



华工自控阀门



电动阀门系列

江苏华工自控阀门有限公司
JIANGSU HUAGONG AUTOMATIC CONTROL VALVE CO., LTD

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企业简介 BRIEF Introduction



江苏华工自控阀门有限公司是一家专业研发、制造和销售气动阀门、气动执行器、电动阀门、电动执行器及成套装置的生产型企业。

本公司技术力量雄厚，检测设备精良，加工设备齐全，产品性能卓越。公司产品采用现代化CAD三维设计系统优化设计，不仅外形美观，而且质量可靠。设备大量采用精密加工中心机床，确保零部件精度，形成大批量生产能力。广泛应用于各类调节阀、球阀、蝶阀、闸阀、浆液阀、截止阀、旋塞阀等阀门，是实现管道远距离集中或单独控制工业自动化管路的理想装置。

公司本着为用户提供系统配套选型和价格性能比的配置方案，以高科技为先导，充分发挥技术优势，进行一条龙的科学管理，不断推出高品质的新产品。秉承“以质量求生存，以科技求进步，以品种求发展，以管理求效益，以诚信求市场”的经营宗旨，贯彻“质量和服务是企业的生命”的原则，将不断应用新技术、新工艺、新材料，积极开发新品种为广大用户提供更优质的产品和更完善的售后服务。为建立现代化企业而努力奋斗！

Jiangsu Huagong Automatic Control Valve Co., Ltd is a professional research and development, manufacturing and marketing enterprise of pneumatic valves, pneumatic actuators, Electric valve, electric actuator and package units.

This company has powerful technical strength, excellent detection equipment and complete equipment and superior product performance. As modern CAD 3D design system is adopted for design optimization, products of the company not only have attractive appearance, but also have reliable quality. A large amount of precision machining center tool machines are adopted to ensure precision of parts and to form mass production capacity. Our products are widely used in various valves including regulating valves, ball valves, butterfly valves, gate valves, parallel slide valves, stop valves and plug valves. Also, they are ideal devices to realize long-distance centralized or separate control on industrial automation lines.

Motivated by a desire to provide users with matched type selection for system and configuration scheme for cost-performance ratio and guided by high-tech, the company gives full play to its technical advantages to conduct a coordinated process of scientific management and to consistently debut new products with high quality. Adhering to the management tenet of "Survive on Quality, Advance on Science and Technology, Develop on Variety and Benefit on Management" and implementing the principle of "Quality and Service is the Enterprise's Life", we will constantly apply new technologies, new processes and new materials and actively develop new varieties to provide the majority of users with more excellent products and more perfect after-sales service. We strive to establish a modern enterprise

New and old customers at home and abroad are welcome to contact us for business cooperation, establish the long-term supporting relationship and seek common development, mutual reciprocity and mutual benefit.

PRODUCT DISPLAY 产品展示

气动执行器、气动阀门、电动执行器、电动阀门
Pneumatic valves, pneumatic actuator, electric valve, electric actuator

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HGZK 电动执行机构 HGZK Sereis Electric Actuator



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HGZK系列电动执行机构
HGZK Sereis Electric Actuator

概述 Summary

HGZK系列电动执行器用于控制 0° ~ 270° 旋转的阀门及其他同类产品,如蝶阀、球阀、风门、挡板阀、旋塞阀、百叶阀等,可以广泛应用于石油、化工、水处理、船舶、造纸、电站、供热,轻工等各个行业中。它以380V/220V/110V交流电源或24V/110V直流电源为驱动电源,以4~20mA电流信号或0~10V DC电压信号为控制信号,可使阀门运动到所需位置,实现其自动化控制,最大输出扭矩达4000N·m。

HGZK series electric actuator is used for control 0° ~ 270° rotation of the valves and other similar products, such as butterfly valve, ball valve, damper, flapper valves, cock valves, etc. It's widely used in petroleum, chemical, water treatment, shipping, paper making, power plants, heating, light industry and other industries. It drives by 380V/220V/110V AC power. Control signal is 4~20mA current signal or 0~10V DC voltage signal, enables move the valve to the desired position, achieving its automation, maximum output torque is up to 4000N·m.

性能特点 performance Features

- 壳体**--壳体为硬质铝合金,经阳极氧化处理和聚酯粉末涂层,耐腐蚀性强,防护等级为IP67, NEMA4和6,并有IP68型供选择。
Shell--The shell is made of hardness aluminum alloy, pass through anodic oxidation treatment and polyester powder coating, so it has strong corrosion resistance. Protection grade is IP67, NEMA4 and 6, and optional IP68 type.
- 电机**--全封闭式鼠笼式电机,体积小,扭矩大,惯性力小,绝缘等级为F级,内置热保护开关,可防止损坏电机。
Electric Machinery--Fully enclosed Squirrel-cage electric Machinery, small volume, large torque, and small inertia force, F-class insulation rating, inside hot protection switch, avoid damaging the electric machinery.
- 手动结构**--手柄的设计保证安全可靠、省力、体积小。不通电时,扳动手柄可进行手动操作。不用手动时,将扳手置于扳手夹内,方便使用。
Manual Structure--The design of handle ensure safe, reliable, labor-saving, small volume. When it don't have electricity, it can be manually operated by handle. When you don't operate by manus, you can put the wrench in the wrench folder, then you can easy to use it.
- 指示器**--指示器安装在中心轴上,可以观察阀门位置。透镜采用凸透镜设计,不积水,观察更方便。
Indicator--Indicator installs in the center axis, so it can observe the valve position. It adopts convex mirror design, no cumulate water, more convenient to observe.
- 干燥器**--用来控制温度,防止由于温度和天气变化导致执行器内部水分凝结,保持内部电气元件的干燥。
Space Heater--It is used for control temperature, avoiding internal moisture of electric actuator condensed because of the changing of temperature and weather, keep inner electric device dry.
- 密封**--密封性好,标准产品防护等级是IP67,并可选IP68防护等级。
Sealing--Good sealing performance, and the protection class of standard product is IP67, and optional IP68 protection grade.
- 限位开关**--机械、电子双重限位。机械限位螺钉可调,安全可靠;电子限位开关由凸轮机构来控制,简单的调整机构能精确并方便地设定位置,且不受手轮过量的影响。
Limit switch--Mechanical, electronic double limit. Mechanical limit screw is adjustable, safe and reliable; electron limit switch is controlled by the cam mechanism, easy adjustment institutions can set the position accurately and conveniently, and it doesn't affect overly by handwheel.
- 自锁**--精密的蜗轮蜗杆机构可高效传输大扭矩,效率高,噪音低(最大50分贝),寿命长;有自锁功能,防止反转,传动部分稳定可靠,无需再加油。
Self-locking--Exact worm and worm gear can efficiently transfer large torque, high efficiency, low noise (max.50 dB), long life, and it has self-locking function to prevent the inversion, transmission part is stable and reliable, no need to add oil.
- 防脱螺栓**--拆除外壳时,螺栓附在壳体上,不会脱落。
Anti-off bolt--When removed the shell, the bolt would be attached to the shell and didn't fall off.
- 安装**--底部安装尺寸符合ISO5211/DIN3337国际标准,孔成双四方形便于带方杆的阀线性或45°转角安装,适应性强。可以垂直安装,也可以水平安装。
Install--The installation size of the bottom conforms to the international standard ISO5211/DIN3337. The holes are double square so that it's easy to fix the linear or 45° corner valves attached square bar, adaptable. It can be installed vertically, and also can be installed level.
- 线路**--控制线路符合单相或三相电源标准,线路布置紧凑合理,接线端子可有效满足各种附加功能的要求。
Circuitry--Control circuit conforms to the single-phase or three-phase power supply standard, reasonably compact line layout, wiring terminals can effectively satisfy a variety of additional functional requirements.

性能参数 Performance Parameter

型号 Model	最大输出扭矩 Max output torque N·m	动作时间90° Operating time (S)	输出轴 Output axis(mm)				电机(W) Electrical machinery	单相额定电流 Single-phase rated current 220V (A) 50HZ	重量 Weight (Kg)
			方Square	深Deep	圆Round	深Deep			
HGZK-003	30	10	9×9 11×11	13.5 15.5	Φ12.6	26	8	0.15	2.1
HGZK-005	50	30	11×11 14×14	15.5 18	Φ12.6	26	10	0.25	3.6
HGZK-010	100	30	14×14 17×17	18 22.5	Φ15.78 Φ18.95	28	15	0.35	4.6
HGZK-016	150	30	14×14 17×17	18 22.5	Φ18.95	28	15	0.37	4.6
HGZK-020	200	30	22×22	26	Φ22.13	45	45	0.3	13
HGZK-040	400	30	22×22	26	Φ28.48	45	60	0.33	13.8
HGZK-060	600	30	27×27	32.5	Φ31.65	45	90	0.33	14
HGZK-100	1000	135	27×27	32.5	Φ31.65	45	180	0.47	60
HGZK-160	1600	135	Max Φ65	深65			180	0.85	60
HGZK-200	2000	135	Max Φ65	深65			180	0.85	60

标准技术参数 Standard Technical Parameter

外壳Shell	铝合金外壳, 防水级别: IP67,NEMA4 and 6 Aluminium alloy Shell, waterproof level: IP67, NEMA4 and 6	
电机电源 Power supply	110/220V AC 1Phase, 380/440V AC 3Phase, 50/60Hz, ± 10%	
控制电源 Control supply	110/220V AC 1Phase, 50/60 Hz, ± 10%	
电机 Electric machinery	鼠笼式异步电动机 Squirrel-cage Asynchronous electric Machinery	
限位开关 Limit switch	2×开 (On)/关 (Off), SPDT, 250V AC 10A	
辅助限位开关 Accessorial Limit switch	2×开 (On)/关 (Off), SPDT, 250V AC 10A	
行程 Stroke	90° ~270±10° (90° 以上提前说明) When it's over 90°, please note us in advance	0° ~270
失效保护/操作温度 Speed protection/Operating temperature	内置热保护, 开120℃±5℃/关97℃±15℃ Inside hot protection, On 120℃±5℃/Off 97℃±15℃	
指示器 Indicator	连续的位置指示Continuous situation indication	
手动操作 Manul operation	机械手柄Mechanical handle (可选装手轮Optional: fixing with the handwheel)	
自锁装置 Self-locking device	蜗轮, 蜗杆机构提供自锁 Provide self-locking by worm and worm gear	
机械限位 Mechanical Limit	2个外部调整螺栓 2 pieces of adjustable bolts	
干燥器 Space heater	7-10W (110/220V AC)防冷凝 Condensation-preventing	
接线孔 Bonding hole	2个(Pieces) M18	
环境温度 Ambient temperature	-20℃~+70℃	
润滑 Lubrication	铝基润滑脂 (EP型) Aluminium base grease (EP)	
材料 Material	钢, 铝合金, 铝青铜, 聚碳酸酯 Steel, Aluminium alloy, Aluminium bronze, Polycarbonate	
环境湿度 Ambient humidity	最大(Max) 90% RH	非凝结 Non-Condensed
抗震性能 Shock survial	X Y Z 10g, 0.2~34 Hz, 30分(minutes)	
外涂层 External coating	干粉, 环氧聚酯Dry powder, Epoxy polyester	

外观图 Outside view

1.HGZK -03外观及安装尺寸

HGZK -03 Apperance and installation dimension

HGZK-DCS01

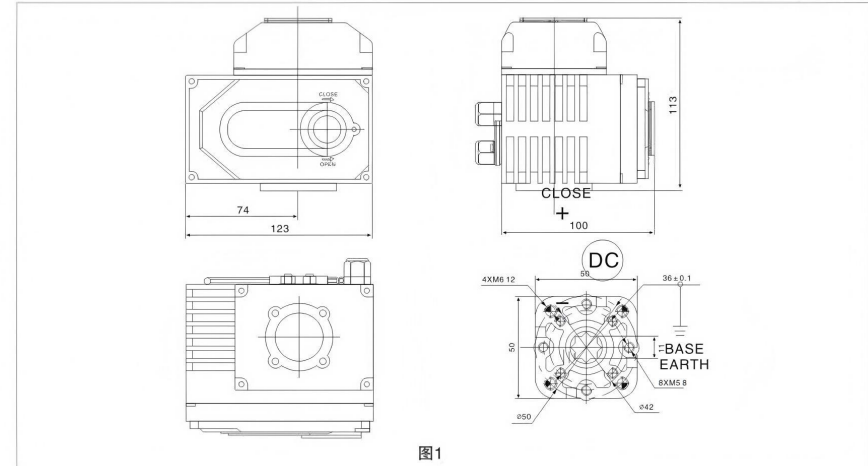


图1

2.HGZK-05 外观及安装尺寸(虚线部分为模拟量控制盒, 开关型无此尺寸)

HGZK -05 Appearance and installation dimension (The part of broken line is used for analog quantity control box, On-off model don't have this size)

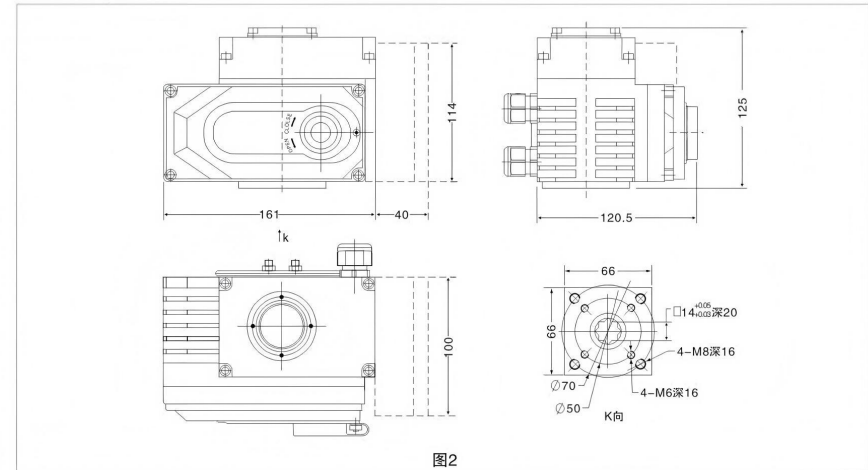


图2

3.HGZK-10~16外观及安装尺寸(虚线部分为模拟量控制盒,开关型无此尺寸)

HGZK-10~16Appearance and installation dimension(The part of broken line is used for analog quantity control box,On-off model don't have this size.)

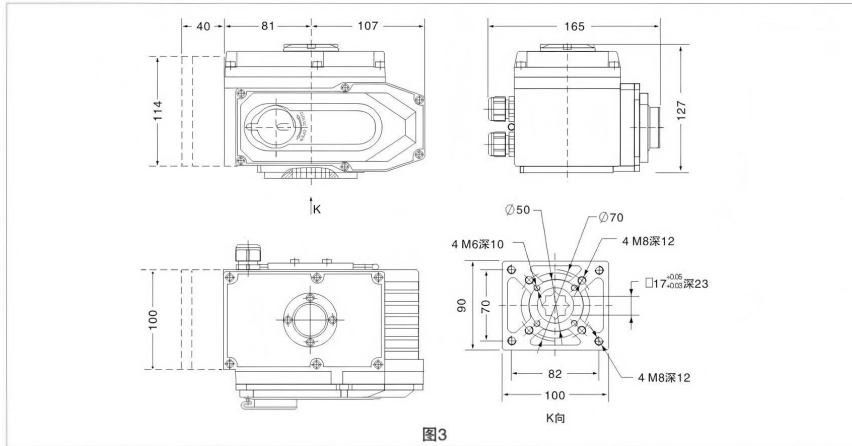


图3

4.HGZK-20~60外观及安装尺寸(虚线部分为模拟量控制盒,开关型无此尺寸)

HGZK-20~60Appearance and installation dimension(The part of broken line is used for analog quantity control box,On-off model don't have this size.)

