	215	135
		LW53GH8XGB (G or L)	G	1/32	215	120	120	65
		LW53GJ8XGB (G or L)	G	1/32	135	50	40	30
		LW53GV8XGB (G or L)	G	1/32	70	35	30	20
		LW53GK8XGB (G or L)	G	1/32	55	30	25	15
		LW53HH8XGB (G or L)	H	3/64	120	70	120	65
		LW53HJ8XGB (G or L)	H	3/64	120	50	40	30
		LW53HV8XGB (G or L)	H	3/64	10	35	30	20
		LW53HK8XGB (G or L)	H	3/64	55	30	25	15
		LW53JJ8XGB (G or L)	J	1/16	85	40	40	30
		LW53JV8XGB (G or L)	J	1/16	70	35	30	20
		LW53JK8XGB (G or L)	J	1/16	55	30	25	15
		LW53VV8XGB (G or L)	V	5/64	50	30	30	20
		LW53VK8XGB (G or L)	V	5/64	50	30	25	15
		LW53KK8XGB (G or L)	K	3/32	35	20	25	15

规格类型	流程配置	电磁阀型号	LLW .65 Watts		Gas Only
			Inlet	Exhaust	DC
LLW 52型 二位三通 常闭型	断电状态  通电状态 	LLW52G8DGB	G	1/32	120
LLW 53型 二位三通 常闭型 直排外式	断电状态  通电状态 	LLW53GG8DGB	G	1/32	120
LLW 53型 二位三通 常闭型 管道排外式	断电状态  通电状态 	LLW53GG8XGB	G	1/32	120



PETER PAUL

# S58系列超小型、大压力、小功耗电磁阀 (额定功耗：3.5W)

满足当今的经济的空间和节能需求的微型电磁阀

## 应用：

该S58系列电磁阀可以与各种微型化元件、PCB电路板连接启动到各种流体介质环境中使用，电磁阀体积小、拥有独立的（#10-32规格端口连接）可以与多个阀门安装在管路系统里，可用于“试验”或者大型的调节阀门上。这些阀门是理想的微型电子生产和医疗或化学分析等设备的选择，可以直接从最可编程序控制。

## 技术规格 --

### 工作条件

介质：空气和其他常见的气体 - 过滤推荐 - 30微米或更小。

温度范围：标准配置：-5 °F (-15 ) ~ 122 °F (50 )，

特殊情咨询代表处或工厂

最大工作压差：请参照参数表

爆破压力：1500 PSI

密封等级：零泄漏

真空度：低至5微米--咨询工厂

电压范围：6 ~ 220 V AC 50-60 HZ.； 2 ~ 150 VDC.

### 电气特性

额定功率：	Series	Watts
	S58	3.5

线圈配置：模压线圈

电磁阀开关时间：AC:3-9毫秒；DC:9毫秒

占空比：连续

### 机械特性

材质：运动部件 - 不锈钢

阀体 - 不锈钢或黄铜

密封件 - 标准配置丁腈橡胶 (Buna N)；FKM、EPDM可选。

通径尺寸：请参照参数表

端口连接规格：#10-32螺纹，螺栓安装。

外壳配置：金属外壳，扣环引线

工作寿命：大于2000万次，取决于应用、润滑等。

阀门重量：平均只有90克重

维修包：咨询代表处或工厂

端口选项：不锈钢或者黄铜阀体

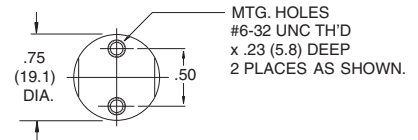
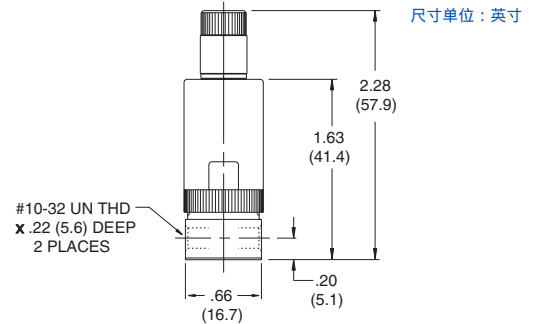
不锈钢或黄铜#10-32螺纹，螺栓安装

[流量曲线图请查看95-97页](#)

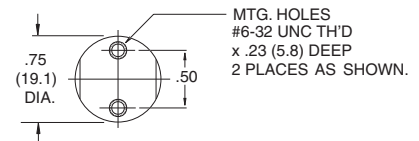
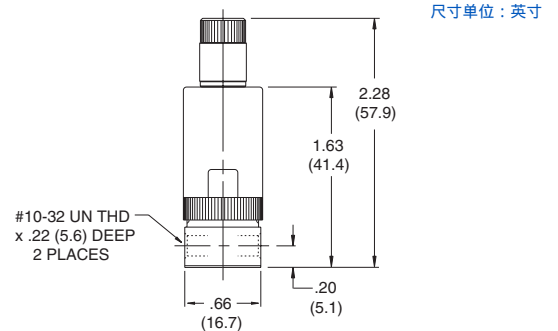
编号系统图表，请参阅第105页

## 微型防爆电磁阀电磁铁（电动机）选项

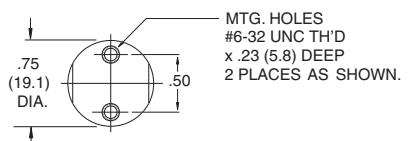
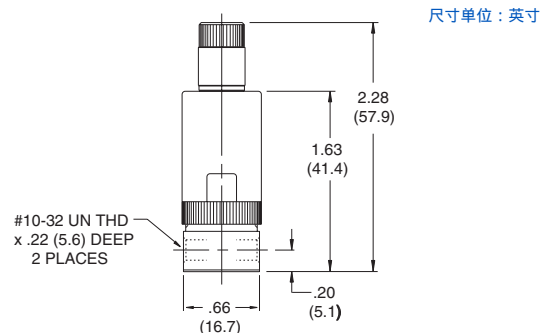
我们开发一系列产品线，包括可供客户选择的单独的电磁铁（电动部分机构）我们还有提供OEM服务，欢迎来电咨询代表处。



二位二通常闭型



二位三通常闭型  
EXH端口直排外式



二位三通常闭型  
管道排外式



规格类型	流程配置	最大工作 压 差		通 径 单位：英寸		CV系数		电磁阀型号
		AC	DC	Inlet	Exhaust	Inlet	Exhaust	
58系列 S581型 二位二通常开型			500 500 150 150		.6 MM .8 MM 1.0 MM 1.2 MM		0.010 0.020 0.030 0.040	S581A21PG S581F21PG S581M21PG S581W21PG
58系列 S582型 二位二通常闭型			500 500 350 250 200 150		.6 MM .8 MM 1.0 MM 1.2 MM 1.4 MM 1.6 MM		0.010 0.020 0.030 0.034 0.054 0.064	S582A21DG S582F21DG S582M21DG S582W21DG S582Y21DG S582J21DG
58系列 S583型 二位三通常闭型 EXH端口直排外式		300 300 250 145 100	380 380 310 150 150 100 100 100 100 100	.6 MM .6 MM .8 MM .8 MM .8 MM 1.0 MM 1.0 MM 1.0 MM 1.2 MM 	.6 MM .8 MM .8 MM 1.0 MM 1.0 MM 1.0 MM 1.2 MM 1.2 MM 1.2 MM 1.2 MM	0.010 0.010 0.020 0.020 0.020 0.030 0.030 0.030 0.034 0.034 0.054 0.060	0.010 0.020 0.020 0.030 0.030 0.034 0.034 0.034 0.034 0.034	S583AA21DG S583AF21DG S583FF21DG S583FM21DG S583MM21DG S583MW21DG S583WW21DG S583YW21DG S583JW21DG
58系列 S583型 二位三通常闭型 EXH端口管道排外式		300 300 250 145 100	380 380 310 150 150 100 100 100 100	.6 MM .6 MM .8 MM .8 MM .8 MM 1.0 MM 1.0 MM 1.0 MM 1.2 MM 	.6 MM .8 MM .8 MM 1.0 MM 1.0 MM 1.0 MM 1.2 MM 1.2 MM 1.2 MM 1.2 MM	0.010 0.010 0.020 0.020 0.020 0.030 0.030 0.030 0.034 0.034 0.054 0.060	0.010 0.020 0.020 0.030 0.030 0.034 0.034 0.034 0.034	S583AA21PG S583AF21PG S583FF21PG S583FM21PG S583MM21PG S583MW21PG S583WW21PG S583YW21PG S583JW21PG
58系列 S584型 二位三通常开型			145 100 65 50 50 50	.6 MM .8 MM 1.0 MM 1.2 MM 1.2 MM 1.2 MM	.6 MM .8 MM 1.0 MM 1.2 MM 1.4 MM 1.6 MM	0.010 0.020 0.030 0.034 0.054 0.060	0.010 0.020 0.030 0.034 0.054 0.060	S584AA21PG S584FF21PG S584MM21PG S584WW21PG S584WY21PG S584WJ21PG
58系列 S585型 二位三通 换向控制型			350 200 150 135 75 70	.6 MM* .8 MM* 1.0 MM* 1.2 MM* 1.4 MM* 1.6 MM*	.6 MM .8 MM 1.0 MM 1.2 MM 1.2 MM 1.2 MM	0.010 0.020 0.030 0.034 0.054 0.060	0.010 0.020 0.030 0.034 0.034 0.034	S585AA21PG S585FF21PG S585MM21PG S585WW21PG S585YW21PG S585JW21PG
58系列 S586型 二位三通 多功能型			145 90 55 23	.6 MM* .8 MM* 1.0 MM* 1.2 MM*	.6 MM .8 MM 1.0 MM 1.2 MM	0.010 0.020 0.030 0.034	0.010 0.020 0.030 0.034	S586AA21PG S586FF21PG S586MM21PG S586WW21PG

\*Normally closed port



**PETER PAUL**

# 58系列低功耗微型电磁阀 (功耗: 3.5W) L58系列低功耗微型电磁阀 (功耗: 0.9W)

满足当今的经济的空间和节能需求的微型电磁阀。

## 应用:

该S58系列电磁阀可以与各种微型化元件、PCB电路板连接启动到各种流体介质环境中使用,电磁阀体积小、拥有独立的(#10-32规格端口连接)可以与多个阀门安装在管路系统里,可用于“试验”或者大型的调节阀门上。这些阀门是理想的微型电子生产和医疗或化学分析等设备的选择,可以直接从最可编程序控制。

## 技术规格 --

### 工作条件

介质: 空气和其他常见的气体 - 过滤推荐 - 30微米或更小。

温度范围: 标准配置: -5 °F (-15 ) ~ 122 °F (50 ) ,  
特殊情咨询代表处或工厂

最大工作压差: 请参照参数表

爆破压力: 1500 PSI

密封等级: 零泄漏

真空度: 低至5微米--咨询工厂

电压范围: 6 ~ 220 V AC 50-60 HZ. ; 2 ~ 150 VDC.

## 电气特性

额定功率:

	Series	Watts
Table A	58	3.5
Table B	L58	0.9

线圈配置: 模压线圈

电磁阀开关时间: AC: 3-9毫秒; DC: 9毫秒

占空比: 连续

## 机械特性

材质: 运动部件 - 不锈钢

阀体 - 不锈钢或黄铜

密封件 - 标准配置丁腈橡胶 (Buna N); FKM、EPDM可选。

通径尺寸: 请参照参数表

端口连接规格: #10-32螺纹, 螺栓安装。

电气连接: 金属外壳, 扣环引线

工作寿命: 大于2000万次, 取决于应用、润滑等。

阀门重量: 平均只有90克重

维修包: 咨询代表处或工厂

端口选项: 不锈钢或者黄铜阀体

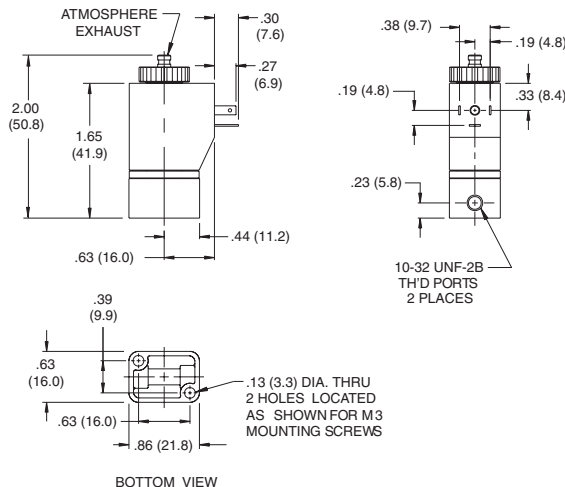
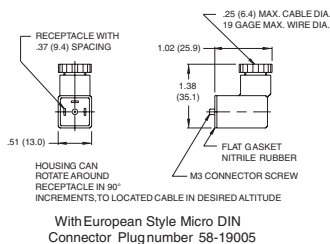
不锈钢或黄铜#10-32螺纹, 螺栓安装

## 流量曲线图请查看95-97页

编号系统图表, 请参阅第105页

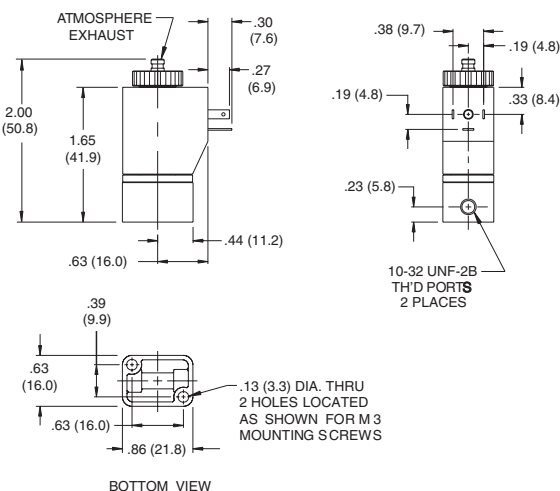
## 微型防爆电磁阀电磁铁 (电动机) 选项

我们开发一系列产品线, 包括可供客户选择的单独的电磁铁 (电动部分机构) 我们还有提供OEM服务, 欢迎来电咨询代表处。



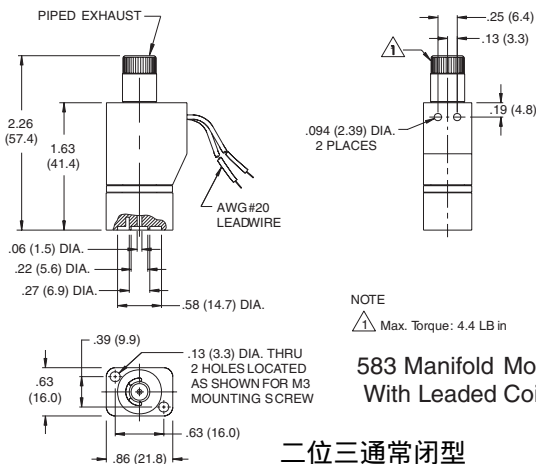
## 二位二通常闭型

尺寸单位: 英寸



## 二位三通常闭型 EXH端口直排外式

尺寸单位: 英寸



## 583 Manifold Mount With Leaded Coil

## 二位三通常闭型 EXH端口管道排外式

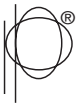
尺寸单位: 英寸





表 A	规格类型	流程配置	电磁阀型号	最大工作压差		3.5 Watts 通 径 单位：英寸		CV系数	
				AC	DC	Inlet	Exhaust	Inlet	Exhaust
581型 二位二通常开型	2 WNO	断电状态	581A15PE 581F15PE 581M15PE 581W15PE	300	300		.6MM		0.010
		通电状态		275	275		.8MM		0.020
				230	230		1.0MM		0.030
				150	150		1.2MM		0.034
582型 二位二通常闭型	2 WNC	断电状态	582A15DE 582F15DE 582M15DE 582W15DE	300	300	.6MM		0.010	
		通电状态		250	250	.8MM		0.020	
				150	150	1.0MM		0.030	
				135	135	1.2MM		0.034	
583型 二位三通常闭型 EXH端口直排外式	3 WNC	断电状态	583AA15DE 583AF15DE 583FF15DE 583MM15DE 583WW15DE	300	300	.6MM	.6MM	0.010	0.010
		通电状态		300	300	.6MM	.8MM	0.010	0.020
				250	250	.8MM	.8MM	0.020	0.020
				145	145	1.0MM	1.0MM	0.030	0.030
				100	100	1.2MM	1.2MM	0.034	0.034
583型 二位三通常闭型 EXH端口管道排外式	3 WNC	断电状态	583AA15PE 583AF15PE 583FF15PE 583MM15PE 583WW15PE	300	300	.6MM	.6MM	0.010	0.010
		通电状态		300	300	.6MM	.8MM	0.010	0.020
				250	250	.8MM	.8MM	0.020	0.020
				145	145	1.0MM	1.0MM	0.030	0.030
				100	100	1.2MM	1.2MM	0.034	0.034
584型 二位三通常开型	3 WNO	断电状态	584AA15PE 584FF15PE 584MM15PE 584WW15PE	145	145	.6MM	.6MM	0.010	0.010
		通电状态		100	100	.8MM	.8MM	0.020	0.020
				50	50	1.0MM	1.0MM	0.030	0.030
				40	40	1.2MM	1.2MM	0.034	0.034
585型 二位三通 换向控制型	3 WDC	断电状态	585AA15PE 585FF15PE 585MM15PE 585WW15PE	300	300	.6MM	.6MM	0.010	0.010
		通电状态		200	200	.8MM	.8MM	0.020	0.020
				50	50	1.0MM	1.0MM	0.030	0.030
				35	35	1.2MM	1.2MM	0.034	0.034
586型 二位三通 多功能型	3 WMP	断电状态	586AA15PE 586FF15PE 586MM15PE 586WW15PE	145	145	.6MM	.6MM	0.010	0.010
		通电状态		100	100	.8MM	.8MM	0.020	0.020
				50	50	1.0MM	1.0MM	0.030	0.030
				20	20	1.2MM	1.2MM	0.034	0.034

表 B	规格类型	流程配置	电磁阀型号	最大工作压差		.9 Watts 通 径 单位：英寸		CV系数	
				AC	DC	Inlet	Exhaust	Inlet	Exhaust
L581型 二位二通常开型	2 WNO	断电状态	L581A15PE L581F15PE	150	150		.6MM		0.010
		通电状态		130	130		.8MM		0.020
L582型 二位二通常闭型	2 WNC	断电状态	L582A15DE	150	150	.6MM		0.010	
		通电状态							
L583型 二位三通常闭型 EXH端口直排外式	3 WNC	断电状态	L583AA15DE L583AF15DE	145	145	.6MM	.6MM	0.010	0.010
		通电状态		145	145	.6MM	.8MM	0.010	0.020
L583型 二位三通常闭型 EXH端口管道排外式	3 WNO	断电状态	L583AA15PE L583AF15PE	145	145	.6MM	.6MM	0.010	0.010
		通电状态		145	145	.6MM	.8MM	0.010	0.020



### 应用 :

通用阀是专为具有竞争力的成本和可靠的服务, 增湿器, 气动执行器系统, 饮料自动售货机等设备。

### 技术规格 --

#### 工作条件

介质 : 空气和其他液体, 标准配BUNA丁腈橡胶密封。  
热水、蒸汽、汽油、液压油等其他流体介质需求特殊密封材质, 请咨询代表处或工作。

温度范围 : 标准阀的环境温度 :  $-0^{\circ}\text{F} (-18^{\circ}\text{C}) \sim 104^{\circ}\text{F} (40^{\circ}\text{C})$  ;  
介质温度 :  $0^{\circ}\text{F} (-18^{\circ}\text{C}) \sim 150^{\circ}\text{F} (65^{\circ}\text{C})$  。可选高于或远低于环境温度和介质温度。有关具体信息, 请向工厂咨询。

最大工作压差 : 见下列目录表

爆破压力 : 5000 PSI

密封等级 : 零泄漏

真空度 : 至5微米 - 其他请咨询代表处或工厂

#### 电气特性

电压范围 : 24 ~ 277 V AC 50-60 HZ. ; 6 ~ 120 VDC.

额定功率 : D.C.      A.C.  
                  5 Watts    3.3 watts

线圈配置 : 标准配置模压线圈及24#引线

电磁阀开关时间 : 4-16毫秒

流速 : Up to 600 CPM

占空比 : 连续或间歇

#### 机械特性

阀体材质 : 所有的内饰件不锈钢

通径尺寸 : 见下列目录表

端口连接规格 : 1/8 NPT - available (consult factory)

电气连接 : 封装压膜工艺, 1/2NPT管道连接或第三条接地线。

工作寿命 : 大于500万次, 取决于应用、润滑等。

阀门重量 : 平均只有120克重

维修包 : 咨询代表处或工厂

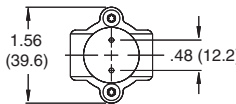
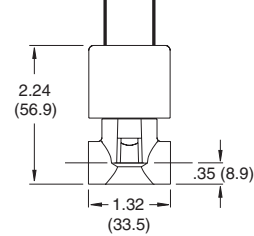
端口选项 : 不锈钢或者黄铜阀体

                  不锈钢或黄铜#10-32螺纹, 螺栓安装

[流量曲线图请查看95-97页](#)

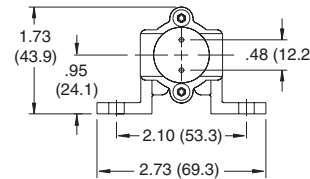
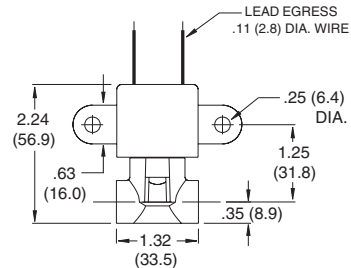


LEAD EGRESS .11 (2.8) DIA. WIRE 尺寸单位 : 英寸



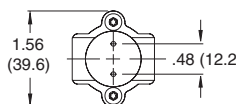
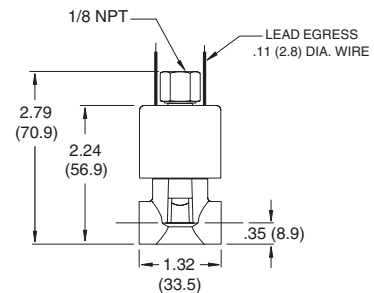
BOTTOM MOUNTING HOLES .072 (1.83) DIA. X .19 (4.8) DEEP (#2 PLASTITE SCREWS)

二位二通常闭型  
二位三通常闭型  
EXH端口直排外式



BOTTOM MOUNTING HOLES .072 (1.83) DIA. X .19 (4.8) DEEP (#2 PLASTITE SCREWS)

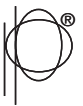
尺寸单位 : 英寸 带安装支架型



BOTTOM MOUNTING HOLES .072 (1.83) DIA. X .19 (4.8) DEEP (#2 PLASTITE SCREWS)

尺寸单位 : 英寸

二位三通常闭型  
EXH管道直排外是



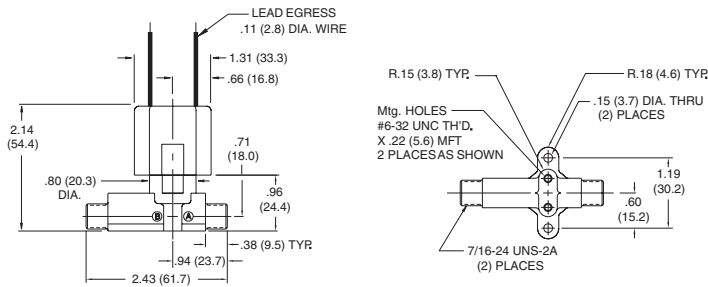
规格类型	流程配置	电磁阀型号： 不带安装支架	电磁阀型号： 带安装支架	最大工作压差		口径尺寸		CV系数	
				AC	DC	Inlet	Exhaust	Inlet	Exhaust
42型 二位二通常闭型	断电状态  通电状态 OUT → IN      OUT ← IN	42G5DGM**	42G5DBM**	300	300	1/32		0.022	
		42H5DGM**	42H5DBM**	300	150	3/64		0.055	
		42J15DGM	42J15DBM	300	100	1/16		0.090	
		42K15DGM	42K15DBM	250	60	3/32		0.145	
		42N15DGM	42N15DBM	125	30	1/8		0.200	
43型 二位三通常闭型 EXH端口直排外式	断电状态  通电状态 IN → CYL      IN → CYL	43JJ15DGM	43JJ15DBM	150	150	1/16	1/16	0.090	0.075
		43KK15DGM	43KK15DBM	60	60	3/32	3/32	0.145	0.145
		43NK15DGM	43NK15DBM	30	30	1/8	3/32	0.200	0.145
43型 二位三通常闭型 EXH端口管道排外式	断电状态  通电状态 IN → CYL      IN → CYL	43JJ15XGM	43JJ15XBM	150	150	1/16	1/16	0.090	0.075
		43KK15XGM	43KK15XBM	60	60	3/32	3/32	0.145	0.145
		43NK15XGM	43NK15XBM	30	30	1/8	3/32	0.200	0.145

## 40系列电磁阀可选黄铜机构\*



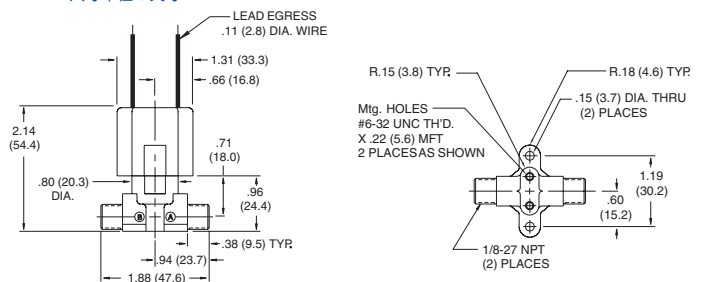
1/4压缩配件, 过滤器  
可带或不带支架。

尺寸单位: 英寸



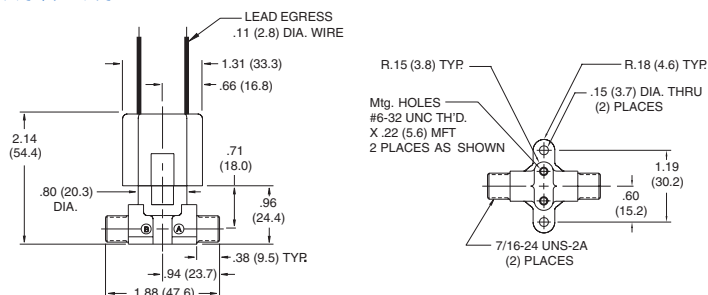
40锻造黄铜阀体, 螺纹接头1/8NPT  
塑料材料包裹或不带支架。

尺寸单位: 英寸



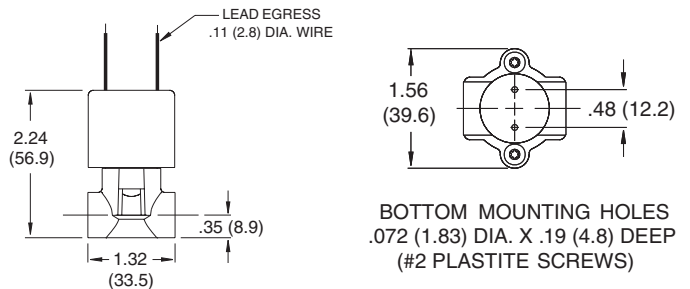
S-40, 锻造铜体, 1/4压缩配件,  
塑胶模制; 可带或不带支架。

尺寸单位: 英寸



S-40, 锻造铜体, 1/8NPT配件,  
塑胶模制; 可带或不带支架。

尺寸单位: 英寸

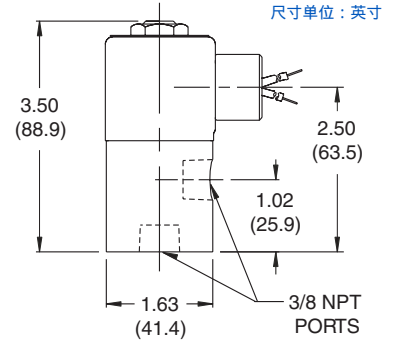
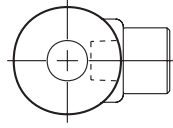


BOTTOM MOUNTING HOLES  
.072 (1.83) DIA. X .19 (4.8) DEEP  
(#2 PLASTITE SCREWS)

\*\*这些孔口尺寸仅适用于黄铜机构

\*黄铜主体的最大喷嘴尺寸为3/32。

## 技术规格书 --



## 工作条件

介质：空气，水和其他流体使用标准密封件-BUNA丁腈橡胶密封,热水、蒸汽

汽油等特殊介质应用需要特殊的密封材料 - 请咨询销售代表或工厂。

温度范围：

标准阀的环境温度：-0 °F (-18 ) ~ 221 °F (105 )；介质温度：0 °F (-18 ) ~ 221 °F (105 )。

可选大大高于或远低于环境温度 and 介质温度。有关具体信息，请向工厂咨询。

真空：至5微米 - 咨询工厂

泄漏：--零泄漏

爆破压力：5000 PSI

## 电气特性

电压范围：5 ~ 825 V AC 50-60 HZ.

