



博雷(天津)控制系统制造有限公司
BOLLEY(TIANJIN) CONTROL SYSTEM MANUFACTURING CO., LTD.

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Model Selection Catalog Of
Control Valves
控制阀选型样本

COMPANY PROFILE

公司简介



博雷（天津）控制系统制造有限公司是一家集工程、阀门生产于一体的企业，引进美国先进阀门制造技术，为客户提供专业的过程自动化及控制设备等解决方案。一直以来稳步发展，经过多年的积累，博雷控制已经迈入了国际化公司的行列。

公司主导产品有闸阀、截止阀、蝶阀、球阀、止回阀、调节阀、减压阀、隔膜阀、旋塞阀、柱塞阀、疏水阀、电站阀、美标阀、水力控制阀等80多种品种、300多个系列、几千种规格。产品采用GB、JB、HG、API、ANSI、DIN、JIS、BS等国内外先进标准设计制造。通径从1/4"至96"（DN6-2400mm）、压力从150LB至2500LB（2MPa-42MPa）、工作温度为-196℃至800℃。主要材料有灰铸铁、球墨铸铁、铜、碳素钢、不锈钢、合金钢、低温钢、铬钼钢、沉淀硬化钢及其他特殊钢材。

我们以卓越的品质和服务取得了全球数以万计的用户的信赖及支持，所涉及的行业包括化工、石化、电力、环境、生物科技、燃气、染料、制药、供热、造纸、建筑食品、有色金属、钢铁以及其他工业领域。

我们重视客户提出的每一个要求，并按照客户提出的要求量身定做，力求为客户提供最好的解决方案，同时也能优化产品性能，客户感到满意与他们保持紧密的合作关系。我们坚持这样做并取得了成功，这是我们发展的动力。自从博雷控制诞生的那一刻起，我们力求每一个环节都做到精益求精，所以我们的质保系统渗透到每一个工序，确保每个员工用到的是最好的零配件，这是我们发展的根本。

为了确保产品质量和满足顾客的要求，我们坚持不断深化内部管理，努力提升全员质量意识，扩大全球营销团队，为国内外客户提供更方便快捷的服务。

Bolley (Tianjin) Control System Manufacturing Co., Ltd. is a collection of engineering control system, valve production in a body's enterprise, introducing the advanced valve manufacturing technology, providing customers with professional solutions for process automation and control equipment, etc. Has been a steady development, after many years of accumulation, Bolley Control has entered the international company.

Company main products are gate valve, globe valve, butterfly valve, ball valve, check valve, regulating valve, relief valve, diaphragm valve, plug valve, plunger valve, steam trap, power station valve, american standard valve, hydraulic control valves, and more than 80 varieties, more than 300 series, thousands of specifications. Product by GB, JB, HG, API, ANSI, DIN, JIS, BS, and domestic and foreign advanced standards. Size from 1/4" to 96" (DN6-2400mm), pressure from 150LB to 2500LB (2MPa - 42MPa), the working temperature to -196℃ to 800℃. The main materials are gray castiron, nodular cast iron, copper, carbon steel, stainless steel, alloy steel, low temperature steel, chrome molybdenum steel, precipitation hardened steel and other special steel.

With our excellent quality and service has made the world tens of thousands of users trust and support, involved in industries including chemical, petrochemical, electric power, environmental, biological technology, gas, dyestuff, pharmaceutical, heating, papermaking, food, non-ferrous metals, steel and other industrial fields.

We attach importance to the customer request of each, and customized according to customer demand, makes every effort to provide customers with the best solution, but also can optimize product performance, customer satisfaction and their close relations of cooperation. We insist on doing this and has been a success, this is our development power. Since the birth of Bolley control that moment, we strive to do every link strives for perfection, so our quality assurance system to infiltrate every working procedure, to ensure that each employee use is one of the best parts, it is fundamental to our development.

In order to ensure product quality and meet the requirements of customers, we continuously deepen the internal management, efforts to enhance the quality consciousness, expand the global marketing team, to provide more convenient service to customers from home and abroad.

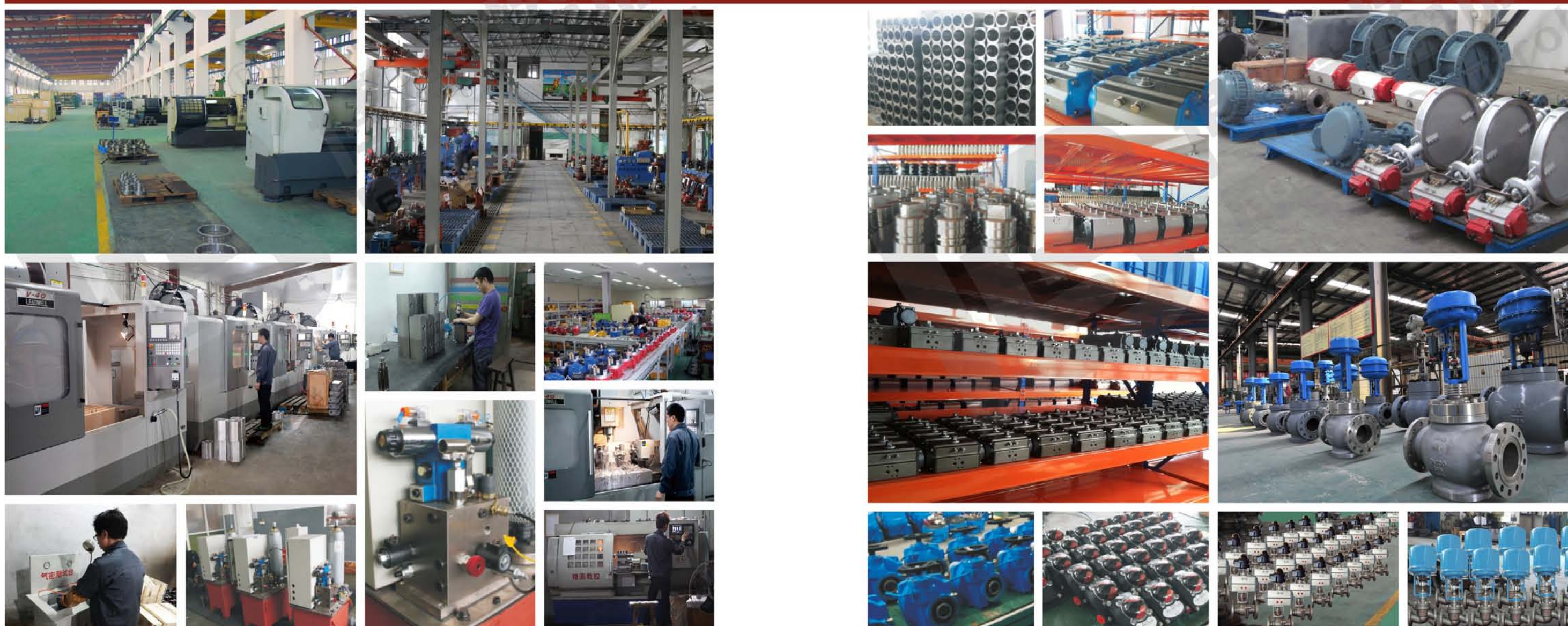
一流的设备 一流的品质 First-class equipment First-class quality

完美的品质，取源于制造手段的先进

PERFECT QUALITY
IS ORIGINATED FROM ADVANCED
MAUFACTURING TECHNIQUE

我们使用先进的生产设备，运用崭新的工业理念以及先进的技术，生产出符合国际标准的高品质产品，从而加快企业的产业化速度。无论是产品原材料的选择还是产品的出厂检验，都一丝不苟的按照国际标准严格把关，以保证产品的合格率，确保每一个产品品质优良。

We use the advanced production equipment, using a new industrial concept and advanced technology, produced in line with international standards of high quality products, So as to accelerate the speed of the industrialization of the enterprise. Whether the selection of raw materials or products factory inspection, Meticulous strictly in accordance with international standards, to ensure the qualified rate of products, to ensure that each product of good quality.





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GT系列阀门气动执行器 GT Series Valve Pneumatic Actuator



GT系列阀门气动执行器特点

- 1、挤压成型的铝合金缸体，经硬质氧化处理，表面质地坚硬，耐磨性强。
- 2、紧凑的双活塞齿轮、齿条式结构，啮合精确，传动平稳，安装位置对称，输出扭矩恒定。
- 3、活塞、齿条和输出轴的活动部位均安装F4导向环，实现低摩擦，长寿命，避免金属间的接触。
- 4、缸体、端盖、输出轴、弹簧、紧固件等均经防腐处理。
- 5、单气控型执行器的弹簧经预压后安装，可安全、方便的拆卸和组装。
- 6、气动执行器在全开和全关位置均可进行0度或90度正负5度的双向行程调节。
- 7、安装连接尺寸符合ISO5211、DIN3337和VD1/VDE3845以及NUMAR标准，确保GTD32气动执行器间的互换性和方便安装电磁阀、限位开关等附件。
- 8、输出轴的安装连接孔有多种形状(四方孔、轴键孔、扁孔)供选择。
- 9、外形美观而精巧，重量轻，具有防水密封结构。
- 10、有常温型、高温型、低温型。在常温工作条件下使用丁腈橡胶，在高温或低温时采用氟橡胶或硅橡胶。

GT Series Valve Pneumatic Actuator

- 1、Extrusion of aluminum alloy cylinder block, hard oxidation treatment, surface hard texture, high resistance to wear.
- 2、Compact double piston gear and rack type structure, meshing precision, smooth transmission, the installation location is symmetrical, the output torque is constant.
- 3、Piston and rack and activity in parts of the output shaft are installed F4 guide ring, and realize the low friction, long life, avoid contact between metals.
- 4、Cylinder body, end cover, output shaft, spring and fasteners, etc. The anticorrosive processing.
- 5、Single type pneumatic actuator spring after preloading installation, safe and convenient disassembly and assembly.
- 6、Pneumatic actuators in the full open and close position 0 degrees or 90 degrees can be plus or minus five degrees two-way travel adjustment.
- 7、Installation size accords with ISO5211, DIN3337 and VD1 / VDE3845 and NUMAR standards, to ensure interchangeability between GTD32 pneumatic actuators and convenient to install solenoid valves, limit switches, etc.
- 8、The installation of the output shaft connection hole has a variety of shapes (square hole, shaft key hole, a flat hole) to choose from.
- 9、Beautiful shape and exquisite, light weight, waterproof sealing structure.
- 10、Have a normal temperature, high temperature, low temperature type. Use under the working conditions of the nitrile rubber, the fluorine rubber or silicone rubber in high temperature or low temperature.