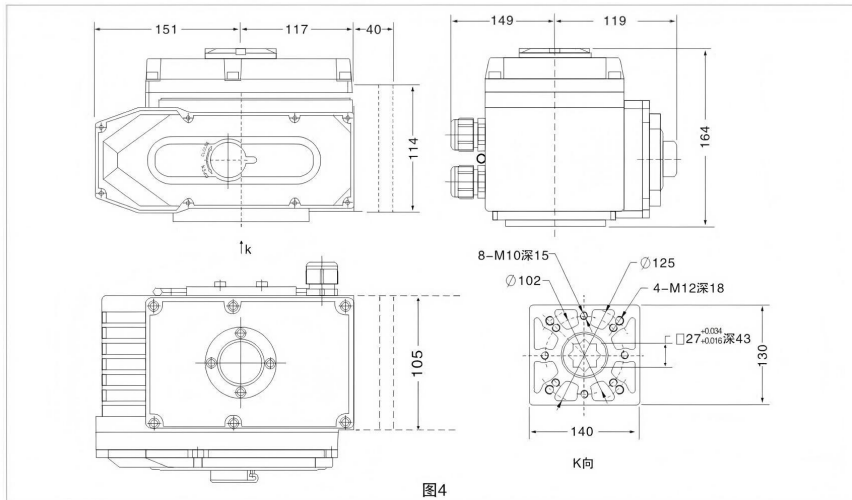


图4

1.2 室外安装的注意事项 Notes of outdoor installation

- ⊙ 为了避免雨水,阳光直射等问题,需要安装保护盖,或选用防护等级 IP68
In order to avoid the rain, direct sunlight and so on, it needs to install a protective cover, or choose IP68 protection grade.
- ⊙ 请预留接线、手动操作等维修用空间。
Please reserve space for repairing cables, manual operation.

2. 环境温度、流体温度条件 The condition of Ambient temperature and Fluid temperature

2.1 环境温度 Ambient temperature

- ⊙ 环境温度在 -30℃~+60℃
Ambient temperature at -30℃~+60℃
- ⊙ 环境温度为零下以下时,在机内加装除湿加热器。
When ambient temperature is below zero, the machine needs to install space heater.

2.2 流体温度 Fluid temperature

- ⊙ 与阀门配套使用时,流体的热量会传到机体上面,机体温度会升高。流体温度属高温时,与阀门连接的支架要作特别处理
When using with the valve, the heat of the fluid will move to the body, then the body temperature will rise. When the fluid temperature is a high temperature, the bracket which is connecting with the valve need to make special treatment
- ⊙ 标准支架:流体温度+65℃以下使用标准支架或免支架
Standard bracket: when the fluid temperature is below +65℃, it use standard bracket or no need to use bracket;
- ⊙ 中温支架:流体温度+65℃以上使用中温支架
Intermediate temperate bracket: when the fluid temperature is over +65℃, it use intermediate temperate bracket;
- ⊙ 高温支架:流体温度+180℃以上使用高温支架
High-temperature bracket: when the fluid temperature is over +180℃, it use high-temperature bracket.

3. 与阀门的连接 Connect with the valve

- ① 手动转动阀门,确认无异常情况,并转到全闭位置;
Turning valves by hand, confirmed that it didn't have abnormal situation, then turn to full-closed position;
- ② 将支架固定在阀门上;
Fix the bracket on the valve;
- ③ 将电动装置放在支架上用螺栓和螺母轻轻拧上;
Put the electric actuator on the bracket, then screwing the bolts and nuts lightly;
- ④ 将电动装置转到关闭位置,用连轴器和螺钉将阀门芯轴和电动装置输出轴固定;
Put the electric actuator to the closed position, fixing valve mandrel and electric actuator with coupling and screw bolts;
- ⑤ 拧上电动装置和支架间的螺钉;
Screw the bolts between the electric actuator and the bracket;
- ⑥ 用手柄转动电动装置,确认无偏心、弯斜、运动平稳,注意不要超程!
Rotate the electric actuator by handle to confirm non-eccentric, curved ramps, smooth movement, and pay attention to not over travel!

★ 注意事项: 连轴器尽量减小回差

Note: Decrease hysteresis of the coupling as far as possible.

安装时,注意使执行器的开关与阀门的开关一致。执行器底部的法兰符合 ISO5211 标准,如果与之连接的阀门也符合此标准,则可方便连接;如不符合此标准,则需另加支架连接。

Pay attention to keeping the switch of electric actuator in line with the switch of the valve when installing. The flange of the electric actuator bottom conform to the standard ISO5211, if the valves which connect with the flange are also conform to this standard, it will be connect conveniently; if doesn't, it should be connecting with the bracket in addition.

调试说明 Debug Description

1. 行程限位的调整 (图13, 图14) Adjustment of stroke limit

转动手柄使执行器运动到阀门全关的位置。然后,用扳手松开限位凸轮紧固螺母,转动限位凸轮(黄色开,红色关)将其调整到恰好压下限位开关(CLS)的位置,再将限位凸轮螺母紧固。这样就设定好了执行器全关时行程限位的位置。全开时的位置同样方法设定。

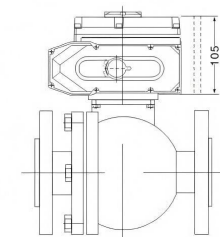


图12

Turn round handwheel making the electric actuator moved to the full-closed position. And loosen nuts on limit cam by spanner rotating limit cam (yellow open, red close) to adjusting just push down limit switch (CLS) position, and then screw limit cam nut. So, it's the way to set the full-closed stroke limit position of the electric actuator. Full-opened position is setting as the same way.

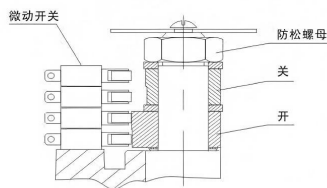


图13

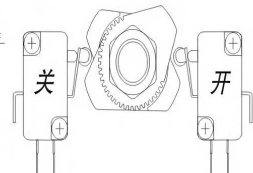


图14

2. 机械限位的调整 Adjustment of mechanical limit

松开机械限位螺钉的锁紧螺母，然后手动使执行器运动到全关的位置，旋转限位螺母，当其碰到里面的扇形齿轮后停止转动，再旋出两圈，最后上紧锁紧螺母。这样就设定好了执行器全关时的机械限位的位置。全开时的位置可同样设定。如图15所示：

Loosen the nuts of the mechanical limit, and then move the electric actuator to the full-closed position by hand, rotating the limit nuts, stop rotating when it comes across inside the fan-shaped gear, and then circle out two circles, screw the nuts at last. So, it's the way to set the full-closed mechanical position of the electric actuator. Full-open position is setting as the same way. Follow as the picture 14:

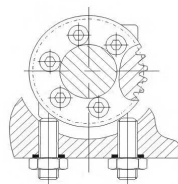


图15

3. 电位器的调整 Adjustment of potentiometer

电位器在执行器中作为一种反馈信号输出，有三个输出端子，其中②脚接电位器的滑臂。①脚接执行器开动作时，与滑臂之间的电阻不断减小一端，③脚则接执行器关闭动作时与滑臂之间的电阻不断减小一端（注意：电位器不应出现阻值过零，跳变现象）。用手柄转动阀门到全开位置，以开到限位开关动作为准，用万用表测量，将接线端子上②脚①脚电阻调整到35Ω-60Ω之间。若不正确可通过转动电位器传动齿轮调整。

Potentiometer is used for exporting feedback signal in the actuators, it exports 3 pieces of terminals, thereinto ② side connect with slide arm of potentiometer (refer to picture 16). ① side connect with the terminal which resistance between slide arms constantly decrease, when the actuator is opening movement, ③ side connect with the terminal which resistance between slide arms constantly decrease, when the actuator is closed movement. (Note: The potentiometer resistance should be not over-zero, jump phenomenon.) Rotating the valve to the wide-open position by handle, as per open to limit switch closed movement, measured with a multimeter to adjust the resistance between ② and ① side to 35Ω-60Ω. If it's not correctly, it can adjust through rotating drive gear of potentiometer.

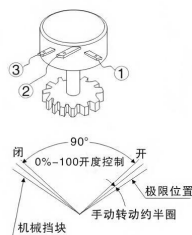


图16

调试说明 Debug Description

1. 手动操作 Manual Operation

进行手动操作时，必须先把电源切断；摘下减速盖的橡胶帽，将附带的手柄插入六角孔内；将动手柄按顺时针方向转动使开度减少。

First of all, it should be cut off the power, when it's operating by hand; take off the rubber caps on the gear cover, put the accessory handle in the hexagonal hole; rotate the handle clockwise direction to reduce the opening.

★注意：开度转到全开、全关位置时，极限开关产生动作再转动半圈，会碰到机械挡块上，过分转动，会导致其它零件的损坏，因此要避免用力过大。

Note: Opening to the full-open or full closed position, limit switch turns half circle, it will comes across mechanic block, if rotate excessively, it would result the damage of other parts, so it should be avoid excessive force.

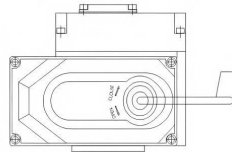


图17

2. 电动操作 Electric operation

① 电动操作之前，先用手动操作的方法，检查开度计和阀门角度（全开、全闭）是否一致；Before electric operation, checking opening meters in line with the angle of valves by the methods of manual operation (full-open, full-closed);

② 检查接线是否正确，同时必需先用外部切换开关，确认开闭动作；

Check the wiring correct, at the same time need to use an external switch to confirm opening and closing movements;

③ 确认以上状态之后，开始电动操作。

After confirm the over status, then start electric operation

3. 注意 Note

① 检查接线图，电源，输入/输出信号是否正确。

Check wiring diagram, power supply, input/output signal correctly.

② 尽量不要改变内部接线。

Don't change the internal wiring.

③ 如果电源为3相，应检查旋转方向。

If the power supply is 3 phase, it should be checking the rotating direction.

④ 手动使执行机构处于半开/关位，通电并输入开信号。

Enable the electric actuator lies in a half on/off position, turn on electricity and input the open signal.

⑤ 如果执行机构向开位运行，则说明接线正确。

If the electric actuator runs to the open position it means the wiring is correct.

⑥ 如果运动方向相反，则必须交换3根电源线中的两根。

If the running direction is opposite, it must be change 2 pieces wiring in 3 pieces of wiring.

保养 Maintenance

加油：由于使用寿命长，耐压性好的特殊钼基润滑脂，所以不需加油；

Oiling: Because of using the long life, good pressure resistance of special Mo-based grease, so it doesn't need to add the oil.

定期运转：在阀门的动作很稀少时，可以定期驱动机器，检查在无异常。

Regular operation: When the valve works infrequently, it should be driven the machine regularly, checking abnormality or not.

★注：模拟量调节型调试说明请参阅执行器控制模块部分说明书。

Note: Debugging description of analog volume adjustment type, please refer to the specification of the actuator control module part.

其他个性化功能 电动执行器 Other personalized features electric actuators

① 阀门全开、全关动作时间2.8秒到8秒(可选)，用于一些需快速动作的工况；

The time of the valve move to full-open or full-closed only need 2.8s-8s(optional), it's used for some working condition which need to move quickly.

② 水下短时间工作，用于一些有时电动执行器被水浸湿的工况；

Working under the water in short time, it's used for some working condition which the electric actuator is immersed in the water sometimes.

③ 阀门全开、全关特别缓慢，执行器可使阀门旋转90° 动作时间达到650秒；

The valve move to full-open or full-closed slowly in particular, the actuator is enable to rotating the valve 90° achieve 650 s.

④ 手动操作可采用带离合手轮机构；

Manual operation adopts handwheel with clutch.

⑤ 具有现场、就地/远程切换功能；

It's provided with the scene, local/remote switching function

⑥ 有DC 12V, DC 24V, DC 110V, DC 220V; AC 24V, AC 110V, AC 380V, 可订做；

It's provided with DC 12V, DC 24V, DC 110V, DC 220V; AC 24V, AC 110V, AC 380V;

★注：其他不详或特殊规格，请与本公司技术部联系。

Note: Other unknown or special specifications, please contact with Technology Department of our company.

HGZKQT防爆电动执行器系列 HGZKQT Series Explosion-proof Electric Actuator



江苏华工自控阀门有限公司

江苏华工自控阀门有限公司
Jiangsu Huagong Automatic Control Valve Co., Ltd

HGZKQT防爆电动执行器系列
HGZK QT Series Explosion-proof Electric Actuator

概述 Summary

HGZKQT系列电动执行器用于控制0°~270°旋转的阀门及其他同类产品，如蝶阀、球阀、风门、挡板阀、旋塞阀、百叶阀等，可以广泛应用于石油、化工、水处理、船舶、造纸、电站、供热、楼宇自控、轻工等各行各业中。它以380V/220V/110V交流电源为驱动电源，以4-20mA电流信号或0-10VDC电压信号为控制信号，可使阀门运动到所需位置，实现其自动化控制，最大输出扭矩达4000N·M。(该产品已获得CE防爆认证证书，产品质量具有保障)

"HGZK QT" series electric actuator is used for controlling 0°-270° rotation of the valves and other similar products, such as butterfly valve, ball valve, damper, loper valve, cock valve etc. it widely applies to petroleum, chemical, water treatment, shipping, paper making, power plant, heating, light industry and other industries. Driven by 380V/220V/110V AC power or 24V/110V DC power, inputs 4-20mA current signal or 0-10VDC voltage signal as control signal, moves the valve to the right position, and achieves to automatic control. maximum output torque is 5000N·M. (HGZKQT series products have got CE and explosion-proof certificate)

