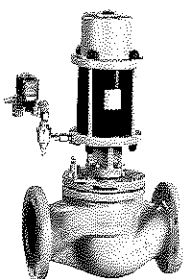


# 电动气动阀 系列 -4-EPVA /-4-EPVO

## electro-pneumatic-valves Series -4-EPVA/-4-EPVO



电动气动阀  
具有欧盟类型检验证书, 检验标准是  
DIN - EN 161 3394 - 1, 符合欧盟  
[气体仪器设备规范 (90/396/EEC)]

类型为 ... -4-EPVA ...  
压力范围直到 10 巴,  
标称尺寸 DN 15 直到 DN 400,  
环境温度范围 -20°C 至 +60°C,  
也可以提供防爆型 (Ex).

electro-pneumatic-valves  
EC Type Test Certificate, tested to  
DIN-EN 161 3394-1, in accordance with the  
EC Gas Apparatus Guideline (90/396/EEC)

type: ...-4-EPVA...  
pressurs range up to 10 bar  
nominal size DN 15 up to DN 400  
ambient temperature range -20° - +60°C  
also deliverable in (Ex)

### 应用范围:

作为自动关闭(截流)阀, 关闭或打开向气体燃烧器或者其他气体仪器的供气流, 以及关闭或打开管道系统的气流率。

### 主要特征:

- 自动关闭阀A级第二组按照 DIN EN 161 / DIN 3394 - 1, 符合欧盟 [气体仪器设备规范 (90/396/EEC)].
- 功能: 无电流关 / 无电流开。
  - 可提供按照 ISO 7005 或 DIN 2501 - 1 和 - 2 的法兰接口
  - 驱动通过单面加负荷的带有复位弹簧的活塞。
  - 操作借助于其类型系列为 10 - EVD ... 的 3 / 2 通道控制阀,
  - 控制介质是压缩空气, 压力为 4 - 10 巴。
  - 自动关闭阀不需要密封套, 运行噪音小。
  - 打开时, 可以没有时间延迟或者有时间延迟(选择项)地开通气流。关闭时, 气流将在 1 秒钟之内被截断。
  - 一个插片把驱动和通气壳体分开。
  - 阀杆的密封是通过特殊的唇型密封圈来实现的, 以保证绝对的密封。
  - 通过采用非阻流阀壳, 使得压力损失很小。
  - 特殊研制的阀盘保证了绝对的密封性。

### Application

As automatic shut-off valves, which open and close the gas flow to gas burners and gas equipment and also open and close the flow rate in pipe network.

### Main characteristics

- All safety shut-off valves are according to the DIN- EN 161 / DIN 3394-1, in accordance with the EG-Gas Apparatus Guideline (90/396/EEC) for automatic shut-off valves (Class A, Group 2).
- Function: currentless close/currentless open
- Deliverable with flang fitting to ISO 7005 or DIN 2501 Part 1
  - Drive with single-side pressurised piston with return spring.
  - Actuation by means of controll valve in 3/2- way design, Range of types: 10-EVD ...
  - Controll medium is compressed air, pressure 4-10 bar.
  - The automatic shut-off valves are glandless and function silently.
  - On opening procedure with the opening permit they give the cross-section without delay or with a delay (option). On closing procedure the cross-section is reliable shut-off tight without delay (within a second).
  - The drive is seperated from the medium-bearing housing by a spacer.
  - The valve spindle is sealed by special lip seals, thus ensuring absolute leak tightness.
  - Low pressure loss through non-choked valve housing.
  - Absolutely leak-tightness thanks to specially developed valve disc.

### 系列类型的压力范围:

pressure range of the type series

1-4-EPVA...-4 ... = 0-1 bar/巴  
2-4-EPVA...-4 ... = 0-2 bar/巴  
3-4-EPVA...-4 ... = 0-3 bar/巴  
4-4-EPVA...-4 ... = 0-4 bar/巴  
6-4-EPVA...-4 ... = 0-6 bar/巴

10-4-EPVO...-4R ... = 0-10 bar/巴  
10-4-EPVO... H-4R ... = 0-10 bar/巴

通过了DIN EN ISO 9001 质量认证  
Certified to DIN EN ISO 9001

- 开关频率高 (每小时1500个操作循环), 寿命长
- 通过使用合适弹簧而产生的关闭力, 能保证自动关闭阀在外部施加的伺服驱动能量停止或中断时的可靠关闭。
- 密封采用软的弹性材料, 检验标准是 DIN 3535, 适用于第一, 第二和第三石油气体组的可燃气体, 阀座材料为不锈钢。
- 自动关闭阀是直接受控。