额定功率：7.7 Watts AC

线圈类型：模压线圈或非模压线圈

电磁阀开关时间：4-16微秒

## 机械特性

阀体材质：不锈钢

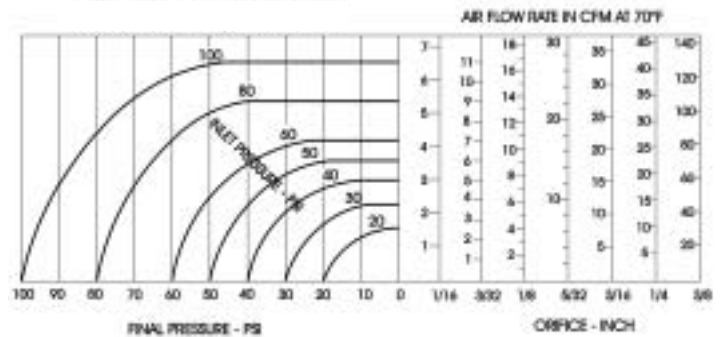
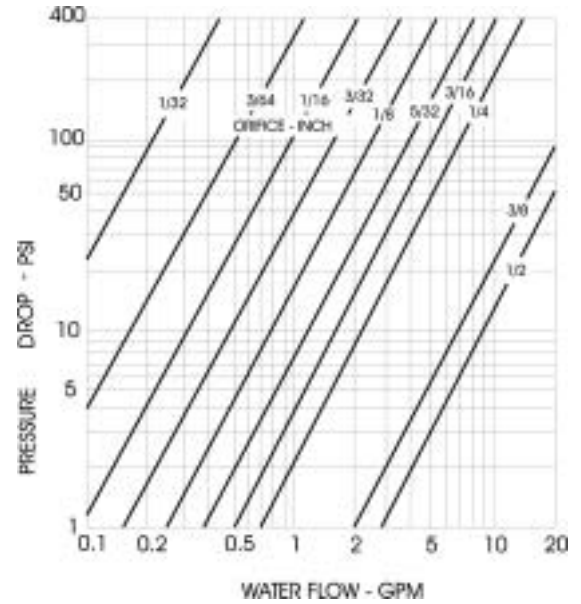
端口连接：3/8" NPT

电气连接：扣环引线或1/2管道引线--其他请咨询代表处

最大工作压差		电磁阀型号	
通径尺寸	CV系数	扣环引线外壳	管道引线外壳
AC SIZE	FACTOR	3/8 NPT PIPE PORTS	3/8 NPT PIPE PORTS
0 - 10 or up to 15" vacuum	3/8 2.0	22T1DGV	22T1DCV

订购电磁阀时请注明线圈电压和频率，以及数量。

EXAMPLE: (22T1DGV-120/60)



## 其他选项参照：

外壳选项 -- 请参照78页

STRAIN RELIEF CONNECTOR

SINGLE AUTOMOTIVE

DOUBLE AUTOMOTIVE

“AN” CONNECTOR

MOUNTING BRACKET

线圈选项 -- 请参照79页

MOLDED COIL

POTTED COIL & HOUSING

HIGH TEMPERATURE MOLDED COIL

其他选项 -- 请参照76页

SILVER SHADING RING

ALUMINUM SHADING RING

注：某些选项的可用性或组合

选项可能有所不同单位订购的 - 咨询代表或工厂



## 72系列在低压力下高流量的应用

二位二通常闭型电磁阀  
在低压、真空工况下应用

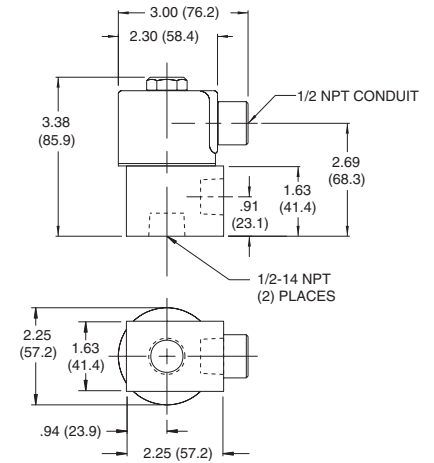
72系列在低压力下高流量的应用  
真空、 低压气体和低压力液体  
介质重油- 润滑油的快速填充或转储



尺寸单位：英寸

### SPECIFICATIONS

电磁阀型号	72T10DCM	72B11DCM
阀门类型	2WNC 二位二通常闭型	2WNC 二位二通常闭型
通径尺寸	3/8"	1/2"
流量	参考下列曲线图	参考下列曲线图
CV系数	1.92	2.92
管径	3/8 NPT	1/2 NPT
内部泄露	零泄露	零泄露
外部泄露	零泄露	零泄露
最大工作压差	25 PSI	15 PSI
真空度	低至5微米	低至5微米
维修包	K72TDD (A.C. or D.C.)	K72BDD (A.C. or D.C.)



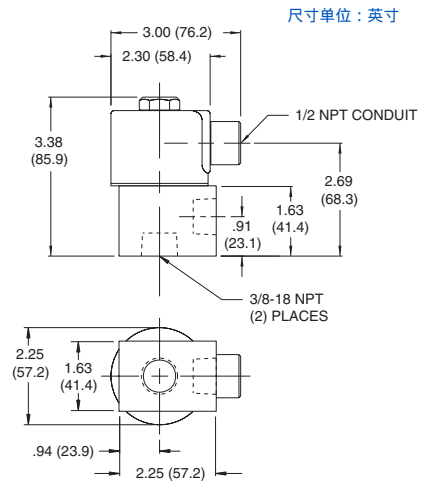
SERIES 70 1/2" ORIFICE 2-WAY N.C. VALVE

### 72T10DCM & 72B11DCM

电压 ..... 满足许多的直流DC和交流AC电压  
功率 ..... 18 w A.C., 16 w D.C.

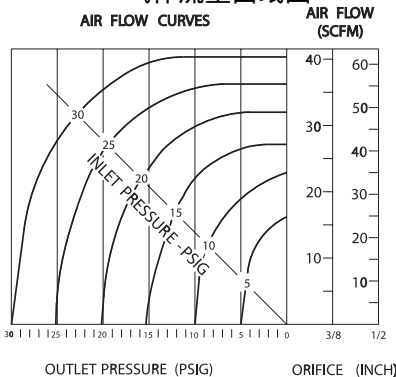
响应时间 ..... 6~12毫秒打开; 12~28毫秒关闭  
工作速度 ..... 每分钟350个工作周期  
温升 ..... 在环境温度25 下长期工作, 温升为80  
温度范围 ..... 标准型 -0°F (-18°C) ~ 104°F (40°C) 环境温度; 0°F (-18°C) ~ 150°F (65°C) 介质温度. 更多特殊温度范围选择, 请咨询中国办事处.

试验压力 ..... 5倍最大工作压力差  
爆破压力 ..... 500 psi  
介质 ..... 空气, 惰性气体和油  
过滤 ..... 帮助, 但不是必需的  
润滑 ..... 帮助, 但不是必需的  
环境温度范围 ..... 18°C (0°F) ~ 40°C (104°F)  
平均寿命 ..... 超过2000万次 -- 取决于: 维护保养.  
振动与冲击 ..... 3 G's and above  
密封材质 ..... FKM (标配), 特殊应用可以选其他弹性材质.  
\* 阀体材质 ..... 镁铝合金, 耐腐蚀 (所有其他部分不锈钢)  
可以提供特殊的应用的不同材料.  
即恶劣条件下的不锈钢阀体 -- 请联系中国办事处.

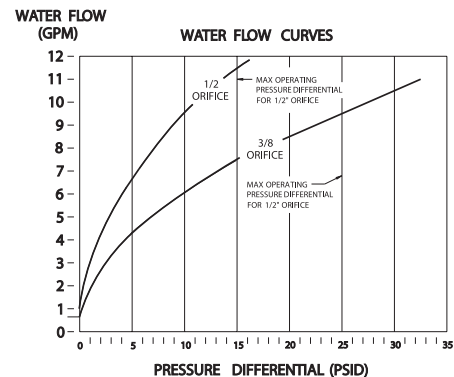


SERIES 70 3/8" ORIFICE 2-WAY N.C. VALVE

### 气体流量曲线图



### 水流量曲线图



**NEW! 我们可以满足连接孔径: 3"NPT 和不锈钢阀体--具体信息请联系工厂。**

80系列阀常闭或常开型的一般应用。

818和828系列是内部引导压差式隔膜电磁阀

827系列为低压不需要压差启动的直导式隔膜电磁阀

80系列是专为高流量

应用程序开发的大口径--5/8"直径的孔。

80系列的阀具有相同的构造

优质的用料和做工的小

机构是由强黄铜组成。

内部的金属部件都是不锈钢的。密封件

丁腈橡胶 (BUNA) 制成的。其他材料

可以提供用于特殊应用。

80系列电磁阀可以应用在许多介质工况方面:

如: 水、气体、油品、等

80系列阀使用与Peter Paul流行的20系列电磁阀

相同的线圈和外壳, 因此, 拥有更宽广的线圈电压

和更多外壳类型的配置范围。所以使用范围更广。

额定功率:

D.C.-9.5 Watts     A.C.-7.7 Watts (Typical)

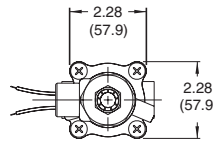
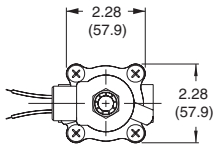
温度范围:

标准阀的环境温度: -0 °F (-18 ) ~ 105 °F (45 ) ; 介质温度: 0 °F (-18 ) ~ 155 °F (65 ) 。

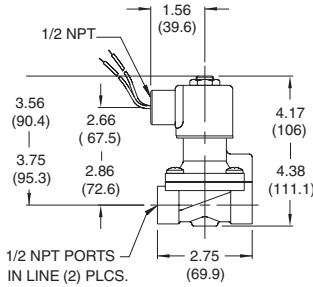
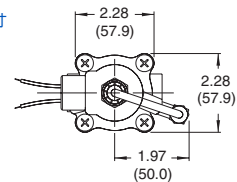
可选大大高于或远低于环境温度 and 介质温度。有关具体信息, 请向工厂咨询。



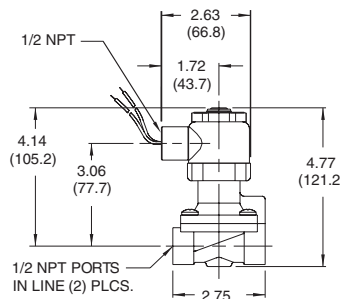
尺寸单位: 英寸



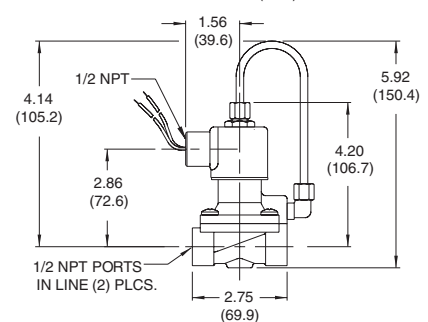
尺寸单位: 英寸



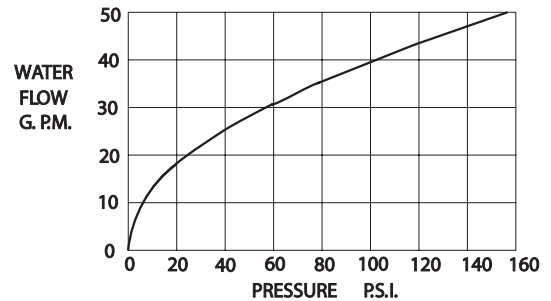
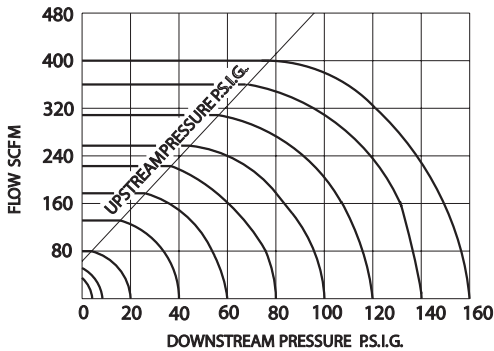
827



E828



818



规格类型	电磁阀型号 (管道引线型)	通径尺寸	连接管径	最大压差		最小压差	CV系数
				AC	DC		
常闭型--直导式	827C12DCV	5/8	1/2 NPT	100 PSI	40 PSI	0	4.0
常闭型--内部先导式	828C12DCV	5/8	1/2 NPT	150 PSI	150 PSI	5 PSI	4.0
常开型--内部先导式	818C12DCV	5/8	1/2 NPT	150 PSI	150 PSI	5 PSI	4.0
常闭型--内部先导式防爆型	E828C12DCCM	5/8	1/2 NPT	150 PSI	150 PSI	5 PSI	4.0
常闭型--内部先导式防爆型	E818C12DCCM	5/8	1/2 NPT	150 PSI	150 PSI	5 PSI	4.0

规格类型有更多, 请与中国办事处联系.

## 828系列大通径带定时功能的电磁阀

### 828系列大通径带定时功能的电磁阀

*在许多应用中的时间就是一切*

828 系列二位二通常闭阀适用于空气管理控制系统如百货公司的中央空调的排水凝结在压缩的应用，该定时器可提供更多功能需求；此功能。828系列集成定时器电磁阀可以发展到数百个应用程序的机会。

80系列电磁阀由Peter Paul热销的20系列电磁阀材料和配件构造，阀体为强大的黄铜锻件，内部有不锈钢构造的金属部件，密封件为丁腈橡胶（Buna N）材质，特殊应用可以选择特殊密封材质；80系列适用于常见介质；如：气体、水、油品等。

对于其他阀和阀结构  
使用定时器---咨询代表处或工厂  
(此定时器也可以应用于20系列和30系列电磁阀上)。



### 技术规格

压力范围 5-150 PSI 电压范围 120/60 110/50 240 A.C.

连接管径：1/2 NPT (in line) 通径：5/8"

额定功率：9.5 Watts

引线长度：6 Ft. w/ Standard Three Prong Plug

计时器设置：

关闭时间：1-45分钟；开启时间：0.25秒 -- 25秒

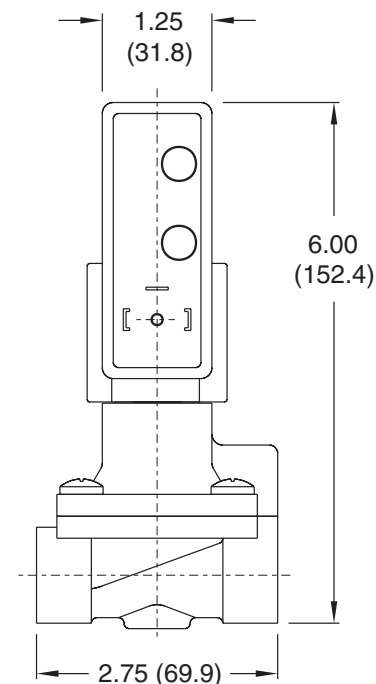
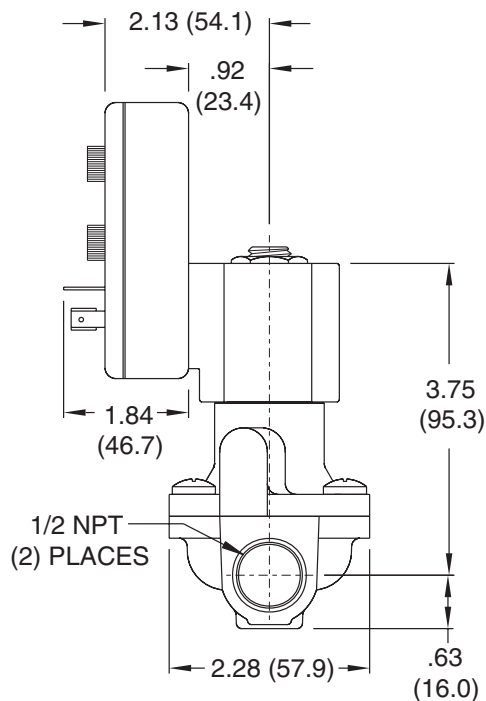
**PUSH BUTTON MANUAL OVERRIDE**

状态指示灯

显示电源和操作。

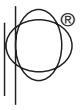
定时器 and 线圈可进行旋转360° 安装

尺寸单位：英寸



### TIMER FUNCTION

Upon application of power to the input terminals, the off cycle is initiated. At the end of the pre-set off time, the solenoid is energized and the on cycle begins. At the end of the preset on time, power is removed from the solenoid and a new cycle begins. Cycling continues until power is removed from the input terminals.



技术规格书 --

工作条件

介质：气体、水等非腐蚀性介质用Buna丁晴橡胶密封，特殊请联系办事处！

温度范围：标准阀的环境温度：-0 °F (-18 )至104 °F (105 )；高于或远低于环境温度和介质温度。有关具体信息，请向代表处或工厂咨询。

爆破压力：30系列 - 4000 PSI

泄漏等级：零泄漏

电气特性

电压范围：5 ~ 650 V AC 50-60 HZ；2 ~ 240 V DC

额定功率：9 Watts AC & DC

线圈类型：模压或非模压线圈

电磁阀开关时间（气体）：4-16微秒

机械特性

阀体材质：标配：黄铜，选配：不锈钢

连接端口：1/8" NPT

电气连接：扣环引线连接或1/2NPT管道引线连接外壳 ---其他请咨询代表处

过滤精度：140微米以下。

注：其他微米过滤器咨询工厂

电磁阀型号

最大工作压力	通径尺寸	CV系数	扣环引线外壳	管道引线外壳
AC DC	SIZE	FACTOR	1/8 NPT PIPE PORTS	1/8 NPT PIPE PORTS
280 280	3/64	.055	F32H5DBGV	F32H5DBC
280 250	1/16	.105	F32J5DBGV	F32J5DBC
180 100	3/32	.195	F32K5DBGV	F32K5DBC
130 80	7/64	.220	F32L5DBGV	F32L5DBC
90 50	1/8	.275	F32N5DBGV	F32N5DBC

在订货时

增加电压和频率，以完整的阀门编号。

例如：( F32H5DBGV-120/60 )

可用选项：--特殊应用电磁阀

外壳选项 --请参照78页

STRAIN RELIEF CONNECTOR  
SINGLE AUTOMOTIVE  
DOUBLE AUTOMOTIVE

"AN" CONNECTOR

MOUNTING BRACKET

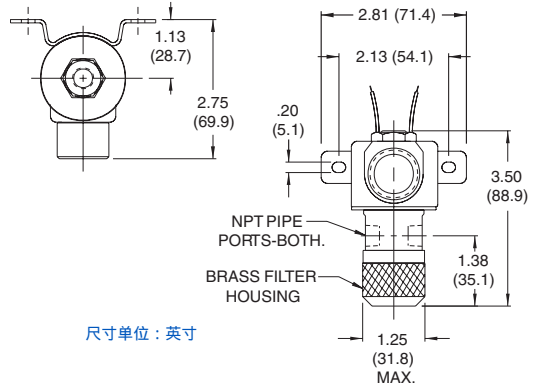
线圈选项 --请参照79页  
MOLDED COIL

POTTED COIL & HOUSING

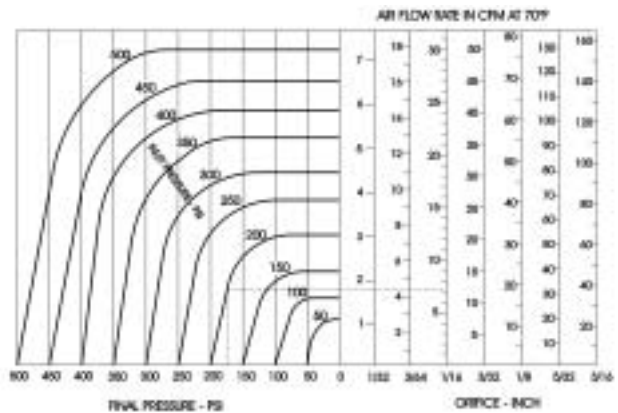
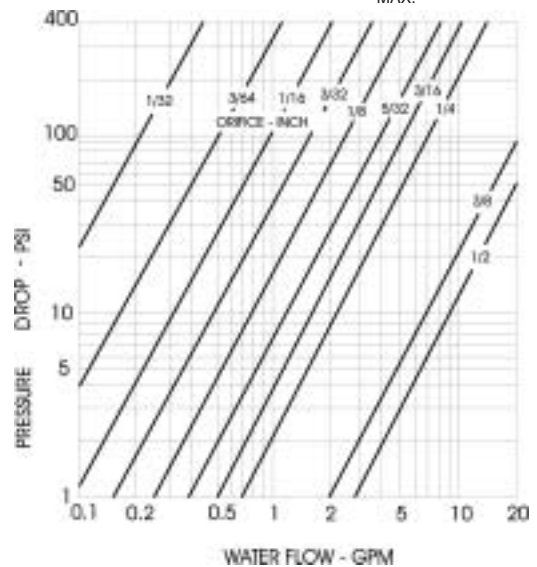
HIGH TEMPERATURE MOLDED COIL

其他选项 --请参照76页  
SILVER SHADING RING

ALUMINUM SHADING RING



尺寸单位：英寸



注：

某些选项的可用性或组合

选项可能有所不同 - 订购时请咨询代表或工厂



满足当今的经济的空间和节能需求的微型电磁阀。

尺寸单位：英寸

## 应用：

结构紧凑，50系列电磁阀是由尼龙成型阀体和配置自定义的移动部件，适用于在医疗，仪器仪表，化工，食品加工等行业，用于隔离潜在的腐蚀性、有害等介质。这些二位二通常闭阀，可用于连续和间歇工作制，且能在有背压工况下使用。



## 技术规格 --

### 工作环境

产品类型：二位二通常闭型

介质：兼容尼龙和丁腈橡胶的液体（其他气体）；特殊介质应用请及时与中国办事处联系。

最大内压：50 PSI

额定功率：4.25 Watts AC, 7.25 Watts DC

电气连接：1/4" 铲形端子

最大背压：5 PSI

流体连接：

进气口 - 1/8"NPT 母端口（侧面）

出口 - 1/8"NPT 公端口（下）

通径：3/64"

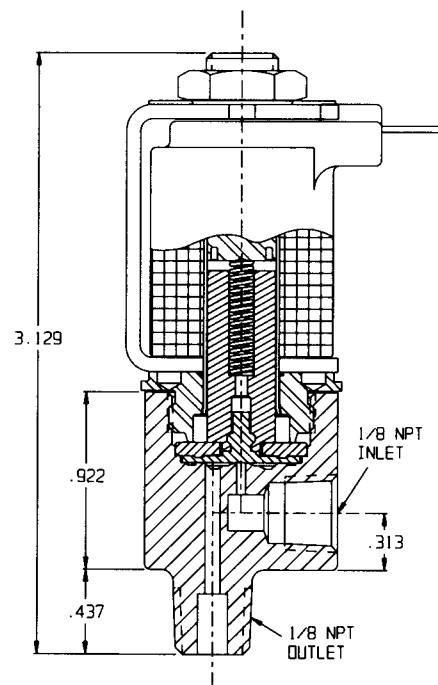
流量：CV = 0.037

安装位置：推荐垂直

线圈：模压线圈 - CLASS A级（可以360° 旋转）

电压：所有常见的交流和直流电压

选项：硅橡胶或三元乙丙橡胶（EPDM）膜片可选用，更多选项请咨询代表处



### 间歇工作

最大入口压力：35 PSI

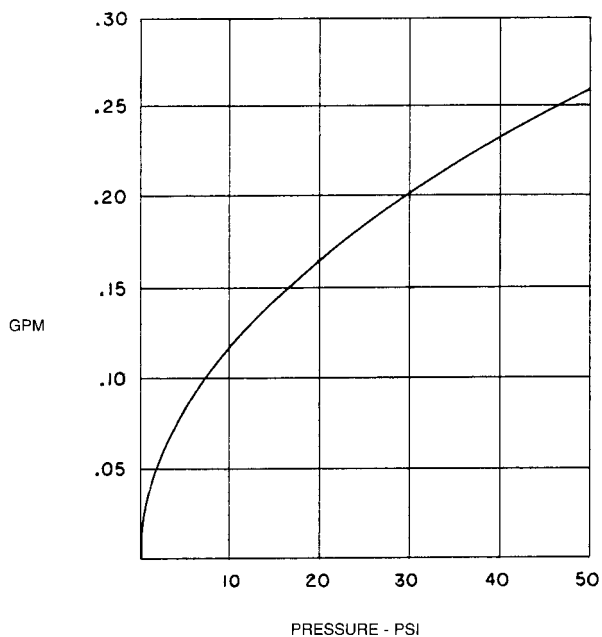
电压：所有常见的直流电压

功率：DC:17 W

占空比：开启最大：0.167分钟。

关闭最小：0.833分钟。

### WATER FLOW



满足当今的经济的空间和节能需求的微型电磁阀

## 应用：

这种类型的阀通常用于在偏远地区或者其设备无法连续供电、使用电池供电的便携式设备等，由于连续维持线圈工作应用能力，所以经常被应用到便捷式设备，如在医疗和化学分析仪等设备。

## 技术规格 --

### 工作条件

介质：空气、水等非腐蚀性介质；标准配BUNA（丁腈橡胶）密封。

热水、蒸汽、汽油、液压油等其他流体介质需求特殊

密封材质，请咨询代表处或工作。

温度范围 标准阀的环境温度：-0 °F (-18 ) ~ 104 °F (45 ) ；  
 介质温度：0 °F (-18 ) ~ 150 °F (65 ) 。可选高于或远低于环境温度和介质温度。有关具体信息，  
 请向工厂咨询。