性能特点 performance Features

- 1.壳体—壳体为硬铝铝合金，经阳极氧化处理和聚酯粉末涂层，耐腐蚀性强，防护等级为IP67，NEMA4和6，并有IP68和防爆型供选择。
1. Shell—The shell is made of horniness aluminium alloy, with anodic oxidation treatment and polyester coating. It is strong corrosion-resistant enclosure Ip67, NEMA 4 and 6, Ip68 and explosion-proof is optional.
- 2.电机—全封闭式鼠笼式电机，体积小，扭矩大，惯性力小，绝缘等级为F级，内置过热保护开关，可防止过热损坏电机。
2. Electric Machinery—Fully enclosed Squirrel-cage electric machinery, small, large torque, and small inertia force, F-class insulation rating, place hot protection switch internal to avoid damaging the electric machinery.
- 3.手动结构—手轮的设计保证安全可靠、省力、体积小。不通电时，扳动离合器手柄可进行手动操作。通电时，离合器自动复位。(注：在电机不通电的情况下，电动执行器将保持永久手动状态)
3. Manual Structure—The design of handle is safe, reliable, labor-saving, small. If without power, it can be operated by hand. With power, the clutch will reset automatically.
- 4.指示器—指示器安装在中心轴上，可以观察阀门位置。透镜采用凸透镜设计，不积水，观察更方便。
4. Indicator—Installs indicator in the center axis and adopts convex mirror design, no cumulate water, more convenient to observe.
- 5.干燥器—用来控制温度，防止由于温度和天气变化导致执行器内部水份凝结，保持内部电气元件的干燥。
5. Space heater—It is used for controlling temperature, avoiding internal moisture of electric actuator condensed because of the changing of temperature and weather, keep inner electric device dry.
- 6.限位开关—机械，电子双重限位。机械限位螺钉可调，安全可靠；电子限位开关由凸轮机构来控制，简单的调整机构能精确并方便地设定位置，无需电池支持。(微动开关触点均为银质触点)
6. Limit switch—Mechanical, electronic double limit. Mechanical limit screw is adjustable, safe and reliable; electronic limit switch is controlled by the cam. Set position accurately and conveniently by simple adjustment, no need battery. (microswitch contactors are silver contactors)
- 7.扭矩开关—可提供过载保护(HGZKQT-010除外)，在阀门卡涩，有异物时，自动断开电机电源，更有效的保护阀门和电动执行器不受损坏。(出厂前已设定好，请用户不要随意更改设置)
7. Torque Switch—(Except HGZKQT-010) Providing overload protection, avoid to damage the valve and electric actuator when jammed, it can cut the power automatically. (Pls don't change mounting arbitrary)
- 8.自锁—紧密的双蜗轮蜗杆机构可高效传输大扭矩，效率高，噪音低(最大50分贝)，寿命长有自锁功能，防止反转，传动部分稳定可靠，出厂已经加满高效润滑脂，使用无需再加油。
8. Self-locking—Accurate worm and worm gear transfer large torque efficiently, high efficiency, low noise (max. 50 dB), long life, with self-locking function, prevent inversion, as stable and reliable transmission parts. no need to refuel.
- 9.防脱螺栓—拆除外壳时，螺栓附在壳体上，不会脱落。外部螺栓均采用不锈钢材质。
9. Anti-off bolt—The bolt will attach to the shell and not be off and when remove the shell. The outside of the bolt is stainless steel.
- 10.安装—底部安装尺寸符合ISO5211国际标准，驱动套可拆下根据需要进行加工，适应性强。可以垂直安装，也可以水平安装。
10. Installation—The installation size of the bottom meets international standard ISO5211, the drive sleeve can be removed to process as required. It can be installed vertically, and also can be installed levelly.
- 11.线路—控制线路符合单相或三相电源标准，线路布置紧凑合理，接线端子可有效满足各种附加功能的要求。阀门到位均有无源接点输出(可根据客户要求另行加工。)
11. Circuit—Controlling circuit meet the single-phase or three-phase power supply standard, circuit layout is reasonable and compact, terminals meet various of additional functional requirements effectively (It can be processed separately if customers require).

12. 智能模块—采用集成度高，功耗很低的单片机与模拟电路混合的控制板，更采用全金属外挂式安装，使执行器电机热源与控制板有效隔离，很大程度上地提高了软件及硬件的抗干扰性能及耐高温性。

12. Intelligent modul—It adopts control plate mixed by MCU and analog circuit, hight integration, low consumption, and metallic out—mount, to separate electric actuator heat producer and control plate effectively, and improve the anti—interference and heat resistance of software and hardware widely.

13. 阀位数字显示—执行器在打开或关闭的过程中，阀位的变化在液晶屏上以大数字方式实时显示。

13. The display of valve position—During the opening or closing of actuator, the change of valve position on LCD is displayed with large numbers.

14. 相序自动化调整—智能型执行器自动检测接入的三相电源相序，无需用户考虑三相电源的相序问题。

14. Adjust the phase sequence automatically—Intelligent actuator connect to 3 phases power supply phase sequence automatically, no need to consider about the phase sequence of 3 phases power supply for users.

性能参数 Performance Parameter

1.HGZK QT系列电动执行器技术参数
HGZK QTseries electric actuator performance parameter

型号 Model	最大输出 扭矩 Max output torque	动作时间 60/50HZ Operating time 60/50Hz	最大轴径 Max bore size	电机F级 F—class Motor	额定电流(A)50HZ Rated Current(A)50HZ				手轮转速 Handwheel revolution	重量 Weight
					单相 single phase		三相 three phases			
	N·M	90°	mm	W	110V	220V	380V	440V	N	Kg
HGZKQT-010	100	18/22	Φ20	20	1.10/0.95	0.55/0.54	0.3/0.3	N/A	10	7.5
HGZKQT-015	150	21/25	Φ22	40	1.65/1.67	0.88/0.84	0.31/0.31	0.30/0.31	11	17.3
HGZKQT-020	200	21/25	Φ22	40	1.67/1.67	0.89/0.85	0.31/0.31	0.30/0.31	11	17.3
HGZKQT-030	300	26/31	Φ35	90	1.85/1.86	0.92/0.92	0.35/0.35	0.34/0.34	13.5	22
HGZKQT-050	500	26/31	Φ35	90	3.60/3.62	1.55/1.58	0.59/0.59	0.58/0.58	13.5	23
HGZKQT-060	600	26/31	Φ35	120	3.65/3.62	1.60/2.20	0.60/0.59	0.59/0.58	13.5	23
HGZKQT-080	800	31/37	Φ45	180	4.10/4.10	2.15/2.20	0.85/0.85	0.79/0.79	16.5	29
HGZKQT-120	1200	31/37	Φ45	180	4.20/4.10	2.35/2.30	0.87/0.87	0.81/0.81	16.5	29
HGZKQT-200	2000	93/112	Φ65	180	4.10/4.10	2.15/2.20	0.85/0.85	0.79/0.79	49.5	75

2. 标准规格 Standard technical parameter

外壳 Shell	防水级别IP67, NEMA4 and 6 Enclosure:IP68,NEMA4 and 6	
电机电源 Power	标准: 220V AC 单相 可选: 110V AC单相, 380、440V AC 3相, 50/60Hz, ±10% 24V DC/110V DC/220V DC Standard:220V/AC single—phase Optional:110V AC single—phase,380V/440V 3phase,50/60HZ, ±10% 24V DC/110V DC/220V DC	
电机 Motor	鼠笼式异步电机 Squirrel—cage Asynchronous Motor	
限位开关 Limit Switch	开/关, 各1个, SPDT,250V AC 10A Close/Open,each 1, SPDT,50V AC 10A	
辅助限位开关 Auxiliary Limit Switch	开/关, 各1个, SPDT,250V AC 10A Close/Open,each 1, SPDT,50V AC 10A	
扭矩开关 Torque switch	开/关, 各1个, SPDT,250V AC 10A Close/Open,each 1, SPDT,50V AC 10A	HGZKQT-010除外 Except HGZKQT-010
行程 Stroke	90° ±10°	0° ~270° 可选
失速保护/操作温度 Stall protection/ Operating temperature	内置过热保护, 开115℃ ±5℃/关97℃ ±5℃ Built—in thermal protection, Open 115℃ ±5℃/Close 97℃ ±5℃	
指示器 Indicator	连续的位置指示刻度 Continuous position indicator	
手动操作 Manul operate	机械离合机构, 配手轮操作 Declutching mechanism, cooperate with handwheel	
自锁装置 Self—locking device	蜗轮, 蜗杆机构提供自锁 Self—locking by worm and worm gear	
机械限位 Mechanical Limit	2个外部调整螺栓 2× external adjustable screws	
干燥器 Space heater	7—10W(110/220V AC)	
接线孔 Conduit entry	2个PF 3/4"	
环境温度 Ambient temperature	—20℃—+70℃	
润滑 Lubrication	铅基润滑脂 (EP 型) Grease moly(EP type)	
材料 Material	钢,铝合金, 铝青铜, 聚碳酸酯 Steel,Aluminium alloy, Aluminium bronze,Polycarbonate	
环境温度 Ambient humidity	最大90% RH Max 90% RH	非凝结 Non—Condensing
抗震性能 Anti—vibration	X Y Z 10g,0.2—34 Hz,30分 X Y Z 10g,0.2 ~ 34Hz,30 minutes	
外涂层 External coating	干粉, 环氧聚酯,具有超强的防腐能力 Dry powder, Epoxy polyester,high anti—conrrsion	

3. 可选规格 Option Specification

编号 No.	可选配置 Option scheme	备注 Remark
1	防爆执行器 (Exd II BT4, Exd II CT6) Explosion-proof Actuator (Exd II B T4, Exd II CT6)	HGZKQT 系列 HGZKQT series
2	防水执行器 (IP68, 10M, 250HR) Water-proof Actuator (IP68, 10M 250HR)	HGZKQT 系列 HGZKQT series
3	电位计 (1K-10K) Potentiometer Unit (1K-10K)	HGZKQT 系列 HGZKQT series
4	比例控制单元 (输入, 输出信号 4-20mA DC/1-5V/1-10V) Proportion Control Unit (input, output 4-20mA DC/1-5V/1-10V)	HGZKQT 系列 HGZKQT series
5	现场控制单元 (就地控制/开/停/关选择开关, 就地/远程切换) Local Control Units (local control/open/stop/close optional switch, local/remote switch)	HGZKQT 系列 HGZKQT series
6	行程 120°, 180°, 270° Stroke 120°, 180°, 270°	HGZKQT 系列 HGZKQT series
7	直流电机 (24V DC) Direct current motor (24V DC)	HGZKQT 系列 HGZKQT series
8	附加扭矩开关 (SPDT X2 250V AC 10A) Torque switch (SPDT X2 250V AC 10A)	HGZKQT-010 除外 Except HGZKQT-010
9	电流位置传感器 (输出 4-20mA DC) Electric current position transfer (Output 4-20mA DC)	HGZKQT 系列 HGZKQT series
10	断电后, 电动阀自动开或关控制柜 After cutting power, the electric valve can open or close to control automatically	HGZKQT 系列 HGZKQT series
11	耐高温执行器 (-10°C ~ +100°C) High temperature resistance actuator (-10°C ~ +100°C)	HGZKQT 系列 HGZKQT series
12	耐低温执行器 (-40°C ~ +70°C) Low temperature resistance actuator (-40°C ~ +70°C)	HGZKQT 系列 HGZKQT series
13	低速执行器 Low speed actuator	HGZKQT 系列 HGZKQT series

结构 Structure

电动执行器主要由以下几部分组成:

Electric actuators is make up of the following parts:

○ 壳体部分: 包括外壳及底座部分;

Shell: including shell and pedestal

○ 驱动部分: 以高性能全封闭鼠笼式电机为动力源;

Drive parts: Full sealing high-performance squirrel-cage motor for the power source

○ 传动机构: 双蜗轮与离合器部分;

Driving mechanism: Double worm and clutch

○ 比例控制部分: 与机械部分分离, 提高可靠性;

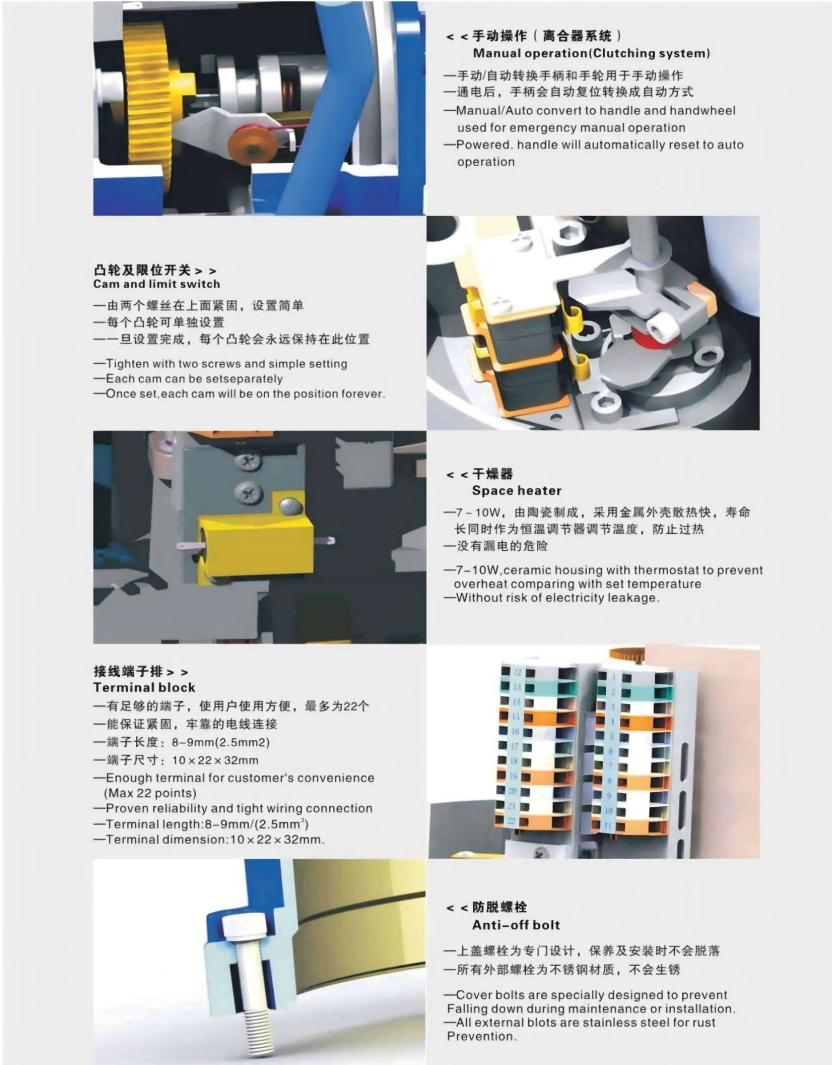
Ratio control parts: separate with the mechanical parts, easy to debug

○ 力矩开关与限位开关部分;

Torque switch and limit switch part

○ 开度检测与反馈部分。

Opening detected and feedback parts.



<< 手动操作 (离合器系统)
Manual operation (Clutching system)

- 手动/自动转换手柄和手轮用于手动操作
- 通电后, 手柄会自动复位转换成自动方式
- Manual/Auto convert to handle and handwheel used for emergency manual operation
- Powered, handle will automatically reset to auto operation

凸轮及限位开关 >>
Cam and limit switch

- 由两个螺丝在上面紧固, 设置简单
- 每个凸轮可单独设置
- 一旦设置完成, 每个凸轮会永远保持在此位置
- Tighten with two screws and simple setting
- Each cam can be set separately
- Once set, each cam will be on the position forever.

<< 干燥器
Space heater

- 7-10W, 由陶瓷制成, 采用金属外壳散热快, 寿命长同时作为恒温调节器调节温度, 防止过热
- 没有漏电的危险
- 7-10W, ceramic housing with thermostat to prevent overheat comparing with set temperature
- Without risk of electricity leakage.

接线端子排 >>
Terminal block

- 有足够的端子, 使用户使用方便, 最多为22个
- 能保证紧固, 牢固的电线连接
- 端子长度: 8-9mm (2.5mm)
- 端子尺寸: 10 × 22 × 32mm
- Enough terminal for customer's convenience (Max 22 points)
- Proven reliability and tight wiring connection
- Terminal length: 8-9mm (2.5mm)
- Terminal dimension: 10 × 22 × 32mm.