所有非铁或者非不锈钢的内部件都经过了特殊的防锈处理。

按照 DIN EN 161, 第2.6 节和 DIN 3394 第一章第3.5节的要求, 在所有自动关闭阀的前面都必须装上一个特殊的脏物搜集器。

当两个自动关闭阀联成一个组时, 一个脏物搜集器装在第一个阀门前面就足够了。脏物搜集器也可分开供货。

### 功能描述:

#### 开启过程:

当对驱动活塞施加压力时, 驱动活塞就反抗介质作用在阀盘上的压力和弹簧的压力而抬起, 从而在 0.3 - 2 秒之间打开整个自动关闭阀相应的标称截面。此状态将一直保持, 只要对驱动活塞保持施加压力。

#### 关闭过程:

当转接3 / 2 通道控制阀后, (带有软弹性密封, 通过阀杆与驱动活塞相连接的) 阀盘就通过施加在驱动活塞上的预弹簧力, 根据自动关闭阀的尺寸大小在小于一秒的时间被压入阀座中, 从而截断气流。

- High switching frequency (1500 cycles/hour), long service.
- Appropriate springs are used to generate the closing force which guarantees a reliable closing of the automatic shut-off valve in the event of failure of or interruption in the externally supplied valve actuating energy.
- Sealing is effected with soft elastic sealing materials tested to DIN 3535 on valve seat of non-rusting special steel.
- The automatic shut-off valves are directly controlled.

All internal parts which are not made of non-ferrous metals or stainless steel are treated with a special rust-proof coating.

As specified in DIN EN 161 Section 2.6 and DIN 3394 Part 1 Section 3.5, a special dirt trap must be installed unstream of all automatic shut-off valves. Where two automatic shut-off valves are combined to form a group, one dirt trap installed of the first valve is sufficient. The dirt traps are also available separately.

### Description of Functions

#### Opening procedure:

When the drive piston is pressurised, it opens against the pressure of the medium acting on the valve disc and the spring pressure, thereby opening the full cross-section corresponding to the nominal width of the automatic shut-off valve within 0,3-2 seconds. This condition is maintained as long as the piston is pressurised.

#### Closing procedure:

When the control valve (2/3-way directional control valve) switches over, the valve disc (with soft elastic seal and linked to the drive piston via the valve spindle) is pressed against the valve seat by the preloaded pressure springs on the drive piston corresponding to the nominal width of the automatic shut-off valve within less than 1 second, thereby shutting of the gas flow.

#### 安装规程:

自动关闭阀必须按照阀门外壳上箭头所指示的流动方向安装。

装入管道的位置可以任意选择, 但是要保证控制阀以驱动垂直的位置装入。

装入自动关闭阀之后, 要在试运行之前彻底冲洗管道与打开的自动关闭阀, 因为塑料密封对杂质特别敏感。

假若在阀门入口前面没有装入脏物搜集器, 那么就要保证在离阀门入口前不太远的位置上有一个合适的脏物搜集器。过滤网上开孔的内直径不能大于 1.5mm, 它不能让 1mm 大小的测验漂流物通过。过滤网必须防止杂质进入阀门。

密封关闭力满足 DIN EN 161 第3.7节 (1991年版) 和 DIN 3394 第一章 第3.7节 (1982年版) 的安全要求。

#### 定单后缀:

请从我们的 "定单后缀表" 中查到所需要的订货类型后缀。

#### 注意事项:

对于 3/2 通道控制阀要特别注意, 通风管的内截面不能被脏物或者由于扭折而被减小。更进一步, 要保证通风管的进出口不被弄脏。

#### Installation Instructions

*The automatic shut-off valve must be installed in the flow direction indicated by the arrow on the valve housing.*

*The installation position in the line can be freely selected. Ensure that the control valve is installed with upright drive.*

*After installation of the automatic shut-off valve, the line should be thoroughly flushed before commissioning with the automatic shut-off valve open as the plastic seal is highly sensitive for foreign bodies.*

*If no dirt trap is installed at/ in the inlet of the valve, it is to be ensured that a suitable dirt trap is installed not too far upstream on the inlet to the valve. The inside diameters of the openings in the screen must not be larger than 1,5 mm and the screen must not allow a 1 mm test drifter to pass. The screen must prevent foreign matter entering the valve.*