最大工作压差：见下列目录表

爆破压力：5000 PSI

密封等级：零泄漏

真空度：至5微米 - 其他请咨询代表处或工厂

### 电气特性

电压范围：6 ~ 60 V DC（直流）。

额定功率：10 watts

电磁阀开关时间（气体）：约30毫秒脉冲通电；  
 约30毫秒的脉冲断电

流速：Up to 60 CPM

占空比：连续或间歇

### 机械特性

电磁阀材质 所有的内饰件不锈钢

通径尺寸：见下列目录表

端口连接规格：见下列目录表

电气连接：为了您的方便提供欧洲风格的DIN 线圈

，我们有 DIN风格连接器号20-198\*\*提供。

阀门重量：平均只有520克重

电磁阀寿命 大于2000万次，取决于应用、润滑等。

修理包：咨询代表处或工厂；

其他选项，底部的孔或腔体内部件，歧管安装，内置消声器，

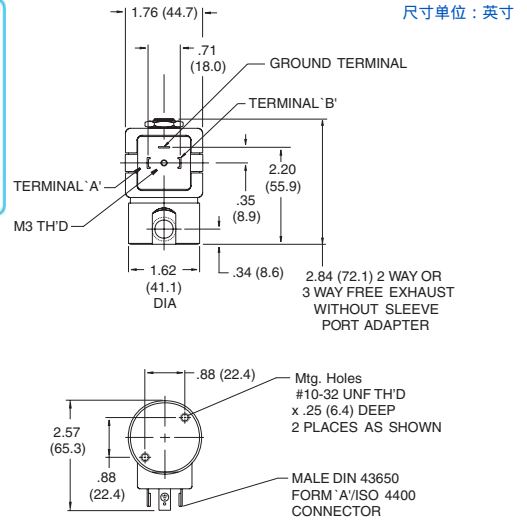
通用的安装座架，黄铜阀体--咨询代表处或工厂。

[流量曲线图请查看95-97页](#)

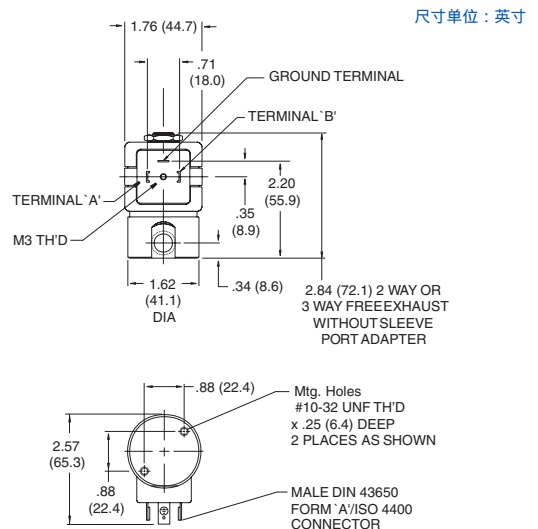
编号系统图表，请参阅第105页

### 微型防爆电磁阀、电磁铁选项

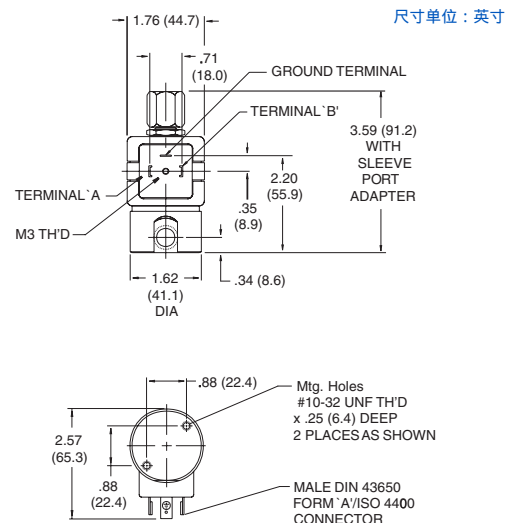
我们开发一系列产品线，包括可供客户选择的单独的电磁铁（电动部分机构）我们还有提供OEM服务，  
 欢迎来电咨询代表处。



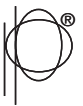
二位二通常闭型



二位三通常闭型  
EXH端口直排外式



二位三通常闭型  
EXH端口管道排外式



规格类型	流程配置	电磁阀型号 (1/8NPT)	电磁阀型号 (1/4NPT)	最大工作 压 差	口径尺寸		CV系数		
				DC	Inlet	Exhaust	Inlet	Exhaust	
21型 二位二通常开型	断电状态 通电状态 	21G7XELM	21G9ZELM	400		1/32		.024	
		21H7XELM	21H9ZELM	235		3/64		.053	
		21J7XELM	21J9ZELM	150		1/16		.095	
		21K7XELM	21K9ZELM	100		3/32		.156	
22型 二位二通常闭型	断电状态 通电状态 	22G7DELM	22G9DELM	500	1/32		.024		
		22H7DELM	22H9DELM	250	3/64		.052		
		22J7DELM	22J9DELM	200	1/16		.095		
		22K7DELM	22K9DELM	125	3/32		.156		
		22N7DELM	22N9DELM	100	1/8		.214		
		22O7DELM	22O9DELM	50	5/32		.404		
		22P7DELM	22P9DELM	25	3/16		.500		
		22R7DELM	22R9DELM	5	1/4		.700		
						5/16		1.000	
23型 二位三通常闭型 EXH端口 直排外式	断电状态 通电状态 	23GG7DELM	23GG9DELM	400	1/32	1/32	.024	.024	
		23HJ7DELM	23HJ9DELM	150	3/64	1/16	.052	.095	
		23JJ7DELM	23JJ9DELM	100	1/16	1/16	.095	.095	
		23JK7DELM	23JK9DELM	100	1/16	3/32	.095	.156	
		23KK7DELM	23KK9DELM	75	3/32	3/32	.156	.156	
		23NK7DELM	23NK9DELM	50	1/8	3/32	.214	.156	
		23PK7DELM	23PK9DELM	20	3/16	3/32	.500	.156	
		23RK7DELM	23RK9DELM		1/4	3/32	.700	.156	
23型 二位三通常闭型 EXH端口 管道排外式	断电状态 通电状态 	23GG7XELM	23GG9ZELM	400	1/32	1/32	.024	.024	
		23HJ7XELM	23HJ9ZELM	150	3/64	1/16	.052	.095	
		23JJ7XELM	23JJ9ZELM	100	1/16	1/16	.095	.095	
		23JK7XELM	23JK9ZELM	100	1/16	3/32	.095	.156	
		23KK7XELM	23KK9ZELM	75	3/32	3/32	.156	.156	
		23NK7XELM	23NK9ZELM	50	1/8	3/32	.214	.156	
		23PK7XELM	23PK9ZELM	20	3/16	3/32	.500	.156	
		23RK7XELM	23RK9ZELM		1/4	3/32	.700	.156	
24型 二位三通常开型	断电状态 通电状态 	24GG7XELM	24GG9ZELM	400	1/32	1/32	.024	.024	
		24HJ7XELM	24HJ9ZELM	150	3/64	1/16	.052	.095	
		24JJ7XELM	24JJ9ZELM	100	1/16	1/16	.095	.095	
		24JK7XELM	24JK9ZELM	100	1/16	3/32	.095	.156	
		24JN7XELM	24JN9ZELM	100	1/16	1/8	.095	.214	
		24KN7XELM	24KN9ZELM	75	3/32	1/8	.156	.214	
25型 二位三通 换向控制型	断电状态 通电状态 	25GG7XELM	25GG9ZELM	500	1/32*	1/32	.024*	.024	
		25HH7XELM	25HH9ZELM	235	3/64*	3/64	.052*	.052	
		25JH7XELM	25JH9ZELM	200	1/16*	3/64	.095*	.052	
		25JJ7XELM	25JJ9ZELM	150	1/16*	1/16	.095*	.095	
		25KK7XELM	25KK9ZELM	100	3/32*	3/32	.156*	.156	
		25NK7XELM	25NK9ZELM	100	1/8*	3/32	.214*	.156	
26型 二位三通 多功能型	断电状态 通电状态 	26GG7XELM	26GG9ZELM	400	1/32*	1/32	.024*	.024	
		26HH7XELM	26HH9ZELM	150	3/64*	3/64	.052*	.052	
		26JJ7XELM	26JJ9ZELM	100	1/16*	1/16	.095*	.095	
		26KK7XELM	26KK9ZELM	75	3/32*	3/32	.156*	.156	

其他压力等级选项，请联系工厂。

## 电磁铁（电磁阀执行器）

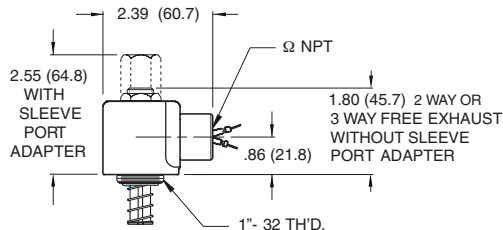
OEM开发的组件，客户只需提供阀体、流道由客户开发，其他的技术问题就交给我们，有利于成本控制！而且能满足客户的个性化需求！

### 20系列

**20系列**  
适用于二通或者三通电磁阀开发商做OEM开发；Peter Paul提供该系列电磁铁可以满足众多介质需求；同时通径最大可以满足1/4"；其他更多配置请咨询代表处。



尺寸单位：英寸

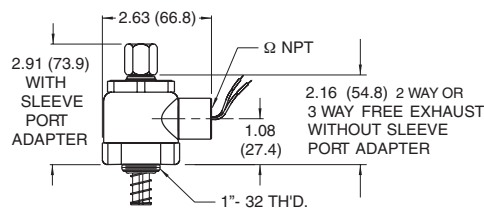


### OE20系列 防爆型电磁铁（阀执行器）

适用于二通或者三通电磁阀开发OEM应用，Peter Paul独特的组合设计和简单安装设计提供的优势服务，（单元被组装和测试无需拆卸），常见的电压和频率和携带U.L.和C.S.A标签。用于危险场所批准，I类 - 组C和D（在大气中含有某些特定的爆炸性气体）。II类E组（其中大气中含有金属粉尘）；（其中大气中含有非金属可燃粉尘）。和G组（其中包含粮食灰尘）。



尺寸单位：英寸

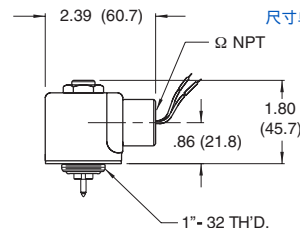


### OH20系列

适用于二位二通常闭型在高压下工作的应用拥有气体零泄漏级密封。必须按照工厂安装规格要求操作。其他产品信息请向厂家咨询。



尺寸单位：英寸

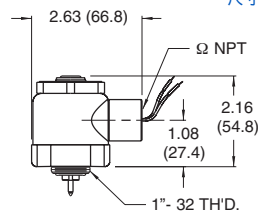


### OEH20系列

适用于二位二通常闭型高压防爆型的应用拥有气体零泄漏级密封。必须按照工厂安装规格要求操作。其他产品信息请向厂家咨询。



尺寸单位：英寸

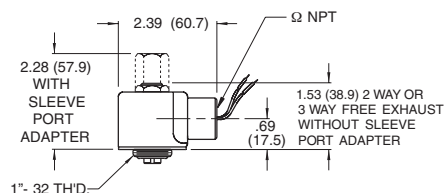


### 030系列

适用于二通或者三通电磁阀开发商做OEM开发；Peter Paul提供该系列电磁铁可以满足众多介质需求；同时通径最大可以满足3/16"；其他更多配置请咨询代表处。



尺寸单位：英寸





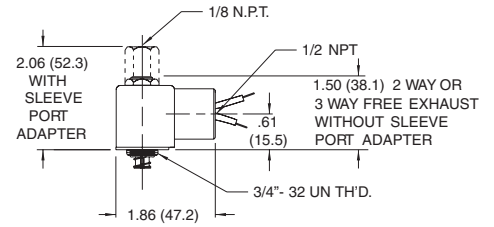
为电磁阀工厂提供OEM开发，国内电磁阀工厂也可以采购我们的电磁铁组件，全球Parker、VESAR、RAY等品牌在与我们合作！

### 050系列

适用于二通或者三通电磁阀开发商做OEM开发；Peter Paul提供该系列电磁铁可以满足众多介质需求；同时口径最大可以满足1/8"；其他更多配置请咨询代表处。



尺寸单位：英寸

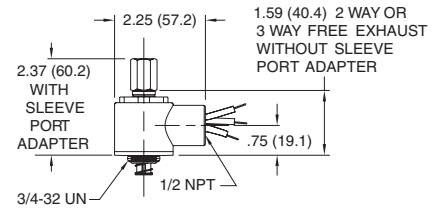


### 0E50系列

适用于二通或者三通电磁阀开发OEM应用，Peter Paul独特的组合设计和简单安装设计提供的优势服务，（单元被组装和测试无需拆卸），常见的电压和频率和携带U.L.和C.S.A标签。用于危险场所批准，I类 - 组C和D（在大气中含有某些特定的爆炸性气体）。II类E组（其中大气中含有金属粉尘）。f（其中大气中含有非金属可燃粉尘）。和G组（其中包含粮食灰尘）。



尺寸单位：英寸

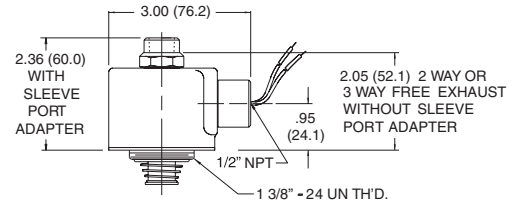


### 070系列

适用于二通或者三通电磁阀开发商做OEM开发；Peter Paul提供该系列电磁铁可以满足众多介质需求；同时口径最大可以满足1/4"；其他更多配置请咨询代表处。



尺寸单位：英寸

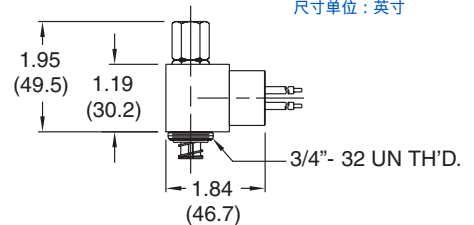


### 015系列

适用于二通或者三通电磁阀开发商做OEM开发；Peter Paul提供该系列电磁铁可以满足众多介质需求；同时口径最大可以满足3/32"；其他更多配置请咨询代表处。



尺寸单位：英寸

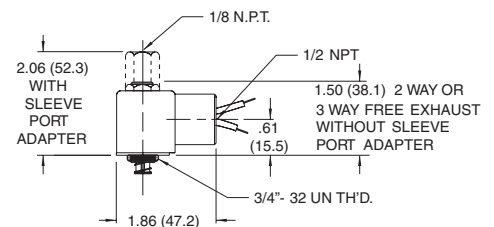


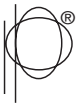
### 0ELW系列

适用于二通或者三通电磁阀开发商做OEM开发；Peter Paul提供该系列电磁铁可以满足众多介质需求；低功耗、防爆等特殊应用；同时口径最大可以满足1/8"；其他更多配置请咨询代表处。



尺寸单位：英寸



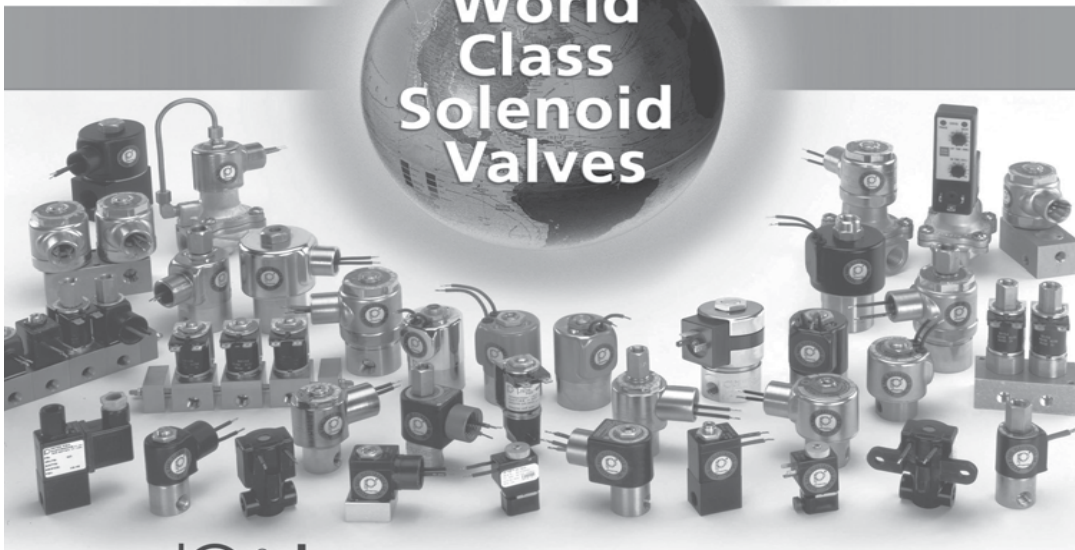


**PETER  
PAUL**

# SOLENOID VALVES . . .

## *Excellence By Control*

World  
Class  
Solenoid  
Valves



**PETER  
PAUL**

electronics co., inc.

**PETER PAUL VALVE TYPES** — 二位三通常闭型EXH端口管道排外式. 二位三通换向控制型. 二位三通多功能型  
二位二通常开型. 二位二通常闭型. 二位三通常开型. 二位三通常闭型EXH端口直排外式.



**SPECIALTY VALVES** — 我们准备了许多特殊应用的电磁阀，可以根据  
客户不同要求进行定义匹配特殊的电磁阀，而且非常容易在短时间里实现满足客户的要求。

## 适用范围广泛的电磁阀组



标配材质选择不锈钢、铝合金阀体，对于密封件可以任意选择，广泛应用于饮料、制药行业，阀组阀体底座是通过精密镗孔、铣等工序精密加工包装密封等级。该系列产品可以根据客户特殊应用需求而定制OEM加工，产品售后简单，更换备件容易。

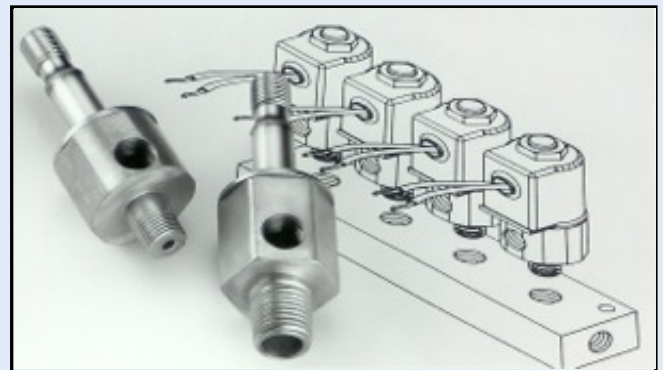
Standard, conventional, one-piece machined stainless steel, aluminum, or optional brass solenoid valve manifolds allow the economical, low profile grouping of valves in compact arrays. Like any other purpose-designed, machined component, these manifolds are perfect for fixed, continuous operations such as beverage dispensing. They are configurationally inflexible.

In an effort to solve these problems while retaining the simplicity and convenience of standard solenoid valve manifolds, we developed a line of modular, stainless steel and anodized aluminum stacking valve bodies linked together with common tie rods. For horizontal or vertical mounting, these stacking bodies simplify in-the-field solenoid valve addition or replacement and accommodate models from Peter Paul standard Series 50 and 15 valve series. These manifold building blocks simplify both OEM and user inventories; custom manifolds can be constructed using a variety of solenoid valve types in linear arrays. Each modular valve body is precision machined, drilled, and tapped just as complete manifolds are: The basic difference is that they are linked together by common threaded tie rods, with modules sealed from each other with O-rings, and sandwiched, as a group, together with precision machined end caps. The result is a unique and proprietary method for creating and altering groupings of solenoid valves while maintaining the significantly reduced potential for leakage and thread damage for which one-piece manifolds were originally designed.

### 提供很容易地安装的电磁阀螺丝机构

We now produce new, brass, screw-in solenoid valve bodies offering simplified assembly, disassembly, and field replacement.

Our new screw-in valve bodies speed and simplify valve-to-manifold attachments. To help eliminate leakage and provide the required high burst pressure ratings, brass valve bodies are offered with 1/8" NPT and 1/4" NPT male ports, currently in our Series 50 valves. The standard ports also make the manifolds easier to produce, with one center drill connecting all the valves.



*Our new brass, screw-in solenoid valve bodies with 1/8" NPT or 1/4" NPT male ports simplify valve-to-manifold attachment and manifold production. Shown here is a diagram of a four-station manifold, to which brass bodies with 1/8" NPT ports have been manually attached. Two brass bodies with 1/8" or 1/4" NPT male ports are shown in the foreground.*

## 对CFC回收的特种电磁阀



这些都是基本的阀门和歧管的组合，他们提供制冷剂回收/回收设备，包括系列50系列和20系列阀门。我们内置一个歧管的回压设计模型，有助于消除可能在HVACR系统服务的制冷剂泄漏到大气中。

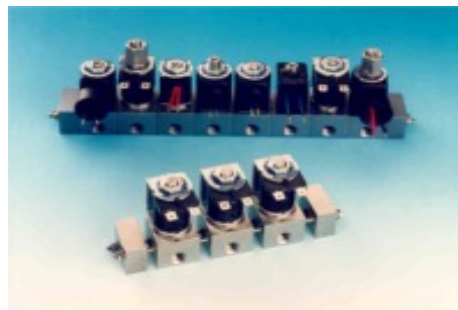
**产品规格：**  
最常见制冷剂的应用的PeterPaul电磁阀

	20系列有背压型	20系列无背压型	50系列
<b>规格类型</b>	二位二通常闭型	二位二通常闭型	二位二通常闭型
<b>通径尺寸</b>	5/64	5/64	1/16或5/64
<b>电压</b>	常见直流或交流电压	常见直流或交流电压	常见直流或交流电压
<b>内压</b>	最大280PSI	最大300PSI	最大280PSI
<b>外压</b>	最大150PSI	无	最大150PSI
<b>额定功率</b>	AC: 12W, DC: 9.5W	AC: 12W, DC: 9.5W	AC: 6.6W, DC: 7 W
<b>电气连接</b>	铲形端子	铲形端子	铲形端子
<b>阀体连接</b>	1/8NPT连接管	1/8NPT连接管	1/8NPT连接管
<b>密封件</b>	合成橡胶	合成橡胶	合成橡胶

## 堆叠阀体

The Peter Paul manifold configuration involving stacking valve bodies held together with threaded tie rods is designed for multiple solenoid valve operation and greater flow capacity. Utilizing a standard mounting "footprint" for either common cavity or common orifice, these modular manifolds allow the use of either type within the same manifold. Most importantly, the common flow path through the manifold has been increased almost 700% providing unrestricted flow for quicker response times.

This do-it-yourself building block manifold is widely used in the emission analyzer and gas processing fields. The new style modules are 90% machined and drilled from bar stock. Each module can be in a center or end position in the manifold. A common, pre-drilled port connects all modules in the stack; the finish drilling of each valve module determines the flow pattern through the manifold. It is now possible to mix and match these valve bodies with only minor drilling operations to meet an individual user's application requirements.



15和50系列堆叠电磁阀的阀体使用包括303不锈钢或阳极氧化膜钝化铝。这些组件可以在任一舷外或组装中心内使用的螺纹拉杆定位连接。

电气连接类型：管道引线、扣环引线、铲形端子或DIN型端子

线圈规格：模压线圈和非模压线圈

型号系列规格：15、50系列

通径规格：见15系列、50系列参数表

连接管径类型：1/8"NPT

压力范围：见15系列、50系列参数表





## 食品卫生级阀门的应用



我们食品卫生级应用的电磁阀是经过NSF认证的卫生级安全电磁阀，保证与介质接触的材质是安全的，同时在特殊压力、溶剂、温度下一样是安全可靠的，特别适合食品、饮料、医疗等行业使用。

包括一些电磁阀的特殊接触介质材料，我们都经过FDA、ROHS等认证，所以我们该系列电磁阀经常被引用到饮料灌装设备、计量、医疗器械等流体控制方面的设备上。

经过NSF认证的15系列，20，30，50和70系列电磁阀。

## 静音电磁阀的特殊材质Kalrez®引用典型



我们通过激光对特殊材质Kalrez®进行切割成型，从而降低了成型过程的浪费，而且提高了加工精度，特别是我们要求严格的密封件、柱塞组件等产品，我们通过该技术工艺使成本降低而且提高了精度。

Kalrez® Perfluoroelastomer seals, a product of DuPont Dow Elastomers, are impervious to more than 1,600 chemicals and solvents, inert to most chemically induced swelling, useful in temperatures from -20°F to 600°F, and last much longer than other elastomer seals. Kalrez is also a very expensive design material, even in medical and chemical resistant applications for which no other seal material is nearly as durable.

We have been using Kalrez for solenoid valve plunger seals in applications where nothing else would do. These molded Kalrez seals often more than doubled the price of comparable valves incorporating other elastomer seals.

We have developed a procedure for laser cutting Kalrez seals from 3" square sheet stock. We've now been able to cut the amount of Kalrez used per seal by about half, reducing the cost per seal, even in relatively small quantities, by about 40-60%." Currently limited to 3/32" and smaller orifice sizes, the valve plunger assembly has been slightly modified to use a stainless steel seal cup to attach the Kalrez seal to the plunger. The use of the seal cup actually governs the plunger length better, and two tiny notches on the seal circumference allow the seal to vent gases from within the plunger. The result: A bubble-tight seal for the most difficult chemical applications, without the use of Teflon. "It's an elegant solution to an expensive problem."

杜邦陶瓷弹性材质，与1600多种化学物质兼容，并耐温315。

## 打印机密封组件抗胀应用技术

We've worked a special elastomer for use with water-based printing inks. We think of ink as being almost benign, but sometimes it can be rather aggressive to certain materials, and swelling of the rubber typically causes a big problem in the dispensing valves for ink.

Peter Paul has worked with our existing rubber supplier on a specific material for ink that was originally developed for the rubber stamp industry and the automatic mailing label industry. If a rubber stamp were to swell up, the lettering and logo would become distorted...so we've come up with a special material: We've developed an elastomer with customized nitrile rubber and very unique for the printing industry. We

started supplying this in conventional plungers and disk compensated plungers, and we're now starting to supply it in media isolation diaphragms for ink dispensing and retrieval systems, some in high-speed ink jet printers.

Commercial ink jet printers do things like posters and large billboards. They fire all the ink jets at one time and deflect them so they have to practically vacuum away the ink that isn't used. Some of these inks are magnetic so the media isolation valve is really the only way to control the flow of these inks. We found that while a number of diaphragm materials are useable, we picked a specific material for the water-based ink printer. It seems to mold well in existing tooling and is relatively



我们发现：正常的密封件与印刷油墨介质接触后会发生膨胀、扭曲等形变，因此我们开发了一系列介质隔离型电磁阀，以及设计密封件的结构防止形变，保证密封。

economical in cost, seeming to perform fairly well for the water-based inks. This product is currently available in Series 50 and Series 20 size in the diaphragm media isolation valves.

## 电磁阀超低温环境下的应用技术



Our solenoid valves, those precision electro-mechanical "switches" required to perform millions of unattended cycles in applications ranging from coffee vending machines to metal cutting machine tools, are also widely employed at low temperatures to about  $-40^{\circ}\text{C}$  involving gaseous and liquid compounds including refrigerants and liquids nitrogen.

For these uses, the full range of our 2- and 3-way valves can be specified with the Teflon<sup>®</sup> or Kel-F seals required for processing semi corrosives; typically, all valve parts must be oxygen cleaned to remove oils and other surface contaminants. In many such applications, a compressed liquid is metered by the valve. Many of these valves will be UL recognized and CSA listed.

涉及到超低温环境下使用，我们可以通过各种各样的电磁阀和歧管；  
比如液态氮制冷剂控制方面应用。

## EPDM密封材质技术应用

Special EPDM (Ethylene Propylene Diene Monomers) solenoid valve seals are used for applications where high-pressure gases tend to be absorbed in standard rubber seals.

