



卫生级调节阀 (MGS) Regulating valve (MGS)



应用

调节阀是气动比例阀，流量控制设计装置的乳品和食品加工行业，饮料生产，制药和精细化工产业。最重要的应用是压力控制，流量控制，液位等。

Applications

Regulating valve is a pneumatic proportional valve, is a equipment to control the flow, widely used to the dairy, food, beverage, pharmacy and chemical industry. Most important application is the pressure control, flow control, level, etc.

工作原理 Working principle

气动调节阀是锥形阀芯位置，通过定位器控制实现流量调节的阀门 (PD)也可采用智能过程控制器实现自我调整位置和流量(PID)功能。

The position of valve tapered plug is adjusted by position. So as to control flow rate through the valve (PD). Also intelligent process controller can control position and flow rate (PID).





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设计和功能 Design and function

- ◆根据3A卫生设计
- ◆常闭阀(标准版)
- ◆等百分比调节轴
- ◆360度可调的阀体
- ◆紧凑的设计
- ◆According to the 3A sanitary design
- ◆Normally closed (standard)
- ◆With equal percentage adjusting shaft
- ◆360 degree adjustable body
- ◆The compact design

技术特点

- ◆介质接触部位316L/1.4404
- ◆其他部件301/1.4301
- ◆密封圈EPDM/FDA177.2600
- ◆内部表面: Ra0.6 μm
- ◆夹套保温阀体(选项)
- ◆轴杀菌/清洗(选项)
- ◆更高压力执行器(选项)
- ◆密封圈NBR/FPM(选项)
- ◆接口标准: DIN/SMS/RJT/IDF/ISO等

技术规格 Technical specifications

- ◆尺寸DN25–DN100 1"–4"
- ◆工作温度–10°C至+120°C(EPDM), 14° F
到248°C+140° F(SIP最大30分钟)284° F最大。
- ◆工作压力10bar 145PSI
- ◆压缩空气6–8bar/87–116PSI
- ◆气动执行器连接G1/8"(BSP)
- ◆电压24V DC
- ◆过程信号4...20 mA 0...10V (optional)
- ◆Size DN25–DN100 1"–4"
- ◆Working temperature–10°C to +120°C(EPDM)
14° F to 248° F+140°C(SIP, max, 30min)284° F
- ◆Working pressure: 10bar 145 PSI
- ◆Compressed air pressure 6–8 bar, 87–116PSI
- ◆Air connection G1/8"(BSP)
- ◆24 V DC voltage
- ◆process signal 4...20 mA 0...10V (optional)

双功能定位 Double function orientation

- ◆PD: 位置控制器
- ◆PID: 过程控制器
- ◆装配/拆卸松开卡箍即可
- ◆标准连接方式: 焊接/卡箍/螺纹
- ◆PD: position controller
- ◆PID: process controller
- ◆Assembly/disassembly just to loose the clamp
- ◆Standard connection: Weld, Clamp, Thread

Technical and features

- ◆Parts in contact with the product: AISI316L/1.4404
- ◆Other parts in stainless steel AISI304/1.4301
- ◆Gaskets: EPDM according to FDA177.2600
- ◆Internal surface finish: Ra≤0.6 μm
- ◆The body with heat jacket(option)
- ◆Shaft sterilization/cleaning(option)
- ◆Actuator with higher pressure(option)
- ◆Gasket: NBR/FPM(option)
- ◆Connection: DIN/SMS/RJT/IDF/ISO.....





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夹套保温式调节阀 Heat insulation type regulating valve

设计了保温夹套，通过蒸汽循环达到保温的目的。
Heat jacket design through steam cycle to achieve the purpose of heat keeping.



隔膜式无菌调节阀 Diaphragm-aseptic regulating valve

- ◆该阀门具有标准调节阀的技术特点
- ◆一个PTFE隔膜隔离了阀门内部与外部
- ◆一个泄漏仓可提供隔膜损坏的检测
- ◆This valve has the technique characteristics as same as Divert Seat Valve.
- ◆A PTFE diaphragm insulates valve from the inside and outside
- ◆Diaphragm's damage can be viewed through leakage bin.