<< 防脱螺栓
Anti-off bolt

- 上盖螺栓为专门设计, 保养及安装时不会脱落
- 所有外部螺栓为不锈钢材质, 不会生锈
- Cover bolts are specially designed to prevent falling down during maintenance or installation.
- All external bolts are stainless steel for rust prevention.

指示器由弹簧支撑 >>

Indicator sustained by spring

- 指示器的方向在出厂前已设置好
- 如果想改变指示方向,只需要抓住指示盘,改变方向即可
- 指示盘下面的弹簧会保持设定位置不会改变
- 不需要放松或上紧螺钉
- Direction of indicator has been set by factory
- If change direction of indicator,just grip the indicator plate to change it
- Spring under the indicator plate sustains the set position unchanged
- No need to loose screw and tight against at all.



<< 上盖与体的结合为斜面

Inclined plane

- 其他执行器由于上盖和体的结合面是竖直的,这样由于此处的公差很小,卸上盖很不容易
- HGZKQT执行器此处设计为3°的斜面,解决了这个问题,尽管公差依然很小,但是卸上盖就很容易了
- For other actuators,it is hard to take off cover because of little tolerance when the interface between cover and body is vertical.
- For HGZKQT actuators,it is easy to take off cover as small tolerance,the design of interface is 3 degree inclined plance.

扭矩开关 >>

Torque switch

- 扭矩开关可防止由于过载引起的电机及其他内部电子元件应过热对内部元件的损伤
- 一旦扭矩开关起作用,执行器应立即停止动作
- Torque switch protect motor and internal electric components from overhear caused by overload of valve.
- If torque works, the actuator stop at once.



<< 可换驱动轴套

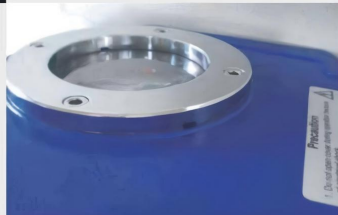
Removable drive sleeve

- 轴套是可换的,且可根据不同的要求加工
- 四个悬耳用于驱动轴及轴套的紧密配合
- 和阀门的安装方便
- Sleeve is removable as different requirement
- 4 under hungs for tightening or loosing between drive shaft and sleeve.
- Easy installation with valve.

视窗上的两个小槽 >>

Two slots on window glass

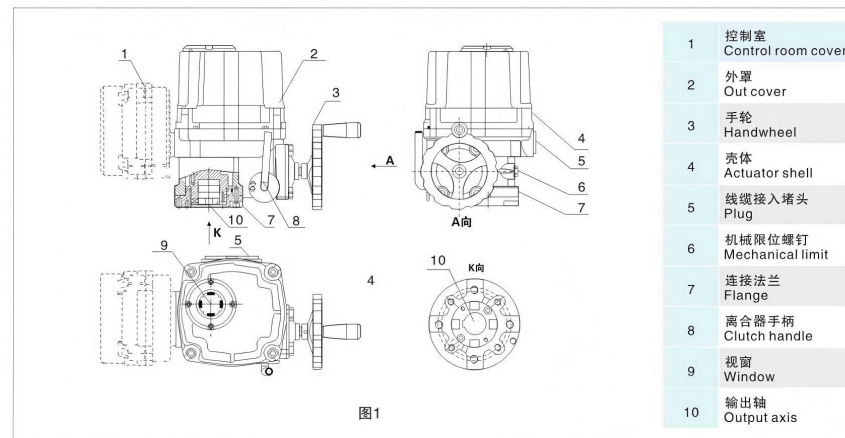
- 视窗盖上有两个小槽,便于雨水排出,且视为凸镜不积水,更宜观察
- 流水视窗盖的雨水可能会影响视窗的密封
- 这样两个小槽就可防止上面的问题发生
- Two slots on the window covers and convex are convenient for draining and observing, and ensure the well sealing of the cover.



外观图 Outside view

虚线部分为模拟量控制盒,开关型无此尺寸

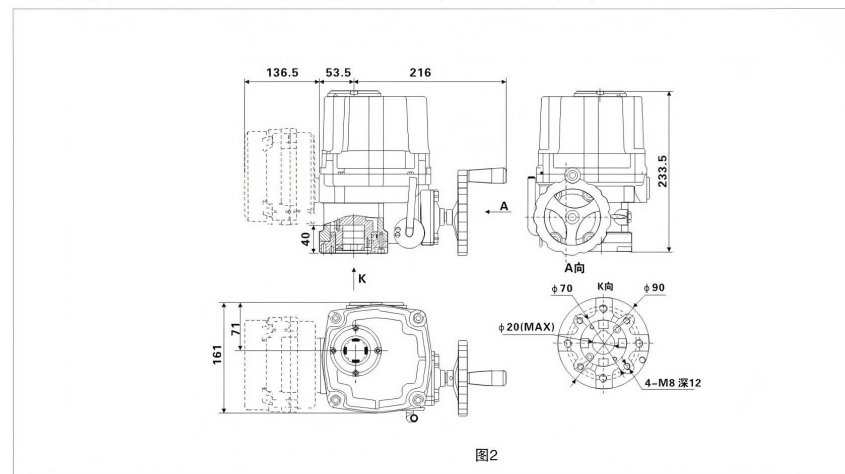
The part of borken line is used for analog quantity control box,on/off model don't have this size.



1.HGZKQT -010外观及安装尺寸 (虚线部分为模拟量控制盒,开关型无此尺寸)

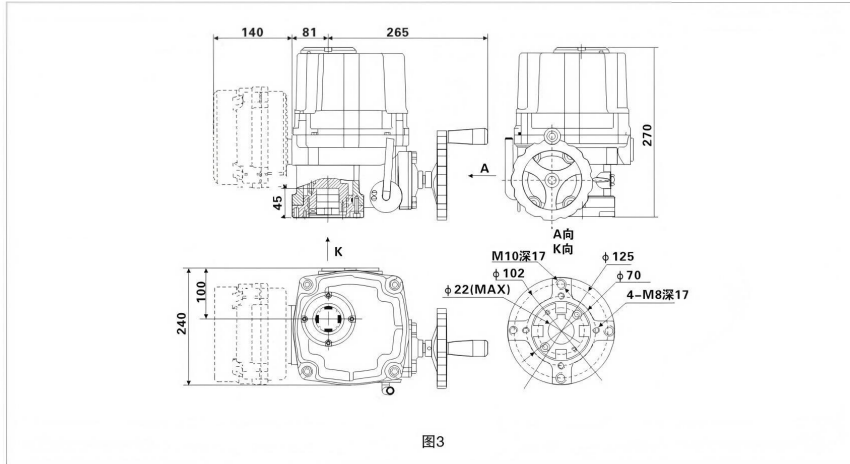
HGZKQT -010 Appearance and installation dimension

(The part of broken line is used for analog quantity control box,on/off model don't have this size)



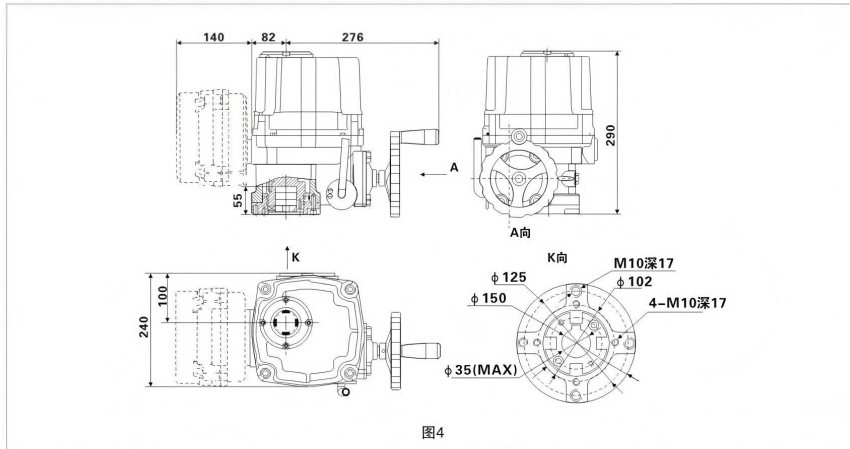
2.HGZKQT-015-020外观及安装尺寸 (虚线部分为模拟量控制盒, 开关型无此尺寸)

HGZKQT-015-020 Appearance and installation dimension
(The part of broken line is used for analog quantity control box, on/off model don't have this size)



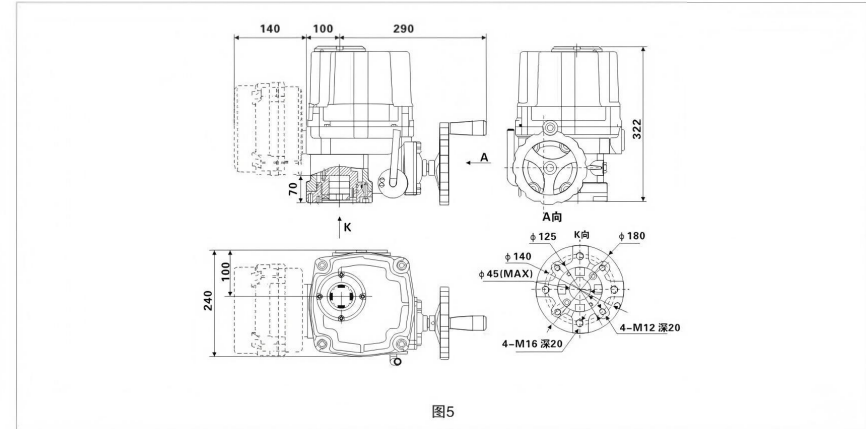
3.HGZKQT-030-060外观及安装尺寸 (虚线部分为模拟量控制盒, 开关型无此尺寸)

HGZKQT-030-060 Appearance and installation dimension
(The part of broken line is used for analog quantity control box, on/off model don't have this size)



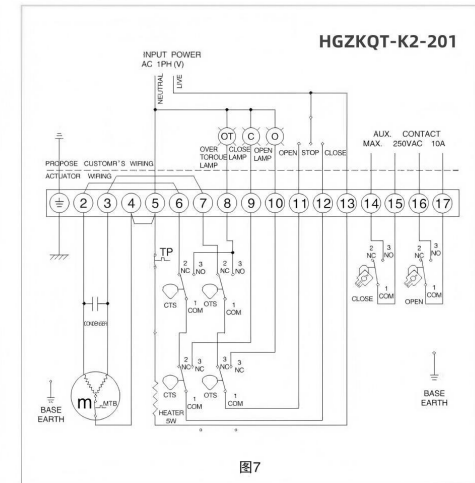
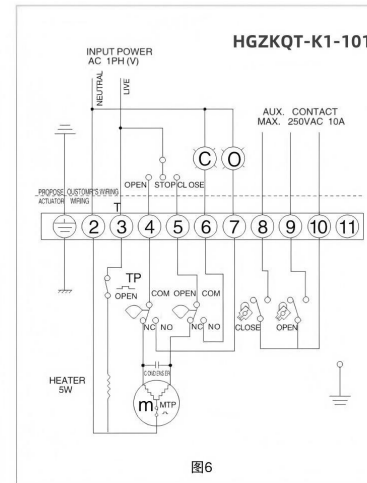
4.HGZKQT-080-200外观及安装尺寸 (虚线部分为模拟量控制盒, 开关型无此尺寸)

HGZKQT-080-200 Appearance and installation dimension
(The part of broken line is used for analog quantity control box, on/off model don't have this size)

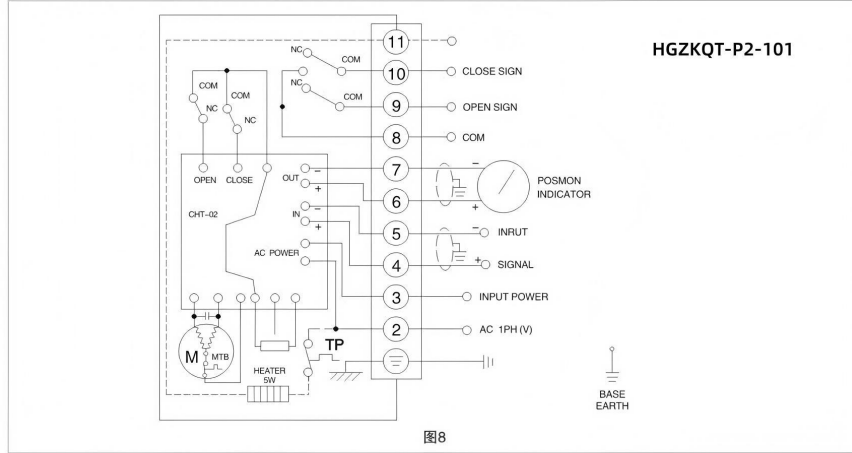


线路图 Circuit Diagram

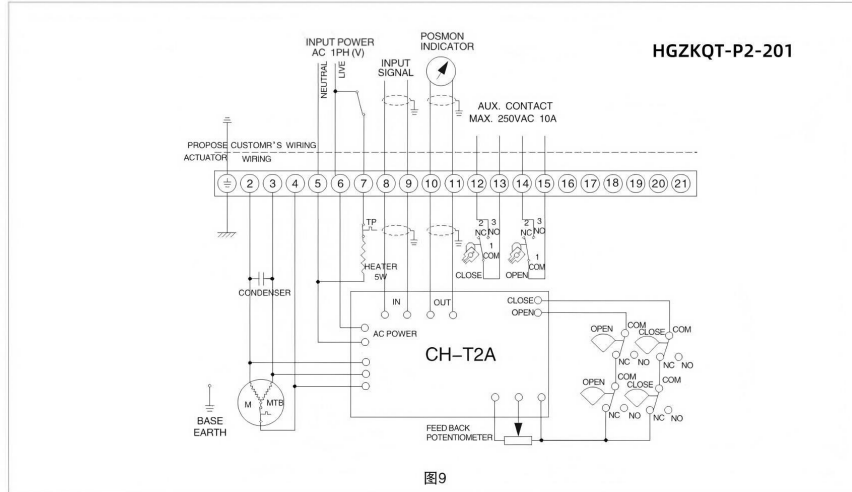
1. HGZKQT-010 110/220VAC/50/60HZ, 1Ph(标准开关型)
HGZKQT-010 110/220VAC/50/60HZ, 1Ph(010 on/off model)
HGZKQT-K1-101
2. HGZKQT-015~200/220VAC/50/60HZ, 1Ph(标准开关型)
HGZKQT-015~200/220VAC/50/60HZ, 1Ph(010 on/off model)
HGZKQT-K2-201