工作原理(双作用)

双作用气动执行机构：压缩气体自B口进入两端腔，使活塞处于中间位置，气动执行机构关闭。压缩气体自A口进入中间腔，推动活塞至两端位置，气动执行机构打开。

Principle (Double)

Double-acting pneumatic actuators: compressed gases from port B into the cavity on both ends, the piston is in middle position, the pneumatic actuators are closed. Compressed gas from port A into the middle chamber, push on both ends of the piston to the location, open the pneumatic actuators.

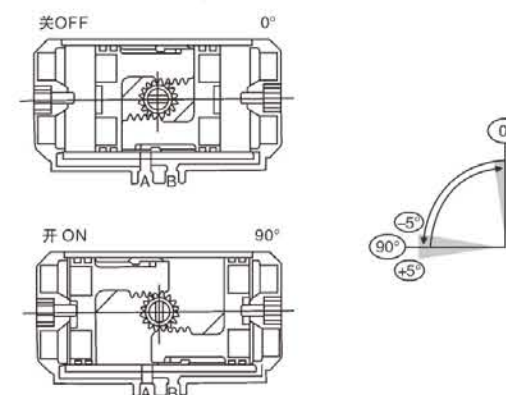
工作原理(单作用弹簧复位)

弹簧复位气动执行机构：失气时，弹簧推动活塞使其处于中间位置，气动执行机构关闭。当压缩气体自A口进入中间腔时，推动活塞，压缩弹簧，使气动执行机构打开。

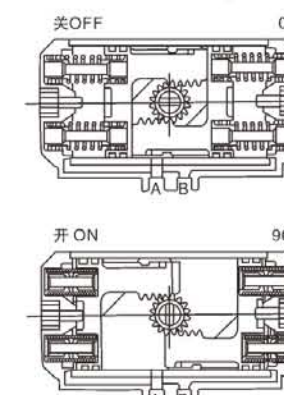
Principle (Single Acting Spring Return)

Spring return pneumatic actuators: loss of air pressure, the springs push the piston to make it in the middle position, the pneumatic actuators are closed. When compressed gas from port A into the middle chamber, and moves the pistons, compression spring, open the pneumatic actuators.

GTD 系列标准气动执行机构
GTD Standard series pneumatic actuators

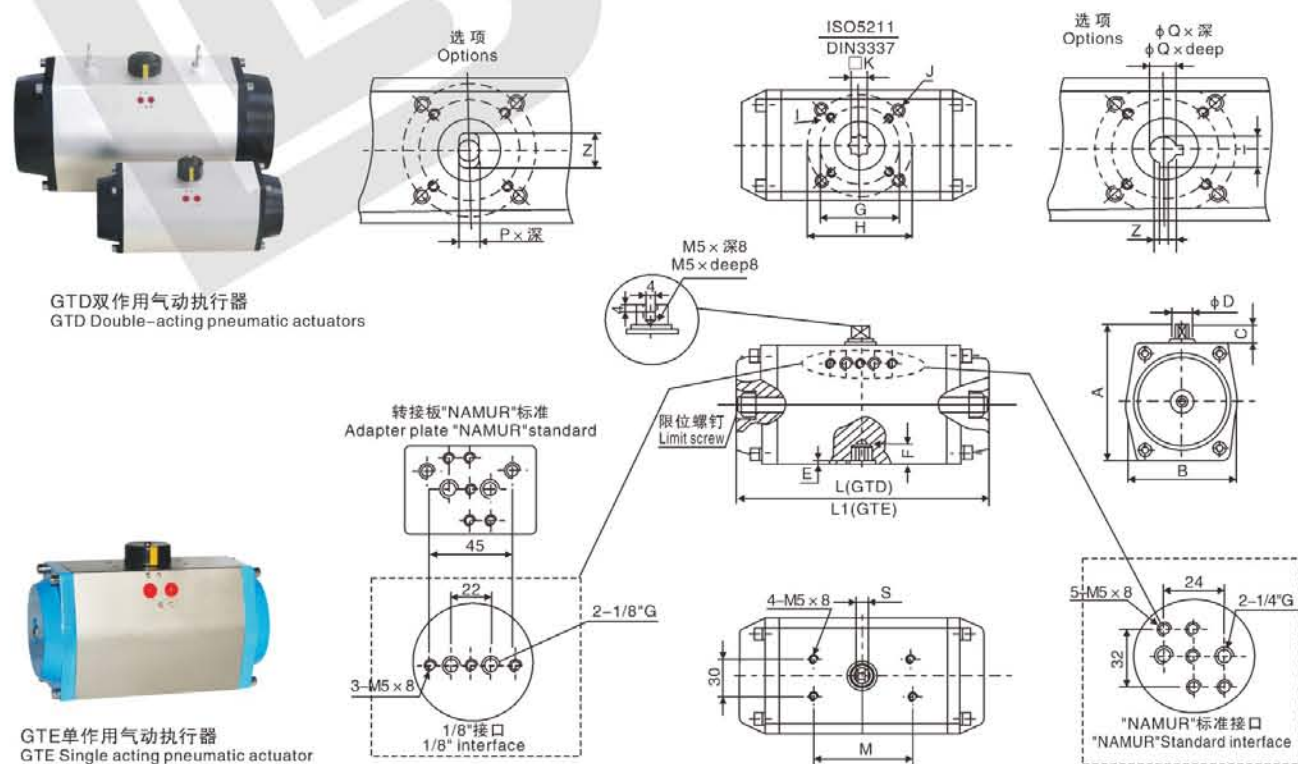


GTE 系列标准气动执行机构
GTE Standard series pneumatic actuators



■ Gt系列阀门气动执行器输出扭矩表及选配表 GT Series Valve Pneumatic Actuator Output Torque Table And Matching Table

GTD双作用型输出扭矩表及选配表 GTD Double-acting type output torque table and matching table					GTE单作用型输出扭矩表及选配表 GTE Single-acting output torque table and matching table						
型号 Model	输出扭矩(N.m) Output torque(N.m)				型号 Model		弹簧扭矩 Torque of the spring	输出扭矩(N.m) Output torque (N.m)			
	0.4MPa	0.5MPa	0.6MPa	0.7MPa				0.4MPa	0.5MPa	0.6MPa	0.7MPa
GTD52	16	19	23	28	GTE52	K5	10		3	6.8	11
						K6	12			3.5	7.4
GTD63	23	29	35	41	GTE63	K5	16		6	12	18
						K6	19.2		2	7	13
GTD83	56	70	84	98	GTE-83	K5	32	3	17	31	26
						K6	38		7	20	17
GTD110	112	141	169	197	GTE110	K5	76		23	51	79
						K6	91			27	55
GTD127	220	275	320	385	GTE127	K5	125	10	65	120	175
						K6	150		23	78	133
GTD160	440	550	660	770	GTE160	K5	260	51	161	271	381
						K6	312		84	193	303
GTD190	789	986	1184	1380	GTE190	K5	516	81	278	476	673
						K6	619		136	334	532
GTD210	948	1185	1422	1659	GTE210	K5	532	179	416	653	890
						K6	638	25	262	499	736



■ Gt系列阀门气动执行器主要外形及连接尺寸 GT Series Valve Pneumatic Actuator Mainly Shape And Connection Dimensions

型号 Model	GT52	GT63	GT83	GT110	GT127	GT160	GT210
A	94	108	128	160	180	228	262
B	59	70	91	120	137	172	206
C	20	20	20	20	20	30	30
ΦD	12	12	18	25	30	45	50
E	1	1	1	1	1	1	1.5
F	15	16	18	25	25	29	30
G	ISO F03 Φ36	ISO F05 Φ50	ISO F05 Φ50	ISO F07 Φ70	ISO F07 Φ70	ISO F10 Φ102	ISO F10 Φ102
H	ISO F05 Φ50	ISO F07 Φ70	ISO F07 Φ70	ISO F10 Φ102	ISO F10 Φ102	ISO F12 Φ125	ISO F12 Φ125
I	M5×8	M6×10	M6×10	M8×13	M8×13	M10×16	M10×16
J	M6×10	M8×13	M8×13	M10×16	M10×16	M12×18	M12×18
□k	9×9	11×11	14×14	17×17	22×22	27×27	36×36
L	125	140	184	254	294	382	440
L1	125	140	184	254	294	382	440
M	80	80	80	80	80	130	130
S	10	10	13	16	19	28	36
选项 Options	P深	8×12	10×15	10×18	14×22	20×25	28×30
	ΦQ×深	Φ12.7×32	Φ12.7×32	Φ15.9×32	Φ19.1×45	Φ22.3×45	Φ28.8×45
	N	12	16	16	22	30	42
	T	14.2	14.2	18.2	21.6	24.8	32.1
	Z	3	3	5	5	5	8
接口螺纹	G 1/8"	G 1/8"	G 1/8"	G 1/4"	G 1/4"	G 1/4"	G 1/4"

■ 执行器的容积、重量及启闭时间 The Volume, Weight Of Actuators And Open/Close Time

数值 Numerical	型号 Model	GT52		GT63		GT83		GT110		GT127		GT160		GT210	
		D	E	D	E	D	E	D	E	D	E	D	E	D	E
项目 Project															
容积(M3) Volume (M3)		0.24	0.11	0.45	0.21	0.88	0.41	1.8	0.85	3.1	1.46	6.15	2.9	11.2	5.7
关闭时间(S) Closed time (S)		0.5	0.65	1	1.4	1.5	2.1	2.6	3.4	2.9	4	4	5.6	5.8	8.1
重量Weight(Kg)		1.4	1.81	1.85	2.4	3.1	5.5	6.8	8.7	10.1	13.2	15.3	19.7	29.4	32.3