无滞留调节阀 Non-retention regulating valve

该阀门具体三通和四通连接方式
下阀体用作管路连接，上阀体用作出口(选择1个或2个出口)
由于下阀体用作管路因此不会产出任何死角和滞留。

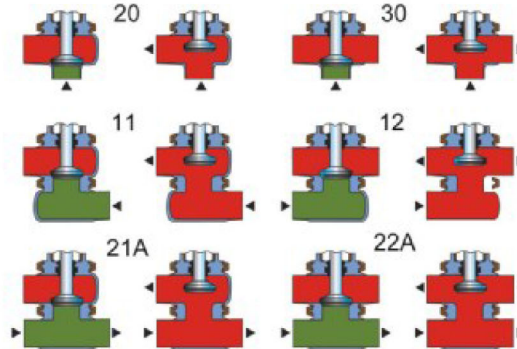


无菌调节阀 Aseptic Regulating valve

- ◆该阀门具有标准调节阀的功能
- ◆一个可经液体清洗或蒸气消毒的轴的配置保证了阀杆的被彻底清洗。
- ◆It has the standard function of regulating valve.
- ◆The shaft by liquid cleaned or steam barriered can ensure the valve stem cleaned completely.

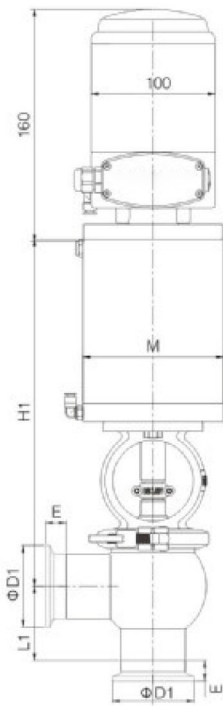


卫生级调节阀 (MGS) Regulating valve (MGS)

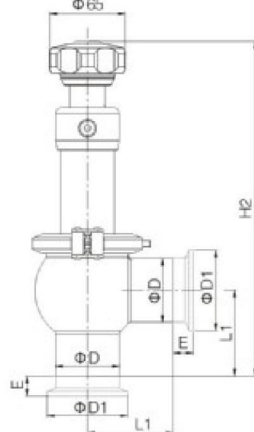


气量消耗(L/循环次)
Air consumption (L/One cycle)

| SIZE ΦD1 | 弹簧/气 Spring/air | 气/气 air/air |
|-------------|--------------------|----------------|
| 88 | 0.12 | 0.24 |
| 113 | 0.21 | 0.42 |
| 132 | 0.45 | 0.90 |
| 180 | 1.00 | 2.00 |



NO.VTJ111Q1



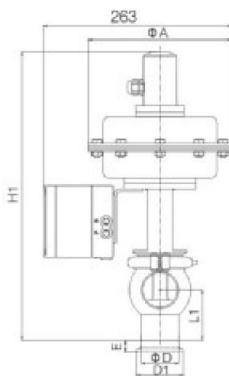
NO.VTJ110S2

DIN气动截止调节阀

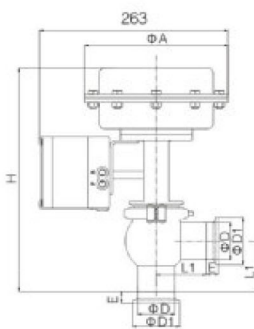
| SIZE | H1 | H2 | H3 | D | D1 | L1 | L2 | M | | E | Weight (kg) |
|-------|-----|-----|-----|-----|------|-----|----|------|-------|------|----------------|
| | | | | | | | | 6bar | 10bar | | |
| DN25 | | | | 28 | | 50 | | | | 12.7 | 5 |
| DN32 | 298 | 236 | 180 | 34 | 50.5 | 55 | 86 | 88 | 113 | 12.7 | 5 |
| DN40 | | | | 40 | | 60 | | | | 12.7 | 5 |
| DN50 | 359 | 258 | 210 | 52 | 64 | 70 | 86 | 113 | 132 | 12.7 | 7 |
| DN65 | 405 | 300 | 245 | 70 | 91 | 99 | 86 | 132 | 180 | 12.7 | 13 |
| DN80 | 405 | 300 | 245 | 85 | 106 | 99 | 86 | 132 | 180 | 12.7 | 13 |
| DN100 | 484 | 330 | 280 | 104 | 119 | 114 | 86 | 180 | | 15.8 | 15 |

INCH气动截止调节阀

| SIZE | H1 | H2 | H3 | D | D1 | L1 | L2 | M | | E | Weight (kg) |
|-------|-----|-----|-----|-------|------|-----|----|------|-------|------|----------------|
| | | | | | | | | 6bar | 10bar | | |
| 1" | | | | 25.4 | | 50 | | | | 12.7 | 5 |
| 1.25" | 298 | 236 | 180 | 31.8 | 50.5 | 55 | 86 | 88 | 113 | 12.7 | 5 |
| 1.5" | | | | 38.1 | | 60 | | | | 12.7 | 5 |
| 2" | 359 | 258 | 210 | 50.8 | 64 | 70 | 86 | 113 | 132 | 12.7 | 7 |
| 2.5" | 376 | 270 | 224 | 63.5 | 77.5 | 80 | 86 | 132 | 180 | 12.7 | 13 |
| 3" | 405 | 300 | 245 | 76.2 | 91 | 99 | 86 | 132 | 180 | 12.7 | 13 |
| 4" | 484 | 330 | 280 | 101.6 | 119 | 114 | 86 | 180 | | 15.8 | 15 |