*The safety requirements for the closing force in accordance with DIN EN 161 Section 3.7 (September 1991) and in accordance with DIN 3394 Part 1 Section 3.7 (November 1982) are satisfied*

#### Order suffixes

*For order suffixes, please refer to our type code.*

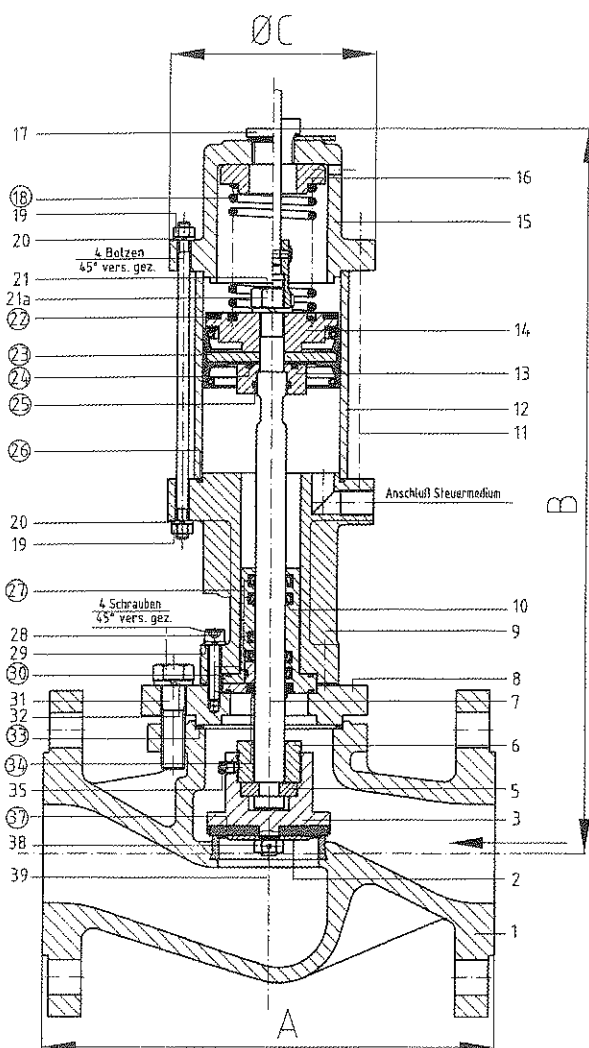
#### Attention note

*Ensure with the 3/2-way directional control valves that the cross section (inside width) of the venting line is not reduced by soiling or kinking. Furthermore, ensure that the openings at both ends of the venting line cannot be soiled.*