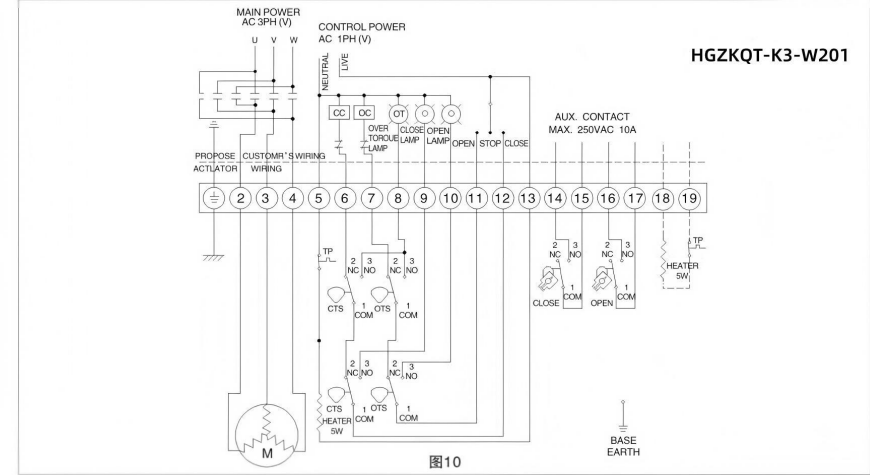
3.HGZKQT-010 模拟量无源触点信号输出线路图HGZKQT-P2-101
HGZKQT-010 110/220V AC/50/60HZ,1Ph(010 modulating model)HGZKQT-P2-101



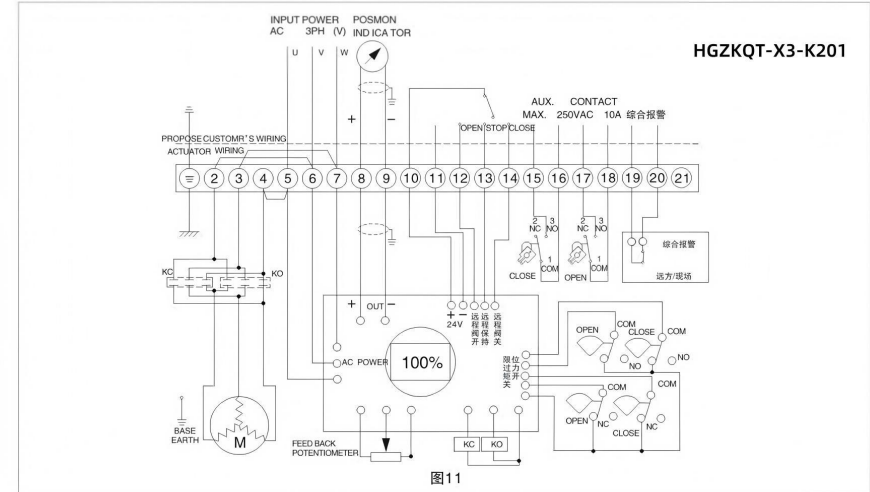
4.HGZKQT-015~200 110/220V AC/50/60HZ,1Ph(调节带过力矩保护型) HGZKQT-P2-201
HGZKQT-015~200 110/220V AC/50/60HZ,1Ph(Standard modulating mode)



5.HGZKQT-015~200 380/440V AC/50/60HZ,3Ph(外置标准型)
HGZKQT-015~200 380/440V AC/50/60HZ,3Ph(External standard on/off modle) HGZKQT-K3-W201



6.HGZKQT-015~200 110/220V AC/50/60HZ,1Ph(现场控制开关型)
HGZKQT-015~200 110/220V AC/50/60HZ,1Ph(Intelligent on/off modle) HGZKQT-X3-K201



电动球阀系列

型号: Q941F(N, P, H, Y)-PN16-40; Q944(5)F(N, P, H, Y)-PN16-40;
Q914(5)F(N, P)-PN16-64;
VQ97(4)0F(P, H, Y)-PN16, 25; Q91(6)1S-PN10, 16;
Q971F(N)-PN10, 16; Q91(6, 8, 2)1F(N, H)-PN16-64;

口径: DN10-300mm
压力: 1.6, 2.5, 4.0, 6.4MPa; 150Lb, 300Lb
结构: 浮动式

尺寸标准: 国标、美标、日标
阀体材质: 碳钢(WCB)、不锈钢(CF8, CF8M, CF3, CF3M)
阀座材料: 聚四氟乙烯、对夹聚苯、尼龙、硬质合金
控制方式: 开关型、智能调节型

Electric Ball Valve Series

Model: Q941F(N, P, H, Y)-PN16-40, Q944(5)F(N, P, H, Y)-PN16-40,
Q914(5)F(N, P)-PN16-64;
VQ97(4)0F(P, H, Y)-PN16, 25; Q91(6)1S-PN10, 16
Q971F(N)-PN10, 16, Q91(6, 8, 2)1F(N, H)-PN16-64

Diameter: DN10-300mm
Pressure: 1.6, 2.5, 4.0, 6.4MPa; 150Lb, 300Lb
Structure: Floating type

Size standard: GB, ANSI, JIS
Valve body material: Carbon steel (WCB), stainless steel (CF8, CF8M, CF3, CF3M)

Valve seat material: PTFE, PPL, nylon, hard alloy
Control mode: switch type, intelligent regulation type

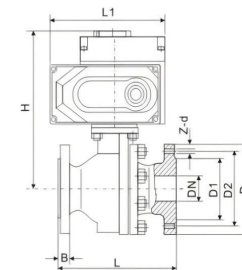


江苏华工自控阀门有限公司

江苏华工自控阀门有限公司

Jiangsu Huagong Automatic Control Valve Co., Ltd

电动法兰球阀 Electric Flange Ball Valve



产品概述 Product overview

电动球阀是一种转角90°的旋转类球阀，密封性能优良，流通能力大，流阻系数小，结构简单、维修方便、使用寿命长，阀体通道和连接管径相等并成一直径，介质几个可以毫无损失的流过。配用HGZK, HGZT等高性能执行机构，产品通常用于密封要求严格的场合，除控制气体、液体、蒸汽介质外，还适直控制污水和含有纤维性杂质的介质，广泛用于石油、化工、冶金、轻工、造纸、电站、制冷等工作领域。

An electric ball valve is a kind of rotating type ball valve with rotary angle of 90° and features good sealing performance, large flow capacity, small flow resistance coefficient, simple structure, convenient maintenance and long service life. Valve body passage is equal to connecting pipe diameter in size and medium can almost flow through it with no loss. It is used together with HGZK/HGZKT high performance actuator. Such products are usually used on applications with strict sealing requirements. Besides control of gas, liquid and steam medium, they are also suitable for control of sewage and medium containing fibrous impurities. They are widely used in petroleum, chemical industry, metallurgy, light industry, paper making, power plant, refrigeration, and other work fields.

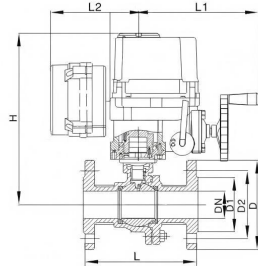
阀门技术参数 Valve technical parameters

公称直径 Nominal diameter (mm)	DN15-DN400(mm)
公称压力 Nominal pressure (MPa)	1.0, 1.6, 2.5, 4.0, 6.4MPa
适用介质 Applicable medium	水、石油、硝酸类、醋酸类、粘性流体、浆料、强氧化性介质等。 Water, petroleum, nitric acid, acetic acid, viscous fluid, paste, strong oxidizing medium, etc.
介质温度 Medium temperature	-40℃~+180℃ -40℃~+350℃
泄漏量 Leakage	0符合ANSI B16.104 5级标准
球体转角 Rotating angle of ball	90°
阀体材质 Valve body material	A105, F304, F316, WCB, FZG1Cr18Ni9Ti, ZG1Cr18Ni12Mo2Ti, CF8, CF8M, CF3M
阀座材料 Seat material	聚四氟乙烯(常温)、特制PPL(高温)、金属密封(高温) PTFE (room temperature), special PPL (high temperature), metal seal (high temperature)

主要连接尺寸 Main connection dimensions

公称直径 Nominal diameter DN(mm)	尺寸 Size (mm)								执行机构选配(常温常压) Optional actuator (atmospheric pressure and normal pressure)
	L	D	D2	D1	B	H	L1	Z-d	
15	130	95	65	45	14	176	161	4-14	HGZK-005 HGZKQT-010
20	140	105	75	55	14	180	161	4-14	HGZK-005 HGZKQT-010
25	150	115	85	65	14	182	161	4-14	HGZK-005 HGZKQT-010
32	165	135	100	78	16	188	161	4-18	HGZK-010 HGZKQT-010
40	180	145	110	85	16	198	161	4-18	HGZK-010 HGZKQT-010
50	200	160	125	100	16	203	161	4-18	HGZK-016 HGZKQT-010
65	200	180	145	120	18	222	188	4-18	HGZK-016 HGZKQT-015
80	250	195	160	135	20	237	188	8-18	HGZK-020 HGZKQT-020
100	280	215	180	155	20	281	268	8-18	HGZK-040 HGZKQT-030
125	320	245	210	185	22	300	268	8-18	HGZK-060 HGZKQT-040
150	360	280	240	210	24	300	268	8-23	HGZK-100 HGZKQT-080
200	400	335	295	265	26	368	268	12-23	HGZK-100 HGZKQT-120
250	533	405	335	320	30	418	268	12-25	HGZK-200 HGZKQT-200

注: 以上选配参数仅供参考, 具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



虚线部分为模拟量控制盒，开关型无此尺寸
The dashed part is analog quantity control box;
for type switch, there is no size for this.

产品概述 Product overview

电动防爆球阀是一种球体绕垂直于通道轴旋转90°的阀门，其由回转型防爆角行程电动执行器和O型阀结构组成，属旋转类型高性能调节或开关阀类，接受工业自动化控制（DCS、PLC系统）仪表来源的电流信息或电压信息的输入输出，可实现对工艺管路中流体介质的比例调节或二位开关控制，从而达到对流体介质的流量、压力、温度、液位等参数的自动化控制。

An electric explosion-proof ball valve is a kind of valve where the ball rotates by 90° while perpendicular to the passage axis. It consists of rotary type explosion-proof angular travel electric actuator and O-shaped valve structure. It belongs to rotating type high performance regulating or switching valve category. It accepts input and output current or voltage information from industrial automation control (DCS, PLC system) instruments. It can realize proportion regulating or two-switch control for fluid medium in process pipeline. Thus, it can realize automatic control on fluid medium parameters such as flow rate, pressure, temperature and liquid level.

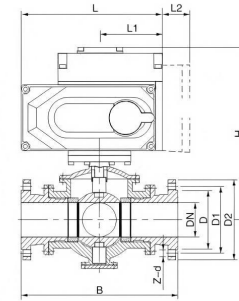
阀门技术参数 Valve technical parameters

公称口径 Nominal diameter (mm)	DN15-DN400(mm)
公称压力 Nominal pressure (MPa)	1.0、1.6、2.5、4.0、6.4MPa
适用介质 Applicable medium	水、石油、硝酸类、醋酸类、粘性流体、浆料、强氧化性介质等。 Water, petroleum, nitric acid, acetic acid, viscous fluid, paste, strong oxidizing medium, etc.
介质温度 Medium temperature	-40℃~+180℃ -40℃~+350℃
泄漏量 Leakage	0符合ANSIB16.104 5级标准
球体转角 Rotating angle of ball	90°
阀体材质 Valve body material	A105、F304、F316、WCB、FZG1Cr18Ni9Ti、ZG1Cr18Ni12Mo2Ti、CF8、CF8M、CF3M
阀座材料 Seat material	聚四氟乙烯(常温)、特制PPL(高温)、金属密封(高温) PTFE (room temperature), special PPL (high temperature), metal seal (high temperature)

主要连接尺寸 Main connection dimensions

公称直径 Nominal diameter DN(mm)	尺寸 Size (mm)								执行机构选配(常温常压) Optional actuator (atmospheric pressure and normal pressure)
	L	D	D2	D1	L2	H	L1	Z-d	
15	130	95	65	45	136.5	284	216	4-14	HGZKQT-010
20	140	105	75	55	136.5	284	216	4-14	HGZKQT-010
25	150	115	85	65	136.5	284	216	4-14	HGZKQT-010
32	165	135	100	78	136.5	284	216	4-18	HGZKQT-010
40	180	145	110	85	136.5	284	216	4-18	HGZKQT-010
50	200	160	125	100	136.5	284	216	4-18	HGZKQT-010
65	220	180	145	120	136.5	328	216	4-18	HGZKQT-015
80	250	195	160	135	140	380	270	8-18	HGZKQT-020
100	280	215	180	155	140	387	270	8-18	HGZKQT-030
125	320	245	210	185	140	426	276	8-18	HGZKQT-040
150	360	280	240	210	140	458	290	8-23	HGZKQT-080
200	400	335	295	265	140	698	290	12-23	HGZKQT-120
250	433	405	335	320	140	780	290	12-25	HGZKQT-200

注：以上选配参数仅供参考，具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



虚线部分为模拟量控制盒，开关型无此尺寸
The dashed part is analog quantity control box;
for type switch, there is no size for this.

产品概述 Product features

电动三通球阀采用HGZK或HGZKQT型、回转式角行程电动执行机构，以AC220V、AC380V或DC24V电源电压作动力，接受工业自动化控制系统输入的(4-20mA)电流信息或电压信息，即可控制运转，实现对工艺介质的比例调节或二位切换控制。三通球阀是综合国内外先进技术而开发的新型三通切换型调节阀。标准球芯有L型三通双孔种，改变球芯与管道的相对角度，可以对三支管道流体实现不同的组合控制：T型孔道可起配比作用，适用于液体、气体、蒸汽等介质的配比调节与控制。

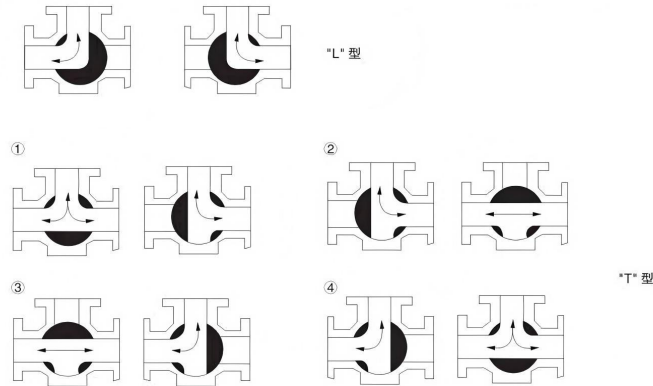
An electric three-way ball valve adopts HGZK or HGZKQT rotary type angular travel electric actuator and uses AC220V, AC380V or DC24V power source voltage as its power. It accepts current or voltage (4-20mA) information input by industrial automation instruments control system. Namely, it can control operation to realize proportion regulating or two-switch control for process medium. The three-way ball valve is a kind of new three-way switch type regulating valve which is developed by integrating domestic and foreign advanced technologies. A standard ball core has L-shaped three-way dual-holy type. Different combination control can be realized for fluid in three pipelines, by changing relative angle of ball core and pipelines; T-shaped pasageway can play a proportioning role and is applicable to proportion regulating and control for mediums like liquid, gas and vapor.