■ AT系列阀门气动执行器概要及特点

AT新型齿轮齿条式气动执行器由BL公司综合了国内外最新技术，通过CAD三维模型创新优化设计，外形美观紧凑、现代化的造型；并采用实用新型材料、新工艺，使产品的质量、性能更加可靠；多规格选型更经济实惠；产品全面符合最新国际标准技术规范，满足现在和未来的需求。

- ① 齿轮齿条双活塞对称结构设计，动作快速平稳，精度高，输出功率大，通过简单的改变活塞装配位置可得到反方向旋转。
- ② 挤压的优质铝合金缸体，经精密加工中心加工的内孔和外部表面进行硬质阳极氧化处理，使用寿命更长，摩擦系数低。
- ③ 一体式设计，所有的双作用和单作用执行器型号，都具有相同的缸体和端盖，很方便通过加装弹簧或拆除弹簧来改变作用方式。
- ④ 组合式预负荷安全弹簧组，不论在装配过程或使用现场中，都能方便而安全的安装或增减弹簧数量。
- ⑤ 外部侧面两个单独调节螺钉对于已安装在阀门上的执行器，更是精确方便调节阀门和阀门位置，如需全行程调节时则另外在两个端盖处配置较长调节螺钉。
- ⑥ 多功能位置指示器，现场可视化指示，符合VID/VI E3845. NAMUR标准槽，能安装并输出所有附件，如限位开关盒、电气定位器、位置传感器。
- ⑦ 气源接口符合NRMAR标准，可直接安装NUMAR标准电磁阀。
- ⑧ 齿条背面的复合材料轴瓦和活塞导向环以及输出轴的轴承等为防止金属对金属的摩擦，并且增加润滑，使其低摩擦、长寿命。
- ⑨ 所有的紧固件均采用不锈钢材料，长期抗腐蚀。
- ⑩ 连接部分符合全新国际标准规范ISO5211，DIN3337(F03-F25)使产品安装具有互换性、通用性。

■ AT Series Valve Pneumatic Actuator Profile And Characteristics

AT New gear rack type pneumatic actuator by BL company integrated the latest technology at home and abroad, through innovative optimization design CAD 3 d model, appearance is beautiful and compact, the modelling of modernization; And USES the practical new materials, new technology, make the quality of the product, performance more reliable; More specification selection more economical; Products fully comply with the latest international standard specifications, to meet current and future needs.

- ① Pinion and rack double-piston symmetric structure design, smooth action fast, high precision, large output power, through simple change the piston assembly position available in the opposite direction spin.
- ② Extrusion of high quality aluminum alloy cylinder block, the precision of machining center for machining inner hole and outside surface of hard anodic oxidation treatment, long service life, low friction coefficient.
- ③ Unibody design, all of the double-acting and single acting executive shape, I have the same cylinder bodies and end shields, easily by adding spring or dismantled the spring to change the way of action.
- ④ Combined spring preload security groups, whether in the assembly process or the use of the scene, can be convenient and safe to install, or increase or decrease in the spring.
- ⑤ External side for two separate the adjustable screw is installed on a valve actuator, more convenient accurate regulating valve and the closed position, if you need full stroke adjustment is also at the two end cover configuration is longer than the adjusting screw.
- ⑥ Multi-function position indicator, on-site visual instructions, conform to the VID/VI E3845 NAMUR standard slot, can install and output all attachments, such as limit switch box, electrical locator, position sensor.
- ⑦ Air interface NRMAR standard, can be directly mounted NUMAR standard solenoid valve.
- ⑧ Rack on the back of the composite bearing and the piston guide ring and the output shaft bearing and so on to prevent metal to metal friction, and increase the lubrication, low friction and long life.
- ⑨ All fasteners are stainless steel materials, corrosion for a long time.
- ⑩ ISO5211 connection part conform to the new international standard specification, DIN3337 (F03 - F25), make the product installation with interchangeability and commonality.

■ 工作原理(双作用)

当气源压力从气口(2)进入气缸两活塞之间腔时，使两活塞分离向气缸两端方向移动，两端气腔的空气通过气口(4)排出，同时使两活塞齿条同步带动输出轴(齿轮)逆时针方向旋转。反之气源压力从气口(4)进入气缸两端气腔时，使两活塞向气缸中间方向移动，中间气腔的空气通过气口(2)排出，同时使两活塞齿条同步带动输出轴(齿轮)顺时针方向旋转。(如果把活塞相对反方向安装，输出轴变为反向旋转，即为双作用反转型)。

■ Principle (Double)

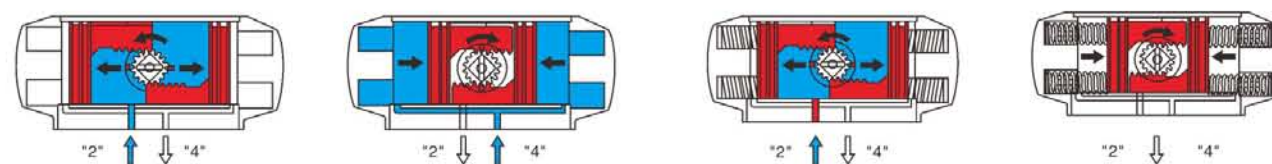
When the air pressure from the port (2) into the cylinder between the pistons lumen, makes the separation to the direction on both ends of the cylinder, piston chamber on both ends of the air through the intake (4), and synchronize the two piston rack drives the output shaft (gear) counterclockwise. And air pressure from the port (4) into the cylinder chamber on both ends, the two direction among the piston to the cylinder, the air cavity in the middle of the air through the intake (2), and synchronize the two piston rack drives the output shaft rotate clockwise (gear). (if the piston relative to reverse direction installation, output shaft into a reverse rotation, namely for the reverse transformation).

■ 工作原理(单作用)

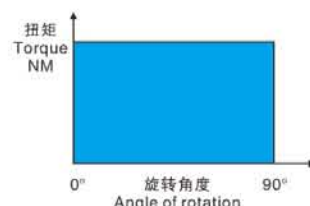
当气源压力从气口(2)进入气缸两活塞之间腔时，使两活塞分离向气缸两端方向移动，迫使两端的弹簧压缩，两端气腔的空气通过气口(4)排出，同时使两活塞齿条同步带动输出轴(齿轮)逆时针方向旋转。在气源压力经过电磁阀换向后，气缸的两活塞在弹簧的弹力下向中间方向移动，中间气腔的空气从气口(2)排出，同时使两活塞齿条同步带动输出轴(齿轮)顺时针方向旋转。(如果把活塞相对反方向安装，弹簧复位时输出轴变为反向旋转，即为单作用反转型)。

■ Working Principle Of The (Single)

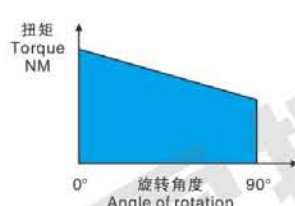
When the air pressure from the port (2) into the cylinder between the pistons lumen, makes the separation to move on both ends of the cylinder, piston force on both ends of the spring compression, chamber on both ends of the air through the intake (4), at the same time step makes the piston rack to drive the output shaft (gear) counterclockwise. In the air force of muddy after reversing solenoid, two piston cylinder under the elasticity of spring to the center direction, from the air cavity in the middle of the air intake (2), and synchronize the two piston rack drives the output shaft rotate clockwise (gear). (If the piston relative to reverse direction installation, spring reset output shaft into a reverse rotation, is the single acting inverse transformation).



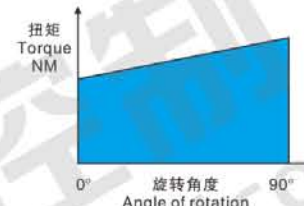
执行器工作行程曲线
Actuator working stroke curve



空气压力工作行程曲线
Air pressure working stroke curve



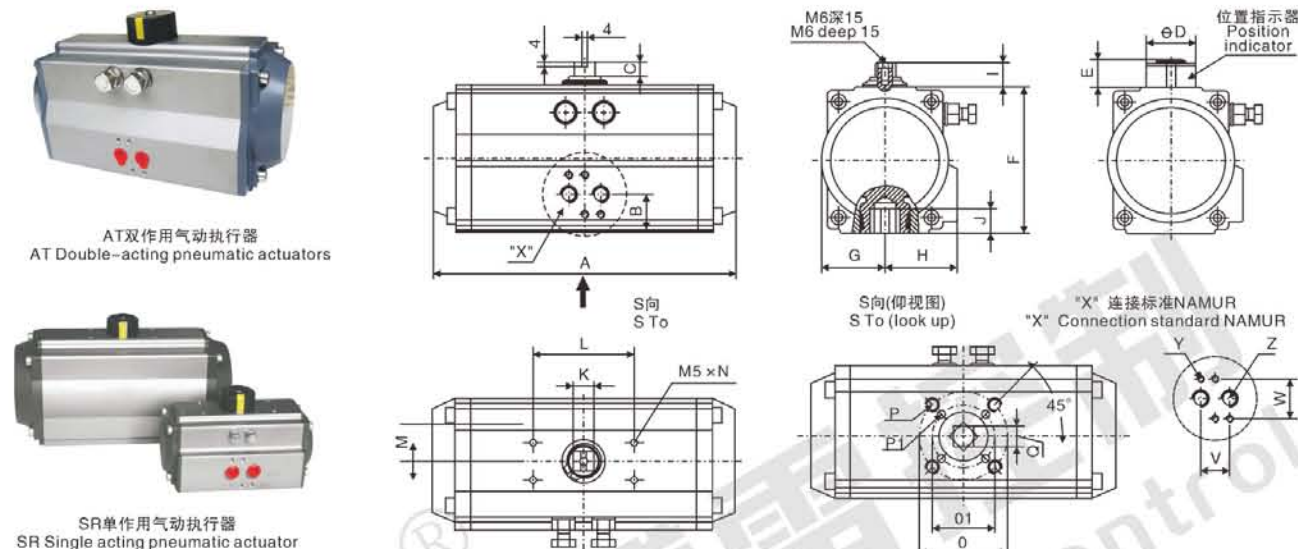
弹簧复位工作行程曲线
Spring return working stroke curve