When gas is absorbed into a rubber solenoid valve seal, it doesn't normally cause any physical degrading of properties but will cause the rubber to display a phenomenon called explosive decompression. If the system were to be vented or pressure reduced, gas that is trapped inside the rubber tends to cause the seal to balloon and swell, sometimes actually fracturing. Users in the fire extinguisher field, for instance, find that rubber swelling over a period of time may actually causes the fire extinguisher valve to shut off.

Used in place of conventional seal materials, such as urethanes, EPDM is more suitable for specific, hard-to-fill applications such as high-pressure gases used in aerospace projects.



电磁阀柱塞行程通常为 $0.050\text{--}0.5\text{mm}$ ；  
当然这个跟口径大小有关，但如果您选择错误的密封材质的话，表面上看是做到了密封，实际上是泄露的，所以要注意每种材质的膨胀系数再进行选择。

## 50系列防爆电磁阀 -- 加强型防爆技术应用



*Our Series 50 Explosion-Proof solenoid valves and operators with molded coils for hazardous locations are now offered with added protection from moisture in the form of new O-ring and flat gasket fluorocarbon elastomer seals. The locations of these new seals are shown in the explode view of a coil for an E50 valve (inset).*

Added moisture protection provisions for E50 and low watt EL50 and ELL50 miniature Explosion-Proof solenoid valves are now available for Explosion-Proof valves with molded coils requiring added protection from moisture may now be satisfied with new fluorocarbon elastomer O-ring and flat gasket seal to further protect the coil from any possible moisture contamination. While redundant for all but the most arduous process uses, these added seals will still provide a solenoid valve at somewhat lower cost than one with a fully potted coil, top and bottom seals, and an RTV conduit seal.

Designed to meet today's demands for economy of space and energy consumption in hazardous locations, our E50/EL50/ELL50 miniature Explosion-Proof solenoid valves are offered in seven basic designs, based on maximum operating pressure differential, orifice size, CV factor, and operating media. Built to UL standards for safe and continuous operation at maximum rated pressures, the specifications for these general purpose of safety valves for pneumatic and hydraulic applications are conservatively rated at 85% of rated voltage and maximum pressure. In addition to air and other fluids compatible with standard Buna N seals, these valves operate in hot water, steam, gasoline, oil, refrigerant, hydraulic fluid, and other environments requiring special seal materials. Explosion-Proof design with 1/2 NPT conduit connection and stainless steel construction allows these valves to meet the requirements of hazardous locations Class I, Group C and D, and Class II, Group E, F, and G.



## FKM密封材质电磁阀在丙烷、汽油介质密封技术应用

Today's alternative powered vehicles and reformulated gasolines are causing increased occurrences of solenoid valve seal swelling and cracking in service. This has created the need to reformulate existing FKM compounds to maximize their properties in reformulated gasolines which have significant amounts of MTBE and alcohol.

Additives also have been causing problems with seal integrity, frequently in propane-powered vehicle applications. These fuel applications involve seal swelling with existing standard fluorocarbon elastomers, generically called FKM, but available with trade names such as FKM and Fluorel. We discovered that, by maximizing the fluorine content of their FKM, the swelling was reduced. Further enhancement of the physical properties was made by removing the traditional colorant and adding carbon black. Therefore, the normal color of this new FKM is black.

We see more and more FKM problems in vehicle applications involving solenoid valves, both gasoline powered and alternative fuels (e.g. propane). In some states, reformulated gasoline can be up to 15% MTBE, causing problems with traditional FKM systems. Swelling and rubber decomposition appear with time. Beyond vehicular applications, other related uses, particularly in the medical field, have shown to be more stable and long-lasting when the new FKM is applied.

## 喷射型电磁阀应用



Peter Paul 喷射型电磁阀最早是应用在连续喷射标志或字码的设备上，比如：网布喷码、广告彩纸喷码等设备上。对于特殊应用我们一样可以满足。

Our new Squirt valve is an in-line, two-way Normally Closed Series 50 or 15 solenoid valve with double plunger seal which does not allow continuous flow, but will shut off, energized or de-energized. This prevents a continuous flow condition if someone accidentally left the Squirt valve "on". You get one squirt or drop and no more.

Its main claim to fame is probably its size, currently 50 and 15 solenoid valves with a variety of tube sizes which control drop size. Low pressure ratings of two psi to ten psi are available; anything less than two pounds pressure does not provide enough velocity for a good squirt or drop.

Because this valve was originally developed for marking cloth with dye to highlight defects in yard goods, the valve had to meet both small size and low cost requirements. You might call it non-critical dispensing: It doesn't have to be perfectly exact for oil or any light liquid. If you dispense a drop of oil on a bearing before assembling it, the application would be good enough. The same could be suggested with glue, other types of lubricants, sealants...any light liquid dispensed at low pressure in drop increments.

The small dispenser tube is critical only in its diameter and controls drop size and squirt length. The bigger the drop, the shorter the carry.

These mostly stainless steel versions are available in either AC or DC.

## 20、30系列电磁阀增加了在计量适配器方面的应用



我们的电磁阀增加了计量适配器，是可调式的。在每个出口处增加计量适配器，保证压力、流速。

A new, adjustable, stainless steel metered adapter for Series 20 and 30, 2-way N.O. and 3-way solenoid valves provides a manually adjustable flow control to a valve which creates a speed control for the process the valve is controlling.

While our solenoid valves can be configured with metering in the valve bodies, the use of metering in the sleeve port adapter on either the top inlet or exhaust allows the user to set the best possible flow parameters for the specific application. For instance, to restrict the return speed of a cylinder, the metering adapter acts as a damper on the process. With the use of these adapters, it is also possible to pipe the exhaust from the solenoid valve out of the area rather than exhausting directly to atmosphere. The metering adapters are available for either 1/8 NPT or 1/4 NPT porting and are used for liquid and gaseous media.

The metering adapter is typically used as a metered exhaust for 3-way normally open valves, or as a metered normally open port in multi-purpose or directional control valves.



## 电磁阀通用型安装支架



The bodies of all our solenoid valves offer an underside pair of drilled and tapped holes for easy mounting. But where the mounting surface is very thick or physically inaccessible, a simple top mounting is desirable.

For such applications, we have developed a universal, plated steel mounting bracket, part number B96, for individual, solenoid valves in Series 15, 20, 30, 50, and 70. Provided with screws and several countersunk hole configurations, the brackets are easily installed and may be used in virtually any operating environment.

我们的新的通用安装支架是在这里可以满足15、30、50和70系列电磁阀，材质为镀锌板托架，不锈钢螺钉。

## 手动控制型电磁阀



手动控制型需要与代表处咨询确定；手动控制型适合20系列的扣环引线、多功能型电磁阀，同时适合70系列的管道引线二位三通常开型电磁阀、58系列的DIN型端子二位三通常闭型电磁阀。

Manual override, a mechanical device which permits the momentary or locking manual opening of NC valves or the closing of NO valves, is available as a factory option on many models of our Series 58, 20, and 70 solenoid valves.

There are a number of common processing situations in which it may be necessary to actuate a single solenoid valve in a array of valves without disturbing the electrical sequencing or piping to these valves. The manual override option is built into the bodies of these valves and will not affect their normal operation unless actuated in the case of power failure or similar circumstance.

The manual override option adds only marginally to the cost of the valve; other body options, as you know, include metering, metered bypass, manifold mount, flange mount, and orifice metering.

## 20系列电磁阀体能提供较大尺寸规格的连接端口



New, brass, and stainless steel screw-in, Series 20 solenoid valve bodies offering simplified assembly, disassembly, and field replacement are now produced with enlarged ports for higher flow applications.

The Series 20 screw-in valve bodies speed and simplify valve-to-manifold attachment in processes involving liquid or gaseous media compatible with brass. Assembled barely more than finger tight, these brass bodies incorporate two O-rings to help eliminate leakage and provide the required high burst pressure ratings. These bodies are offered for use with brass, stainless steel, or anodized aluminum manifolds where media compatibility is not a problem.

These unique, screw-in valve bodies (1/2-20" male UNF-2A port) are available for many of our standard valve models and are used for both conventional, one-piece machined manifolds of with out proprietary modular solenoid valve building block manifolds.

*Our large port, screw-in, Series 20 valve bodies for simplified manifold mounting are now offered in brass for compatibility with a broad range of liquid and gaseous process media and with existing brass, anodized aluminum, and stainless steel manifold designs. Dual O-rings in these screw-in valve bodies virtually eliminate the possibility of leakage and provide attractively high burst pressure ratings.*



## 独特的电磁阀铁路行业的技术应用 -- 能检测轨道缺陷的位置



*The complete Series 30 spray valve used to mark suspect areas of track for subsequent inspection and repair incorporates a unique lower nozzle section which is removable for cleaning of all parts that come in contact with the oil-base paint which is dispersed by the valve. The valves are part of automated testing systems used by independent rail testing services.*

We have developed a special, two-way, Normally Closed solenoid valve used by rail flaw inspection services to pinpoint track problem areas for the railroad industry. Designated the Series 30 spray valve, this 12 VDC, 8 watt, 60 psi valve is part of an ultrasonic or induction detection system used by independent rail testing service organizations for checking each rail, end-to-end, to automatically identify faults, cracks, and railhead (wear) loss. When a flaw is found, the solenoid valve is automatically energized and a yellow, oil-based paint is pressure sprayed through the adjustable valve nozzle, marking the defective area for subsequent identification and repair.

Paint flow is straight through the valve from the adapter on top to the nozzle-like bottom of the brass body, which incorporates a 7/64" orifice. The nozzle portion of the valve is removable so that all of the internal parts, including the nozzle, can be cleaned to prevent clogging. In addition to marking track areas for manual inspection and repair, the track riding test vehicles provide their operators with a visual display of track anomalies including cross-sectional views and realhead wear diagrams and retain these data electronically for off-line analysis and report generation. The design of the Series 30 spray valve has been tested in several similar applications, with particular emphasis on O-ring and seal compatibility with the material being discharged.



## 大流量电磁阀



*Low pressures, high flows, compact size, larger flow passages...that's what's cooking with commercial cookers.*

Here's a solution to provide a Series 30 Normally Closed valve for LP and natural gas...very low pressures up to about 2 psi but with high flows ( $C_v = .57$ ), compact size, and economy in a Series 30 valve. As you can see from the photograph, this style has larger flow passages for higher flows through the valve. Larger drilled ports also allow higher flows. While our competitors provide  $C_v$ 's of about .40, they probably use multiple valves on smaller burners with more pressure drop. The seal materials are typically FKM, with brass bodies, yoke, and spade coil, most of the appliance-type. For standard equipment, it had to be basically small and economical. High flow is usually needed for commercial cookers and could be used with any kind of gas-fired heaters. They're also employed for incubators and poultry brooders. And these valves might also be useful for decorative gas-fired lights, infrared heaters, small heaters, patio heaters, and more.

Our valve is a very high flow, low cost unit with compact size.

The same technology would potentially apply to gravity feed systems such as lubricators...low pressure lubrication, low pressure dispensing of various materials from a low pressure valve requiring a large orifice, but overall small in size. Perhaps we could provide some samples for you.

## 50系列不锈钢焊接管件



*Series 50 Welded Fittings  
Designed to meet stringent purity requirements in analysis equipment and other applications requiring all welded components. Available with various options including 3-way operation and diode rectifier coils for quiet operation. Continuous operation at maximum rated pressure. Shown as 3-way with welded stainless steel fittings*

It may come as a surprise to learn that about 80% of the product information calls involve special, unique, and non-standard applications for our solenoid valves.

For instance, a customer asked us to modify a standard Series 50, 3-way, Directional Control valve with stainless steel components and FKM seals for oxygen service to incorporate special welded fittings (one tee and one elbow) with threaded ends as shown in the picture.

These modifications of standard Series 50 drawings took a few minutes to complete by CAD. They were immediately faxed to the customer and approved. The result, as you can see to the left, is a valve with relatively simple external modifications which precisely meets the requirements of the user's application. Five easy steps: Request; drawings, mechanical changes; prototype; production.



## 大流量真空电磁阀

### 医疗及工业行业的应用



We have developed a new series of solenoid valves for use in vacuum chambers for sterilizing medical instruments. These valves feature high flows; bubble-tight; standard vacuum fittings and standard flanges for international use; electron beam seamless welding of flange to body; purity requirements allowing no trapped particles on the inner diameter; several million cycle endurance for critical life operation; and Teflon™ outside coating to eliminate dust and possible wear-creating particles.



*Cutaway of large, air-operated valve shows 1" orifice.*

Two basic models have been developed: The smaller one is electrically operated with 1/2" orifice, 2-Way, Normally Closed with FKM plunger seals.

The larger of the new valves is air-operated by cylinder with a 1" orifice to meet high-flow requirements. The spring-loaded assembly seals on the orifice for failsafe operation. Assembly of this larger unit also involves electron beam welding. Both valves employ anodized aluminum bodies with all stainless steel inner moving parts. Of particular interest to prospective users, a major medical products producer required elaborate testing of valve open/close times, as well as extensive endurance testing.

微型真空电磁阀一直是peterpaul公司主要发展产品系列之一，除了在医疗器械设备上的大量应用以外，我们主要为分析仪器配套，如：安捷伦、布鲁克、热电等知名品牌，微型真空电磁阀可靠性强。我们是业绩最早研究发展真空电磁阀的行业领导者。

## 58系列微型不锈钢电磁阀



Additions to our line of molded Series 58 solenoid valves have been developed with two stainless steel bodies. These bodies supplement the existing six models of plastic valves currently used in portable medical devices, analyzers, portable test equipment, and similar applications.

These stainless steel bodies represent an option for the 58 valves while retaining all the same coil options, voltages, wattages, orifice sizes, pressure ratings, and elastomers.

Two stainless steel models are offered in both 2-Way and 3-Way versions: A stud mount, utilizing a 10/32 stud as the orifice connection and an annular groove as the cavity connection. These connections are separated and sealed with O-rings. The other body style uses 10/32 female ports for both the cavity and orifice connections. Optionally, the user can upgrade from the plastic bodied Series 58 to either of the stainless steel bodies.

58系列不锈钢微型零泄漏电磁阀，压力可高达 500PSI，包括二通常开、二通常闭、三通常闭等，所有机械结构件都为不锈钢材质；寿命高达2300万次，功率最低位0.9瓦，标准零泄漏电磁阀，广泛应用在微型分析仪器设备上、手持式仪器设备，重量仅：95g，外形：19mm X 45mm。







## 50系列电磁阀配套 -- 精密电子生产设备



Two examples of the new, sealed, Peter Paul Series 50 solenoid valves for electronics and chip manufacture are shown. A 24 VDC, 7.0 watt, 1/16 orifice, 100 psi solenoid valve (top) is offered with grommet housing and 1/4" O.D. stainless steel tubing welded to the body; the sleeve assembly is threaded to the body and sealed with an elastomeric gasket. The valve below incorporates welded 1/8" O.D. input/output tubing but with body and sleeve assembly welded together, eliminating the gasket and threads, for total, positive, permanent sealing.

We've announced a new, completely sealed, Series 50 solenoid valve to meet today's stringent requirements for chip manufacturing, analysis equipment, and other types of ultra high purity equipment requiring welded components.

Available immediately in a 2-way, Normally Closed configuration, the valve can be produced in many AC or DC voltages. These Series 50 valves feature all 430F stainless steel construction with either 1/8" or 1/4" O.D. stainless steel welded tubing as their port connections. The sleeve assemblies of these valves can be attached with conventional threads and elastomeric seals or, for the most critical applications, with the body welded directly to the sleeve assembly. Both grommet and conduit-style housings are offered, with internal electro polish available.

Employing all our standard components for millions of trouble-free operating cycles, these fully sealed Series 50 solenoid valves are available with all standard options including 3-way operation, quiet operating diode rectified coils, and more for continuous operation at maximum rated pressures as required.



### ... 特殊选项

## 二位三通和三通电磁阀 -- 静音（无点击）应用

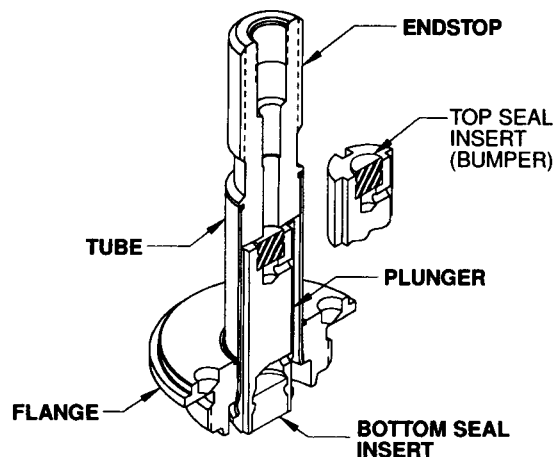
Peter Paul Electronics Co., Inc. has developed solenoid valves for use in medical applications such as hospital beds, breathing apparatus, and inflatable mattresses for burn patients in which a bumper is installed for quiet operation.

In normal industrial applications, the click of a solenoid valve is not an issue, but in the quiet of a hospital environment it can be nerve wracking to hear constant clicking as the valve is actuated. Several new plunger and bumper designs used in the 3-way function have a top seal but eliminate the metal-to-metal contact.

One way to "eliminate the click" is to put in a rigid top seal that's non-compensating and doesn't move. The top seal contacts the end stop, but no metal contact is made. It requires a unique plunger and uses a special end stop to accommodate it. Many times the pressure ratings are reduced just a bit due to the increased air gap in the valve, affecting magnetic performance. Usually these applications are low-pressure air or vacuum, therefore the reduced rating of the valve is generally not an issue.

Rectified coils are also often specified in medical equipment, either full bridge or half bridge, to eliminate the potential for noise. A valve, which might potentially cause a hum or buzz can be very annoying to a patient, so a full wave rectified unit for AC service is often preferred. A DC unit, not requiring a rectifier, is sometimes used in specific applications.

Also common is a bumper in a 2-way valve, usually just a flat disk with no sealing action. Bumpers may be urethane or filled Teflon or special low cold-flow Teflon, which doesn't become deformed like virgin Teflon.



静音结构、无限触点设计，保证该技术广泛地应用在医疗器械，医院环境、静音环境等领域；噪音远远低于15分贝。

Occasionally, a bumper is included in a valve for a non-medical application where long life is critical. With a bit more cost, a Teflon-coated plunger combined with a bumper will provide very long, quiet valve life under many operating conditions.

## 二极管整流线圈 -- 电磁阀静音运行应用

Most solenoid valves now in operation are powered by AC current, primarily because AC voltages are more readily available. AC solenoids have faster pull-in (cycle) times, with a ratio as high as 3:1 compared to DC power. However, AC or DC powered valves have a natural tendency to audibly “click” at the beginning of each on-cycle and can sometimes, under adverse conditions, emit a low, but audible hum in operation.

While perfectly acceptable for the majority of applications, valves destined for quiet environments, such as hospitals, often cannot accept the possibility of a hum or, in extreme cases, a buzz. Further, in an AC valve, anything that will prevent proper mating of the plunger pole faces, including dirt and corrosion, can cause noisy operation. In addition, AC solenoids, because of the in-rush current and fast cycling, can evidence higher heat rise than would be experienced under steady-state conditions, another problem in hospital/medical/ laboratory applications. The reactance on AC solenoids increases progressively, reducing the current as the plunger moves into its seated position. If the plunger is restricted, the temperature will increase as the square of the current.

All of these inherent AC valve conditions have led us to provide many AC valves with diode rectified coils, allowing the valve to run on DC power for cooler and quieter operation in application where these are required. Fortunately, semi-conductor diodes are considerably less expensive today than in the past, and their use has not caused a significant cost increase where DC operation is necessary.

Operating on DC, the valve plunger need not be seated on its stop in order to prevent coil burnout, and the typical DC solenoid exhibits a longer life because it is not subjected to the peak voltages produced by the more broadly cycling AC current. The closed gap pull force is greater on DC than AC for the same pole area. Normally the AC pull curve has a sharper bend at each peak or valley, while the DC curve is consistently flatter.

Given the many superior properties of solenoid valves with diode rectified coils converting AC input power to DC operation, and the increase in medical-oriented applications where these DC valve capabilities are desirable, we are able to offer most basic solenoid valves with a diode rectified coil to meet specific user criteria. For applications which require it, a 4-diode full wave bridge also is available.



*Location of the rectified fly back diode array in DC rectified solenoid valve coil is shown (cutaway). Most of our valves can be so configured, including the Models 50, 20, and 30 (left to right) above, all specified with diode rectified coils for the inherent low noise/low temperature provided by DC operation. They are used primarily for low noise/low temperature quiet locations such as hospitals and laboratories.*

## Peter Paul 防水阀 --- 潜水作业技术应用



Peter Paul Electronics Co., Inc., offers water-resistant solenoid valves featuring a fully encapsulated coil, for applications where exposure to moisture or even complete submersion is necessary.

The Series 15 or 50 valves are intended for a wide range of outdoor uses including HVACR, irrigation systems, off-road equipment, trucks, buses, trains or other vehicles experiencing significant exposure to wet environments, including boat trailers, controls, engine and bilge areas. The valves feature a liquid epoxy potted coil assembly and a rugged housing covered with a baked-on epoxy/polyester finish rated at 1000+ hours in a 5% salt spray test. The potting provides increased heat transfer capabilities through elimination of trapped air pockets for a cooler running valve.

All internal parts are constructed of stainless steel and brass. Corrosion resistant materials are used for exposed parts. The standard version operates on a 12 VDC, single lead power connection. Dual power lead versions can be used for mounting on non-conductive surfaces such as fiberglass, plastic or wood. Additional power options are also available.

## 封装型二极管线圈带铲形端子 -- 15系列电磁阀



A full wave bridge can now be encapsulated into the coil assembly Series 15 solenoid valves. By embedding the required electronics in the coil, a DC valve can be driven by common AC voltages.

Each valve's encapsulated coil contains a diode circuit that converts common 50/60 Hz voltage to DC. Running the coil on DC eliminates the in-rush current associated with AC valves, thus limiting the excessive heat build-up encountered with frequently cycled valves. The use of DC coil voltage also allows the use of an elastomeric damper within the valve itself. This damper reduces the audible click which occurs on actuation as well as increases the life of the valve, for a wide range of hospital and laboratory applications.

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## 电气连接器

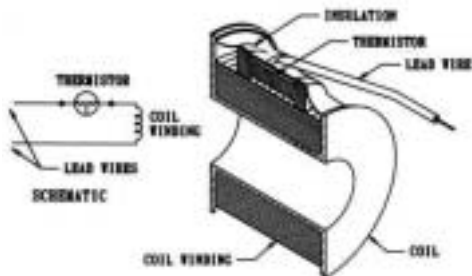


It is recognized that solenoid valves can be configured with numerous coil options, voltages, orifice sizes, pressure ratings, elastomers, footprints, and more. In addition, there are a wide range of attachments and add-ons such as splice boxes, mounting brackets, manifolds, and more to enhance the utility of the solenoid valve.

To provide even more value-added aspects to our valves, these solenoid valves are offered with many electrical connectors, allowing on-the-floor maintenance staff personnel to disconnect and switch solenoid valve connections without the need for an electrical engineer. These electrical connectors include male or female pins and connectors, custom lead lengths, junction box connectors, and other simple fasteners which can be handled on the plant floor or in the field. Typical electrical connectors include pin styles, receptacles, housings, flag connectors, and two- or three-pin flange connectors. While the add-on costs of these pins and connectors are nominal, their inclusion at the factory make the solenoid valves of which they are a part installation-ready as received by the user.

*peterpaul* 所有产品都可以根据客户的特殊应用要求提供各种特色的电气连接方式，如连接器形式、防爆接线盒形式、环形端子连接等等（包括延长线）。

## 延迟启动线圈技术应用 -- 燃烧器配用



PeterPaul电磁阀所有的线圈都加有特殊应用的电子组件应用，如加二极管组件保障电源的续流、整流等作用，同时我们加有特殊的组件防止线圈发热等技术装置。

Time delay coils with built-in thermistors have been developed for our Series 30 solenoid valves. The thermistor circuit in the solenoid valve coil delays the pick up of the valve's plunger from 2 to 6 seconds. This allows the solenoid to be certain of the required process parameters before media flow commences.

A common example is the start-up sequence for an oil burner. It is vital that a sensor in the furnace's electrical circuit "sees" that a flame has been generated to continue the flow of fuel oil. If there is no flame, oil flow may flood the burner, often requiring maintenance of an extended period of time before a re-start can be initiated. When the call activates the burner, the solenoid valve's time delay function allows the pump and fan/motor to reach operating speed before starting fuel flow.

Series 30 solenoid valves, UL recognized and CSA listed, are frequently used in these boiler and furnace applications because of their economical pricing and compact size.

## 双电压的电磁阀线圈



PeterPaul公司为满足特殊工况应用要求，广泛地开发了一系列双电压电源电磁阀，如120/240VAC，240/480VAC等双电压电源配置。当然这些特殊配置，是不改变电磁阀外形大小的前提下进行的。

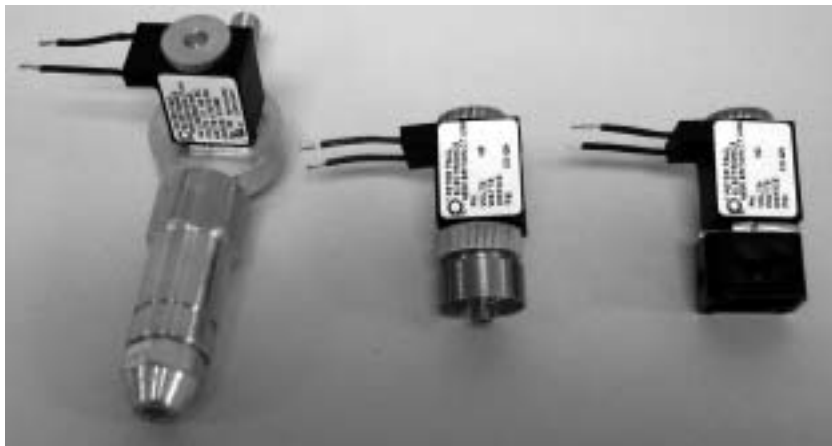
For many small AC motor applications including powered hand tools, it has become quite common for the motors to be configured to operate at one of two voltage levels, typically 120/240 VAC-60 Hz OR 240/480 VAC-60 Hz.

Now for the Series 20, 50, 60 and 80, 2-, 3-, and 4-way solenoid valves, we can provide dual voltage coils to allow the solenoid valves to be wired for either of the applicable voltages, reducing parts inventory and product installation / assembly at the distributor, OEM, and end user locations.

For specific applications in which more than one voltage might be encountered, the dual voltage solenoid valves are identical to their single-voltage versions except for the additional coil windings and leads.

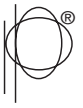
更多特殊电源要求请随时与我们联系，我们拥有23500平的电子工厂！您会发现国际上许多的电磁阀线圈都是由我们PeterPaul提供的。我们提供OEM的品牌有：parker、versa、danfoss、ABB等。

## 58系列超微型线圈



These coils were specifically designed for small places. The Sub-Miniature coil mounts on our existing Series 58 Bodies, ie Stainless Steel Screw-In or 10-32 Ports and our standard plastic bodies, Manifold Mount or 10-32 Ports. These valves are ideal for micro electronic production equipment and medical or chemical analytical applications where space is limited. Also, can easily be suited for any value added OEM application, as shown with special brass fittings and accessories. Consult factory for size, pressure ratings, orifice sizes and power requirements.