NO.VHX612Q1



NO.VTJ214Q1

薄膜气动截止调节阀

| SIZE | D | D1 | L1 | A | E | H | H1 |
|-------|-------|------|-----|-----|------|-----|-----|
| 1" | 25.4 | | 50 | 200 | 12.7 | 283 | 375 |
| 1.25" | 31.8 | 50.5 | 55 | | 12.7 | | |
| 1.5" | 38.1 | | 60 | | 12.7 | | |
| 2" | 50.8 | 64 | 70 | | 12.7 | | |
| 2.5" | 63.5 | 77.5 | 80 | | 12.7 | 320 | 411 |
| 3" | 76.2 | 91 | 99 | 286 | 12.7 | 391 | 507 |
| 4" | 101.6 | 119 | 114 | | 15.8 | 443 | 560 |



卫生级调节阀 (MGS) Regulating valve (MGS)

阀门流量系数 Flow rate factor (Kv)

可以通过下面的公式和流量系数值来选择适合您应用的调节阀。
适用于比重等于1.0的水和其他产品的计算公式：

Refer to the following formula and flow coefficient value to choose the suitable regulating valve for specific gravity is 1.0 water and other products :

$$Kv = \frac{Q}{\sqrt{\Delta P}}$$

适用于比重不等于1.0的产品的计算公式：
For specific gravity is not 1.0 products :

$$Kv = \frac{Q}{\sqrt{\Delta P/SG}}$$

如何利用数据选择阀门尺寸
How to use the datas sheet to choose the valve size

计算出某特定应用的Kv因数后，选择最接近50%的曲线。
To calculate the specific application of Kv factor, select the most close to 50% of the curve.

如何利用数据选择阀门尺寸
计算出某特定应用的 Kv 因数后，在查找该因数。选择最接近 50% 行程的曲线。

How to use the datas sheet to choose the valve size
To calculate the specific application of Kv factor, in the next page to find the factor. Select the most close to 50% stroke curve.

Kv计算举例： Kv calculation example:

确定适用于60m³/小时水流量的阀门尺寸。
Valve size suit for the water flow 60m³/h

进口压力 3bar Inlet pressure 3 bar
出口压力 1.5bar Outlet pressure 1.5 bar

解答：进口压力(A)减去出口的压力(B)：
Answer: inlet pressure (A), minus the outlet pressure (B) :

$$\Delta P = 3 \text{ bar} - 1.5 \text{ bar} = 1.5 \text{ bar}$$

$$Kv = \frac{60}{\sqrt{1.5}} = 49$$

其中 Among them

Q=产品流量(单位m³/小时)

SG=产品比重

DR=阀门的压降(单位bar)

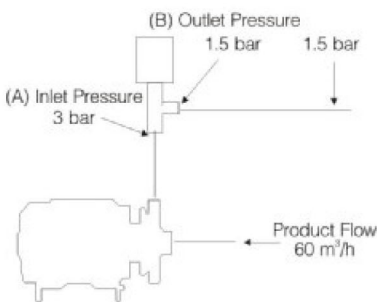
(进口压力与出口压力的差值)

Q = product flow rate(m³ / h)

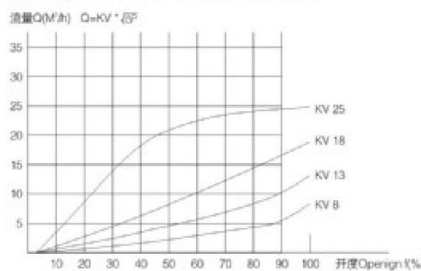
SG = product proportion

DR= valve pressure drop (bar)

(The different pressure of inlet and outlet)