■ At系列阀门气动执行器输出扭矩表 AT Series Valve Pneumatic Actuator Output Torque Meter

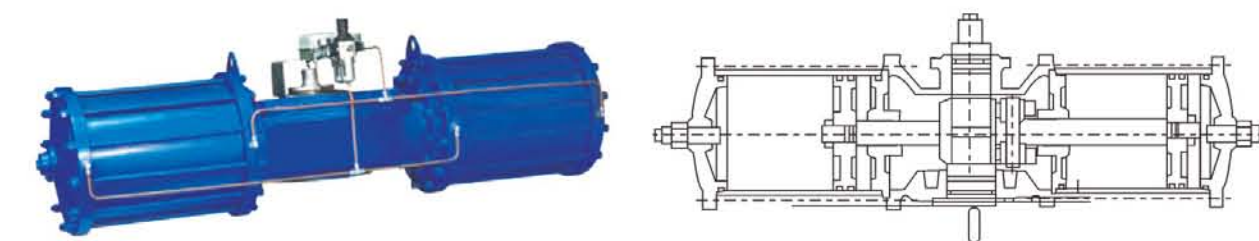
AT双作用型输出扭矩表 AT Double-acting type output torque meter					SR单作用型输出扭矩表 SR Single acting type output torque meter											
型号 Model	输出扭矩 Output torque (N.m)				型号 Model	弹簧数量 Number of spring	输出扭矩 Output torque(N.m)								弹簧复位扭矩 Spring return torque	
	0.4MPa	0.5MPa	0.6MPa	0.7MPa			0.4MPa		0.5MPa		0.6MPa		0.7MPa			
							90°	0°	90°	0°	90°	0°	90°	0°	90°	0°
AT52	17	21	26	30	SR52	K5	9.1	14	13.3	10.4	17.6	14.7	21.8	18.9	10.8	7.9
						K6			11.8	8.3	16	12.5	20.3	16.8	13	9.5
AT63	30	38	45	53	SR63	K5	16.4	10	23.8	17.5	31.3	25	38.8	32.5	19.9	13.6
						K6			21.1	13.5	28.6	21	36.1	28.5	23.9	16.3
AT83	65	82	98	113	SR83	K5	35.2	21.9	51.5	38.1	67.7	54.4	83.9	70.6	43	29.7
						K6			45.5	29.5	61.8	45.8	78	62	51.6	35.6
AT105	138	175	208	242	SR105	K5	59.9	46.2	94.6	80.8	129	116	164	150	92.3	78.5
						K6			78.9	62.4	114	97	148	132	110.8	94.3
AT125	245	300	365	430	SR125	K5	139	86	201	147	262	209	323	270	160	106
						K6			179	115	241	177	302	238	191	127
AT140	370	462	550	645	SR140	K5	191	103	284	195	376	288	469	380	267	178
						K6			248	142	341	234	433	327	320	214
AT160	560	705	840	985	SR160	K5	253	115	386	248	519	381	652	514	417	279
						K6			320	165	463	298	596	431	500	335
AT190	910	1135	1350	1585	SR190	K5	451	233	664	446	877	658	1090	809	618	400
						K6			584	322	797	535	1010	748	742	480

连接标准ISO5211/VDO/VDE3845 Connection standard ISO5211/VDO/VDE3845



■ ATR系列阀门气动执行器主要连接尺寸 ATR Series Valve Pneumatic Actuator Mainly Connection Size.

型号 Model	AT052	AT063	AT075	AT083	AT092	AT105	AT125	AT140	AT160	AT190	AT210	AT240	AT270
ISO flange	F04-05	F05-07	F05-07	F05-07	F05-07	F07-10	F07-10	F10-12	F10-12	F14	F14	F16	F16
A	145	169	201	209	242	275	332	385	450	507	562	646	722
B	24	25.5	27	30.5	31	32.5	33	39.5	43.5	58.5	64	72	74
C	12	12	12	12	12	12	12	12	12	20	20	20	20
ΦD	40	40	40	40	40	40	55	55	55	80	80	80	80
E	22	22	22	22	22	22	22	22	22	33	33	33	33
F	72	88	100	108	120	133	155	171.5	197	230	255	290	320
G	30	36	42	46	51	58	67.5	76	86.5	103	113	129	146
H	41	46	52	55	57.5	64	70	77	87.5	103	113	129	146
I	20	20	20	20	20	20	20	20	20	30	30	30	30
Jmin	13	16	20	20	20	25	25	30	30	40	40	50	50
K	12	12	12	16	16	16	22	22	22	32	32	32	32
L	80	80	80	80	80	80	80	80	80	130	130	130	130
M	30	30	30	30	30	30	30	30	30	30	30	30	30
N	8	8	8	8	8	8	8	8	8	8	8	8	8
Φ01	36	50	50	50	50	70	70	102	102	/	/	/	/
Φ0	50	70	70	70	70	102	102	125	125	140	140	165	165
P1	4-M5	4-M6	4-M6	4-M6	4-M6	4-M8	4-M8	4-M10	4-M10	/	/	/	/
P	4-M6	4-M8	4-M8	4-M8	4-M8	4-M10	4-M10	4-M12	4-M12	4-M16	4-M16	4-M20	4-M20
□Q	9	11	14	14	17	17	22	27	27	36	36	46	46
V	24	24	24	24	24	24	24	24	24	24	24	40	40
W	32	32	32	32	32	32	32	32	32	32	32	45	45
Y	M5×8	M5×8	M5×8	M5×8	M5×8	M5×8	M5×8	M5×8	M5×8	M5×8	M5×8	M6×10	M6×10
Z	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"



■ Aw系列阀门气动执行器特点

AW系列气动执行器分为双作用和单作用式(弹簧复位), 两个分体气缸, 输出扭矩大, 动作灵活平衡; 活塞杆镀铬, 有很好的抗磨性; 所有滑动部件之间配有无油润滑轴和导向环以降低摩擦系数, 延长使用寿命AW气动执行器的U型曲线特性输出扭矩更适用于大口球阀、蝶阀等转角行程阀门的启、闭和调节, 也可用于其它回转运动的场合, 是实现工业管道自动化控制的理想装置。

■ AW Series Valve Pneumatic Actuator

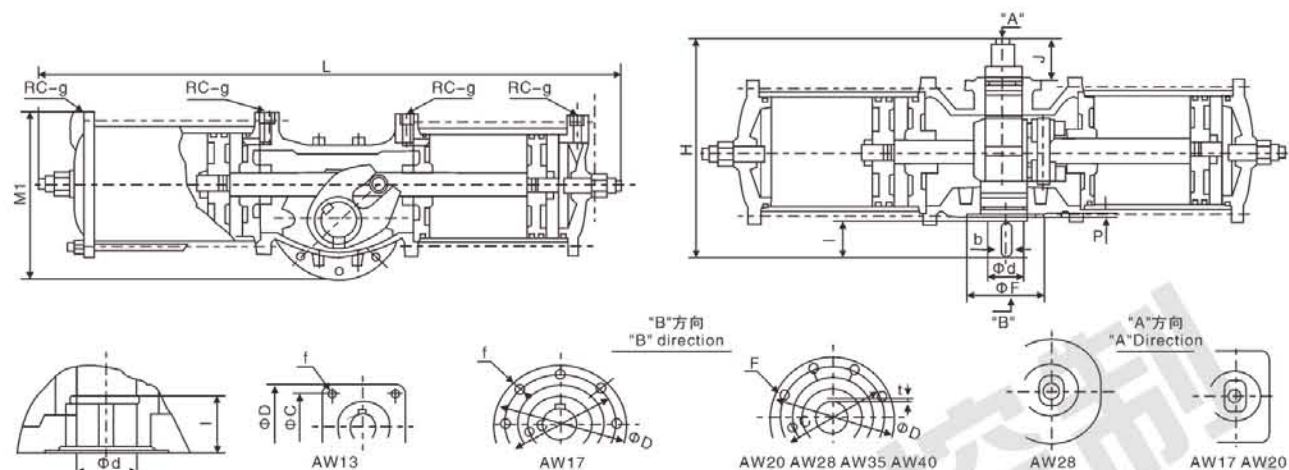
AW Series pneumatic actuators are divided into double-acting and single acting (spring reset), two divided cylinder, large output torque, flexible motion balance; The piston rod, hard chromium plating has good wear resistance; All sliding parts with oil free lubrication between shaft and guide ring to reduce friction coefficient, prolong the service life of u-shaped curve characteristics of AW pneumatic actuator output torque is more suitable for large diameter ball, butterfly and so on Angle of stroke the valve opening and closing and adjustment, can also be used to other rotary movement of the occasion, is the ideal device to realize pipeline automation control.

■ Aw系列阀门气动执行器输出扭矩表 AW Series Valve Pneumatic Actuator Output Torque Meter

AW双作用型输出扭矩表 AW Double-acting type output torque meter					AWS单作用型输出扭矩表 AWS Single acting type output torque meter								
型号 Model	输出扭矩 Output torque (N.m)				型号 Model	弹簧扭矩 Torque of the spring (N.m)		输出扭矩 Output torque (N.m)					
								0.4MPa		0.5MPa		0.6MPa	
	0.4MPa	0.5MPa	0.6MPa	0.7MPa		最大 Biggest	最大 Biggest	最大 Biggest	最大 Biggest	最大 Biggest	最大 Biggest	最大 Biggest	最大 Biggest
AW13	620	770	930	1080	AWS13	230	430	183	330	330	540	490	700
AW17	1270	1590	1910	2230	AWS17	330	670	600	930	920	1290	1230	1573
AW20	2430	3040	3650	4260	AWS20	1010	1430	700	1120	1230	1650	1770	2190
AW22	3470	4330	5200	6070	AWS22	1180	1700	980	1480	1700	2540	2420	3300
AW25	4810	6010	7220	8430	AWS25	1570	2890	1890	3230	3160	4560	4330	5440
AW28	6860	8580	10300	12020	AWS28	2900	5610	1250	3960	2970	5685	4680	7400
AW35	13500	16870	20250	23620	AWS35	5520	10740	2760	7970	6130	11340	9510	14720
AW40	17630	22040	26450	30860	AWS40	8770	16140	4480	8860	6900	13260	10300	17690