阀门技术参数 Valve technical parameters

形式 Standard form	T型、L型三通球阀 T、L-Shaped three-way ball valve
公称口径 Nominal diameter (mm)	DN15 - DN300
公称压力 Nominal pressure (MPa)	1.6、2.5、4.0、6.4MPa
流体范围 Range of fluid	空气、水、气体、石油和石化产品、腐蚀性介质 Air, water, gas, oil and petrochemical products, corrosive medium
工作温度 Working temperature	硬密封 Hard seal: -40℃~+300℃ 软密封 Soft seal: -40℃~+180℃
泄漏量 Leakage	0符合ANSIB 16.104 5级标准
主要材质 Main material	阀体 Valve body (1)WCB (2)304 (3)316 (4)316L 阀芯 Valve core (1)304 (2)316 (3)316L
阀座形式 The seat form	不锈钢密封、硬质合金密封、PTFE软密封 Stainless steel seal, carbide seals, PTFE soft seal
表面处理 Surface treatment	抛光 Polishing

工作形式 Working form

L型流道的三通4面阀座球阀，采用2面阀座，受力平衡，保证闭止通道的可靠密封。主要用于流路的换向。
T型流道的三通4面阀座，由于采用4面阀座，受力平衡，保证闭止通道的可靠密封。主要用于分流、混流、换向以及三通道的完全开放。
L-shaped passageway three-way 4-seat ball valve adopts 2-seat type, with force balance, to ensure reliable sealing of closed passageway. It is mainly used for switching between flowing paths.
T-shaped passageway three-way 4-seat ball valve adopts 4-seat tpe, with force balance, to ensure reliable sealing of closed passageway. It is mainly used for diversion, mixing, switching and total opening of three passageways.



主要连接尺寸 Main connection dimensions

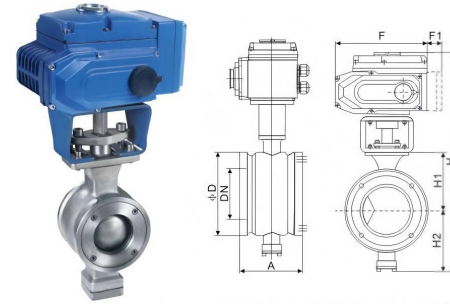
公称压力 Nominal pressure (MPa)	公称直径 Nominal diameter (mm)	尺寸Size (mm)								执行机构选配(常温常压) Optional actuator (atmospheric pressure and normal pressure)	
		L	L2	B	D1	D2	H	Z-do	T		
1.6MPa	15	161	40	150	65	95	142.5	4-14	14	HGZK-005	HGZKQT-10
	20	161	40	160	75	105	148.0	4-14	14	HGZK-005	HGZKQT-10
	25	161	40	180	85	115	170.5	4-14	14	HGZK-010	HGZKQT-10
	32	161	40	200	100	135	177.5	4-18	16	HGZK-010	HGZKQT-10
	40	188	40	220	110	145	203.5	4-18	16	HGZK-016	HGZKQT-10
	50	188	40	240	125	160	209.0	4-18	16	HGZK-016	HGZKQT-15
	65	188	40	260	145	180	235.5	4-18	18	HGZK-016	HGZKQT-15
	80	268	40	280	160	195	271.5	8-18	20	HGZK-020	HGZKQT-20
	100	268	40	320	180	215	366.0	8-18	20	HGZK-040	HGZKQT-30

注：以上选配参数仅供参考，具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.

产品概述 Product overview

电动V型调节球阀,配用HGZK或HGZKQT系列执行机构,无需另配放大器输入(4-20ma)信号及单相电源即可控制运转,实现对压力、流量、温度、液位等参数的调节。阀芯上开有V型切口,与硬密封阀座相对转动产生剪切力,可将纤维切断,防止卡死。具有流通能力,调节精度高,可调比例大,密封性好,重量轻等特点。适用于除小口径,角型、三通连接外的大部分场合,是替代进口产品的最佳产品,特别适用于泥浆和含有纤维性介质,以及含有微小固体悬浮物介质的调节。广泛应用于造纸业,制糖、石油、化工、冶金等工业自动控制系统中。

An electric V-shaped regulating ball valve is used together with a HGZK or HGZKQT series actuator. There is no need to provide the amplifier additionally. After inputting (4-20 ma) signals and single-phase power supply, it can control operation, to realize regulation on parameters such as pressure, flow, temperature and liquid level. There is a v-shaped cut on the valve core. When it rotates relatively to the hard sealed valve seat, shear force is caused which can cut off fibers to prevent sticking. It features high flow capacity, high regulating precision, large regulating proportion, good sealing, light weight, etc. It is suitable for all applications excluding small-diameter, angle-shaped and three-way connections. It is the best product to replace imported products; it is especially suitable for regulating mud and medium containing fibrous substances, and medium containing tiny suspended solids. It is widely used in industrial automatic control systems of paper industry, sugar, oil, chemical industry and metallurgical industry.



虚线部分为模拟量控制盒, 开关型无此尺寸
The dashed part is analog quantity control box; for type switch, there is no size for this.

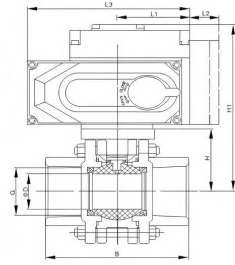
阀门技术参数 Valve technical parameters

公称直径 Nominal diameter (mm)	25-400		
公称压力 Nominal pressure (MPa)	1.6-6.4		
Nominal pressure (MPa)	强度试验 Strength test	2.4-9.6	
	密封试验 Sealing test	1.76-7.0	
主要零件 Main parts	材料/材料代号 Material/material code	C	P R
	阀体 Valve body	WCB	ZG1Cr18Ni9Ti ZG0Cr18Ni12Mo2Ti
	蝶板 Butterfly plate	2Cr13	ZG1Cr18Ni9Ti ZG0Cr18Ni12Mo2Ti
	阀杆 Valve stem	2Cr13	1Cr18Ni9Ti 0Cr18Ni12Mo2Ti
	密封圈 Sealing ring	聚四氟乙烯、不锈钢、硬质合金 PTFE、stainless steel、Hard alloy	
	填料 Packing	聚四氟乙烯、柔性石墨 PTFE、Flexible graphite	
适用工况 The suitable operating mode	适用介质 Applicable medium	水、蒸汽、油品 Water, steam, oil	硝酸类 Nitric Acid 醋酸类 Acetic acid
	适用温度 Suitable temperature	-25℃~+400℃ -28℃~+500℃	
连接形式 Connection type	对夹式、法兰式 JB79-59标准 The wafer flange Regulation according to JB79-59 standard		

主要连接尺寸 Main connection dimensions

公称直径 Nominal diameter (mm)	尺寸Size (mm)							执行机构选配(常温常压) Optional actuator (atmospheric pressure and normal pressure)	
	A	ΦD	H1	H2	H	F	F1		
15	62	Φ64	74	75	390	161	40	HGZK-005	HGZKQT-010
20	62	Φ64	74	75	390	161	40	HGZK-005	HGZKQT-010
25	62	Φ64	74	75	390	161	40	HGZK-005	HGZKQT-010
32	62	Φ78	80	75	400	188	40	HGZK-010	HGZKQT-010
40	62	Φ82	85	75	405	188	40	HGZK-010	HGZKQT-010
50	75	Φ100	87	95	430	188	40	HGZK-016	HGZKQT-015
65	80	Φ120	105	115	460	188	40	HGZK-016	HGZKQT-020
80	100	Φ131	115	125	520	268	40	HGZK-020	HGZKQT-030
100	115	Φ158	125	125	530	268	40	HGZK-040	HGZKQT-040
125	130	Φ180	140	155	570	268	40	HGZK-060	HGZKQT-060
150	160	Φ216	153	165	600	268	40	HGZK-100	HGZKQT-080
200	200	Φ268	200	195	680	268	40	HGZK-160	HGZKQT-120
250	240	Φ325	225	225	730	268	40	HGZK-200	HGZKQT-120

注：以上选配参数仅供参考，具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



虚线部分为模拟量控制盒，开关型无此尺寸
The dashed part is analog quantity control box;
for type switch, there is no size for this.

产品概述 Product overview

电动三片球阀采用一体化结构，与HGZK或HGZKQT电动执行机构相配，有输入控制信号(4-20mADC或1-5VDC)及单相电源即可控制运转具有功能强、体积小、轻便易人、性能可靠、配套简单、流通能力大、特别适合于介质是粘稠，含颗粒，纤维性质的场合。目前该阀广泛应用于食品、环保、轻工、石油、造纸、化工、教学和科研设备、电力等行业的工业自动化控制系统中。

An electric three-piece ball valve adopts an integration structure. Its used together with HGZK or HGZKQT electric actuator. After inputting control signals (4-20 mADC or 1-5 VDC) and single phase power supply, it can control operation. With powerful function, small size, light weight, reliable performance, simple configuration, large flow capacity, it is especially suitable for applications having viscous medium, particles and fibers. At present, this valve is widely used in industrial automatic control systems of food, environmental protection, light industry, petroleum, paper making, chemical industry, teaching and scientific research equipment and electric power industry.

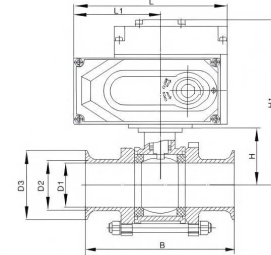
阀门技术参数 Valve technical parameters

公称口径 Nominal diameter (mm)		DN10-100mm			公称压力 Nominal pressure		PN1.6 2.5 4.0 6.4 31.5MPa(定制)		
连接方式 Connection method		内螺纹连接Female connection			对焊连接Butt welding				
零件名称 Part name	阀体、阀盖 Valve body, cover	WCB	CF8(304)	CF8M(316)	WCB	CF8(304)	CF8M(316)		
	球体、阀杆 Ball body, valve stem	2Cr13	0Cr19Ni9	0Cr17Ni12Mo2	2Cr13	0Cr19Ni9	0Cr17Ni12Mo2		
	密封圈、填料 Sealing ring, packing	增强聚四氟乙烯、对位聚苯 Enhanced PTFE, PPL							
适用工况 The suitable operating mode	适用介质 Applicable medium	水、蒸汽、油品等 Water, steam, oil etc.	硝酸等腐蚀性介质 Corrosive medium like nitric acid	醋酸等腐蚀性介质 Acetic acid and other corrosive medium	水、蒸汽、油品等 Water, steam, oil etc.	硝酸等腐蚀性介质 Corrosive medium like nitric acid	醋酸等腐蚀性介质 Acetic acid and other corrosive medium		
	适用温度 Suitable temperature	-29℃~+180℃(增强聚四氟乙烯Enhanced PTFE)、-29℃~+300℃(对位聚苯PPL)							

主要连接尺寸 Main connection dimensions

G	ΦD	B	H1	H	L1	L2	L3	执行机构选配 Optional actuator	
1/4"	11.2	60	148	42	50	40	123	HGZK-005	HGZKQT-10
3/8"	12.5	60	148	42	50	40	123	HGZK-005	HGZKQT-010
1/2"	15	72	148	42	50	40	123	HGZK-005	HGZKQT-010
3/4"	20	82	148	48.5	50	40	123	HGZK-010	HGZKQT-010
1"	25	90	164	58.5	50	40	123	HGZK-010	HGZKQT-010
1-1/4"	32	112	184	63	65	40	160	HGZK-016	HGZKQT-010
1-1/2"	38	120	195	71	65	40	160	HGZK-016	HGZKQT-015
2"	50	145	197.1	78	82	40	189	HGZK-020	HGZKQT-020
2-1/2"	65	185	222.5	100	82	40	189	HGZK-040	HGZKQT-030
3"	76	210	233	109	82	40	189	HGZK-060	HGZKQT-040
4"	100	268	241	140	116	40	266	HGZK-100	HGZKQT-080

注：以上选配参数仅供参考，具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



虚线部分为模拟量控制盒，开关型无此尺寸
The dashed part is analog quantity control box;
for type switch, there is no size for this.

产品概述 Product overview

HGZK或HGZKQT系列卫生级球阀，皆经过了精密的检验流程和严格的品质管理，流通经过精密抛光和除菌处理，采用了全包的4F密封，没有死角且容易清洗。执行器与球阀连接无需支架，减少了因安装连接引起的质量问题，同时也为厂区密密麻麻的设备节约了空间。

HGZK or HGZKQT series sanitary ball valves all pass precise inspection process and strict quality management; runners experience precise polishing and sterilization. They adopt full 4F sealing and are easily cleaned without dead corner. No support is needed for connection of actuator and ball valve which can reduce quality problems caused by installation and connection and also can save space for the factory where swarms of facilities are located.

阀门技术参数 Valve technical parameters

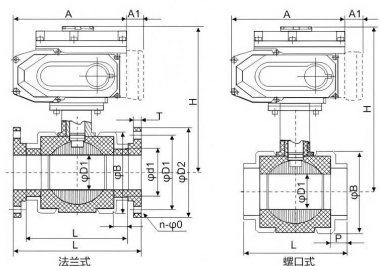
空气驱动 Air driven	压缩空气 Compressed air 4-6bar (with a handwheel)
公称口径 Nominal diameter	15-100mm
公称压力 Nominal pressure	1.6-6.3MPa
适用温度 Suitable temperature	-20℃ ~ +200℃
连接方式 Connection method	对焊、卡箍 Butt welding, clamp
阀结构 Valve structure	三块式 Three pieces of type
阀体材质 Valve body material	316L、316、304
阀芯材质 Valve core material	316L、316、304
密封材质 Sealing material	PTFE
适用材质 Suitable material	卫生级别工矿适用 Health level mining

阀门连接尺寸 The valve connecting dimensions

规格 Size	D1	D2	D3	H1	H	L	L1	执行机构选配 Optional actuator	
1/2	10.70	27.50	34.00	148	35	123	74	HGZK-005	HGZKQT-010
3/4	15.20	27.50	34.00	162	39	123	74	HGZK-005	HGZKQT-010
1	22.60	43.50	50.50	163.50	50.50	160	89	HGZK-005	HGZKQT-010
1-1/4	31.30	43.50	50.50	171.50	50.50	160	89	HGZK-010	HGZKQT-010
1-1/2	35.60	43.50	50.50	187.00	66.00	189	107	HGZK-010	HGZKQT-010
2	48.60	56.50	64.00	187.1	66.00	189	107	HGZK-016	HGZKQT-010
2-1/2	60.30	70.50	75.50	222.00	93.00	189	107	HGZK-016	HGZKQT-015
3	72.90	83.00	91.00	233	104.00	189	152	HGZK-020	HGZKQT-020
4	97.40	110.50	119.00	276	112.00	226	152	HGZK-040	HGZKQT-030

注：以上选配参数仅供参考，具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.

PVC电动球阀
Electric PVC Ball Valve



虚线部分为模拟量控制盒，开关型无此尺寸
The dashed part is analog quantity control box;
for type switch, there is no size for this.

产品概述 Product overview

PVC电动球阀采用双由令、法兰连接，不须使用特殊工具即可快速装配。具有结构紧凑、耐磨损、容易拆卸、方便检修、维护简单易行等优点。阀体材质卫生无毒、耐腐蚀性强、重量轻、应用范围广。例如：纯水和生饮水的管路系统、排水和污水管路系统、盐水和海水管路系统、酸碱和化学溶液系统等多个行业。

An PVC electric ball valve adopts true union or flange connection. Thus, it can be quality assembled without using special tools. It features compact structure, wear resistance, easy disassembly, convenient maintenance, easy maintenance, etc. Body material is hygienic and non-toxic, with strong corrosion resistance, light weight, wide application scope, such as pure water and raw water piping system, drainage and sewage pipe system, salt water and sea water pipeline system, acid and alkali and chemical solution system and other industries.