## 接线盒选项 -- 允许现场接线适用于所有 管道引线式电磁阀

An optional, 2-3/16" x 1-25/32" x 1-1/2" splice box housing has been announced by Peter Paul Electronics Co., Inc., New Britain, Connecticut, to allow field wiring directly to any Peter Paul conduit-style solenoid valve.

Designed to save a conduit run and remote connection box, the copper brazed steel splice box offers three, standard, 7/8" diameter knockouts to provide wiring access from different locations. Solenoid valve coil leads are 6", #18 wire; a ground terminal screw is provided inside the box. Optional wall or panel mounting brackets may also be specified as required.

Any standard Peter Paul Series 20, 30, 50, or 70 Series solenoid valve can be mated to the splice box, which will be UL listed for use with UL listed valves.



这种特殊应用的接线盒是解决现场接线工艺的最佳方案，防爆，可靠性强。

## 接线盒选项 -- 允许现场接线 所有Peter Paul电磁阀

An optional, redesigned and streamlined splice box, with either conduit box or configuration for Romex open wiring, has been announced by Peter Paul Electronics Co., Inc., New Britain, Connecticut, to allow field wiring directly to any Peter Paul Series 20 (stainless steel) or Series 30 (brass) solenoid valve.

Designed to save a conduit run and remote connection box, the more universal splice box allows quick and inexpensive field wiring connections to the valve. Any standard Peter Paul Series 20 or 30 solenoid valve can be mated to the splice box, which is UL listed for use with UL listed valves.



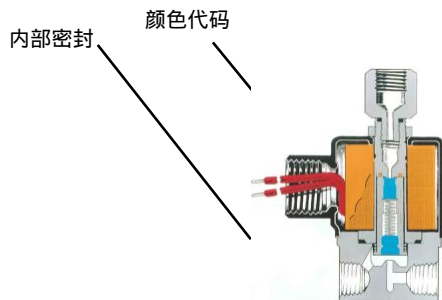
Splice Box option for Peter Paul Series 20 (stainless steel, left) and Series 30 (brass, right) solenoid valves provides space for multiple wiring hookups and an easy access cover for quick and inexpensive field wiring connections directly to the solenoid valve. Splice Boxes shown here with user-provided wire connectors.

特别适合扣环引线式电磁阀

## 杂项选配

### 密封材质

Peter Paul电磁阀匹配大量的密封材质可选择；通常在不同工况下，需要根据：压力、介质、温度、通径等信息进行精确匹配选型，我们可供选择的密封材质有典型的：Kel-F® Teflon® Hypalon® Santoprene® Nylon® Neoprene® Urethane® Nitrile (Buna N) FKM 等。

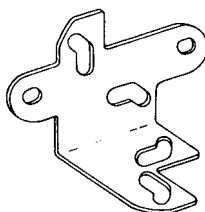


产品名称	颜色代码
Hypalon®	Green
Kalrez®	Black
Neoprene®	Red
Neoprene®	Black
Nylon®	Opaque
Teflon®	White
Urethane®	Yellow
FKM	Brown
Santoprene®	Off-White
KEL-F®	Opaque
Nitrile (Buna N)	Blue
Nordel	Gray
Silicone	Red

### 通用型安装支架

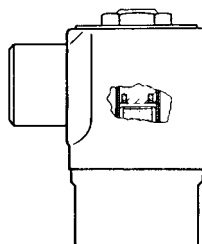
“平面安装支架”

系列20, 30, 和50, 可以将阀底部螺纹孔固定到支架上使用订购零件20 - 2416.



### 选项 A -- 铝合金罩环

当使用那些对铜材质有反应的介质时，选择这种氧化镀膜处理的铝合金罩环更合适。

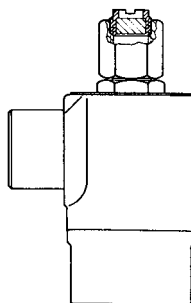


### 选项 S -- 银合金罩环

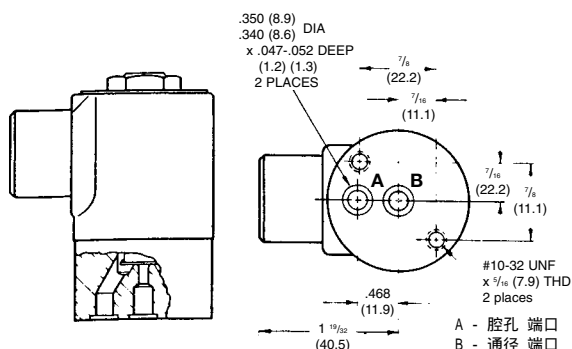
当使用那些对铜材质有反应的介质时，选择这种氧化镀膜处理的银合金罩环更合适。

### 选项 V - 内置消音器

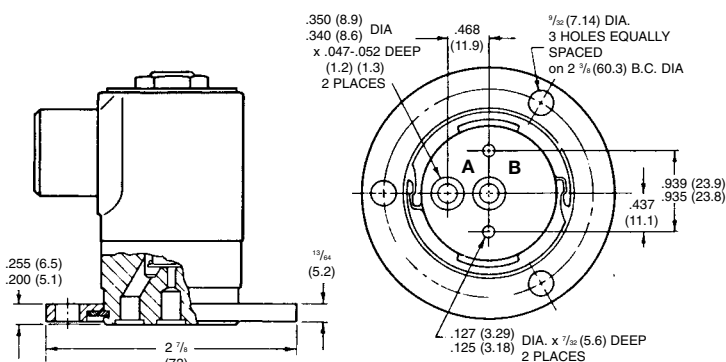
紧凑型消音器位于阀出口能消除过大噪音，根据电磁阀的端口位置不同会导致消音器的位置有所不同，消音器匹配的电磁阀型-- 二通、三通阀的排气口都适合，等等。



### 歧管安装 选项“E”



### 法兰安装 选项“H”



## 过滤器和消音器配置

### 在线过滤器的特点：

- 坚固耐用的全铜结构
- 1/8"和1/4" NPT连接类型
- 提供20、40、60和100微米等级

### 过滤器/滤网特点：

- 坚固耐用的全铜结构
- 1/8" NPT连接类型
- 43微米的不锈钢丝网
- 方便的服务，而不会干扰流速

### 排气消音器的特点：

- 坚固耐用的全不锈钢结构
- 烧结成型不锈钢消声器元件
- 紧凑的设计
- 1/8"和1/4" NPT连接
- 低噪音

3WNC阀在100 psi和200CPM状况下的排气噪声减少从99分贝减少到75分贝（测量3英尺的消声器）

- 可作为通气口过滤器



所有的Peter Paul过滤器和消声器设计不会影响流量，同时会根据介质的兼容性，配套过滤器和消音器的材质，通常为黄铜、不锈钢。

产品参数表					
描述	产品型号	连接管径	过滤规格	材质	
在线过滤器	F520-A	1/8 NPT	20	铜	
	F540-A		40		
	F560-A		60		
	F5100-A		100		
	F620-A		1/4 NPT		20
	F640-A				40
	F660-A				60
F6100-A	100				
过滤器/滤网	S543-A	1/8 NPT	43	铜	
	S5140-A	1/8 NPT	140	铜	
排气消音器	M875-C	1/8 NPT	75	430F不锈钢	
	M975-C	1/4 NPT	75	430F不锈钢	

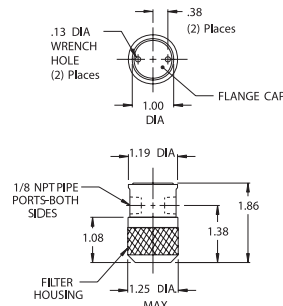
EXAMPLE: Inline Filter 1/4 NPT 60 Micron Brass Body No.F660-A

### 过滤器/滤网

Peter Paul过滤器为客户需要设计高效过滤大的感染性粒子最大43微米，并且可以进行清洗而不需要更换整个过滤器，安装、清洁方便。

### 技术规格：

连接管径： 1/8 NPT C V-23  
 过滤等级： 43 Micron or 140 Micron  
 最大工作压力： 300 PSI  
 爆破压力： 4000 PSI  
 温度： -40° to +200°F  
 材质 黄铜过滤器外壳，不锈钢过滤器和丁腈橡胶法兰密封件  
 介质：所有非腐蚀性液体和气体

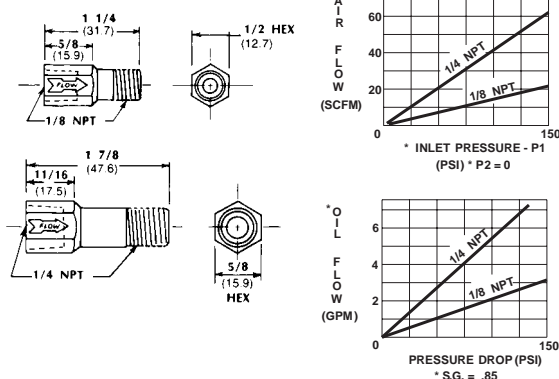


### 在线过滤器

Peter Paul在线过滤器设计是一个方便的“最后工序的过滤器”，可保证最大设备流体动力；公/母管螺纹安装；有四种微米等级。

### 技术规格：

连接管径：1/8 or 1/4 NPT  
 过滤等级：20,40, 60, or 100  
 最大工作压力：300 PSI  
 爆破压力：1500 PSI  
 温度：-40° to +300°F  
 材质 黄铜过滤器外壳，不锈钢过滤器和丁腈橡胶法兰密封件  
 介质：所有非腐蚀性液体和气体

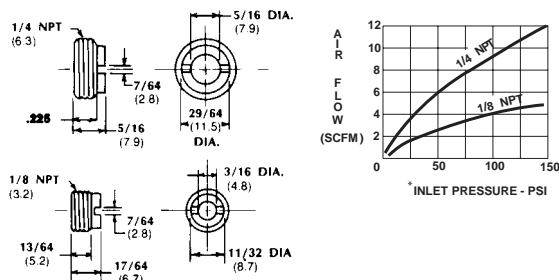


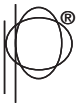
### 排气消音器

Peter Paul 排气消音器设计用于气缸、电磁阀或其它地方产生过大噪音工况而且减少噪音，并且不会过多限制流量，由于空气排出的噪音是一个非常严重的问题。这些消声器适用于任何1/8或1/4的管口。

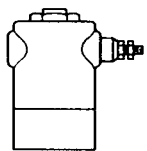
### 技术规格：

连接管径：1/8 or 1/4 NPT  
 最大工作压力：400 PSI  
 爆破压力：4000 PSI  
 温度：-40° to +300°F  
 材质 不锈钢标配  
 介质：更多气体

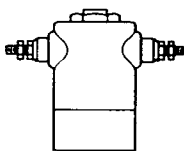




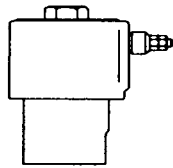
**外壳选项** 材质：不锈钢，镀面和彩涂钢板建造的。款式包括：应变释放连接器，双电压，汽车连接器，接续盒，支架，导管，垫圈，支架，JIC的外壳，封闭式线圈和外壳。



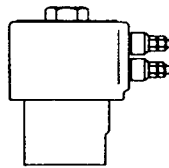
20、30系列  
选项：AS  
端口（单）



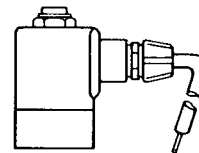
20、30系列  
选项：AD  
端口（双）



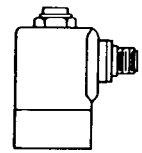
70系列  
选项：AS  
端口（单）



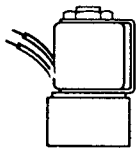
70系列  
选项：AD  
端口（双）



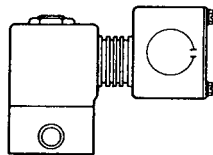
选项：Q  
SJT引线型



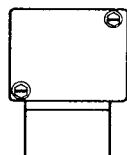
选项：S  
“AN”连接器



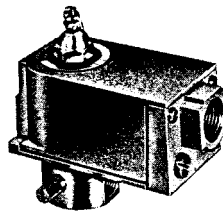
选项：Y  
电磁头YOKE型



选项：N  
接线盒



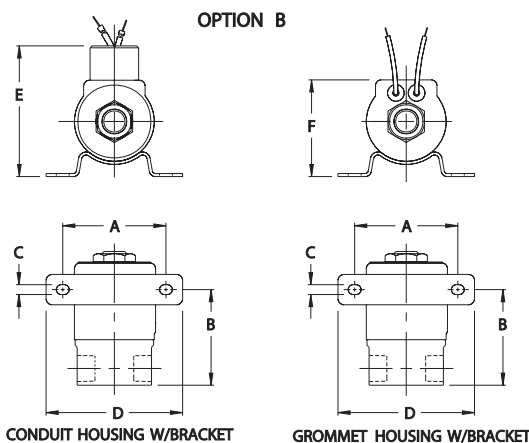
选项：J



### J.I.C. HOUSING (SERIES 20 ONLY)

When additional solenoid protection is required, Peter Paul's J.I.C. Enclosure may be applied. In addition to meeting J.I.C. Standards, this unit fulfills requirements for many NEMA Types. See listings in column at left. Maintenance is simplified, because removal of electrical conduit is unnecessary upon unit disassembly. Available with pigtail wire in Peter Paul Solenoid valves or in Peter Paul valve operators for OEM application.

### 适用于各系列的支架尺寸



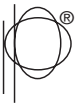
### 英寸

SER.	A	B	C	D	E	F
20	2.13	1.97	.20	2.81	2.67	1.98
30	2.13	1.53	.20	2.81	2.67	1.98
50	1.50	1.53	.19	1.94	1.88	1.34
70	2.75	2.44	.20	3.44	3.31	2.61

### 毫米

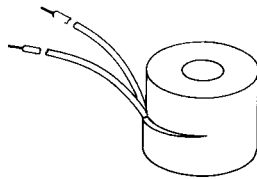
SER.	A	B	C	D	E	F
20	54	50	5.2	71.3	67.9	50.4
30	54	38.9	5.2	71.3	67.9	50.4
50	38.1	38.9	4.8	49.2	47.6	34.1
70	69.8	61.9	5.2	87.3	84.1	66.3





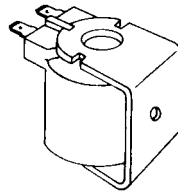
## 线圈选项

线圈电压范围：1.5 -- 1150 V交流和直流可以任选，线圈性能分类有：模压线圈、非模压线圈、高温线圈、封装线圈、二极管整流线圈、第三线接地线圈、铲形端子线圈等。



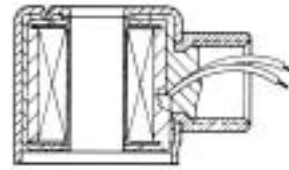
### 选项：M

防水模压线圈--F级（155）  
评级。线圈由环氧树脂封装完全密封成型。



### \* 选项：KM

环氧树脂封装完全密封成型线圈，  
在线圈二端安装固定支架，同时  
拥有快速安装的铲形端子。



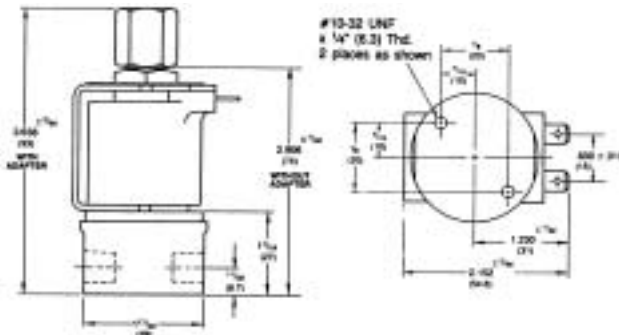
### 选项：P

环氧树脂完全密封，可以抗  
潮湿、振动、防爆，经过UL  
认证，我们电气等级为NEMA-4  
以上。

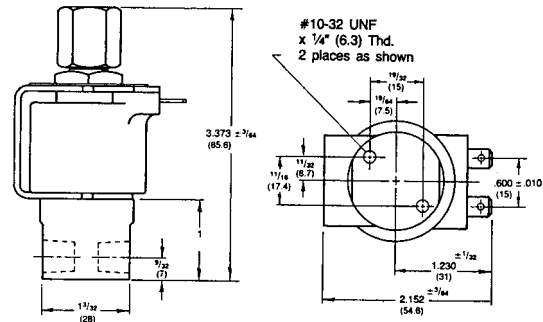
\*注：铲端子选项的电磁阀高度选项 - 看图纸以下

## 阀体尺寸 -- 铲形端子型

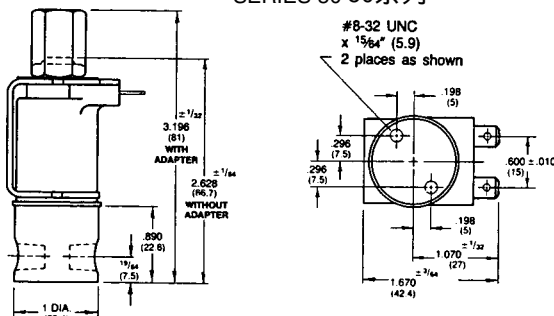
20系列  
SERIES 20



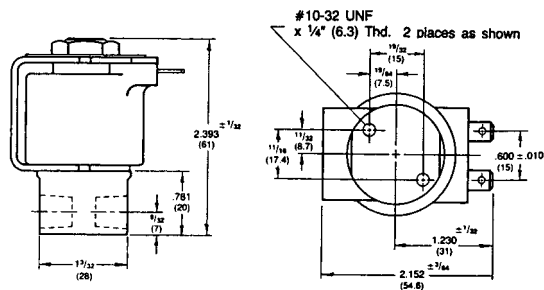
30系列三通阀  
SERIES 30 3-WAY VALVE



SERIES 50 50系列

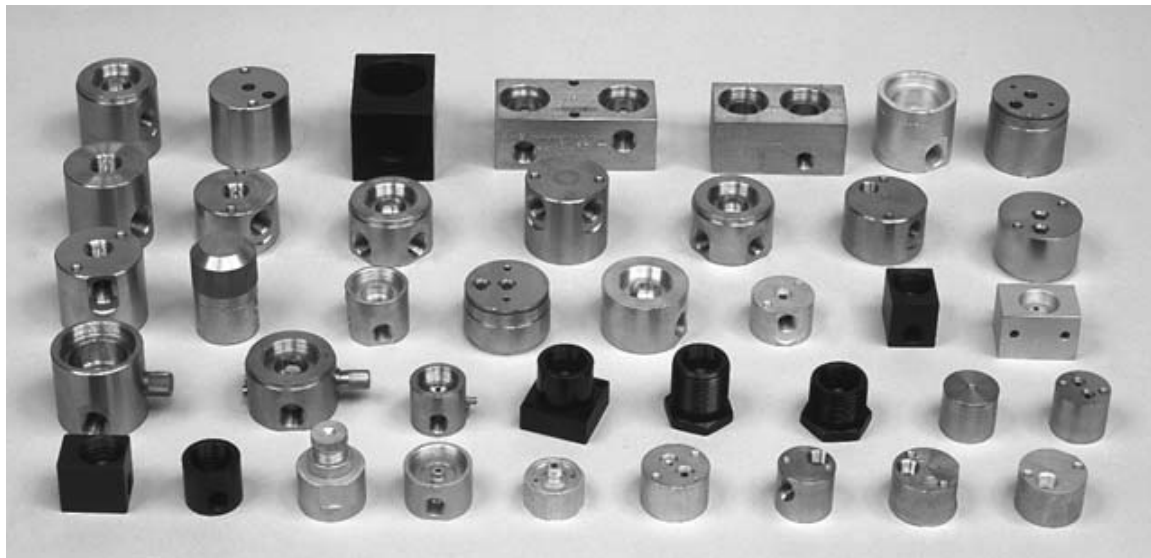


30系列二通阀  
SERIES 30 2-WAY VALVE

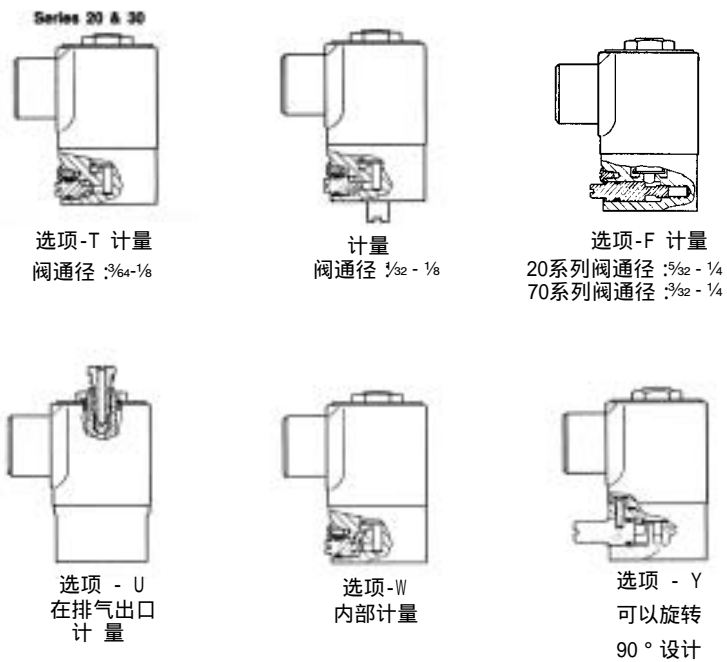


## 阀体配置选项

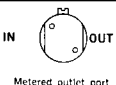

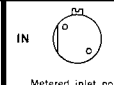


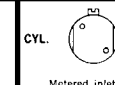

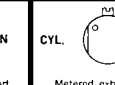

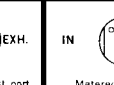

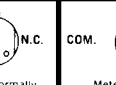

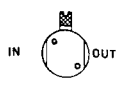

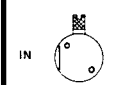


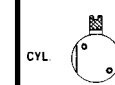

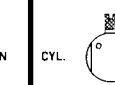



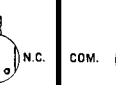

内置不锈钢, 阳极氧化处理的黄铜, 铝, 尼龙, 和其它塑料。手动控制计量, 计量旁路, 歧管安装, 法兰安装, 90°左, 右端口, 孔板计量, 以及其他一些特殊的选项。

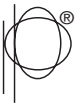


## 流量调节选项

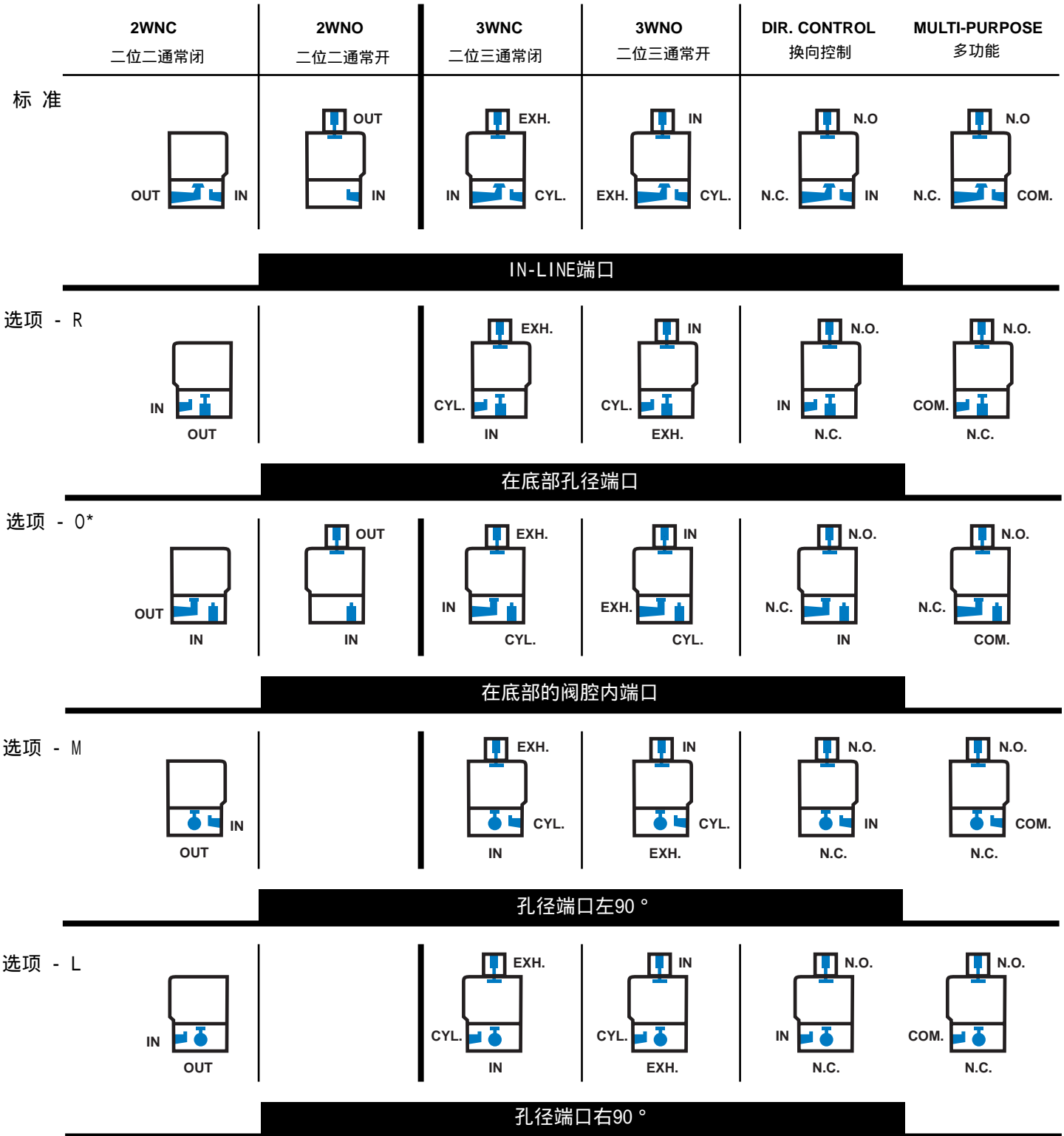


## 流量调节选项可用位置

2WNC	2WNO	3WNC	3WNO	DIR. CONTROL	MULTI-PURPOSE
 IN  OUT Metered outlet port	 IN   Metered inlet port	 CYL.  IN Metered inlet port	 CYL.  EXH. Metered exhaust port	 IN  N.C. Metered normally closed port	 COM.  N.C. Metered normally closed port
STANDARD VALVE BODY'S ORIFICE METERED—OPPOSITE SIDE AVAILABLE ON REQUEST					
 IN  OUT Metered inlet port	 IN   Metered inlet port	 CYL.  IN Metered inlet port	 CYL.  EXH. Metered exhaust port	 IN  N.C. Metered normally closed port	 COM.  N.C. Metered normally closed port



## 端口选项



\*底部的端口是中心关闭

## 20、30、和50系列电磁阀 保养和清洁注意事项

1. 在线关闭电磁阀的进口压力和电源，不需要直接将电磁阀卸下。
2. 在所述壳体的顶部卸下螺母。底部通量板（如果存在的话），然后，可以除去从所述主体（70系列壳体和线圈还设有一个在壳体内部的磁轭）。
3. 请使用PeterPaul专用扳手（GP-010、GP-007、GP-191）规格，将电磁阀螺帽拧出，且不可使用其他类型扳手，将会损坏电磁阀螺柱、螺牙。

### 诊断故障

1. 如果阀门不能操作时，应该检查线圈和控制电路是否通电，以确定它有没有被烧毁。
2. 有时，如果处理不当，阀门的法兰密封可能泄漏。如果介质是一种液体，这样的泄漏可能损坏线圈。有凸缘泄漏可以通过拧紧在套筒组件装到校正阀体或更换的垫圈。使用扳手型号：GP-418，GP-191。
3. 如果阀门在阀座与柱塞棒的通电位置泄漏，检查软插入在柱塞的内部和套筒组件，可能存在过量的污垢或磨损。如果插入相当大的磨损，柱塞应更换。