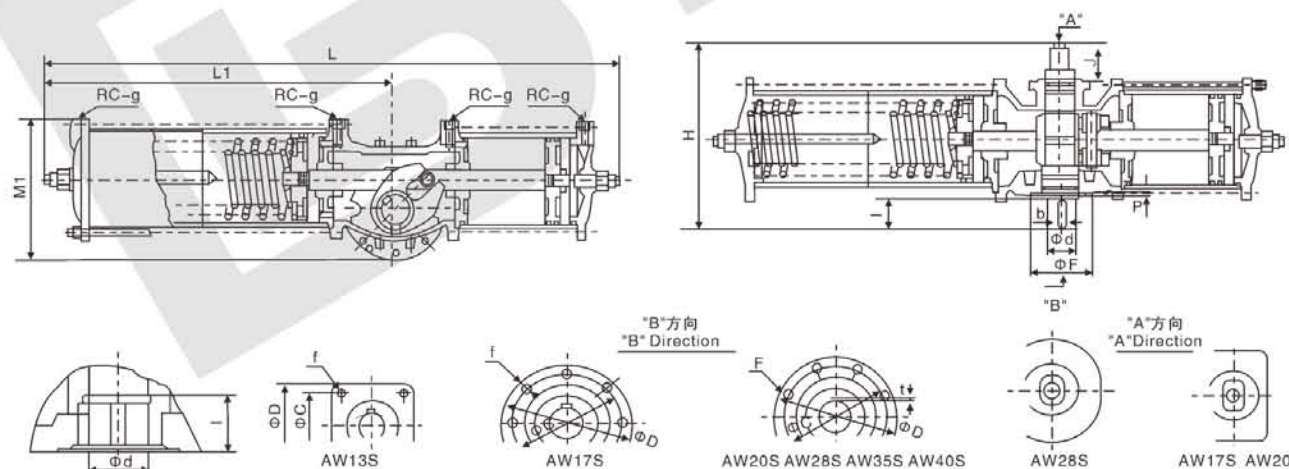
■ 气缸容积及重量和耗气量计算 Cylinder Volume And Weight And Calculate Gas Consumption

型号规格 Model specification		AW13	AW17	AW20	AW28	AW35	AW40
气缸容量L Cylinder size L	双作用式 Double acting type	6.3	14.3	30.8	73	148	193
	单作用式 Single acting	3.25	7.15	15.4	36.5	74	96.5
重量 Weight (Kg)	双作用式 Double acting type	45	79	168	320	600	780
	单作用式 Single acting	62	112	219	445	835	1050



■ 双作用式外形尺寸 Double-Acting Shape Size

Model	L	M1	H	φC	φD	f	φd	l	φF	p	b	t
AW13	640	201	266	100	132	4-M16	42	37	80	4	12	3.5
AW17	827	270	348	160	190	8-M16	50	60	120	4	14	3.5
AW20	1162	350	425	200	232	8-M16	64	74	140	4	18	4
AW28	1380	460	527	280	318	8-M20	85	100	220	4	25	5
AW35 AW40	1860	545	440	300	350	8-M24	105	100	200	10	28×2	6.4



■ 单作用式外形尺寸 Single Acting Shape Size

Model	L	L1	M1	H	φC	φD	f	φd	l	φF	p	b	t	J	g
AW13S	858	538	201	266	100	132	4-M16	42	37	80	4	12	3.5	35	1/4"
AW17S	1090	675	270	348	160	190	8-M16	50	60	120	4	14	3.5	66	3/8"
AW20S	1430	850	350	425	200	232	8-M16	64	74	140	4	18	4	78	1/2"
AW28S	1845	1155	460	527	280	318	8-M20	85	100	220	4	28	5	84	1/2"
AW35S	2605	1670	545	440	300	350	8-M24	105	100	220	10	28×2	6.4	-	1/2"

■ 概述 Summary

“BOX”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、轻工等各行业。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。

“BOX” 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，将板手置于板手夹内，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。透镜采用凸出镜设计，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.

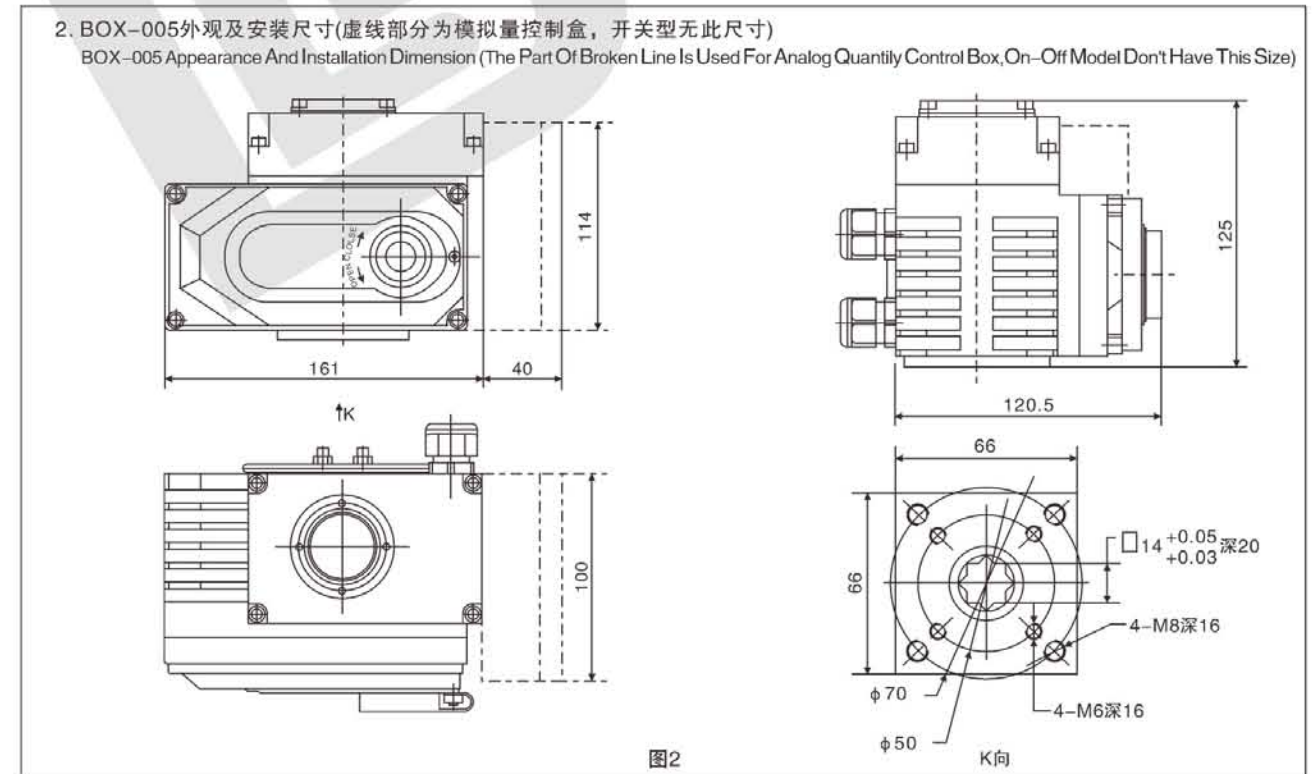
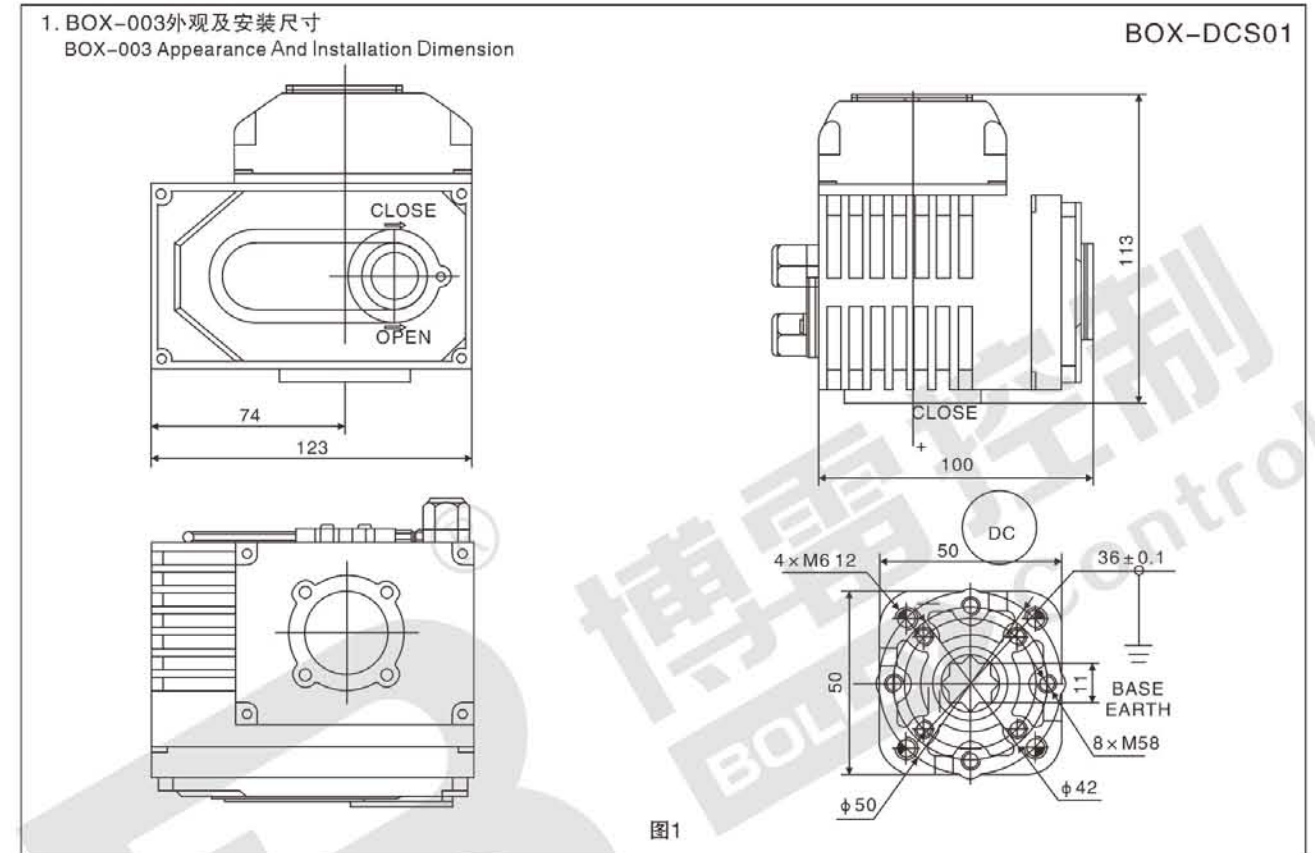
性能参数 Performance Parameter