阀门技术参数 Valve technical parameters

公称口径Nominal diameter (mm)	15~100mm
连接方式Connection method	法兰、螺纹、由令 Flange, screw thread, making
阀结构Valve structure	一体 A body
阀体材料Valve body material	UPVC(-10℃~+70℃)、CPVC(-40℃~+95℃)、RPP(-14℃~+100℃)、PVDF(-40℃~+140℃)
阀芯材料Valve core materials	UPVC(-10℃~+70℃)、CPVC(-40℃~+95℃)、RPP(-14℃~+100℃)、PVDF(-40℃~+140℃)
密封材料Sealing material	PTFE、EPDM、NBR
适用介质Applicable medium	PVC兼容的食品工业化学溶剂 Chemical solvents of food industry compatible with PVC
可选电动执行器Optional electric actuator	HGZK/HGZKQT系列 Series

阀门连接尺寸及重量 Valve connection dimensions and weights

公称口径 Nominal diameter (mm)	D1	D2	D3	e	n	p	H	H1	A	J	T	工作压力 Pressure of work(MPa)	执行机构选配(常温常压) Optional actuator (atmospheric pressure and normal pressure)
15	15	65	95	14	4	16.0	151.6	40	161	66	15	1.0	HGZK-005 HGZKQT-005
20	19	75	105	14	4	18.5	157.7	40	161	66	15	1.0	HGZK-005 HGZKQT-005
25	25	85	115	14	4	22.0	162.0	40	161	66	16	1.0	HGZK-005 HGZKQT-005
32	38	100	140	18	4	26.0	197.7	55	161	73	16	1.0	HGZK-005 HGZKQT-005
40	38	110	150	18	4	31.0	197.7	55	161	73	16	1.0	HGZK-005 HGZKQT-005
50	50	120	165	18	4	37.5	225.3	55	161	85	20	1.0	HGZK-005 HGZKQT-005
65	65	145	185	18	4	43.5	278.2	68	161	110	20	1.0	HGZK-010 HGZKQT-010
80	78	160	200	18	8	51.0	307.7	85	161	110	2	1.0	HGZK-010 HGZKQT-010
100	100	180	220	18	8	61.0	362.0	90	188	140	22	1.0	HGZK-016 HGZKQT-015

注：以上选配参数仅供参考，具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.

电动软、硬密封蝶阀系列

型号: D971X(F, F4, J)-PN10、16;
D973H(F, Y)-PN16、25, Class150~300;
D973F46-PN10、16; D971S-PN10

口径: DN50~1200mm

压力: 0.6、1.0、1.6、2.5MPa;

连接方式: 对夹式连接、法兰式连接

尺寸标准: 国标、美标

阀体材质: 铸铁、碳钢(WCB)、不锈钢(CF8、CF8M)

阀座材料: 橡胶(X)、聚四氟乙烯(F)、硬质合金等

控制方式: 开关型、智能调节型

Electric Soft, Hard Seal Butterfly Valve Series

Model: D971X(F, F4, J)-PN10, 16;

D973H(F, Y)-PN16, 25, Class150~300;

D973F46-PN10, 16; D971S-PN10

Diameter: DN50~1200mm

Pressure: 0.6, 1.0, 1.6, 2.5MPa;

Connection type: Double-clip type connection, flange connection

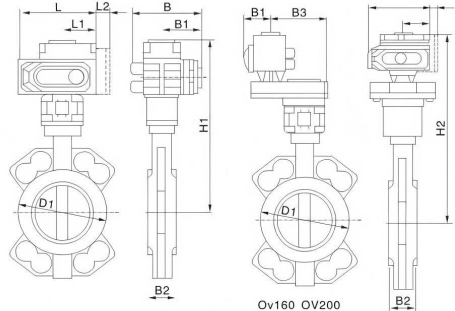
Size standard: GB, ANSI

Valve body material: Cast iron, carbon steel (WCB), stainless steel (CF8, CF8M)

Valve seat material: Rubber (X), PTFE, Hard alloy etc.

Control mode: Switch type, intelligent regulation type





安装尺寸 (单位: mm) (虚线部分为模拟量控制盒, 开关型无此尺寸)
Installation size (Units: mm) (The dashed part is analog quantity control box; for type switch, there is no size for this).

产品概述 Product overview

电动中线蝶阀是由蝶阀与HGZK或HGZKQT系列执行机构配套, 输入控制信号(4~20mA或1-5VDC)及单相电源即可控制运转, 电动蝶阀具有功能强、体积小、轻便宜人, 性能可靠、配套简单、流通能力大, 电动蝶阀特别是适合于介质是粘稠、含颗粒、纤维性质的场合。目前该电动调节蝶阀广泛应用于食品、环保、轻工、石油、造纸、化工、教学和科研设备、电力等行业的工业自动化控制系统中。

An electric center line-type butterfly valve is used together with a HGZK or HGZKQT series actuator. After inputting control signals (4~20 mA or 1~5 VDC) and single phase power supply, it can control operation. With powerful function, small size, light weight, reliable performance, simple configuration, large flow capacity, it is especially suitable for applications having viscous medium, particles and fibers. At present, this valve is widely used in industrial automatic control systems of food, environmental protection, light industry, petroleum, paper making, chemical industry, teaching and scientific research equipment and electric power industry.

阀体 Valve body

公称口径: 50~400mm
公称压力: PN1.0, 1.6, 2.5MPa
连接形式: 对夹式连接, 法兰式连接
材料: HT200 ZG251 ZG1Cr18Ni9 ZG0Cr17Ni12Mo2 衬四氟
介质温度: 常温型: -20℃~+200℃ 散热型: -40℃~+450℃
适用介质: 淡水、海水、食品、天然气、醇类、盐类、酸、碱、油、蒸汽、空气等

Nominal diameter: 50~400mm
Nominal pressure: PN1.0, 1.6, 2.5MPa
Connection type: Double-clip type connection, flange connection
Material: HT200 ZG251 ZG1Cr18Ni9 ZG0Cr17Ni12Mo2 PTFE lined
Medium temperature: Room temperature type: -20°C ~ +200°C
Heat dissipation type: -40°C ~ +450°C
Applicable medium: fresh water, sea water, food, natural gas, alcohol, salt, acid, alkali, oil, vapor, air, etc.

密封适用介质, 温度推荐表 Application of medium temperature sealing, recommendation form

密封副材质 Seal material		适用温度 Suitable temperature	介质类型及适用程度 Medium type and applicability													突出特性 Outstanding features
			淡水 Fresh water	海水 Sea water	盐类 Salt	强碱 Strong alkali	弱碱 Weak alkali	强酸 Acid	弱酸 Weak acid	天然气 Natural gas	醇类 Alcohol	空气 Air	蒸汽 Vapor	油类 Oil	食品 Food	
阀座 Seat	丁腈 Nitrile	-12℃ ~ +85℃	A	A	A	B	A	D	B	A	C	A	D	A	B	耐油 Oil resistant
	三元乙丙 Epdm	-35℃ ~ +135℃	A	A	A	A	A	C	A	B	B	A	A	C	A	耐老化 Resistance to aging
	耐腐蚀三元乙丙 Corrosion resistant epdm	-35℃ ~ +160℃	A	A	A	A	A	A	A	B	B	A	A	C	A	耐高温、耐腐蚀 High temperature resistance, corrosion resistant
	氟橡胶 Fluorine rubber	-23℃ ~ +135℃	A	A	A	C	A	C	A	A	C	A	A	A	A	耐高温、耐腐蚀 High temperature resistance, corrosion resistant
阀板 Butterfly plate	聚四氟乙烯 PTFE	-10℃ ~ +150℃	A	A	A	A	A	A	A	A	A	A	A	A	A	耐腐蚀、耐高温 Corrosion resistance, high temperature resistance
	球铁电镀 Ductile iron electroplating	-30℃ ~ +350℃	B	D	C	D	C	D	C	B	A	B	A	A	C	耐热 Heat resistant
	球铁尼龙覆层 Ductile iron nylon coating	-30℃ ~ +100℃	A	A	A	A	D	A	A	C	A	D	A	A	A	抗蚀、耐磨 Corrosion resistance, wear resistance and friction
	铝青铜 Aluminum bronze	-273℃ ~ +232℃	A	B	C	D	C	D	B	A	A	A	A	A	C	耐热、耐腐蚀 Heat resistance, corrosion resistance
	不锈钢 Stainless steel	-273℃ ~ +316℃	A	B	C	C	B	C	A	A	A	A	A	A	A	耐高温、耐腐蚀 High temperature resistant, corrosion resistant

A非常适用 A very suitable B适用 Applicable to B C有限适用 C limited application D不适用 D is not applicable to

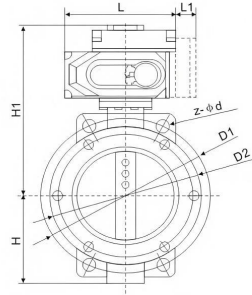
阀内组件可选材料 The inner valve assembly optional material

主要零部件 Main parts	材质 Material	适用规格 Applicable Size	主要零部件 Main parts	材质 Material	适用规格 Applicable Size
阀体 Valve Body	球墨铸铁 Nodular cast iron	50mm ~ 300mm	阀杆 Valve Stem	不锈钢 Stainless Steel 416	50mm ~ 300mm
	灰铸铁 Gray cast iron			不锈钢 Stainless Steel 316	
	铸钢 Cast steel			不锈钢 Stainless Steel 304	
	不锈钢 Stainless steel			碳钢镀锌 Nickel-phosphate plating for carbon steel	
阀板 Valve plate	不锈钢 Stainless Steel CF8	50mm ~ 300mm	阀座 Valve seat	乙丙橡胶 EPDM	50mm ~ 300mm
	不锈钢 Stainless Steel CF8M			氟橡胶 VITON	
	球墨铸铁镀锌镍磷 Nickel-phosphate plating for ductile iron			氟橡胶 Fluorine rubber	
	铸钢 Cast steel			硅橡胶 SEP	
	球墨铸铁覆尼龙 Nylon coating for ductile iron			硅橡胶 Silicone rubber	
	铝青铜 Aluminum bronze			耐热 EPDM	
				耐磨 EPDM	

主要连接尺寸 Main connection dimensions

直径 Diameter	L	L1	L2	B	B1	B2	H2	D1	执行机构构造(常温常压) Optional actuator (atmospheric pressure and normal pressure)	
50	161	71.5	40	120.5	62	42.6	297	92	HGZK-005	HGZKQT-010
65	161	71.5	40	120.5	62	45.6	310	106	HGZK-005	HGZKQT-010
80	161	71.5	40	120.5	62	45.6	331	122	HGZK-010	HGZKQT-010
100	188	71.5	40	120.5	62	51.6	348	150	HGZK-010	HGZKQT-010
125	268	81	40	165	75	55.6	428	177	HGZK-016	HGZKQT-010
150	268	117	40	268	119	55.6	447	204	HGZK-020	HGZKQT-020
200	268	117	40	268	119	59.6	481	260	HGZK-040	HGZKQT-040
250	268	117	40	268	119	67.6	520	314	HGZK-060	HGZKQT-060
300	268	117	40	268	119	77.6	548	370	HGZK-080	HGZKQT-080
350	268	117	40	268	119	79	583	422	HGZK-100	HGZKQT-120
400	268	117	40	268	119	105	615	473	HGZK-200	HGZKQT-200

注: 以上选配参数仅供参考, 具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



产品概述 Product overview

采用精密的U形弹性密封圈和三偏心多层次金属硬密封结构,被广泛用于介质温度<425℃的冶金、电力、石油化工、以及给排水和市政建设等工业管道上,作调节流量和截断流体使用。该阀采用三偏心结构,阀座与蝶板密封面均采用铸钢和不锈钢制作,具有良好的耐腐蚀性,使用寿命长,本阀均有双向密封功能、产品符合国家GB/T13927-92阀门压力试验标准。

It uses precision u-shaped elastic sealing ring and triple eccentric multi-level metal hard sealed structure. It is widely used in industrial pipelines with medium temperature < 425 °C in metallurgy, electric power, petrochemical industry, water supply and drainage, and municipal construction, to adjust flow rate and cut fluid. Triple eccentric structure is used in the valve. Sealing surfaces of the valve seat and butterfly plate are made of cast steel and stainless steel. With good corrosion resistance, it has a long service life. This valve has the two-way sealing function. The product complies with GB/T13927-92 valve pressure test standard.

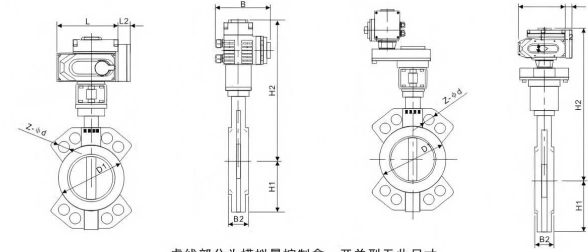
阀门技术参数 Valve technical parameters

公称口径 Nominal diameter (mm)	50-600			
公称压力 Nominal pressure (MPa)	1.0		1.6	
公称压力 Nominal pressure (MPa)	强度试验 Strength test	1.5	2.4	
	密封试验 Sealing test	1.1	4.76	
材料/材料代号 Material/material code	C	P	R	
主要零件 Main parts	阀体 Valve body	WCB	ZG1Cr18 Ni9Ti	ZG0Cr18 Ni12Mo2Ti
	蝶板 Butterfly plate	WCB	ZG1Cr18 Ni9Ti	ZG0Cr18 Ni12Mo2Ti
	阀杆 Valve stem	2Cr13	1Cr18 Ni9Ti	0Cr18 Ni12Mo2Ti
	密封圈 Sealing ring	四氟、不锈钢 High temperature, stainless steel		
	填料 Packing	四氟、柔性石墨 High temperature, Flexible graphite		
适用工况 The suitable operating mode	适用介质 Applicable medium	水、蒸汽、油品 Water, steam, oil		
	适用温度 Suitable temperature	适用温度碳钢: -29℃~+425℃ 不锈钢 -40℃~+600℃		

主要连接尺寸 Main connection dimensions

公称口径 Nominal diameter	外形尺寸 Dimension size		连接尺寸 Connection size								执行机构选配 Optional actuator	
			PN1.0MPa				PN1.6MPa					
			L	H1	H	D2	D1	Z-φd	D2	D1		
50	2	161	215	85	82	125	4-18	82	125	4-18	HGZK-005	HGZKQT-010
65	2	188	280	90	95	145	4-18	95	145	4-18	HGZK-010	HGZKQT-010
80	3	188	285	100	108	160	4-18	108	160	4-18	HGZK-016	HGZKQT-015
100	4	268	310	120	125	180	4-18	125	180	4-18	HGZK-020	HGZKQT-020
125	5	268	310	130	138	210	4-18	138	210	4-18	HGZK-020	HGZKQT-030
150	6	268	315	160	198	240	4-22	198	240	4-22	HGZK-040	HGZKQT-040
200	8	268	380	210	236	295	4-22	236	295	4-22	HGZK-060	HGZKQT-060
250	10	268	460	250	276	355	4-22	276	355	4-26	HGZK-100	HGZKQT-080
300	12	268	475	250	300	410	4-22	308	410	4-26	HGZK-160	HGZKQT-120
350	14	268	510	320	332	470	4-22	340	470	4-26	HGZK-200	HGZKQT-200

注: 以上选配参数仅供参考, 具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



虚线部分为模拟量控制盒, 开关型无此尺寸

产品概述 Product overview

电动衬氟调节蝶阀有开关型和智能型两种,蝶阀与HGZK或HGZKOT 电动执行机构配套,输入控制信号(4~20MADC或1~5VDC)及单相电源即可控制运转具有功能强、体积小、轻便宜人,性能可靠、配套简单、流通能力强,特别是适合于介质粘稠、含颗粒、纤维性质的场合。目前该阀门广泛应用于食品、环保轻工、石油、造纸、化工、教学和科研设备、电力等行业的工业自动化控制系统中。

Electric fluorine lining regulating butterfly valves are divided into two types: Switching type and intelligent type. The butterfly valve is used together with HGZK or HGZKOT electric actuator. It can run under control after inputting control signals (4-20mADC or 1-5VDC) and single-phase power supply. It features powerful functions, small size, light weight, reliable performance, simple corollary equipment, strong flow capacity. It is especially suitable for applications with viscous and fibrous media containing particles. Currently, this valve is widely used in industrial automatic control systems in food, environmental protection, light industry, petroleum, papermaking, chemical industry, teaching and research equipment, electric power, etc.