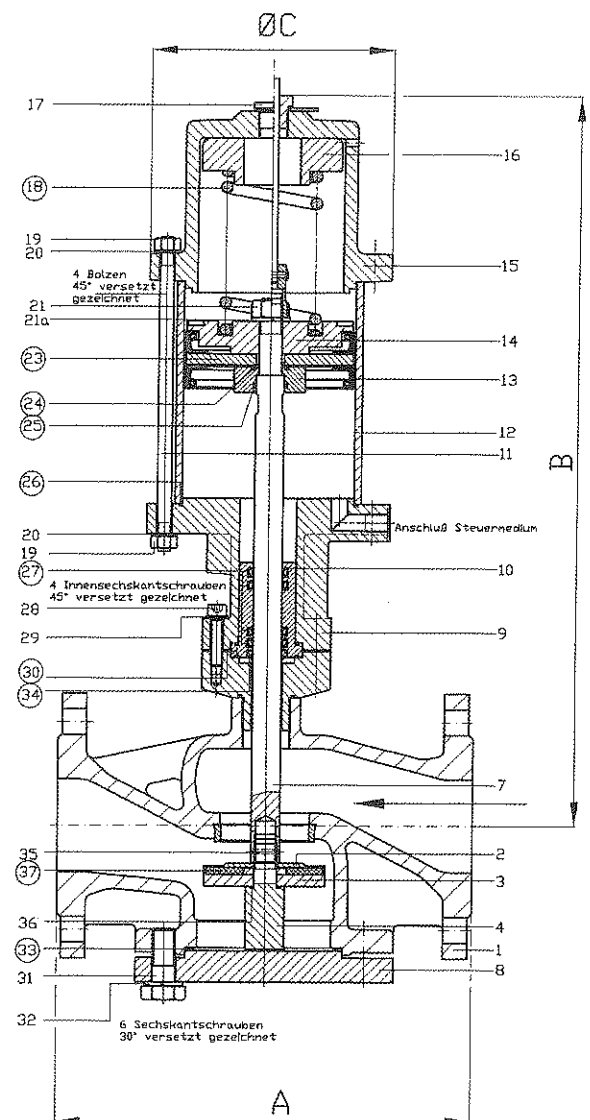
1	一个阀壳	1 valve housing
2	一个盘片	1 disc washer
*3	一个阀盘	1 valve disc
4	一个阀盘悬置	1 valve disc mounting
5	一个环 (分开的)	1 ring (split)
6	一个六角螺帽	1 hex. nut
7	一个阀杆	1 valve spindle
8	一个阀壳法兰	1 valve housing flange
9	一个垫块	1 spacer
10	一个阀杆导向套管	1 spindle leadthrough
11	四个双头螺栓	4 stud
12	一个缸筒	1 cylinder barrel
13	一个密封片	1 sealing washer
14	一个弹簧片	1 spring plate
15	一个弹簧罩	1 spring cap
16	一个弹簧导向体	1 spring guide
17	一个封闭螺栓	1 plug
18	一个压力弹簧 (对 DN 250 和 DN 400/350, 两个弹簧)	1 pressure spring (2 springs for DN 250 and DN 300/400)
19	八个六角螺帽	8 hex. nut
20	八个弹簧圈	8 lock washer
21	一个六角螺帽	1 hex. nut
21a	一个弹簧圈	1 lock washer
22	一个冲击缓冲	impact damper
23	一个完整活塞	1 piston assembly
24	一个O型密封环	1 o-ring
25	一个O型密封环	1 o-ring
26	一个O型密封环	1 o-ring
27	四个唇型密封圈	4 lip seal
28	四个内六角螺栓	4 hexagon socket-head screw
29	四个弹簧圈	4 lock washer
30	两个O型密封环	2 o-ring
31	六角螺栓	- hexagon head bolt
32	弹簧圈	- Lock washer
33	一个密封片	1 gasket
34	一个刮油环	1 wiper seal
35	一个螺销	1 stud
36	一个O型密封环	1 o-ring
*37	一个阀盘密封	1 valve disk seal
38	一个六角螺帽	1 hex. nut
39	一个刻槽销	1 grooved dowel pin
40	一个垫圈	1 washer

\* = 将作为一个整体供货 (阀盘密封已与阀盘装配好)。

\* = *Will be supplied as a complete unit (valve disc seal bonded into valve disc)*



... EPVA ...

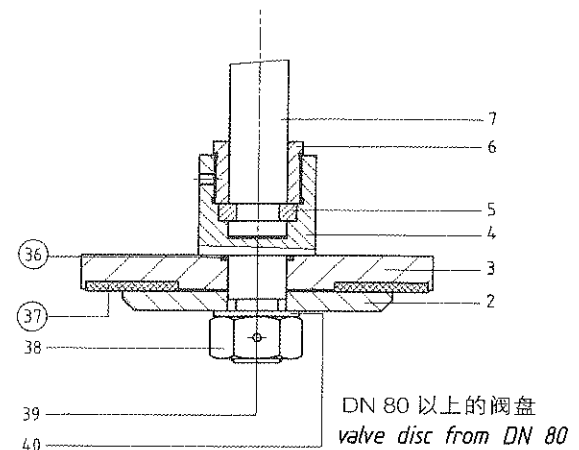


... EPVO ...

- = 磨损件, 替换件, 备用件
- = Parts subject to wear or replacement.

保留由于技术改进而引起的尺寸和  
插图更改的权利。

*Alterations to dimensions and illustrations in  
line with technical progress reserved.*