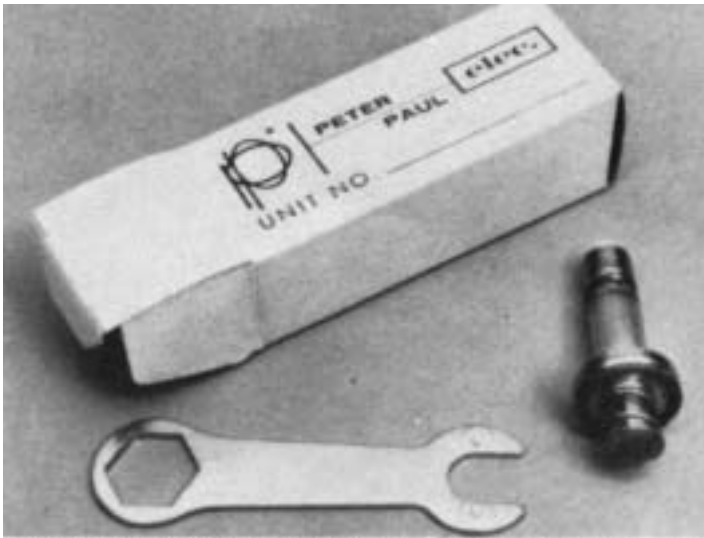
4. 如果阀门发出异常声音时，请检查里面的套管组件和柱塞上部，看是否有异物嵌入其中，注意：在三通和两路常开阀，要小心不要损坏套筒座。不要清洗柱塞组件或与任何类型的密封。

### 重装：

重新装上阀门，需要按照拆卸过程中相反的顺序进行。确保密封法兰在总装结束和复位弹簧是在当套筒被拧入的地方。拧入凸缘后，进入阀体腔和之前装配到阀的线圈，最好是将压力施加到的端口导致的体腔检查渗漏周围的凸缘。如果套筒阀具有一个端口，该端口在顶部阀门的上限，必须要让这个测试。如果介质为空气或气体，泄漏可以通过施加水，并指出看气泡。如果介质是液体，泄漏很容易明显。不要将螺母拧紧在线圈壳体顶部过分，因为这样做会施加过分的压力套筒组装。

### 更换部件：

更换零件的订单应包括：（1）部分说明、（2）阀门数、（3）电压。



## 维修包

另一个Peter Paul的创新。该维修包组成关键的部分，能使故障阀门迅速重新投入服务、方便。有效地以这种方式使我们的质量阀寿命可以延长、更经济。

### Install in 5 minutes

#### 操作路线：

用扳手提供删除顶部螺母和住房。使用相同的扳手取出套筒部件活塞，弹簧，密封。放弃所有这些带下划线的项目不重复使用其中的任何部分。插入新组件供应。重新组装的阀是准备服务。这一简单的操作带来的阀到原来的性能水平。

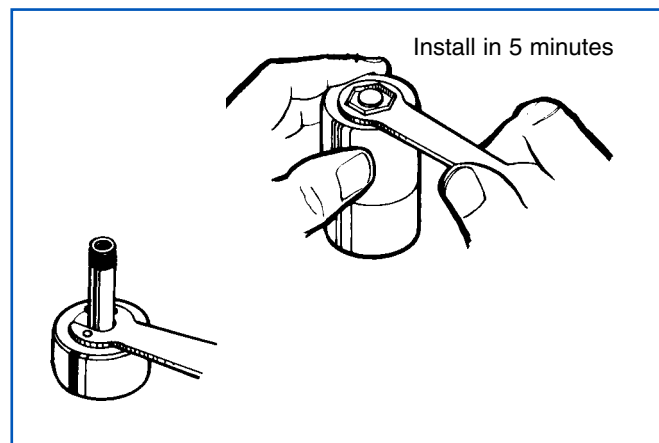
订货时修理包，“AC”或“DC”完成包数

（例子）包号K21GDX AC

维修包包括：套筒组件，柱塞弹簧密封 - 扳手

修理包沿相应的阀门号码第7页开始。

未列出的维修包，请咨询工厂。





## 在本手册和工业用的定义和术语

(气密性密封) 通电或断电阀的内部与封闭端口之间的位置为零泄漏。测试是基于空气使用肥皂泡沫测试。

(泄漏电流) 单位用安培表示；当电磁阀通电时，流经线圈的电流变化值。

(补偿活塞) 柱塞设计成补偿型是有利于在同时使用水、汽油或者其他介质在温度变化大的情况保证零泄漏，这种情况由于有温度变化影响柱塞弹性体密封件膨胀或收缩导致出现泄漏，所以补偿型柱塞能自动适应各种介质和温度、压力变化，保证零泄漏，同时能延长电磁阀寿命。

(连续工作) 是指电磁阀通电工作时，无过热或者无故障无期限地工作下去。

(CV系数) 指在温度为60 °F状况下，每分钟流经电磁阀的流量加仑数，压降为1PSI。

(周期) 是指电磁阀的一个完整动作，例如：打开一个常闭型电磁阀，再关闭电磁阀，这个完整动作就称为1个周期。

(周期率) 阀是能够在特定的时间打开和关闭其主孔间隔的次数。

每分钟循环次数 (CPM)  
电磁阀在一分钟内能够打开和关闭其主喷孔的次数。

(燃气终端服务) 这种情况在双向常开或三通阀的应用程序需要在2小时内连续通电或重复周期。

**Drip Proof** 查看NEMA分类

**Drip Tight** 查看NEMA分类

**Dust Tight** 查看NEMA分类

**Duty Cycle**

在周期型的现象中，现象发生的时间与总时间的比。

防爆结构

电磁阀在危险场所的操作；看NEMA分类。

**Flow** — the continuous movement of fluid created by a pressure differential.

**Flow Rate (Valve)** — the amount of fluid through a valve in reference to pressure drop across the valve to carry magnetic flux from the housing to the sleeve assembly. A flux plate is required only on valves having a non-magnetic body material.

**General Purpose Valves** — valves suitable for application indoors under normal atmospheric conditions. See also NEMA and U.L. classifications.

**Hazardous Locations** — as defined by Underwriters' Laboratories, Inc. most Peter Paul explosion-proof valves are listed for use in the following hazardous locations: Class I, Group D, Class II, Group F and G. See also NEMA classifications.

**Class I Locations** — are those in which flammable gases or vapors are or may be present in the air in sufficient quantities to produce explosive or ignitable mixtures. Group D atmospheres are: gasoline, hexane, naphtha, benzene, butane, benzol, propane, alcohol, acetone, lacquer, solvent vapors, and natural gas.

**Class II Locations** — are hazardous because of the presence of mixtures of combustible dust. Group F atmospheres contain carbon black, coal or coke dust. Group G atmospheres contain flour, starch or grain dust.

间接性工作线圈

是指设计一个占空比的工作线圈，不需要持续工作。

温升

指当电磁阀通电时线圈的温度值减去常态时温度值，就称为温升值。

**Insert** — 在通道口用了密封的柱塞组件

## 定义和术语 (续)

### Insert Material - Color coded for easy identification

**Buna-N** — a soft synthetic rubber used as the standard insert material in Peter Paul valves.

**Kel-F** — a synthetic plastic material used for many semi-corrosive media.

**Neoprene** — a soft synthetic rubber used as an insert material on certain types of Freons.

**Nordel** — a soft synthetic rubber used as an insert material on certain water and steam applications.

**Nylon** — a synthetic plastic material used for semi-corrosive media where Kel-F is not suitable.

**Teflon** — a synthetic plastic material used for semi-corrosive media where Kel-F or Nylon is not suitable.

**Viton** — a soft synthetic rubber used for high temperature and with many fluids not handled by Buna-N or Nordel.

**Leakage, External** — the leakage between the internal part of the valve and the external part of the valve. All Peter Paul valves have no external leakage.

**Leakage, Internal** — the leakage between the internal sealed ports of a valve in either the energized or de-energized position. All Peter Paul Standard Valves with standard (Buna-N) inserts are bubbletight when applied as rated.

**Manual Override** — a mechanical device that permits manual opening of normally closed valves or closing of normally open valves.

**Metering** — a mechanical device that permits manual adjustment of fluid flow through a valve. Sometimes referred to as speed control.

**Oxygen Service** — valves **specified** for use with oxygen are furnished free of any oil. Special cleaning may be required and should be so specified.

**Port** — an opening or passageway for the inlet or outlet of fluid in a valve. The terminus of the port is threaded with National Pipe Threads (NPT) to accommodate line connection. A port designated with an NPTF port indicates one with dry seal threads. A port designated with a PTF indicates one with short dry seal threads.

**Port, Cylinder** — a port which provides a passage to or from an actuator. This port is a common port and in multi-purpose valves is called a common port.

**Port, Exhaust** — a port which provides a passage to the atmosphere, or the return lines of a system.

**Port, IN** — a port which provides a passage from the source of fluid.

**Port, OUT** — the port where the fluid leaves the two-way valve.

**Port, normally closed** — the port that is closed to fluid flow when the valve is de-energized.

**Port, normally opened** — the port that is open to fluid flow when the valve is de-energized.

**Power Consumption** — the number of watts a solenoid valve draws when it is energized.

**Pressure** — is a potential force used as a propellant of air or fluid. Pressure is induced into a system by means of a pump, compressor, or by gravity. Absolute pressure is measured in pounds per square inch absolute (PSIA). Absolute pressure is the reference of pressure with 0 used as a base. Gauge pressure (or PSIG) is the reference of pressure with 14.7 pounds per square inch at sea level as a base.

**Pressure, Burst** — is the minimum pressure that would cause the weakest section of the valve to fail and cause external leakage.

**Pressure, Differential (Drop)** — is the difference in pressure measured between any two given points.

**Pressure, Maximum Operating Pressure Differential** — the maximum difference in pounds per square inch between the pressure at INlet port and the pressure at OUTlet port at which a solenoid will operate, either to open or to close one or more ports when energized or de-energized.

**Pressure, Proof** — is that pressure which may cause malfunction of the valve without permanent damage, i.e., the valve will operate properly when the pressure is reduced to normal operating range.

### Pressure, Ratings:

**Higher than Standard** — are pressure ratings which can be made available through minor changes on a solenoid valve. In most cases, this is possible only when UL approval is not a factor.

**Standard Catalog** — are pressure ratings established to conform to Underwriters' Laboratories, Inc., and to do so under the most adverse conditions of pressure, low or high voltage, maximum heat rise, etc. The standard ratings listed in this catalog should be considered as conservative.

**Response Time** — the length of time required for the operating mechanism of a valve to move from the fully closed position to the fully open position, or vice versa. Response time will vary according to pressure, media, voltage and system. The response times shown in the catalog are based on average conditions.

## U. L.和CSA条款的术语和目录

Most standard Peter Paul series 20, 30, and E20 are U.L. and CSA listed. **All** Peter Paul Valves, including those not U.L. and CSA listed, use the high standards of U.L. as the minimum standard for performance. A copy of the U.L. and CSA cards regarding Peter Paul's valve listings is enclosed. The valves are listed under the following U.L. and CSA Guide Numbers and categories:

1. U.L. Guide No. 440 A5 (Valves Electrically Operated) Safety and General Purpose Valves.
2. U.L. Guide No. 440 A5-C (Component-Valves, Electrically Operated) Safety and General Purpose Valves.
3. U.L. Guide No. 440 AO (Valves, Electric, For Use in Hazardous Locations) Safety and General Purpose.
4. U.L. Guide No. 384 OO (Solenoids for Use in Hazardous Locations).
5. CSA Guide NO. 440-A-O, Class 3221 (Solenoid Valves)

Some terms and nomenclature as defined and used by Underwriters' Laboratories, Inc.:

**General Purpose Valve** — a valve intended to control the flow of a fluid, but not depended upon to act as a safety valve. It may be normally closed or a normally open valve.

**Safety Valve** — a normally closed valve of the “on” and “off” type intended to be actuated by a safety control or by an emergency device to prevent the unsafe delivery of a fluid. It may also be used as a “general purpose valve.”

**Hazardous Fluids** — gases and liquids which are usually considered to be combustible, highly corrosive, or toxic such as acetylene, strong acids and alkalis, ammonia, anesthetics, liquefied petroleum, manufactured and natural gases, combustible oils, oxygen, etc.

**Hazardous Locations** — locations in which “hazardous fluids” may be present in the air in sufficient quantities to produce explosive or ignitable mixtures.

Peter Paul Explosionproof Valves and Solenoids are U.L. listed for use in the following hazardous location groups as defined by Underwriters' Laboratories:

**Class I, Group A** — Atmospheres containing acetylene.

**Class I, Group B** — Atmospheres containing acrolein, butadiene, ethylene oxide, hydrogen, propylene oxide.

**Class I, Group C** — Atmospheres containing ethyl-ether vapors, ethylene or cyclopropane.

**Class I, Group D** — atmosphere containing gasoline, hexan, naphtha, benzine, butane, propane, alcohol, acetone, benzol, lacquer, solve vent vapors, or natural gas.

**Class II, Group E** — atmospheres containing metal dust, including aluminum, magnesium, and their commercial alloys, and other metals of similarly hazardous characteristics.

**Class II, Groups F and G** — atmospheres containing carbon black, coal or coke dust, flour, starch or grain dust.

### **PETER PAUL ENCLOSURES FOR VARIOUS NEMA REQUIREMENTS:**

NEMA (National Electrical Manufacturers Association) Standards for Electrical Enclosures are defined as listed below. The specific Peter Paul housing arrangements that meet these requirements are described below.

#### **NEMA 1. GENERAL PURPOSE**

To prevent accidental contact, protection from dust, but not dust tight. All Peter Paul standard housings, with **non-molded** or **molded** coils meet this requirement.

#### **NEMA 2. DRIP TIGHT**

To prevent accidental contact and to exclude falling moisture or dirt, Peter Paul **J.I.C. housing** with **non-molded** or **molded** coils are suitable.

#### **NEMA 2. DRIP PROOF**

To prevent accidental contact and protection against falling moisture or spray from interfering with operation. All Peter Paul standard housings with **molded** coil or Peter Paul **J.I.C. housing** with **non-molded** or **molded** coils meet this requirement.

#### **NEMA 3. WEATHER RESISTANT**

To provide suitable protection against falling moisture or spray from interfering with operation. All Peter Paul standard housings with **molded** coil or Peter Paul **J.I.C. housing** with **non-molded** or **molded** coils meet this requirement.

#### **NEMA 4. WATER TIGHT**

To provide entrance of water after a specific hose test. Peter Paul **J.I.C. housing with non-molded coil**, **molded**, or potted coil meets this requirement.

#### **NEMA 5. DUST TIGHT**

To prevent entrance of dust by use of gaskets or equivalent. Peter Paul **J.I.C. housing** meets this requirement with **non-molded** or **molded** coil, or potted coil.

## U. L.和CSA条款的术语和目录

### NEMA 6. SUBMERSIBLE

Constructed so that it will operate successfully when submerged in water under specific conditions of pressure and time. Liquid potted coils meet this requirement.

### NEMA 7. — AND UNDERWRITERS' LAB. CLASS I — GROUP D — EXPLOSION PROOF

Where flammable gases are present, specifically, gasoline, hexane, naphtha, benzine, butane, propane, alcohol, acetone, benzol, lacquer solvent vapors and natural gas.

**Non-molded** or **molded** coils in Peter Paul explosion proof valves meet this requirement.

### NEMA 8.

As above (NEMA 7) except unit is oil immersed. Peter Paul **explosion proof valves with molded coils** meet this requirement. (Class I - Group D and Class II - Group F and G.)

### NEMA 9 AND 9A AND UNDERWRITERS' LAB CLASS II— GROUP F AND G

Where combustible dust is present. Specifically, Group F (carbon black, coal or coke dust) and Group G (flour, starch and grain dust). **Non-molded** or **molded** coils in Peter Paul explosion proof valves meet this requirement.

### 线圈温升等级表

Class A	105 C / 221 F
Class B	130 C / 226 F
Class F	155 C / 311 F
Class H	180 C / 356 F
Class N	200 C / 392 F
Class C	220 C / 428 F



## 电磁阀的类型和功能

The basic Peter Paul Valves are electromagnetically actuated, direct operating, solenoid-type valves with resilient inserts that seal upon the orifice.

**De-energized** - When a valve is de-energized it is said to be in its “normal condition” and no current flows through the electrical coil winding.

**Energized** - When current is permitted to flow through the coil and the resultant magnetic flux overcomes the fluid pressure and spring force and brings the plunger up against the stop.

**Normally Closed Valve** - a valve in which the inlet orifice is closed when the coil is de-energized and open when the coil is energized.

**Normally Open Valve** - a valve in which the inlet orifice is open when the coil is de-energized and closed when the coil is energized.

**Multi-Purposed Valve** - a valve which has combinations of normally closed, normally open or normally closed and normally open orifices in one valve unit which are opened or closed by energizing or de-energizing the coil.

**Directional Control Valve** - a valve in which the inlet is open to the normally closed port when the coil is energized.

**Two-Way Valve** - a valve that has a single orifice which may be normally open or normally closed.

Refer to the cross-sectional drawings on the following pages for the desired valve description.

**Two-Way Normally Closed (2 W.N.C)** - a valve in which the orifice is closed in the de-energized position and no flow can exist between the inlet and outlet ports.

**Two-Way Normally Open** - (2 W.N.O.) - a valve in which the orifice is closed in the de-energized position and no flow can exist between the inlet and outlet ports.

**Two-Way Dual Purpose Valve** - (2 W.D.P.) - a valve that will function properly with rated pressure at either the IN port or OUT port in the energized or de-energized position.

**Three-Way Valve** - a valve that has two orifices and three ports. One orifice is always open when the other is closed and one port is always open to one of the other two ports. Flow is controlled by opening or closing either of the two orifices.

**Three-Way Normally Closed** - (3 W.N.C.) - a valve in which inlet orifice is closed and the exhaust orifice is open in the de-energized position. No flow can exist between the inlet cylinder ports. Full flow can exist between the cylinder and exhaust ports.

**Three-Way Normally Open (3 W.N.O.)** - a valve in which the inlet orifice is open and the exhaust orifice is closed in the de-energized position. Full flow can exist between the cylinder and exhaust ports.

**Three-Way Directional Control (3 W.D.C.)** - a valve in which the inlet is open to the normally open port when the coil is de-energized and open to the normally closed port when the coil is energized.

**Three-Way Multi-purpose (3 W.M.P.)** - a valve in which will function as three-way normally open, as three-way normally closed, and three-way directional control, depending on piping hookup.

**Direct Action Valve** - a valve in which flow is controlled directly by the plunger and the spring in the magnetic circuit and is not dependent on any other factors. There are only two moving parts.

**Internal Pilot-Operated Valve** - a valve that operates on a minimum and maximum pressure differential and uses a small orifice size “direct acting” valve to open and close a much larger main orifice size valve. The main orifice is operated and closed by pressure differential across a diaphragm, spool or piston built into the main valve body.

**External Pilot-Operated Valve** - a valve that operates in a similar manner to the internal type except that the pilot valve operated from a separate source of pressure.

**Servo-Valve** - a valve sometimes referred to as a “proportioning valve.” The extent of orifice opening or flow is controlled by extent or amount or electrical signal inputs.

## 柱塞组件密封材质

### Color Coded for easy Identification

The information is a general guide and can be changed due to media and type of valve being considered.

Type	General Purpose Buna N		FKM		Neoprene®		EPDM	
Code #	Code.	Duro.	Code.	Duro.	Code.	Duro.	Code.	Duro.
Durometer	A	(80-90)	V	(70-80)	G	(75-85)	U	(80-90)
	B	(70-80)	I	(80-90)	R	(70-80)	X	(70-80)
	C	(55-65)	N	(90-95)	L	(80-90)		
	D	(70-80)						
	H	(70-80)						
	P	(90-100)						
Property	Acrylonitrile Rubber		Fluoroelastomer		G. N.		Ethylene-Propylene Elastomer	
Oil Resistance	Excellent up to 225 F.		Excellent up to 400 F.		Good up to 225 F.		Fails	
Water Resistance	Excellent up to 150 F.		Good up to 180 F.		Good up to 150 F.		Excellent 210 F.	
Air Resistance	Excellent up to 180 F.		Excellent up to 350 F.		Excellent up to 180 F.		Good (no oi) up to 180 F.	
Abrasion Resistance	Excellent		Excellent		Excellent		Good	
Age Resistance	Excellent		Good		Excellent		Excellent	
Steam Resistance	Fail		Fail		Fail		Good (to 300 F.)	
Low Temp Range	-40 to -65 F.		+10 to -10 F.		-40 to -65 F.		-40 to -60 F.	
High Temp. Cont. Duty	+230 to +240 F.		+325 to + 350 F.		+230 to +240 F.		+250 to +300 F.	
High Temp. Int. Duty	+25 to +300 F.		+425 to +450 F.		+260 to +280 F.		+350 to +400 F.	

### COMPENSATED PLUNGERS

Peter Paul supplies compensated plunger in all cases at no extra charge.

#### WHAT IS A "COMPENSATED PLUNGER"

The "Compensated Plunger" permits the top insert to move up and down thus providing long life and bubble-tight sealing at the top orifice. The design provides a metal-jacketed top insert that is spring loaded. This plunger is offered with various insert materials to suit different applications. It is offered with Standard Buna-N (no charge). FKM, EPDM, Neoprene, Teflon, Kel-F or Nylon insert material are available.

#### WHY A COMPENSATED PLUNGER IS USED

A general property of rubber products is to dry, shrink and harden with the application of heat. Another property is the change in volume and swelling that takes place in liquids. Various liquids and chemical formulations will affect different insert materials to varying degrees.

The specific advantages of a compensated plunger are when:

1. A liquid media is being used in a Three Way Valve or a Two Way Normally Open Valve.
2. A Three Way Valve or a Two Way Normally Open Valve is continuously energized for two hours or longer.
3. A Three Way Valve or a Two Way Normally Open Valve is operating at a high cycle rate (greater than 200 C.P.M.)
4. A Three Way Valve or a Two Way Normally Open Valve is operating at a long duty cycle (such as "On Time"=1 hour, "Off Time" = 10 minutes)
5. A Three Way Valve or a Two Way Normally Open Valve is "dead ending" (no flow when energized) for repetitive cycles that have an "On Time" greater than 1 1/2 hours.
6. A Three Way Valve or a Two Way Normally Open Valve is being used with media of excessive temperature.
7. A combination of the above-consult factory on any questionable applications.

### TYPE OF INSERT MATERIAL TO APPLY

Refer to the above table describing each insert material. Consult factory for any questionable applications and for other Seal Material options.

## Metering Options

When a critical or controlled amount of flow is required, a metering device is incorporated in the valve body. This allows adjustment of flow through the valve from nearly zero to fully open for pressures up to 300 PSI. If a metering device is required for higher pressures, consult the factory.

Two basic metering devices are offered. These are the “stem” (option “F”) and the “screw” (options “T” standard) and “A” (fine). Other metering functions offered are “metered by-pass” (option “W”) and “metered sleeve, to atmosphere” (option “U”).

## Standard Screw Type Metering (T)

This is a precision tapered screw and is used to adjust the flow of orifice sizes 3/64 to 1/8 inch. It can meter flow down to a degree of extremely low leakage. If bubble-tight leakage is required, consult the factory. This type of metering can be fabricated to meter the flow through the valve body cavity port or the valve body orifice port. Thus, if two 3 Way Valves are used to operate a double acting cylinder, the forward stroke, return stroke, or both strokes of the cylinder may be adjusted to obtain a given required operating speed by desired valve and metering selection. The “Standard” Screw-Type Metering travels from closed to full orifice opening in approximately 2 1/2 turns. Stock valves are fabricated to adjust orifice port flow.

## Fine Screw Type Metering (A)

This is a precision tapered screw to give fine adjustment of orifice sizes sizes 3/64 to 1/8 inch. The fine metering screw is 4 xs finer in adjustment than the standard. Thus if the standard metering takes 1/4 of a turn from closed position to obtain desired metering, the fine would take one full turn to adjust to the same point. The full adjustment range of the fine metering is approximately 2 1/2 turns (same as standard). It can adjust flow down to extremely low leakage (bubbles). If bubble-tight leakage is required, consult the factory.

## Stem Type Metering (F)

This metering device is for orifice sizes 5/32 to 1/4 inch. Seven full turns are required to fully open a 1/4 inch valve body orifice. This metering device can not be adjusted to bubble-tight leakage and is only offered as an orifice port metering device.

## Metered By-Pass (W)

This type of metering device is offered when an adjustable flow is required to pass through the valve regardless of whether the valve is energized or de-energized and whether the orifice being opened or closed. Thus a by-pass with a metering device is fabricated into the valve body. Consult the factory with specific requirements.

## Adjustable Sleeve Exhaust (U)

This is a metering device that is placed in the top of the sleeve assembly and exhausts to atmosphere. This is particularly useful in adjusting an air operated cylinder’s return stroke speed.

All metering options are described and listed in that section of the catalog. Metering location is considered standard as listed. Check customer’s location requirement. Apply standard location, if at all possible. The metering can be offered with directly opposite location. If the quantity is large enough there will be no extra charge. If other locations are required consult the factory.

## Manual Override (Y)

This is mechanical device that permits a person to operate the valve by either hand or screwdriver. This is useful in case of a power failure or to assist in machine or system set-up or test.

The manual override location is listed in that section of the catalog. These locations are standard and are a stock item. The manual override can be offered with directly opposite location.

## GANG FEEDING OPTION

In application where numerous solenoid valves are connected to the same supply line, considerable savings can be achieved by eliminating fittings. This can be done by using a multi-ported valve body where one of the pipe ports is a feed-through supply.

Using this method, the feed-through ports can be connected in a line resulting in a simplified piping. Only one valve requires connection with the main supply line. This feature can be offered in a 2 Way or 3 Way valves.

## Application

Vending Machines: Where different valves are connected to the same water line, but the outlet feeds different circuits.

Packaging Machines: Where the air supply is required to actuate different cylinders at different times, but feed from the same source.

Automation: So that more valves can fit in a limited space.

## GANG FEEDING (continued)

### Specification:

Gang feeding can be applied in both 1/8 or 1/4 NPT pipe ports.

Applicable on series 20 and 30 valve lines.

Gang feeding can be applied on 2 Way or 3 Way valves.

**Connecting Pipe:** Standard straight pipe 1/8 or 1/4 NPT with a minimum length of 1.0 inch.

**2 Way Normally Closed:** Two inlet ports and one outlet port. Valve can be fed from either of the inlet ports, while the other inlet port is connected with the inlet port of the next valve in the line.

**3 Way Normally Closed:** Two inlet ports and one cylinder and exhaust port. One inlet port is connected with the next valve's inlet port. If the two valves are "ganged" it is equivalent to a 4 Way Valve.

**Directional Control:** Two inlet ports and one N.C. and one N.O. port. One of the inlet ports is connected to the next valve in line and a multi-directional valve is obtained. (More than 2 directions, depending on the number of valves.

**Orifice Size:** Any valve body with standard orifice can be supplied.

## VALVES FOR MANIFOLD MOUNTING

Peter Paul Electronics Co. produced two types of Solenoid Valves which can be mounted on a manifold.

### Bottom Mounted Manifold Feed: (Print No. 20-3025)

Suitable for applications where the valve's body can be mounted by using two 10-32 holding screws at the bottom of the valve body. The advantage of this method is the economical utilization of space, lower cost and immediate availability.