主要结构参数 The main structure parameters

公称口径 Nominal diameter (mm)	50-500		50-500
公称压力 Nominal pressure (MPa)	0.6	1.0	1.6
密封试验 Sealing test (MPa)	0.66	1.1	1.76
强度试验 Sealing test (MPa)	0.9	1.5	2.4
适用温度 Suitable temperature	丁腈橡胶NBR: -40℃~+90℃ 氟橡胶Fluorine rubber: -20℃~+200℃		
适用介质 Applicable medium	水、空气、天然气、油品及弱腐蚀性流体 Water, air, gas, oil and weak corrosive fluid		
泄漏率 Leakage rate	符合GB/T13927-92标准 Comply with the standard of GB/T13927-92		
驱动方式 Drive way	电动 Electric		
可配电动执行器	HGZK/HGZKOT 系列 Series		

主要零件材料 Materials for main parts

名称 Name	材料 Material
阀体 Valve body	WCB, QT450-10, HT200, HT250, 1Cr18Ni9
蝶板 Butterfly plate	WCB, QT450-10, HT200, HT250, 1Cr18Ni9
阀轴 Valve shaft	2Cr13
密封面 Sealing surface	四氟 High temperature
填料 Packing	柔性石墨 Flexible graphite

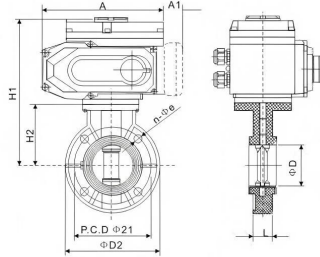
执行标准 Executive standard

制造标准 Manufacture standard	GB/T 12238-89
法兰标准 Flange standard	GB9113-2000, GB17241.6-1998
结构长度标准 Structure length standard	GB12221-89
检验标准 Test standard	GB/T 13927-92

主要连接尺寸 Main connection dimensions

口径 Diameter	L	L2	B	B1	B2	H1	H2	D2	Z-φd	执行机构选配(常压/高压)	
										Optional actuator (normal pressure)	Optional actuator (high pressure)
50	161	40	145	83.5	42.6	70	297	125	4-18	HGZK-005	HGZKQT-010
65	161	40	145	83.5	45.6	80	310	145	4-18	HGZK-005	HGZKQT-010
80	161	40	163	75	45.6	92	331	160	8-18	HGZK-010	HGZKQT-010
100	188	40	163	75	51.6	107	348	180	8-18	HGZK-010	HGZKQT-010
125	188	40	211	92.5	55.6	121	428	210	8-18	HGZK-016	HGZKQT-015
150	268	40	211	92.5	55.6	134	447	240	8-22	HGZK-020	HGZKQT-020
200	268	40	211	92.5	59.6	170	481	295	8-22	HGZK-040	HGZKQT-040
250	268	40	211	92.5	67.6	208	520	355	12-26	HGZK-060	HGZKQT-060
300	268	40	211	92.5	77.6	240	548	410	12-26	HGZK-100	HGZKQT-120
350	268	40	211	92.5	79	265	583	470	16-26	HGZK-160	HGZKQT-120
400	268	40	211	92.5	105	297	615	525	16-30	HGZK-200	HGZKQT-200

注: 以上选配参数仅供参考, 具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



主要外形尺寸(虚线部分为模拟量控制盒, 开关型无此尺寸)
Main dimension (The dashed part is analog quantity control box; for type switch, there is no size for this).

产品概述 Product overview

PVC电动蝶阀重量轻、耐腐蚀性强, 被应用于多个领域, 如一般纯水和生饮水的管路系统、排水和污水管路系统、盐水和海水管路系统、酸碱和化学溶液系统等多个行业, 品质得到广大用户的认可。

PVC electric butterfly valves have light weight and strong corrosion resistance. They are applied in many fields, such as pure water and raw water piping system, drainage and sewage pipe system, salt water and sea water pipeline system, acid and alkali chemical solution system and other industries. The quality is recognized by the majority of users.

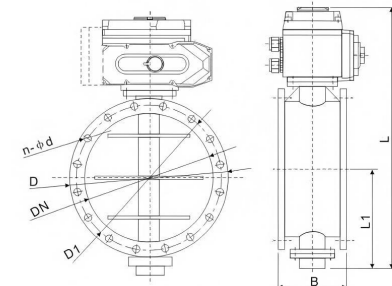
阀门参数 Valve parameters

公称口径 Nominal diameter (mm)	50-600mm
连接方式 Connection method	对夹 Water
阀体材质 Valve body material	UPVC(-10℃~+70℃)、CPVC(-40℃~+95℃)、RPP(-14℃~+100℃)、PVDF(-40℃~+140℃)
阀芯材质 Valve core materials	UPVC(-10℃~+70℃)、CPVC(-40℃~+95℃)、RPP(-14℃~+100℃)、PVDF(-40℃~+140℃)
密封材质 Sealing material	PTFE、EPDM、NBR
适用介质 Applicable medium	PVC兼容的食品工业化学溶剂 Chemical solvents of food industry compatible with PVC
可选电动执行器 Optional electric actuator	HGZK/HGZKQT 系列 Series

主要连接尺寸 Main connection dimensions

公称口径 Nominal diameter (mm)	D	外形尺寸(mm) Dimensions								工作压力 Pressure of work (MPa)	执行机构选配(常温常压) Optional actuator (atmospheric pressure and normal pressure)			
		D1	JIS	DIN	ANSI	D2	A	L	H1		H2	n-φe		
40	47	110	105	110	3.88	150	161	39	86	70	4-18	0.7	HGZK-005	HGZKQT-010
50	56	125	120	125	4.75	160	161	40	88	70	4-18	0.7	HGZK-005	HGZKQT-010
65	71	145	145	145	5.50	185	161	46	100	70	4-18	0.7	HGZK-005	HGZKQT-010
80	85	160	160	160	6.00	195	161	46	105	85	8-18	0.7	HGZK-005	HGZKQT-010
100	105	180	180	180	7.50	215	161	54	118	85	8-18	0.6	HGZK-010	HGZKQT-010
125	131	210	210	210	8.50	250	161	70	163	93	8-18	0.5	HGZK-010	HGZKQT-010
150	153	240	240	240	9.50	285	188	74	176	93	8-22	0.5	HGZK-010	HGZKQT-010
200	204	295	290	295	11.75	340	188	87	210	93	8-22	0.4	HGZK-016	HGZKQT-020
250	255	350	355	350	14.25	395	268	114	240	93	12-22	0.3	HGZK-020	HGZKQT-030
300	307	400	400	400	17.00	445	268	114	270	93	12-22	0.3	HGZK-040	HGZKQT-050
350	358	460	445	460	18.75	505	268	127	300	93	16-22	0.3	HGZK-060	HGZKQT-060
400	389	515	510	515	21.25	580	268	140	350	108	16-22	0.3	HGZK-080	HGZKQT-080
450	446	565	565	565	22.75	615	268	152	370	108	20-26	0.2	HGZK-100	HGZKQT-120
500	494	620	620	620	25.00	670	268	152	400	108	20-26	0.2	HGZK-160	HGZKQT-120
600	590	725	730	725	29.50	780	268	178	465	108	20-30	0.2	HGZK-200	HGZKQT-200

注: 以上选配参数仅供参考, 具体以实际情况为准。Note: The above optional parameters are only for reference. Specific actual conditions shall prevail.



主要外形尺寸(虚线部分为模拟量控制盒, 开关型无此尺寸)
Main dimension (The dashed part is analog quantity control box; for type switch, there is no size for this).

产品概述 Product overview

D941W型电动调节通风蝶阀, 由角行程电子式电动执行器和蝶形阀调节机构组成。采用HGZK型、HGZKOT型全电子式电动执行器为通风蝶形阀的驱动装置, 机电一体化的结构设计, 具有机内伺服操作和开度位置反馈、位置指示、手动操作等功能, 功能强、性能可靠、控制精确, 以AC220V或AC380V电源电压作动力, 接受控制信号输入的(4-20mA或1-5VDC)电流信号或电压信号, 即可控制运转, 实现对工艺流体介质的比例调节控制或开关控制。

其主要特点:通风蝶阀采用与阀体相同材料加工成密封副, 其适用温度和耐腐蚀性随阀体选材而定, 公称压力≤0.6MPa, 其泄漏量控制在最大流通的2%以内。应用于工业、冶金、环保等管道通风调节介质流量之用。具有结构简单、重量轻, 操作力矩小、启闭迅速、动作灵活、流通能力大、调节精度高等特点。适用于烟气、粉尘、空气或含有悬浮颗粒的流体及浆液、浆状流体的调节与控制。

D941W type electric regulating ventilation butterfly valve is composed of angular travel electronic type electric actuator and butterfly valve regulating mechanism, HGZK or HGZKOT full electronic type electric actuator is used as drive device of ventilation butterfly valve. It has electromechanical integration structure design, built-in servo operation and opening signal position feedback, position indication, manual operation and other functions, with powerful functions, reliable performance and control precision. AC220V or AC380V power supply voltage is used as its power. It can run under control after receiving (4-20 mA, or 1 to 5 VDC) current or voltage signals input by control system, to realize process fluid medium proportion adjustment control or switch control.

Its main features: Ventilation butterfly valve uses the same material as the body to make sealing ring. Applicable temperature and corrosion resistance depend on valve body material. Its nominal pressure is ≤ 0.6 MPa; Its leakage rate is controlled within 2% of the maximum flow rate. It is applied in pipelines of industry, metallurgy, environmental protection, etc. for ventilation and medium flow regulating, it features simple structure, light weight, small operation torque, fast opening and closing, flexible motion, large flow capacity, high regulating accuracy, etc. It is suitable for regulation and control of flue gas, dust, air or fluid containing suspended particles as well as thick, pulp fluid.

主要技术参数和性能指标 The main technical parameters and performance index

公称口径 Nominal diameter(mm)	DN50-DN2000
公称压力 Nominal pressure(MPa)	0.1、0.25、0.6
阀芯转角 Valve core is around the corner	0°-90°
作用形式 Role form	电开式或电闭式 Electrically open or closed
流量特性 Flow characteristic	近似等百分比 Approximate equal percentage
允许压差 Allow the differential MPa	0.6
性能指标 Performance indicators	基本误差 Basic error: ±2.5%; 回差 Back to the poor ≤ ±2.0%; 死区 Dead zone ≤ 3.0%
电源电压 Power supply voltage	AC220V、AC380V、DC24V
调节型 External regulation 信号范围 Signal range	0-10mA、4-20mA、1-5VDC
开关型 Switch type 电信号 Electrical signals	AC220V、AC380V、DC24V; 反馈信号: 有源触点信号或无触点信号 Feedback signal: active contact or non-contact signal

主要零件材料及适用温度、介质 Main parts material and the suitable temperature, medium

材料代号 Material code	碳钢C (WCB)	不锈钢P (304)	不锈钢P (304)
阀体 Valve body	WCB	1Cr18Ni9	1Cr18Ni12Mo2
阀板 Valve plate	WCB或Cr18Ni9	1Cr18Ni9	1Cr18Ni12Mo2
阀杆 Valve stem	2Cr13	1Cr18Ni9	1Cr18Ni12Mo2
阀座密封 Seal tightness	与阀体相同 Same as the body		
填料 Packing	聚四氟乙烯、柔性石墨 PTFE, Flexible graphite		
适用温度 Suitable temperature	≤300℃		≤500℃

主要连接尺寸 Main connection dimensions

公称通径 Nominal diameter DN	D	D1	L	L1	B	N-Φd	执行机构选配(常温常压) Optional actuator (atmospheric pressure and normal pressure)	
50	140	110	286	70	100	4-14	HGZK-005	HGZKQT-010
65	160	130	306	80	100	4-14	HGZK-005	HGZKQT-010
80	190	150	334	95	100	4-18	HGZK-005	HGZKQT-010
100	210	170	354	105	120	4-18	HGZK-005	HGZKQT-010
125	240	200	384	120	120	8-18	HGZK-010	HGZKQT-010
150	265	225	409	132	120	8-18	HGZK-010	HGZKQT-010
200	320	280	593	160	140	8-18	HGZK-010	HGZKQT-010
250	375	335	650	187	140	12-18	HGZK-010	HGZKQT-020
300	440	395	715	220	170	12-22	HGZK-020	HGZKQT-020
350	490	445	814	245	170	12-22	HGZK-020	HGZKQT-030
400	540	495	863	270	190	16-22	HGZK-020	HGZKQT-030
450	595	550	918	297	190	16-22	HGZK-040	HGZKQT-050
500	645	600	1016	322	160	20-22	HGZK-040	HGZKQT-050
600	755	705	1128	377	210	20-26	HGZK-060	HGZKQT-060
700	860	810	1233	430	210	24-26	HGZK-060	HGZKQT-060
800	975	920	1344	487	210	24-30	HGZK-100	HGZKQT-080
900	1075	1020	1560	537	250	24-30	HGZK-100	HGZKQT-080
1000	1175	1120	1660	587	250	28-30	HGZK-160	HGZKQT-120
1200	1405	1340	1890	687	250	32-33	HGZK-160	HGZKQT-200
1400	1630	1560	2670	760	300	36-36	HGZK-200	HGZKQT-200
1600	1830	1760	2810	895	300	40-36	HGZK-200	HGZKQT-200

注：以上选配参数仅供参考，具体以实际情况为准。
Note: The above selected parameters are only for reference. Detailed information shall be subject to actual situations.

电动执行机构 Electric actuator

参照HGZK/HGZKQT系列角行程电动执行器技术参数
Refer to technical parameters of HGZK/HGZKQT series angular travel electric actuator