DN 80 以上的阀盘  
valve disc from DN 80

类型系列 Series 标称压力 Nominal pressure	产品标识号/Din号 DVGW-Reg. Nr. Prod. identification No./Din DVGW-Reg.-No.	类型 Type	DN	PN
1-4-EPVA...-4 0-1 bar	CE-0085AQ0211	1-4-EPVA 30N-4	80	10/16
	CE-0085AQ0211	1-4-EPVA 150-4	150	10/16
	CE-0085AQ0211	1-4-EPVA 200-4	200	10/16
	CE-0085AQ0211	1-4-EPVA 250-4	250	10/16
	CE-0085AQ0211	1-4-EPVA 300-4	300	10/16
	CE-0085AQ0211	#1-5-EPVA 350-4	350	10/16
	CE-0085AQ0211	1-4-EPVA 400-4	400	10/16
2-4-EPVA...-4 0-2 bar	CE-0085AQ0211	2-4-EPVA 20N-4	50	10/16
	CE-0085AQ0211	2-4-EPVA 25N-4	65	10/16
	CE-0085AQ0211	2-4-EPVA 125-4	125	10/16
	CE-0085AQ0211	2-4-EPVA 200-4	200	10/16
3-4-EPVA...-4 0-3 bar	CE-0085AQ0211	3-4-EPVA 15N-4	40	10/16
	CE-0085AQ0211	3-4-EPVA 100-4	100	10/16
4-4-EPVA...-4 0-4 bar	CE-0085AQ0211	4-4-EPVA 150-4	150	10/16
6-4-EPVA...-4 0-6 bar	CE-0085AQ0211	6-4-EPVA 5N-4	15	10/16
	CE-0085AQ0211	6-4-EPVA 7N-4	20	10/16
	CE-0085AQ0211	6-4-EPVA 10N-4	25	10/16
	CE-0085AQ0211	6-4-EPVA 15N-4	40	10/16
	CE-0085AQ0211	6-4-EPVA 20N-4	50	10/16
	CE-0085AQ0211	6-4-EPVA 25N-4	65	10/16
	CE-0085AQ0211	6-4-EPVA 30N-4	80	10/16
	CE-0085AQ0211	6-4-EPVA 100-4	100	10/16
10-4-EPVO...-4R 0-10 bar	CE-0085AS0513	10-4-EPVO 7-4R	Rp3/4	-
	CE-0085AS0513	10-4-EPVO 10NH-4R	25	10/16
10-4-EPVO... NH-4R 0-10 bar	CE-0085AS0513	10-4-EPVO 20NH-4R	50	10/16
	CE-0085AS0513	10-4-EPVO 25NH-4R	65	10/16

# 请注意: 最低控制气压为 5 巴

# Attention: Minimum pressure 5 bar

请索求图纸 S6019 以便得到更详细的信息。

For detailed information, please send for drawing No. S 6019

驱动和快速排气阀 <i>Drive with specification of quickventing mechanism</i>	在4巴时每开关一次的气耗 <i>Air consumption per cycle at 4 bar</i>	控制阀 <i>Control valve</i>	重量 / 千克 <i>Weight in kg</i>	A	B	C
KA 70	1 NL	10-EVD 2/2401	23,5	310	395	105
KA 120*	5 NL	10-EVD 2/2401	82,5	480	575	170
KA 160**	10 NL	10-EVD 2/2401	155	600	695	210
KA 200**	17 NL	10-EVD 2/2401	267	730	785	265
KA 200**	17 NL	10-EVD 2/2401	390	850	830	265
KA 200**	22 NL#	10-EVD 2/2401	590	980	910	265
KA 250**	27 NL	10-EVD 2/2401	980	1100	980	370
KA 70	1 NL	10-EVD 2/2401	20,5	230	365	105
KA 70	1 NL	10-EVD 2/2401	21,5	290	385	105
KA 120*	5 NL	10-EVD 2/2401	65	400	565	170
KA 200**	17 NL	10-EVD 2/2401	201	600	735	265
KA 70	1 NL	10-EVD 2/2401	17,5	200	355	105
KA 120*	5 NL	10-EVD 2/2401	47,5	350	520	170
KA 200**	17 NL	10-EVD 2/2401	138	480	680	265
KA 70	1 NL	10-EVD 2/2401	8	130	340	105
KA 70	1 NL	10-EVD 2/2401	8,5	150	340	105
KA 70	1 NL	10-EVD 2/2401	9,95	160	350	105
KA 120*	5 NL	10-EVD 2/2401	24	200	460	170
KA 120*	5 NL	10-EVD 2/2401	26,8	230	470	170
KA 120*	5 NL	10-EVD 2/2401	31,7	290	485	170
KA 160*	10 NL	10-EVD 2/2401	43,5	310	565	210
KA 160*	10 NL	10-EVD 2/2401	54	350	580	210
KA 200**	17 NL	10-EVD 2/2401	118	400	645	265
KA 70	1 NL	10-EVD 2/2401	7,2	95	317	105
KA 70	1 NL	10-EVD 2/2401	10	160	360	105
KA 120*	5 NL	10-EVD 2/2401	33,5	230	490	170
KA 120*	5 NL	10-EVD 2/2401	38	290	520	170

\* = 快速排气阀 Rp 1/4    \*\* = 快速排气阀 Rp 1/2

\* = Quick-venting mechanism Rp 1/4    \*\* = Quick-venting mechanism Rp 1/2