### Flange Mounted Manifold Feed: (Print No 20-3012)

Suitable for application where the valve's body has to be mounted from the upper end (Face) of the manifold. Since mounting is accomplished by a flange, the space requirement is greater than the bottom mounted manifold feed. Customer must use the two locating holes to avoid mis-application.

**Sleeve Port:** Since the sleeve port is not part of the valve body, its connection to the manifold, if necessary, has to be made by using copper tubing or by using flexible hoses.



## COIL TYPES

Peter Paul manufactures all coil in our own plant to rigid manufacturing and quality standards. This makes for excellent availability and delivery of all types for all voltages.

The only coils presently U.L. listed are types V and M.

**Non-Molded (Type V)**—Class A rated at 105° C.—IEEE\* and 110° C. Continuous & 125° C. Intermittent—U.L.

**Molded (Type M)**—Class F rated at 155° C.—IEEE\* and 110° C. Continuous & 125° C. Intermittent—U.L.\*\* The coils are moisture proof.

**High Temperature Molded (Type H)**—Class H rated at 180° C.—IEEE\* and 160° C. Continuous & 175° C. Intermittent—(Non-Published) U.L.\*\* The coils are moisture resistant.

**POTTED (Type P)**—Class F rated at 105°—IEEE\* and 110° C. Continuous & 125° C. Intermittent—U.L.\*\* Peter Paul Rating\*\*\* 125° Continuous. The unit is water proof.

**\*IEEE\***—The temperatures listed are the limiting temperature definitions by this organization for insulation material categories.

**\*\*U.L.**—The temperatures listed are the maximum permissible temperatures for the total of coil resistance temp, rise and ambient temp for the complete coil.

## COIL SELECTION FOR SERIES 20, 30, 40, 50 & 70 VALVES

In selecting coils for various “odd voltage” requirements, the following formula should be observed.

If an applied voltage (A.C.) falls between the rated voltage of two coils (rated voltage appears on Coil Charts), take 40% of the difference in voltage between the two coils and add to the lower voltage rating. If the resulting figure is equal to or larger than the applied voltage, the coil with the lower voltage rating should be used. If the resulting figure is smaller than the applied voltage, the coil with the higher voltage rating should be used.

Example: Field Voltage	130v/60cy.
The 2C-115 Coil has a rated voltage of	138v/60y.
The 2C-114 Coil has a rated voltage of	120v/60y.
	18v (difference)
40% of 18 Volts	.....7v
120v (lower volt. rating)	
127 v is the max. 60 cy.	
Voltage for 20C-114	

Therefore, a 2C-115 coil should be used with a field Voltage of 130 volts 60 cycles.

Coils selected under the above formula will operate successfully at 10% below and 10% above the nominal applied voltage.

This general rule for coil selection should only be used with “Standard Valves” in the Series 20, 30, 40, 50, & 70 operated under “Standard Conditions”. For clarity, definition of what is meant by “Standard Valves” and “Standard Conditions” follows.

Non-Molded



Molded



Potted



## 技术信息

### General

The following table will assist in determining the suitability of Peter Paul valves for a wide range of common media.

### Media Variables

Quite often the exact chemical composition, concentration or application conditions can vary the corrosive effect of some media. In these cases Peter Paul must be consulted and the code note (PP) appears. When requesting recommendations in these cases the following information must be provided.

1. Exact composition of media.
2. Concentration of media.
3. Temperature range.
4. Pressure range.
5. Length of exposure.
6. Allowable Leakage.
7. Valve life expectancy.

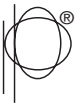
### Uncommon Media

Often requests are received to recommend valves for media with which we've had no prior experience and which do not appear in tables furnished by the Steel, Rubber and Plastic manufacturers.

In such cases the prospective customer is often in the best position to know what materials are compatible. Thus, there is a table that follows listing Peter Paul Valve materials.

### Note

- (1.) The following recommendations are limited to Media whose temperature range between 0 F. and 180 F. Consult Peter Paul when either lower or higher temperatures are expected.
- (2.) Three-Way normally closed valves that exhaust to atmosphere are usually restricted to air service.



## 介质适用表

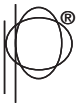
Media	2 W.N.C Series 20, 30 50, 70 & E20 S.S. Body	2 W.N.C. Series 20 & 30 Brass Body	2 W.N.O. & All 3 W. Series 20, 50, 70 & E20 S. S. Body	2 W.N.O. & All 3 W. Series 20 Brass Body
Acetic Acid	NR	NR	NR	NR
Acetone	PP	PP	PP	PP
Air (up to +180 F. to +300 F.)	V	V	V	V
Alcohol (Methyl)	PP	PP	PP	PP
Alcohol (General)	R	R	R	R
Alkali	PP	NR	PP	NR
Ammonia	PP	NR	PP	NR
Argon	R	R	R	R
Aromatic Amines	PP	NR	PP	NR
Benzene	V**	NR	V**	NR
Butane	R	R	R	R
Carbon Dioxide (Dry Gas)	R	R	R	R
Carbon Tetrachloride	V**	NR	V**	NR
Chlorinated Hydro-Carbon	PP	PP	PP	PP
Chlorine (Dry)	*PP	NR	PP	NR
Chlorine (Wet)	NR	NR	NR	NR
Citric Acid	NR	NR	NR	NR
Diesel Fuel	R	R	R	R
Ethers	R	R	R	R
Ethyl Acetate	PP	NR	PP	NR
Ethylene (Glycol)	R	R	R	R
Formaldehyde	K*	NR	K*	NR
Freon - 11	K	NR	K	NR
Freon - 12	R	R	R	R
Freon - 22	N	N	N	N
Freon - (Other)	PP	PP	PP	PP
Fuel Oil	R	R	R	R
Gasoline (High Test)	V**	V**	V**	V**
Gasoline (Low Test)	R	R	R	R

### CODE

- R = Recommended
- NR = Not Recommended
- PP = Consult Peter Paul
- V = FKM Plunger Inserts
- N = Neoprene® Plunger Inserts
- T = Teflon® Plunger Inserts
- NE = Nordel Plunger Inserts

# Air & Inert Gases—if application involves continuous energization of valves Type “V” inserts should be used to prolong valve life on 3 Way applications. Do this also if “dead ending” (no flow when energized).

- \* Teflon® Flange Seal
- \*\* With FKM Flange Seal
- \*\*\* Aluminum Shading Ring



## 介质适用表

Media	2 W.N.C. Series 20, 30 30, 50, 70 & E20 S.S. Body	2 W.N.C. Series 20 & 30 Brass Body	2 W.N.O. & All 3 W. Series 20, 50, 70 & E20 S. S. Body	2 W.N.O. & All 3 W. Series 20 Brass Body
Hydraulic Oil				
Non-Flammable	NR	NR	NR	NR
Standard	R	R	R	R
Hydrochloric Acid	NR	NR	NR	NR
Hydrogen	R	R	R	R
# Inert Gases	R	R	R	R
JP4 - JET Fuel	V	V	V	V
JP5 - JET Fuel	V	V	V	V
Kerosene	R	R	R	R
Ketones	PP	NR	PP	NR
Lacquer	PP	PP	PP	PP
Linseed Oil	R	R	R	R
Lubrication	R	R	R	R
Mercury	R***	NR	R***	NR
Natural Gas	R	R	R	R
Nitric Acid	PP	NR	PP	NR
Nitrogen	R	R	R	R
Oxalic Acid	NR	NR	NR	NR
Oxygen	R	R	R	R
Phosphoric Acid	NR	NR	NR	NR
Propane	R	R	R	R
Salt Water	R	RR	R	PP
Sodium Hydroxide	NR	NR	NR	NR
Solvents	PP	PP	PP	PP
Steam	PP	NR	PP	NR
Toluene	PP	PP	PP	PP
Water				
Under +175 F.	R	R	NI	NI
Over +175 F.	NI	NI	NI	NI

### CODE

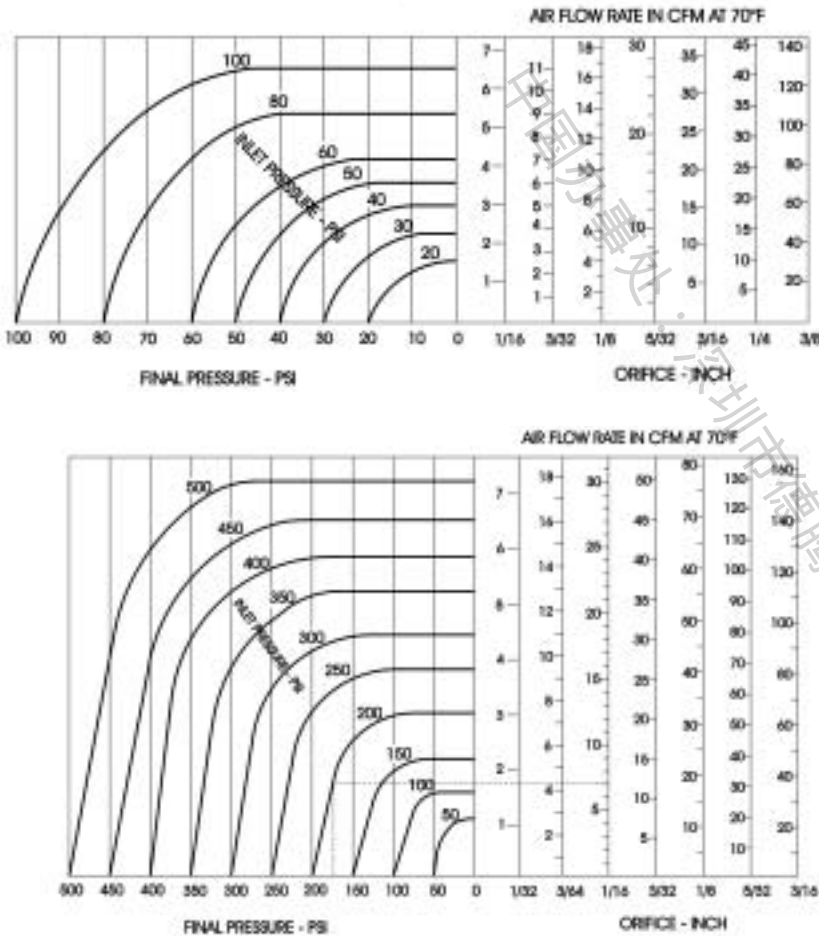
- R = Recommended
- NR = Not Recommended
- PP = Consult Peter Paul
- V = FKM Plunger Inserts
- K = KeL-F® Plunger Inserts
- N = Neoprene® Plunger Inserts
- T = Teflon® Plunger Inserts
- NE = Nordel Plunger Inserts

# Air & Inert Gases—if application involves continuous energization of valves Type “V” inserts should be used to prolong valve life on 3 Way applications. Do this also if “dead ending” (no flow when energized).

- \* Teflon® Flange Seal
- \*\* With FKM Flange Seal
- \*\*\* Aluminum Shading Ring



## 20、30系列电磁阀气体流量曲线图



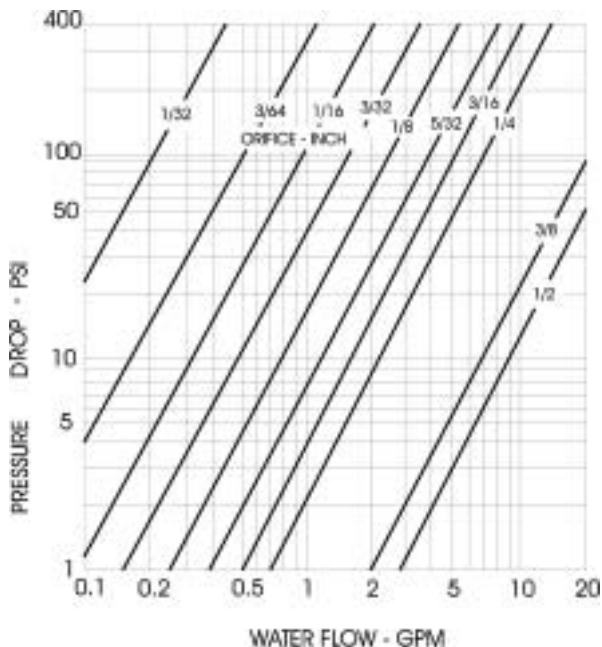
### AIR FLOW EXAMPLE

This chart directly correlates the anticipated air flow rate to initial pressure, final pressure and pressure drop for a given orifice.

**EXAMPLE:** Find the two-way normally closed valve than can deliver 5 CFM of air at 70°F and 200 PSIG inlet pressure if the pressure drop across the valve is 25 PSI. On the valve pressure rating chart you find that a 1/16 orifice is recommended for 200 PSI pressure drop. Draw a vertical line (dotted line) from 175 PSI "final pressure" line up to the curve of initial pressure 200 PSI. Draw a horizontal line from this point to the 1/16" orifice scale. Read the flow rate -7.3 CFM.

The chart also can be used to establish required pressure drop if orifice size and required flow is known. Merely reverse the above procedure. When low pressure is involved, it is easier to obtain accurate flow rate using the enlarged flow chart.

## 20、30系列电磁阀水流量曲线图



### WATER FLOW EXAMPLE

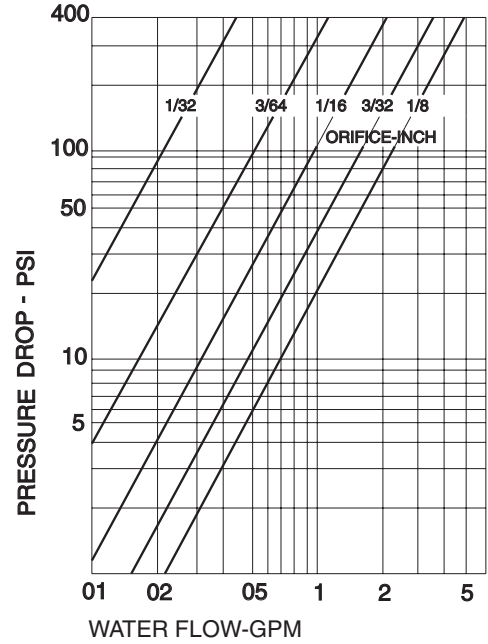
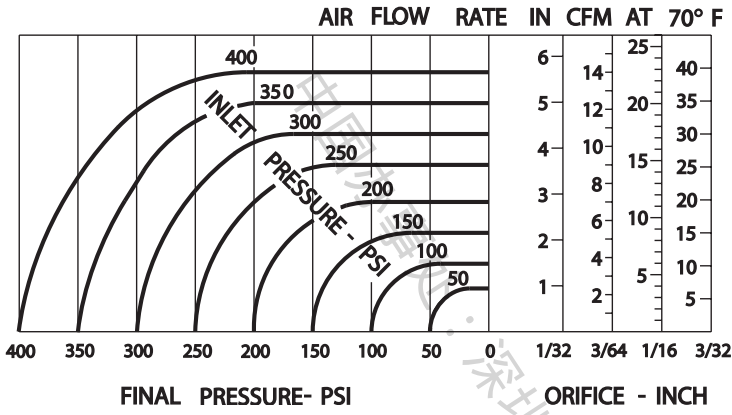
This chart directly gives the anticipated water flow if the orifice size and pressure drop are known.

**EXAMPLE:** Establish the flow through a 1/8" orifice, two-way, normally closed valve if the inlet pressure is 80 PSIG, and the outlet pressure in 70 PSIG.

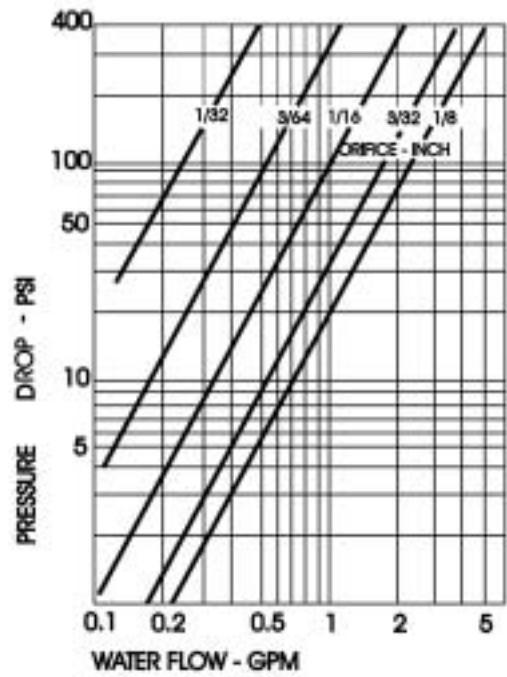
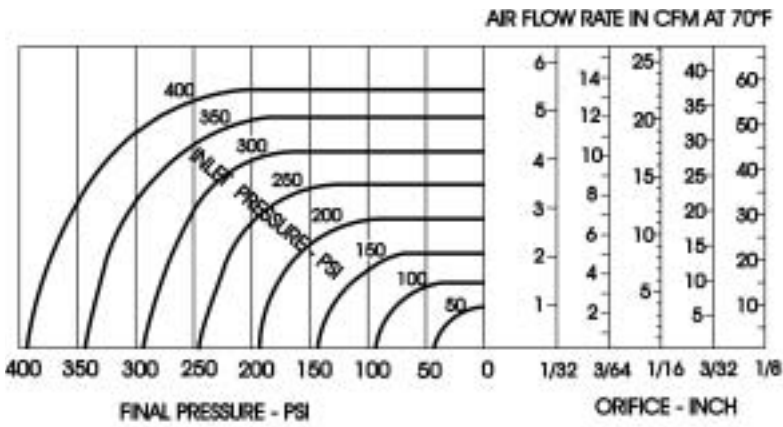
The pressure drop across the valve is 80-70 or 10 PSIG. At the intersection of the 10 PSIG and the 1/8" orifice lines (dotted lines) drop down to the flow scale and read 0.8 GPM.

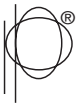


## 15系列电磁阀流量曲线图

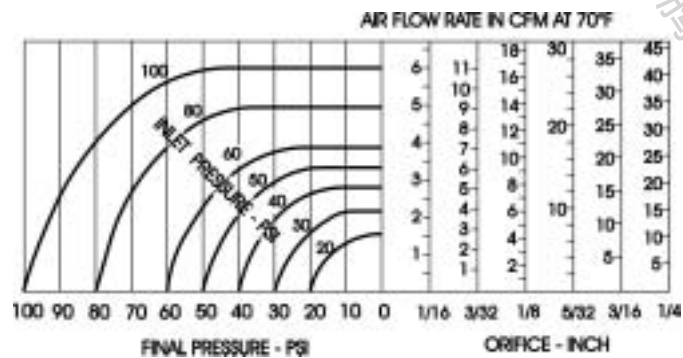
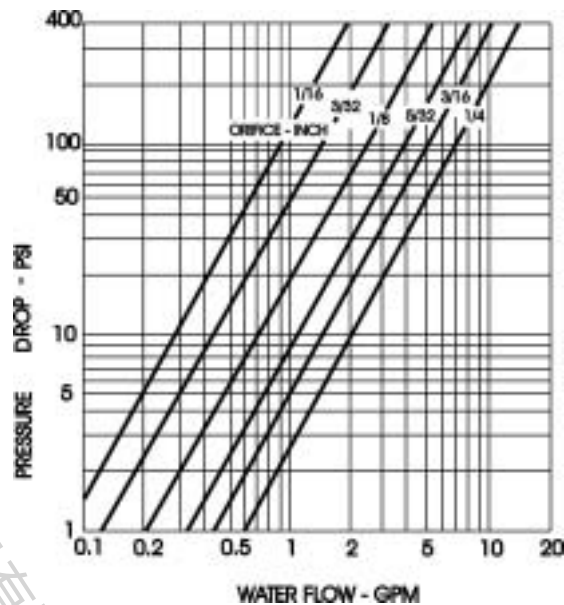
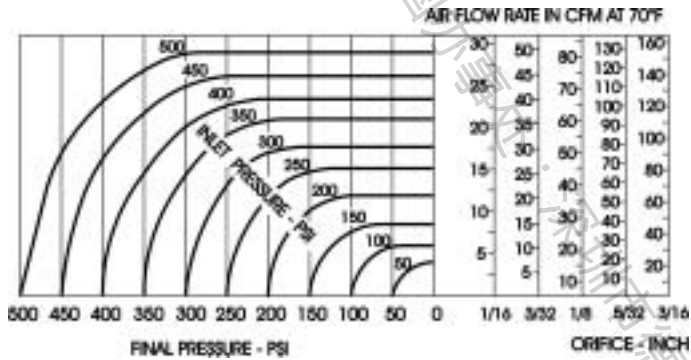


## 50系列电磁阀流量曲线图

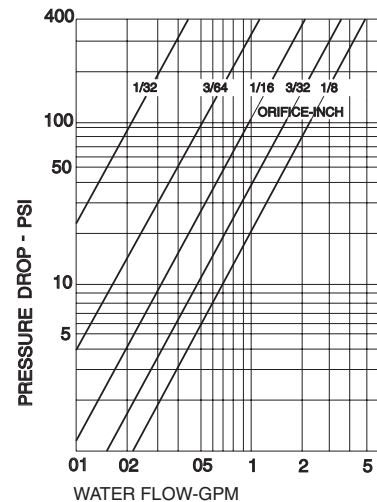
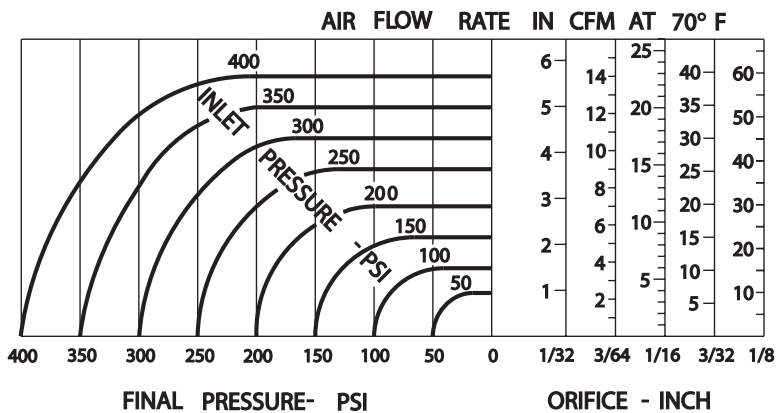




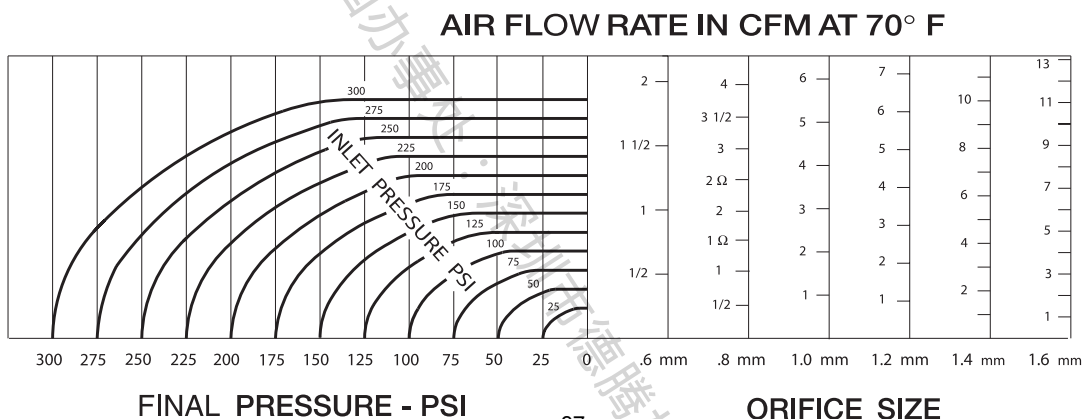
### 70系列电磁阀流量曲线图



### 40系列电磁阀流量曲线图



### 58系列电磁阀流量曲线图



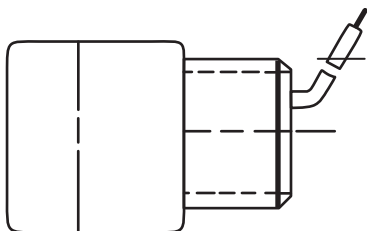
## 线圈 电压和频率

线圈图表显示了适用不同频率的电压。在订货时指定下面列出了的电压和频率。未列出的电压和频率请向厂家咨询。

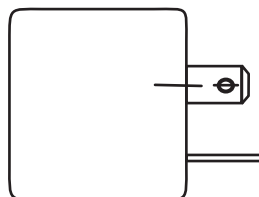
### 15系列线圈与电压图表

交流电压		直流电压	管道引线风格	线头引线风格	DIN* 欧式风格
60 HZ.	50 HZ.	VOLTAGES	COIL NO.	COIL NO.	COIL NO.
8.4	7.7	5.0	15-17040-3	15-17039-3	*15-17034-3
4.8	4.4	3.0	15-17040-4	15-17039-4	*15-17034-4
9.7	8.9	6.0	15-17040-5	15-17039-5	*15-17034-5
12.0	11.0	8.0	15-17040-6	15-17039-6	*15-17034-6
19.5	18.0	12.0	15-17040-9	15-17039-9	*15-17034-9
24.0	22.0	16.5	15-17040-10	15-17039-10	*15-17034-10
38.0	35.0	24.0	15-17040-13	15-17039-13	*15-17034-13
43.0	40.0	28.0	15-17040-14	15-17039-14	*15-17034-14
76.0	70.0	48.0	15-17040-15	15-17039-15	*15-17034-15
120	110	82.0	15-17040-16	15-17039-16	*15-17034-16
61.0	56.0	38.0	15-17040-17	15-17039-17	*15-17034-17
100	91.0	68.0	15-17040-18	15-17039-18	*15-17034-18
240	220	165	15-17040-19	15-17039-19	*15-17034-19
277	255	180	15-17040-20	15-17039-20	*15-17034-20
141	127	102	15-17040-E17	15-17039-E17	*15-17034-E17
260	240	175	15-17040-E21	15-17039-E21	*15-17034-E21
26	24	17.0	15-17040-E10	15-17039-E10	*15-17034-E10
131	120	86.0	15-17040-E16	15-17039-E16	*15-17034-E16
48.0	45.0	30.0	15-17040-12	15-17039-12	*15-17034-12
208	187	140	15-17040-21	15-17039-21	*15-17034-21
58	53	36.0	15-17040-24	15-17039-24	*15-17034-24
214	194	125	15-17040-25	15-17039-25	*15-17034-25
155	140	107	15-17040-E18	15-17039-E18	*15-17034-E18

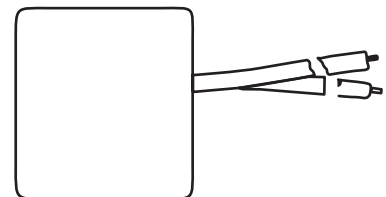
\* Din Connector No. 50-17029 not included with coil