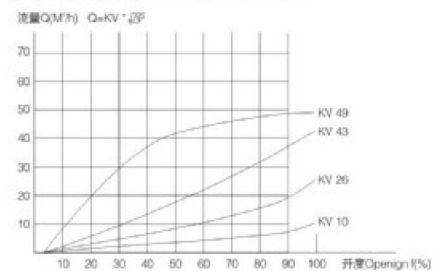


调节阀1"和1.5"流量/选择(开度)图表
Regulating valve 1", 1.5" low/choose (opening f) diagram



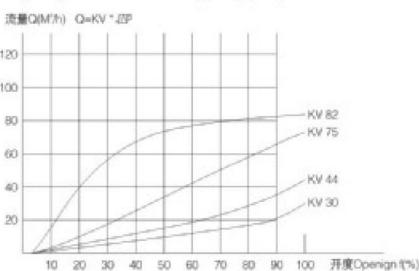
注意：上面表适用于，介质：水(20°C) 测量：按照VDI 2173
Attention: above diagram suit for the medium:water (20°C), measuring: according VDI 2173

调节阀2"流量/选择(开度)图表
Regulating valve 2" low/choose (opening f) diagram



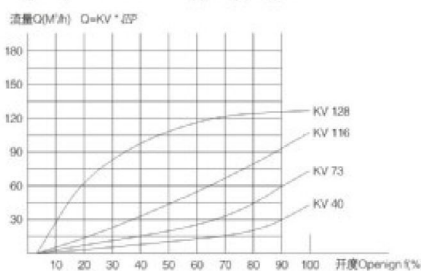
注意：上面表适用于，介质：水(20°C) 测量：按照VDI 2173
Attention: above diagram suit for the medium:water (20°C), measuring: according VDI 2173

调节阀2.5"流量/选择(开度)图表
Regulating valve 2.5" low/choose (opening f) diagram



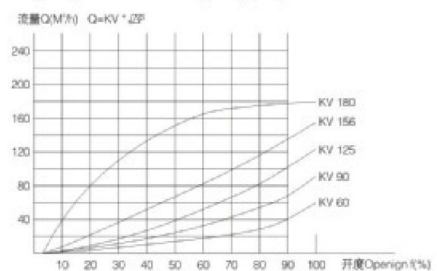
注意：上面表适用于，介质：水(20°C) 测量：按照VDI 2173
Attention: above diagram suit for the medium:water (20°C), measuring: according VDI 2173

调节阀3"流量/选择(开度)图表
Regulating valve 3" low/choose (opening f) diagram



注意：上面表适用于，介质：水(20°C) 测量：按照VDI 2173
Attention: above diagram suit for the medium:water (20°C), measuring: according VDI 2173

调节阀4"流量/选择(开度)图表
Regulating valve 4" low/choose (opening f) diagram



注意：上面表适用于，介质：水(20°C) 测量：按照VDI 2173
Attention: above diagram suit for the medium:water (20°C), measuring: according VDI 2173

举例说明: 比如 MLA3572218

=卫生蝶阀, 1.4308/1.4306, EPDM, PN10, 卡箍连接, DN50

蝶阀

| 1.字符 产品 | 2+3.字符 阀体/内件 | 4.字符 密封 | 5.字符 压力标准 | 6.字符 连接 | 7 + 8.字符 口径 | |
|---|--------------------------------------|-------------------------------|--------------|-----------------------------------|--|--|
| MLA=卫生蝶阀 MDA=ISO5211平台 卫生蝶阀 MGS=卫生级调节阀 | 35=1.4308/1.4306 46=1.4408/1.4404 | 6=FPM 7=EPDM E=Silicone | 2=PN10 | S=对焊 2=卡箍 Y=外螺纹 B=对焊+外螺纹 | 12=3/8" 13=1/2" 14=3/4" 15=1" 16=1-1/4" 17=1-1/2" | 18=2" 19=2-1/2" 20=3" 21=4" 22=5" 23=6" |

Ordering example: e.g. MLA3572218

= Sanitary butterfly valve ,1.4308/1.4306, EPDM, PN10, Clamp, DN50

Butterfly valve

| 1 . Digit Product | 2+3. Digit Body/Internal | 4. Digit Sealing | 5. Digit Pressure criteria | 6. Digit Connection | 7 + 8. Digit Caliber | |
|--|--------------------------------------|-------------------------------|-------------------------------|--|--|--|
| MLA=Sanitary butterfly valve MDA=ISO5211 platform sanitary butterfly valve. MGS=Sanitary control valve | 35=1.4308/1.4306 46=1.4408/1.4404 | 6=FPM 7=EPDM E=Silicone | 2=PN10 | S=Weld 2=Clamp Y=Male thread B=Weld+Male thread | 12=3/8" 13=1/2" 14=3/4" 15=1" 16=1-1/4" 17=1-1/2" | 18=2" 19=2-1/2" 20=3" 21=4" 22=5" 23=6" |