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	单项额定电流 Single-phase rated current 220V(A)50HZ	重量 WT (Kg)
			方 Square	深 Deep	圆 Round	深 Deep			
BOX-003	30	10	9×9	13.5	φ 12.6	26	8	0.15	2.1
			11×11	15.5					
BOX-005	50	30	11×11	15.5	φ 12.6	26	10	0.25	3.6
			14×14	18					
BOX-010	100	30	14×14	18	φ 15.78	28	15	0.35	4.6
			17×17	22.5					
BOX-016	150	30	14×14	18	φ 18.95	28	15	0.37	4.6
			17×17	22.5					
BOX-020	200	30	22×22	26	φ 22.13	45	45	0.3	13
BOX-040	400	30	22×22	26	φ 28.48	45	60	0.33	13.8
BOX-060	600	30	27×27	32.5	φ 31.65	45	90	0.33	14
BOX-100	1000	135	27×27	32.5	φ 31.65	45	180	0.47	60
BOX-160	1600	135	Max φ 65		深65		180	0.85	60
BOX-200	2000	135	Max φ 65		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, NEMA4and6 Aluminium alloy Shell, waterproof leve: IP67, NEMA4and6	
电机电源 Power supply	110/220VAC 1Phase, 380/440VAC 3Phase, 50/60Hz, ± 10%	
控制电源 Control supply	110/220VAC 1PHASE, 50/60Hz, ± 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, 25CV AC 10A	
辅助限位开关 Accessorial Limit switch	2×开(On)/关(Off), SPDT, 25CV AC 10A	
行程 Stoke	90°~270° ± 10°, (90°以上提前说明) When it over 90, please note us 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	详续的位置指示 Continuous situation indication	
手动操作 Manu operation	机械手柄 Mechanical handle (可选装手轮 Optional: fixing with the handle)	
自锁装置 Self-locking device	涡轮, 蜗杆机构提供自锁 Frovde self-locking by worm and worm gear	
机械限位 Mechanical Limi	2个外部调整螺杆 2pieces of adjustaor bolts	
干燥器 Space heater	7-10W(110/220V Ac) 防冷凝 Condensator-preventing	
接线孔 Bondfing 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	
环境温度 Ambient temperature	最大(Max) 90% RH	非凝结 Non-Condensed
抗震性能 Shock survial	XY Z10g, 0.2-34Hz, 30分(minueutes)	
外涂层 External coating	干粉, 环氧聚酯 Dry powder, Epoxy polyester	

外观图 Outside View



3. BOX-010~016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)

BOX-010~016 Appearance And Installation Dimension(The Part Of Broken Line Is Used For Analog Quantity Control Box, On-off model Don't have This Size.)

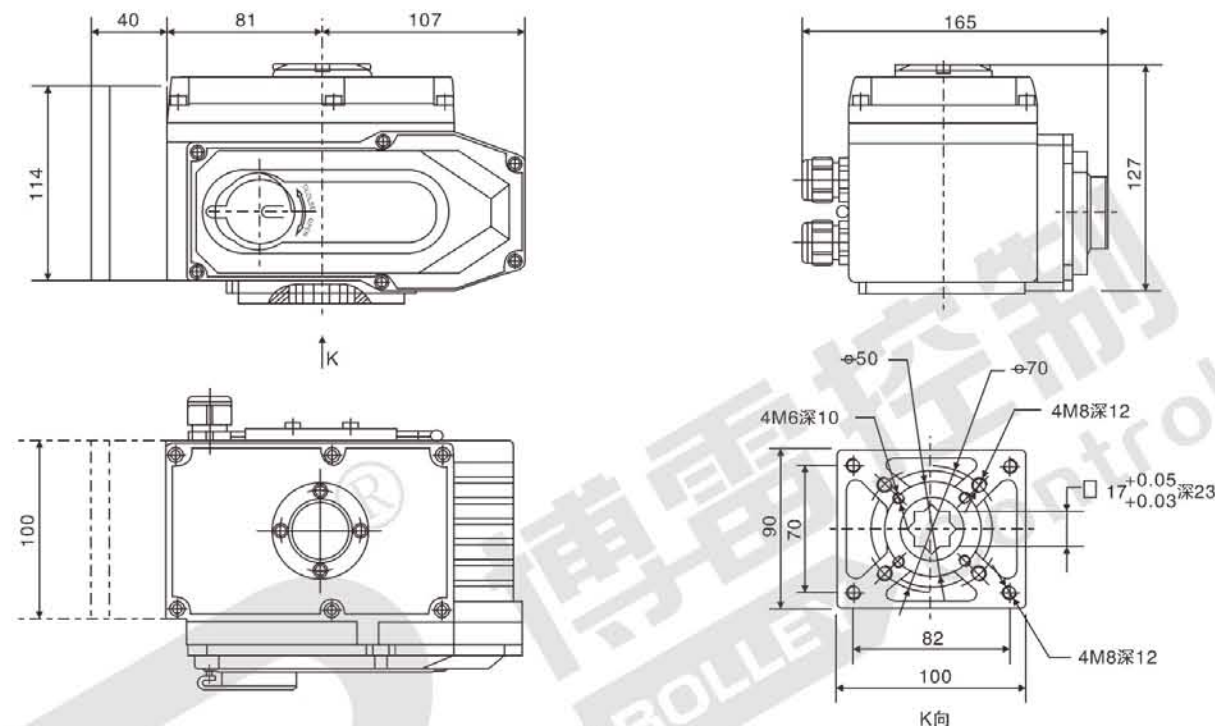


图3

4. BOX-020~060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)

BOX-020~060 Appearance And Installation Dimension(The Part Of Broken Line Is Used For Analog Quantity Control box, On-Off Model Don't Have This Size)

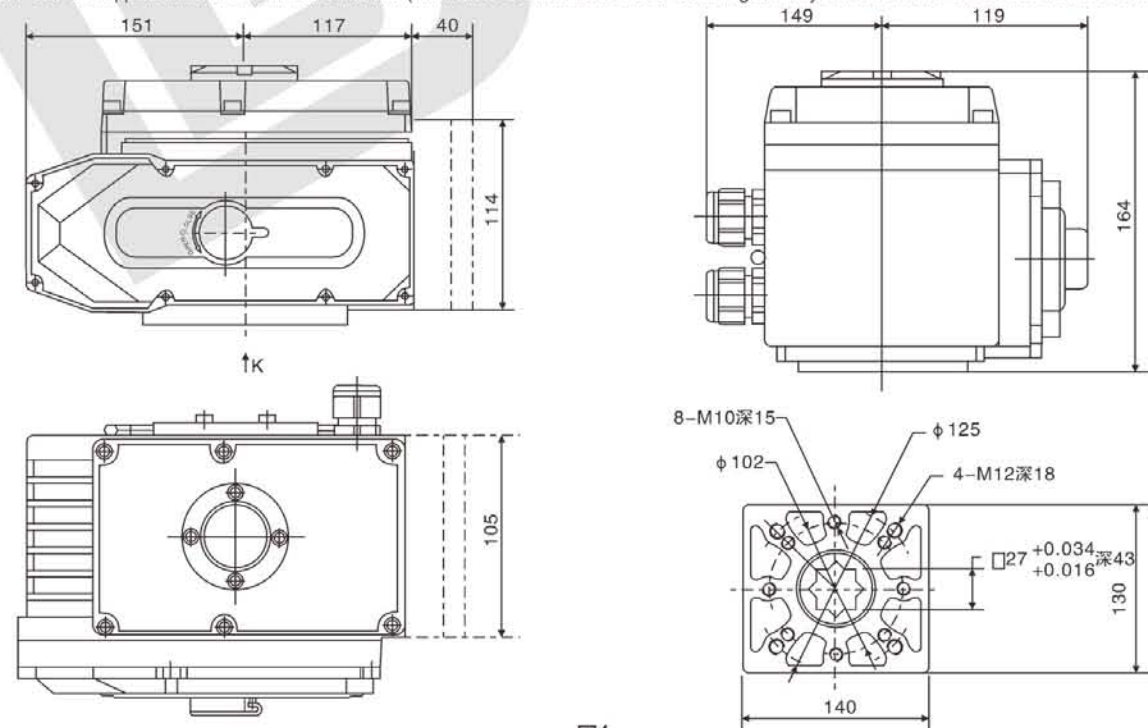


图4

5. BOX-100~200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)

BOX-100~200 Appearance And Installation Dimension(The Part Of Broken Line Is Used For analog Quantity Control box, On-Off Model Don't Have This Size)