管道引线风格  
CONDUIT STYLE

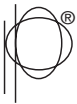


欧式风格  
EUROPEAN STYLE



线头引线风格  
LEADED STYLE





# SOLENOID VALVES . . .

线圈图表显示了适用不同频率的电压。在订货时指定下面列出了的电压和频率。未列出的电压和频率请向厂家咨询。

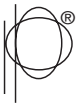
## 20、80系列线圈图表

交流电压		直流电压	非模压线圈	模压线圈
60 HZ.	50 HZ.			
6	5	1.8	2C-102-A24	2C-2-K24
7	6	2.2	2C-103-A24	2C-3-K24
12	10	3.7	2C-104-A24	2C-4-K24
14	12	4.4	2C-105-A24	2C-5-K24
19	17	6	2C-106-A24	2C-6-K24
24	21	7.5	2C-107-A24	2C-7-K24
28	24	9	2C-108-A24	2C-8-K24
30	26	9.5	2C-109-A24	2C-9-K24
38	33	12	2C-110-A24	2C-10-K24
48	42	15	2C-111-A24	2C-11-K24
55	48	18	2C-112-A24	2C-12-K24
77	67	24	2C-113-A24	2C-13-K24
120	100	38	2C-114-A24	2C-14-K24
138	120	45	2C-115-A24	2C-15-K24
157	135	48	2C-116-A24	2C-16-K24
240	208	75	2C-117-A24	2C-17-K24
360	314	115	2C-118-A24	2C-18-K24
380	330	120	2C-119-A24	2C-19-K24
480	415	150	2C-120-A24	2C-20-K24
575	500	187	2C-121-A24	2C-21-K24
730	635	240	2C-122-A24	2C-22-K24
825	720	265	2C-123-A24	
400	345	125	2C-125-A24	2C-25-K24
204	175	60	2C-126-A24	2C-26-K24
265	230	80	2C-127-A24	2C-27-K24
110	95	35	2C-130-A24	2C-30-K24
650	560	220	2C-131-A24	2C-31-K24
175	155	55	2C-132-A24	2C-32-K24
85	75	28	2C-133-A24	2C-33-K24
145	127	45	2C-134-A24	2C-34-K24
600	517	188		2C-35-K24
16	14	4.8	2C-136-A24	
320	275	100		2C-37-K24
120/240	(dual voltage coils)		2C-138-A24	(Non-molded only)
240/480	(dual voltage coils)		2C-139-A24	(Non-molded only)
120	110	42	2C-140-A24	2C-40-K24
24	24	7	2C-141-A24	2C-41-K24
240	220	77	2C-143-A24	2C-43-K24
220	188	65	2C-144-A24	2C-44-K24
230	200	67	2C-145-A24	2C-45-K24
67	60	20	2C-146-A24	2C-46-K24
<b>防爆线圈</b>				
126	110	42	2CE-114-A24	2CE-14-K24
135	115	44	2CE-115-A24	2CE-15-K24
255	220	78	2CE-116-A24	2CE-16-K24
275	240	90	2CE-117-A24	2CE-17-K24
435	380	145	2CE-119-A24	2CE-19-K24
500	440	172	2CE-120-A24	2CE-20-K24
100	85	32	2CE-140-A24	2CE-29-K24
<b>二极管整流线圈</b>				
240			2CD-117-A24	
120			2CD-128-A24	
24			2CD-131-A24	
115/400			2CD-132-A24	
120	110		20-17067	
		24	20-17073	

线圈图表显示了适用不同频率的电压。在订货时指定下面列出了的电压和频率。未列出的电压和频率请向厂家咨询。

## 30系列线圈图表

交流电压		直流电压	非模压线圈	模压线圈
60 HZ.	50 HZ.			
6	5.2	2	3C-101-A24	3C-1-K24
7.8	6.7	2.5	3C-102-A24	3C-2-K24
9	7.7	3	3C-103-A24	3C-3-K24
			3C-104-A24	3C-4-K24
			3C-105-A24	3C-5-K24
12	10	4	3C-106-A24	3C-6-K24
16	14	5	3C-107-A24	3C-7-K24
18	15	6	3C-108-A24	3C-8-K24
24	20	7.8	3C-109-A24	3C-9-K24
27	23	9	3C-110-A24	3C-10-K24
37	32	12	3C-111-A24	3C-11-K24
48	40	15	3C-112-A24	3C-12-K24
100	85	33	3C-113-A24	3C-13-K24
73	60	24	3C-114-A24	3C-14-K24
82	70	28	3C-115-A24	3C-15-K24
120	100	40	3C-116-A24	3C-16-K24
145	127	48	3C-117-A24	3C-17-K24
140	120	47	3C-118-A24	3C-18-K24
240	204	80	3C-119-A24	3C-19-K24
325	280	115	3C-120-A24	3C-20-K24
345	295	120	3C-121-A24	3C-21-K24
480	410	160	3C-122-A24	3C-22-K24
575	500	200	3C-123-A24	3C-23-K24
630	540	230	3C-124-A24	3C-24-K24
360	310	125	3C-125-A24	3C-25-K24
204	175	65	3C-126-A24	3C-26-K24
110	95	38	3C-127-A24	3C-27-K24
650	560	240	3C-128-A24	3C-28-K24
185	157	60	3C-133-A24	3C-33-K24
63	54	20	3C-134-A24	3C-34-K24
79	68	26	3C-135-A24	3C-35-K24
76	65	25	3C-136-A24	3C-36-K24
<b>防爆线圈</b>				
14	12	4.8	3CE-106-A24	3CE-6-K24
28	24	9.5	3CE-109-A24	3CE-9-K24
57	48	19	3CE-112-A24	3CE-12-K24
128	110	42	3CE-116-A24	3CE-16-K24
255	220	90	3CE-119-A24	3CE-19-K24
280	240	95	3CE-120-A24	3CE-20-K24
440	380	150	3CE-122-A24	3CE-22-K24
515	440	185	3CE-123-A24	3CE-23-K24
<b>二极管整流线圈</b>				
120	110 & 120		3CD-116-A24	
240	220 & 240		3CD-130-A24	
24	24		3CD-131-A24	



线圈图表显示了适用不同频率的电压。在订货时指定下面列出了的电压和频率。未列出的电压和频率请向厂家咨询。

## 50系列线圈图表

交流电压		直流电压	非模压线圈	模压线圈
60 HZ.	50 HZ.			
6	5.4	3	5C-103-A24	5C-3-K24
7.8	7	3.8	5C-104-A24	5C-4-K24
8.5	7.7	4.4	5C-105-A24	5C-5-K24
12	11	6	5C-106-A24	5C-6-K24
14	13	7	5C-107-A24	5C-7-K24
18.5	17	9	5C-108-A24	5C-8-K24
24	22	12	5C-109-A24	5C-9-K24
32	29	16	5C-110A24	5C-10-K24
39	35	20	5C-111-A24	5C-11-K24
45	41	23	5C-112-A24	5C-12-K24
48	43	24	5C-113-A24	5C-13-K24
54	48	28	5C-114-A24	5C-14-K24
94	85	47	5C-115-A24	5C-15-K24
120	110	60	5C-116-A24	5C-16-K24
153	138	76	5C-117-A24	5C-17-K24
208	185	100	5C-118-A24	5C-18-K24
240	215	120	5C-119-A24	5C-19-K24
348	312	180	5C-120-A24	5C-20-K24
480	432	253	5C-121-A24	5C-21-K24
520	467	275	5C-122-A24	5C-22-K24
575	515	300	5C-123-A24	5C-23-K24
392	354	200	5C-124-A24	5C-24-K24
62	55	33	5C-127-A24	N/A
70	63	36	5C-130-A24	5C-30-K24
176	165	90	5C-131-A24	5C-31-K24
16	15	7.8	5C-132-A24	N/A
245	215	115	5C-141-A24	5C-41-K24

### 防爆线圈

6.7	6	3.5	5CE-104-A24	5CE-4-K24
13	12	7	5CE-107-A24	5CE-7-K24
26	24	14	5CE-110-A24	5CE-10-K24
100	91	49	5CE-115-A24	5CE-15-K24
111	100	57	5CE-116-A24	5CE-16-K24
141	127	72	5CE-117-A24	5CE-17-K24
223	200	118	5CE-119-A24	5CE-19-K24
245	220	125	5CE-120-A24	5CE-20-K24
270	240	143	5CE-121-A24	5CE-21-K24
425	380	230	5CE-122-A24	5CE-22-K24
490	440	252	5CE-123-A24	5CE-23-K24
256	230	139	5CE-124-A24	5CE-24-K24
460	415	240	5CE-125-A24	5CE-25-K24

### 二极管整流线圈

24	24		5CD-109-A24	
100	115/400Hz		5CD-116-A24	
240	220 & 240		5CD-119-A24	
120	110 & 120		5CD-124-A24	

### 双电压线圈

120/240			5C-125-B24	
240/480			5C-126-B24	

线圈图表显示了适用不同频率的电压。在订货时指定下面列出了的电压和频率。未列出的电压和频率请向厂家咨询。

## 70系列线圈图表

交流电压		直流电压	非模压线圈	模压线圈
60 HZ.	50 HZ.			
12	11	2.5	7C-101-A24	7C-1-K24
16	14	3.3	7C-102-A24	7C-2-K24
24	21	5	7C-103-A24	7C-3-K24
28	25	6	7C-104-A24	7C-4-K24
			7C-105-A24	7C-5-K24
41	37	8	7C-106-A24	7C-6-K24
48	43	10	7C-107-A24	7C-7-K24
55	49	12	7C-108-A24	7C-8-K24
97	87	20	7C-109-A24	7C-9-K24
110	98	24	7C-110-A24	7C-10-K24
120	110	26	7C-111-A24	7C-11-K24
140	124	28	7C-112-A24	7C-12-K24
150	135	32	7C-113-A24	7C-13-K24
240	220	50	7C-114-A24	7C-14-K24
204	182	46	7C-115-A24	7C-15-K24
395	355	82	7C-116-A24	7C-16-K24
480	430	100	7C-117-A24	7C-17-K24
540	485	120	7C-118-A24	7C-18-K24
575	515	125	7C-119-A24	7C-19-K24
1050	940	220	7C-120-A24	7C-20-K24
159	143	36	7C-121-A24	7C-21-K24
1150	1035	250	7C-122-A24	7C-22-K24
315	287	67	7C-123-A24	7C-23-K24
338	307	72	7C-124-A24	7C-24-K24
960	860	198	7C-125-A24	7C-25-K24

### 防爆线圈

13	12	2.7	7CE-102-A24	7CE-2-K24
26	24	5.3	7CE-104-A24	7CE-4-K24
53	48	11.5	7CE-107-A24	7CE-7-K24
100	90	21	7CE-109-A24	7CE-9-K24
112	100	25	7CE-110-A24	7CE-10-K24
140	127	30	7CE-113-A24	7CE-13-K24
255	230	53	7CE-114-A24	7CE-14-K24
265	240	60	7CE-115-A24	7CE-15-K24
420	380	92	7CE-116-A24	7CE-16-K24
490	440	102	7CE-117-A24	7CE-17-K24
225	204	48	7CE-120-A24	7CE-20-K24

### 二极管整流线圈

24	24		7CD-108-A24	
	115/400 Hz		7CD-114-A24	
120	110 & 120		7CD-115-A24	
240	220 & 240		7CD-118-A24	

**Valve Temperature Range:** STANDARD VALVES – 0°F (-18°C) to 104°F (40°C) ambient; 0°F (-18°C) to 150°F (65°C) media. OPTIONAL VALVES – can tolerate much higher or much lower ambient and media temperatures. Consult factory for specifics.



## 重要选型

外壳及线圈	选项号	15系列	20系列	30系列	50系列	70系列	管道引线
消除应力连接器	Q		✓	✓	✓	✓	Standard no-molded – Others Consult Factory
单自动	AS		✓	✓		✓	Requires potting – Consult Factory
双自动	AD		✓			✓	Requires potting – Consult Factory
“AD”连接器(二线)	S		✓	✓	✓	✓	Recommended potting/other option – Consult Factory
J.I.C.外壳	J		✓				
YOKE - 线索	Y		✓	✓	✓		Non-molded coil or Molded
安装支架	B	✓	✓	✓	✓	✓	Series 20 E.P. Special - Consult Factory
接线箱	N		✓	✓	✓	✓	
计量排气口	U		✓	✓			
计量排气口适配器	-		✓	✓			
内置消声器	V	✓	✓	✓	✓	✓	(For use with valve adapter)
屏蔽线圈	P		✓	✓	✓	✓	
铲形端子 - 模压线圈	KM		✓	✓	✓	n/a	
通用安装支架	20-2416	✓	✓	✓	✓	n/a	
顶部万向安装支架	B96	✓	✓	✓	✓	✓	
第三线为地线	CC		✓	✓	✓	✓	
防水密封	W		✓	✓	n/a	n/a	
铝合金扣环	A	✓	✓	✓	✓	✓	
银扣环	S	✓	✓	✓	✓	✓	Consult Factory for price fluctuations
E50不锈钢系列 防爆选项					✓		Consult Factory for details
EL50防爆系列 低功耗选项					✓		Consult Factory for details
EL50不锈钢 防爆、低功耗选项					✓		Consult Factory for details
ELL50超低功耗选项					✓		Consult Factory for details
时间选项没有添加任何数量			✓				S-20 European Coil. Consult Factory.

## VALVE BODY & PORT OPTIONS

Consult factory for minimum quantities

	OPTION CODE	SERIES					COMMENTS
		15	20	30	50	70	
Metering to 1/8" Orifice	T		✓	✓	✓	✓**	
Metering to 1/4" Orifice	F		✓			✓	
Metered Bypass	W		✓			✓	
Manual Override	Y		✓*			✓	
Bottom Orifice Port	R		✓	✓	✓	✓	
Bottom Cavity Port	O		✓	✓	✓	✓	
Port 90° Left	M		✓	✓		✓	
Manifold Mount	E	†	✓	✓	✓	✓	
Flange mount	H		✓			✓	
Port 90° Right	L		✓	✓			
Gang Feeding (3 Ported Body)	G		✓	✓			
10/32 Ports						✓	

\* Manual override not available in high pressure - Series 20 valves.

\*\* Possible only with 3/32 & 1/8 Orifice. (Restricts flow with 1/8 orifice.)

† Square aluminum body-top mounting. (Consult factory.)



## 电磁铁型号编码规则

第一组 字码	第二组 字码	第三组 字码	第四组 字码	第五组 字码	第六组 字码	第七组 字码	第八组 字码	第九组 字码
Operator Series Design	Type	Orifice	Sleeve Housing & Flux Plate Combination	Sleeve Option	Housing Options	Coil Options	VOLTAGE	FREQUENCY
O2-SER.20 OE2-Explosion Proof O3-SER. 30 O4-SER. 40 O5-SER. 50 OE5-Explosion Proof O7-SER. 70 OELW5S-Ser 50 OELS-Ser 50	1-2WNO 2-2WNC 3-3WNC 4-3WNO 5-Dir. Cont 6-Multi Purpose	G-1/32 H-3/64 J-1/16 K-3/32 L-7/64 N-1/8 O-5/32 P-3/16 U-7/32 R-1/4 S-5/16 T-3/8 V-5/64	A-Series 20 Only (Magnetic Body w/shoulder 1 9/16 Housing "A" Stop) B-Series 20 Only (Non-Magnetic Body w/shoulder 1 11/16 Housing Heavy Flux Plate "B" Stop) C-Series 20 Only (Magnetic or Non-Magnetic Body Flush Mounting 1 9/16 Housing Heavy Flux Plate "B" Stop)\ D-Series 15, 30, 50, 70, OE & J.I.C. Operators Only E-Series 20 (Magnetic or Non-Magnetic Body 1 7/16 Housing, Light Flux Plate "B" Stop) F-Series 20 Any Body KM Yoke "C" Stop	D-No Option U-Metered Exhaust Z-1/4" Sleeve Port Adapter X-1/8" Sleeve Port Adapter W-Spacer (Series 50 Only) UX-1/8" NPT Metered Port Adapter UZ-1/4" NPT Metered Port Adapter	B-Mounting Bracket C-Conduit G-Grommet J-J.I.C. Housing S-"AN" Connector Q-Strain Relief Y-Yoke AS-Single Automotive Housing AD-Double Automotive Housing N-Splice Box Housing K-Yoke for Spade Terminal Coil CC-Conduit w/3rd Wire Ground E-European Style Coil (DIN) V-E x H Muffler	V-Non Molded M-Molded H-High Temp. 180° C-High Temp. over 180° D-Diode Coil (STD) R-Diode Coil (Full Wave Bridge) P-Potted Coil (STD Temp) F-Potted Coil (Class H) Additional Options A-Aluminum Shading Ring S-Silver Shading Ring B-Non Molded (Series 50 only)	We Require full description Example: 120 or 240 volts	In A.C. application give full details Example: 60 or 50 HZ

EXMAPLE:  
O23NKAZBCM-120/60

O2	3	NK	A	Z	B C	M	120	60
SER.20 Valve Operator	3-Way Normally Closed Valve	1/8" Inlet 3/32 Exhaust Orifice	Series 20 Only (Magnetic w/Shoulder 19/16 Housing)	1/4" Sleeve Port Adapter	Bracket Conduit Housing	Molded Coil	120 Volt Line	A.C. 60 Hertz

型号如有变更，恕不另行通知。



## 电磁阀选型规则

(只适合58系列)

第一组 字码	第二组 字码	第三组 字码	第四组 字码	第五组 字码	第六组 字码	第七组 字码	第八组 字码
Power Level	Type***	Orifice*	Port Body Options	Function Options	Coil Options	Voltage	Frequency
Blank: Standard 3.5 watt rating  L-Low Watt (.9 watt) version (DC only)  S-Extended PSI rates for metal bodies/housing only	581-2WNO	A-.6 MM	15 Manifold Mount	D-No Options	G-Molded with Lead Wire	Full Description Required  Example: 24 or 120 Volts	For A.C. Applications, give full details  Example: 60 or 50 Hertz
	582-2WNC	F-.8MM	16 Manifold Mount with Manual Override	P-10-32 Sleeve Adapter	E-Molded with Micro DIN		
	583-3WNC	M-1.0MM	19 10-32 Ports plastic				
	584-3WNO	W-1.2MM	21 10-32 Ports S.S.(430F)				
	585-3WDC (Directional Control)	Y-1.4MM (Metal body only)	22 10-32 Ports Brass				
	586-3WMP (Multi-Purpose)	J-1.6MM (Metal body only)	23 10-32 Ports S.S.(303F)				
			24 10-32 spud mount S.S.(430F)				
			25 10-32 spud mount brass				
			26 10-32 spud mount S.S(303)				
			27 M5 ports S.S. (430F)				
			28 M5 ports brass				
		29 M5 ports S.S.(303)					

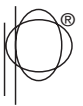
### EXAMPLE

58 Series 58 Valve	3 3-Way Normally Closed	AF .6MM Inlet  .8MM Exhaust Orifice	16 Manifold Mount with Manual Override	P 10-32 Sleeve Adapter	G Lead Wire	120 120 Volt Line	60 A.C. 60 Hertz
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**NOTE:** "L" Marked Prior to numbers denots Low Watt

\* For 3 way valves, this digit will consist of two suffix letters. First suffix indicates inlet orifice; second indicates exhaust orifice.

型号如有变更，恕不另行通知。



## 电磁阀型号编码规则（除58系列外） 电磁阀选型规则

第一组 字码	第二组 字码	第三组 字码	第四组 字码	第五组 字码	第六组 字码	第七组 字码	第八组 字码	第九组 字码
系列名称	类型	通径*	端口规格 阀体材质	阀体端口及 功能选项	外壳选项	线圈选项	电压选型	电制频率
2 - Series 20 3 - Series 30 4 - Series 40 5 - Series 50 7 - Series 70 8 - Series 80	1 - 2WNO 2 - 2WNC 3 - 3WNC 4 - 3WNO 5 - 3WDC 6 - 3WMP 18 - Direct Lift 2WNO 27 - Direct Lift 2WNC 28 - Pilot Lift 2WNC	G - 1/32 H - 3/64 J - 1/16 K - 3/32 L - 7/64 N - 1/8 O - 5/32 P - 3/16 U - 7/32 R - 1/4 A - 9/32 S - 5/16 T - 3/8 V - 5/64 B - 1/2 C - 5/8 D - 1" E - 1 1/2" Y - 3/4 F - 2 W - 3	SS BR AL 1/8 NPT 7 4 2†† 1/8 NPT 8 5 2 1/4 NPT 9 6 3 3/8 NPT 1 10 1/2 NPT 33 12 11 1 NPT 23 13 1 1/2 NPT 24 14 3/4 NPT 29 19 2 NPT 26 16 2 1/2 NPT 27 17 3" NPT 28 18  1/8 Male NPT BR 31 1/4 Compression 32 1/8 NPT Plastic 15  E - Manifold Mount  H - Flange Mount  F - Brass Hex Stud Mount Manifold Body  N - SS Hex Stud Mount Manifold Body	D - No Option Ports T - Metering (1/32 - 1/8 orif.) F - Metering Series 70 (5/32 - 1/4 orif.) **** Y - Manual Override W - Metered By-Pass U - Metered Exhaust V - Exh. Port Muffled R - Bottom Orifice Port O - Bottom cavity Port M - 90° Left Port L - 90° Right Port Z - 1/4 NPT sleeve port X - 1/8 NPT sleeve port UX - 1/8 NPT metered adapter UZ - 1/4 NPT metered adapter  Series 50 T - Bottom Metering F - Side Metering	B - Mounting Bracket C - Conduit G - Grommet J - JIC Housing S - AN Connector Q - Strain Relief Connector Y - Yoke K - Yoke for Spade Terminal AS - Single Automotive Housing AD - Double Automotive Housing CC - Conduit with third wire ground N - Splice Box E - Export Connector	V - Non Molded M - Molded H - High Temp. 180° C P - Potted Coil & Housing B - Non Molded (Series 50) D - Diode Rectified Coil R - Diode Bridge F - High Temp. Potted  Additional Options: A - Aluminum Shading Ring S - Silver Shading Ring G - Gas† L - Liquid† LM - Latching Molded Coil	We Require the full descript. Example 120 or 240 in a DC appl. state DC	In an AC appl. give full details Example 50 HZ or 60 HZ in a DC appl. state DC

例如：

2 Series 20 Valve	3 3 way Norm. Closed	N K 1/8 Inlet 3/32 Exhaust	9 Stainless Steel Valve Body 1/4" NPT Ports	Y Z Manual 1/4" Override NPT	C Conduit Housing	M Molded Coil	120 120 Volt Line	60 AC 60 Hertz
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**NOTE:** 在型号前面加“G”就是代表，高电压；  
在型号前面加“E”就是代表，防爆型；  
在型号前面加“H”就是代表，高压；  
在型号前面加“F”就是代表，带过滤；

Where numerous options are specified, valves will be marked with 2 numbers to identify valve series and type, followed by specifically assigned numbers.

\* For 3 way valves this number will consist of two suffix letters. The first indicates the inlet orifice & the second the exhaust orifice.

\*\* For valves with a combination of two standard body options, this suffix will consist of two letters.

\*\*\*\* In Series 70 -1/16 - 5/16 Orifice.

† For series H high pressure valves only.

†† 2 in Series 15 is 1/8 NPT Aluminum only.

††† Letter K followed by “M” in 7th digit column indicates molded spade terminal coil & yoke.

型号如有变更，恕不另行通知。

## 产品选型参数表

请填写此表格的所有部分。如果一部分数据是未知的，请标记“unknown”。我们建议填写下列表格，我们会根据您的应用程序。将为您推荐最专业，最适应经济实惠的阀门。

客户名称 \_\_\_\_\_ 日期： \_\_\_\_\_  
 地址： \_\_\_\_\_  
 用途： \_\_\_\_\_ 目前需求量： \_\_\_\_\_ 年需求量： \_\_\_\_\_  O.E.M.  
 电话： \_\_\_\_\_ 传真： \_\_\_\_\_ 邮箱： \_\_\_\_\_

### 通用项目信息

#### 电磁阀类型

- 二通  
 三通  
 四通

#### 电磁阀功能

- 常开  
  常闭  
 换向控制  
 多功能

#### 电气连接

- 1/2" NPT 管道引线 (C)  
 1/4" NPT 管道引线 (C)  
 扣环引线 (G)  
 DIN 欧式插头  
 其他 \_\_\_\_\_

#### 通道连接

- 1/8" NPT  
 1/4" NPT  
 3/8" NPT  
 其他 \_\_\_\_\_

#### 目录选项功能 (如果需要)

- 防爆结构, UL Class I, Groups A, B, C & D; Class II, Groups E, F, And G, consult factory

#### 电压类型规格

- AC .....Max .....Min.  
 DC .....Max .....Min.

#### 占空比

- 连续工作 (通电时间超过1小时)  
 通电时间.....小时, 断电时间.....小时  
 间断式工作 (通电时间少于1小时)  
 最大通电时间.....分钟, 最少断电时间.....分钟

#### 口径规格

进口 \_\_\_\_\_ 直径或CV \_\_\_\_\_  
 出口 \_\_\_\_\_ 直接或CV \_\_\_\_\_

#### 循环数据

运行速度 \_\_\_\_\_ CPM

#### 预期寿命

年总运行周期 \_\_\_\_\_  
 年/次数 \_\_\_\_\_

#### 流量

气体-- -----SCFM(单位) 入口压力 PSIG (压力单位)  
 排气压力PSIG (压力单位)  
 液体 GPM(单位) ----- 入口压力 PSIG (压力单位)  
 排气压力PSIG (压力单位)

#### 环境条件

- 温度 °F \_\_\_\_\_ 最高 \_\_\_\_\_ 最低 \_\_\_\_\_  
 高湿度和结露  
 Other .....

#### 允许内部泄漏量

- 无  PSID (压力单位) \_\_\_\_\_ ml/min

#### 振动和冲击

- Not a factor .....  
 Vibration .....CPS at .....G's  
 Shock .....G's duration for .....milliseconds  
 in  Vertical plane  Horizontal plane

#### 介质说明

粘度 \_\_\_\_\_

#### 认证要求

- 无  
 UL 列名  UL component listing  
 其他 (CSA\FM\ETC)

FOR CONVENIENT VALVE SPECIFICATION

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**PETER  
PAUL**

## The Founders of Peter Paul



Paul Mangiafico



Josephine Mangiafico

### The Family History that's Your Valve Advantage

Peter Paul continues its history as a driving force in solenoid valves since 1947. Founded as a family business by Paul and Josephine Mangiafico right after World War II, the company is currently managed by first, second and third generation family members in a range of responsibilities. What this means for you is that the people with whom you deal today will be there to answer to you tomorrow.

This family commitment ensures that you get personal attention from a company sized to address your needs. Peter Paul has grown with the demand for its high service philosophy, quadrupling its plant from 7,000 to 28,000 square feet in 1977. By 1988, the company had grown to 130 employees and 77,000 square feet.

Now, you get a company whose size and manufacturing capabilities ensure innovation and quality with rapid response. Beyond that, you can always talk with a family member to ensure optimum satisfaction because at Peter Paul, customer retention starts with the family.

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**PETER  
PAUL**

**electronics co., inc.**

### *Warranty*

Peter Paul Electronics Co., Inc. (seller) warrants its products to be free from defects in workmanship and material. Under normal use and service, Peter Paul products will perform very satisfactorily. The seller's obligation under this warranty shall be limited to the repairing, free of charge, any part or valve which, after his examination, shows it to be defective. Of course, normal wear and tear must be considered and exempted. No representative or person is authorized to assume for the seller any other obligation or liability in connection with the sale of its products.

All engineering and technical advice are offered free of charge, in a spirit of helpfulness to the buyer. This assistance is based on data which Peter Paul considers reliable and is intended to be used by knowledgeable and skillful personnel at their own risk.

The seller shall not be liable for consequential damages in case of failure to meet conditions of any guarantee or shipping schedule, nor claims for labor, loss of profits, repairs or other expenses incidental to replacement.



PO Box 1180  
480 John Downey Drive  
New Britain, CT 06050-1180  
Tel/ 860.229.4884      Fax/ 860.223.1734  
DUNS/ 00.116.0571      info@peterpaul.com  
www.peterpaul.com

**Peter Paul Electronics Co. Inc( 中国 )**  
Rm 17G, West Tower, Yihai Plaza, Chuangye Rd, Nanshan, Shenzhen,  
Guangdong, China 518054  
☎ 0755 86575299      📞 0755 82552964  
sales @ diateng.com  
www.peterpaul.cn