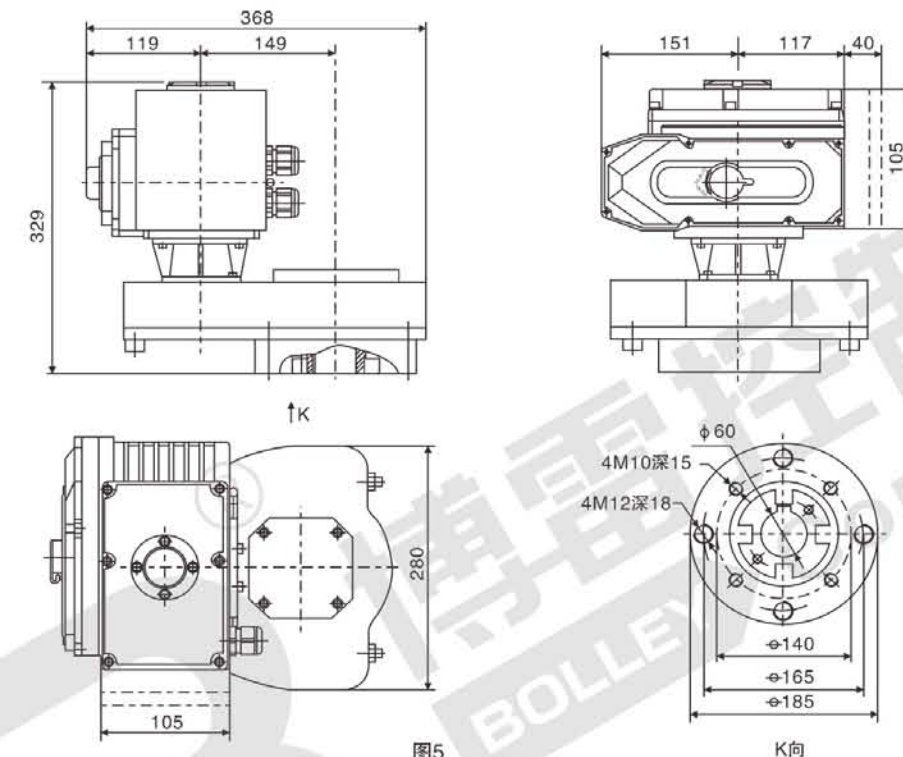


图5

线路图 Circuit Diagram

1. 标准开关无源触点信号输出线路图

Standard on-Off Passive Contact Signal Output Circuitry

BOX-S01

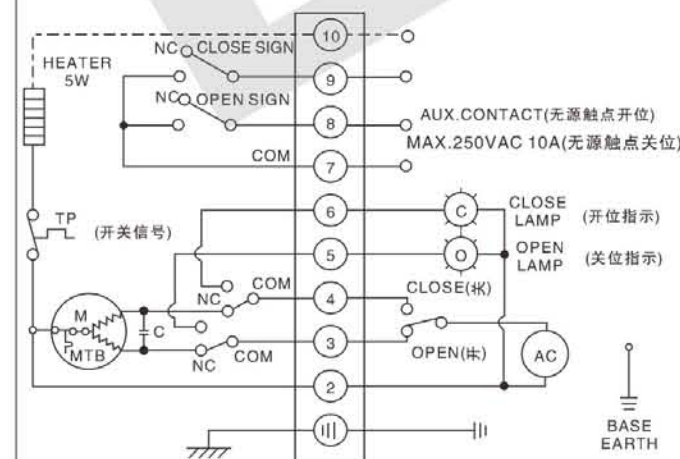


图6

2. 模拟量无源触点信号输出线路图

Analog Quantity Passive Contact Signal Output Circuitry

BOX-P01

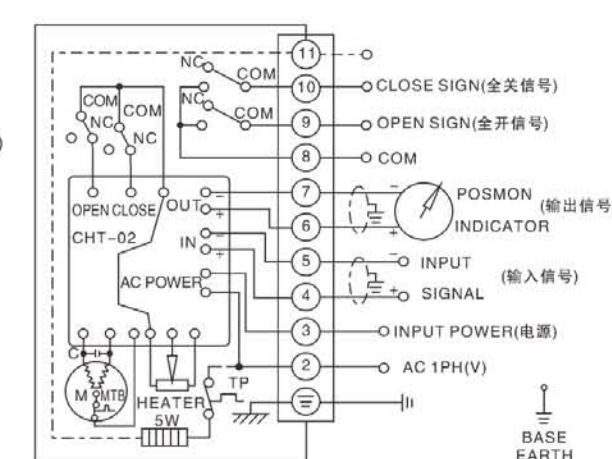


图7

3. 角度及无源触点信号输出线路图
Angle And Passive Contact Signal Output Circuitry
BOX-R01

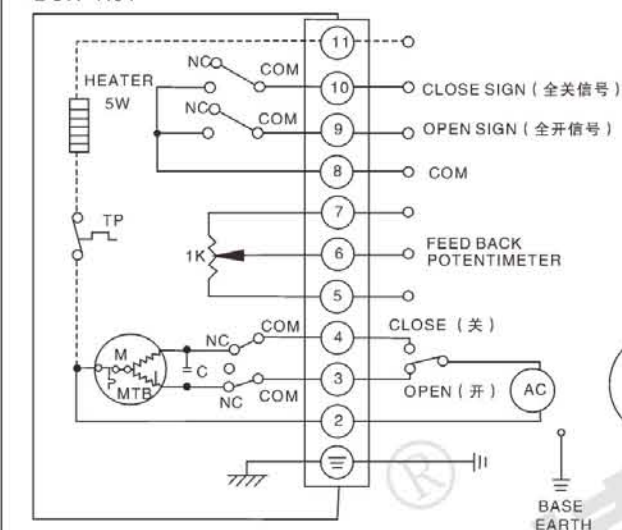


图8

线路图 Circuit Diagram
4. 380/440VAC/50/60Hz, 3相(外置控制开关型)
380/440VAC/50/60Hz, 3Ph(Outer control On-off model)
BOX-K3-W01

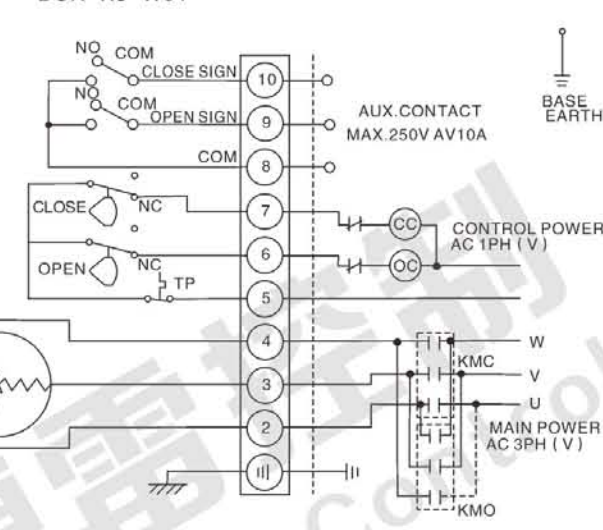


图9

5. 开关量输入4~20 mA信号及开关信号输出线路图
On-off Input 4~20mA Signal And Open-Closed Signal Output Circuitry
BOX-FS01

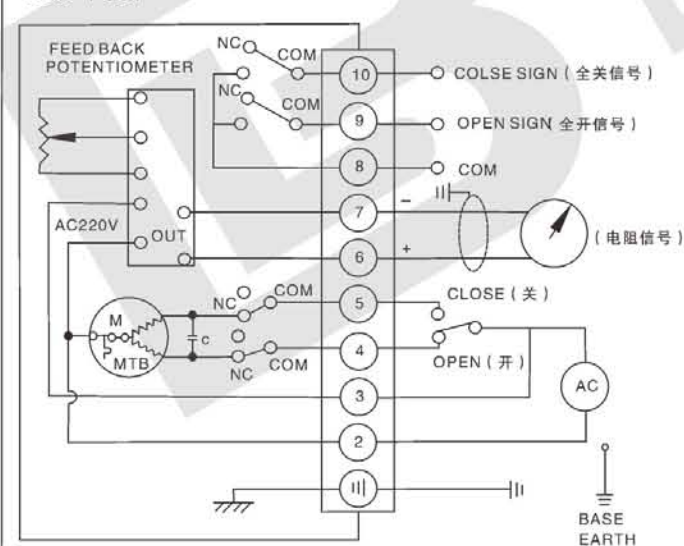


图10

6. 直流标准开关无源触点信号输出线路图
DC Standard On-Off Passive Contact Signal Output Circuitry

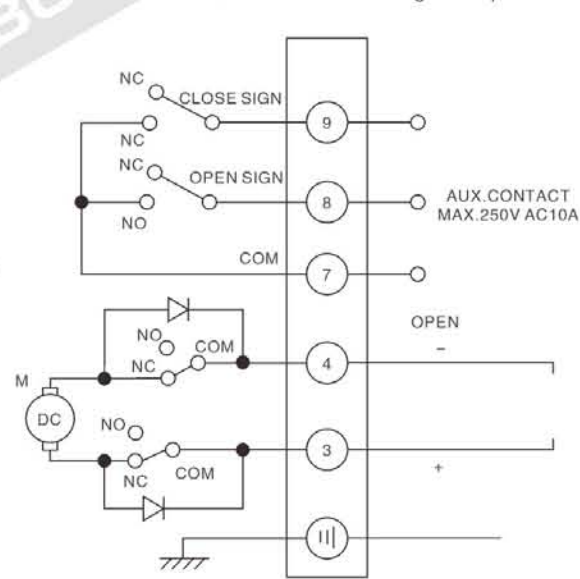


图11

结构

电动执行器主要由以下几部分组成:

- 壳体部分: 包括外壳及底座部分;
- 驱动部分: 以高性能全封闭鼠笼式电机为动力源;
- 传动机构: 蜗轮与齿轮传动部分;
- 比例控制部分: 与机械部分分离, 便于调试;
- 限位开关部分;
- 开度检测与反馈部分。

Structure

Electric actuators is make up of the following parts:

- Shell: including shell and pedestal
- Drive parts: Full sealing high-performance squirrel-cage motor for the power source
- Driving mechanism: Worm and gear drive parts
- Ratio control parts: separate with the mechanical parts, easy to debug
- Limit switch part
- Opening Detected and Feedback Parts



- 1. 壳体
硬质阳极氧化压铸铝壳体, 外部环氧粉末涂层, 适应严苛的工作环境。
- 2. 蜗轮
精加工双蜗轮结构, 反向回坐力最小, 接触面积大, 噪音低, 输出扭矩大。
- 3. 自锁
双蜗轮结构, 具有自锁功能, 在阀门受到反向扭矩的情况下, 保持阀位不变。
- 4. 密封
IP67(标准)防护等级, 所有的连接面都有O型圈密封, IP68, 所有连接面都有双O型圈密封。
- 5. 手柄
手柄尺寸增大, 采用高强度材料, 操作方便。
- 6. 电机
专门设计的感应电机, 大启动扭矩, 高效率, 内置热保护器, 防止过热, 绝缘等级F。
- 7. 蜗轮
精加工双蜗轮结构, 反向回坐力最小, 接触面积大, 噪音低, 输出扭矩大。
- 8. 自锁
双蜗轮结构, 具有自锁功能, 在阀门受到反向扭矩的情况下, 保持阀位不变。
- 9. 密封
IP67(标准)防护等级, 所有的连接面都有O型圈密封, IP68, 所有连接面都有双O型圈密封。
- 10. 手柄
手柄尺寸增大, 采用高强度材料, 操作方便。
- 11. 电机
专门设计的感应电机, 大启动扭矩, 高效率, 内置热保护器, 防止过热, 绝缘等级F。

产品概述 Product Overview

BHQ系列电动执行器用于控制旋转小于360°的阀门及其同类产品, 如蝶阀、球阀、风门、挡板阀、旋塞阀、百叶阀等, 广泛应用于石油、化工、电力、冶金、水处理、船舶、制药、造纸、供热、制冷、轻工等各行业。它以380V/220V/110V交流电源为驱动电源, 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5000 N·M。(产品已获得CE与防爆认证证书)。

Product Overview

BHQ Series Electric is used to control the rotating valve is less than 360° and similar products, such as butterfly valve, ball valve, throttle, damper valve, cock valve, valve, such as Venetian blinds are widely used in petroleum, chemical industry, electric power, metallurgy, water treatment, shipbuilding, pharmaceutical, paper making, heating, cooling, light industry and other industries. It to a 380V/220V/110V ac power for the drive power supply, with 4~20 ma current signal, or 0~10V DC voltage signal to control signal, can make the valve movement to the required position, realize the automatic Change control, maximum output torque of 5000 N·M. (with explosion-proof products have obtained CE certification) .



- 手动操作(离合器系统)
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 Operation (clutch system)
Manual/automatic switch handle and hand wheel for manual operation
After electrify, the controller will automatically reset into automatic mode



- 凸轮及限位开关
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, 每个凸轮永远保持在此位置

- CAM And Limit Switch
By two screws on the fastening, simple to set up Each of the CAM can be set separately Once setup is complete, each CAM always stay in this position



- 接线端子排
有足够的端子, 使用户使用方便, 最多为22个
能保证紧固, 牢靠的电线连接
端子长度: 8-9mm(2.5mm²)
端子尺寸: 10x22x32mm

- Terminal Row
Have enough terminal, the user easy to use, up to 22 Can guarantee fastening, solid wires
Length of the terminal: 8-9 mm (2.5) was
Terminal size: 10 x22x32mm



- 干燥器
7-30W, 采用金属外壳, 散热快, 寿命长, 同时内置温度开关, 防止过热。
核芯部件陶瓷密封, 没有漏电的危险。

- Dryer
7-30 w, use a metal outside Shell, fast heat dissipation, long life, Built-in temperature switch at the same time, To prevent overheating. Ceramic seal core parts, There is no risk of leakage.



- 防脱螺栓
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。

- Prevent To Take Off The Bolt
Cover bolts for special Meter, maintenance and installation does not Will fall off.
All external bolt to be less Stainless steel quality, will not rust.



- 视窗采用聚碳酸酯, 内置O型圈, 金属压盖固定, 压盖自带两个排水槽, 不易积水, 易观察。

- Windows USES polycarbonate, the built-in type O ring, metal pressure Cover is fixed, gland comes with two sink, not easy seep, Easy to observe.



- 扭矩开关
扭矩开关可防止因过载引起的电机、内部电器元件及与其连接的阀门的损伤。一旦扭矩开关起作用, 执行器立即停止动作。

- Cover And Body Combined with Slope
Other actuators due to cover and uncover her nakedness joint surface is vertical Straight, such as the tolerance is very small, here to unload It is not easy to cover. Cant CHQ actuator design here for 30, is solved With this problem.

- 可换驱动轴套
轴套是可换的, 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。阀门与安装方便。

- The Torque Switch
Can prevent the machine caused by overload and torque switch Department of electrical components and connected to valve damage. Once the torque switch, Valve and easy installation.



- 指示器由弹簧支撑
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。

- Removable Drive Axle Housing
Is replaceable shaft sleeve, can be processed according to different requirements, Four hanging ears for the close coordination of the drive shaft and shaft sleeve. And easy installation of the valve.



- 上盖与体的结合为斜面
其他执行器由于上盖和下体的结合面是竖直的, 这样由于此处的公差很小, 卸下上盖很不容易。
BHQ执行器此处设计为30的斜面, 解决了这个问题。

- Indicator Is Supported By A Spring
The direction of the indicator has been set up before they go out.
If you want to change direction, you just need to seize the dial, Change direction.
BHQ Actuator design for 30 cant here, solved the problem.



■ 性能特点

- 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和隔爆型(ExdII BT4、ExdII CT5)可供选择。
- 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。
- 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: 在电机不通电的状况下, 电动执行器将保持永久手动状态)
- 指示器: 指示器安装在中心轴上, 可以观察阀门位置。镜面采用凸透镜设计, 不积水, 观察更方便。
- 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。
- 限位开关: 机械, 电气双重限位。机械限位螺钉可调, 安全可靠: 电气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。(微动开关接点均为银质触点)
- 扭矩开关: 可提供过载保护(BHQ-005/008/010除外), 在阀门卡死, 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)
- 自锁: 精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。
- 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。
- 安装: 底部安装尺寸符合ISO5211国际标准, 驱动轴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。
- 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。阀开关到位均有无源接点输出(可根据客户要求另行加工)
- 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, 很大程度地提高了软件及硬件的抗干扰性能及耐温性。
- 阀位数字显示: 执行器在打开或关闭过程中, 阀位的变化在液晶屏上以大数字方式实时显示。
- 相序自动调整: 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。

■ Performance Characteristics

- Shell: the shell is hard aluminum alloy, the anodic oxidation process and polyester powder coating, corrosion resistance is strong, protection grade IP67, NEMA4 and 6, And there are IP68And flameproof (ExdII BT4、ExdII CT5)to choose from.
- Motor: fully enclosed squirrel-cage motor, small size, large torque, inertia force is small, insulation class is F, built-in overheat protection switch, can prevent overheating damage motor.
- Manual structure: the design of hand wheel to ensure safe and reliable, energy saving, small volume. No electricity, throw the clutch handle for manual operation. Electricity, the clutch automatically reset. (note: the motor is not electricity, under the condition of electric actuators will stay permanent state of manual)
- Indicator: indicator is installed on the central axis, can observe the valve position. Mirror surface convex lens design, no water, observe more convenient.
- Dryer: used to control the temperature, prevent due to temperature and weather changes cause moisture condensation inside the actuator, keep dry and internal electrical components.
- Limit switch: mechanical, electrical double spacing. Mechanical limit screw with adjustable, safe and reliable: electrical limit switch controlled by CAM mechanism, easy adjustment institutions can set position accurately and easily, without the battery support. (micro switch contacts are silver contact)
- Torque switch: provide overload protection (except BHQ-005/008/010), the valve stuck, a foreign body, automatically disconnect the motor power supply, more effective protection valves and electric actuators from being damaged. (user has been set before delivery, please don't change the Settings)
- Self-locking: precision double worm and worm wheel mechanism to efficiently transport large torque, high efficiency, low noise (maximum 50 decibels), long life has self-locking function, prevent reverse, stable and reliable transmission parts, the factory has been filled with efficient grease, use need not go.
- Overhand bolt: when the demolition of housing, bolt attached to the shell, will not fall off. External bolt adopt stainless steel material.
- Installation: installation size ISO5211 international standards, at the bottom of the drive axle housing can be removed according to the need to carry on the processing, strong adaptability. Can be installed in a vertical or horizontal installation.
- Circuit, control circuit conforms to the single-phase or three-phase power supply standard, line layout reasonable, compact terminals can effectively satisfy a variety of additional functional requirements. Valve switch in place all have contact output (can be processed separately according to customer requirements)
- Intelligent module: using high integration, low power consumption MCU and analog hybrid control panel, mounted with all metal case more, make the actuator motor heat source from the control panel effectively, greatly improved the software and hardware anti-interference performance and temperature resistance.
- Valve position digital display: actuators, in the process of open or close the valve position change in large digital real-time display on the LCD panel.
- Phase sequence automatically adjust: intelligent actuators automatically detect access of three-phase power phase sequence, phase sequence of three-phase power supply without user consider.

■ 主要技术参数, 规格 Main Technical Parameters, Specifications

型号 Model	最大输出扭矩 Maximum output torque	90°动作时间 60/50Hz 90°Actiontime 60/50Hz	最大轴径 Largest diameter of axle	电机F级 Motor F level	额定电流(A)60/50HZ Rated current (A)60/50HZ				手轮转数 Hand wheel revolutions	重量 Weight
					单相 Single phase		三相 Three phase			
	N.M	90°(S)	mm	w	110V	220V	380V	440V	N	(kg)
BHQ-005	50	18/22	Φ20	20	1.10/0.95	0.55/0.54	0.3/0.3	N/A	10	7.5
BHQ-008	80	18/22	Φ20	20	1.10/0.95	0.55/0.54	0.3/0.3	N/A	10	7.5
BHQ-010	100	18/22	Φ20	20	1.10/0.95	0.55/0.54	0.3/0.3	N/A	10	7.5
BHQ-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
BHQ-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
BHQ-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
BHQ-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
BHQ-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
BHQ-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
BHQ-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
BHQ-150	1500	78/93	Φ45	180	4.20/4.10	2.15/2.20	0.85/0.85	0.79/0.79	49.5	83
BHQ-200	2000	93/112	Φ45	180	4.10/4.10	2.15/2.20	0.85/0.85	0.79/0.79	49.5	83
BHQ-300	3000	93/112	Φ45	180	4.20/4.10	2.35/2.30	0.87/0.87	0.81/0.81	49.5	83
BHQ-400	4000	155/185	Φ45	180	4.20/4.10	2.35/2.30	0.87/0.87	0.81/0.81	82.5	83
BHQ-500	5000	155/185	Φ45	180	4.20/4.10	2.35/2.30	0.87/0.87	0.81/0.81	82.5	83

■ 标准件技术参数 Standard Technical Parameters

外壳 Shell	防水级别IP67 Level of waterproof IP67
电机电源 Motor power	标准: 220V AC单相 Standard: 220V AC Single phase
	可选: 110V AC单相, 380/440V AC 3相, 50/60Hz, ±10% 24V DC/110V DC/220V DC Optional: 110V AC Single phase, 380/440V AC 3 phase, 50/60Hz, ±10% 24V DC/110V DC/220V DC
电机 Motor	鼠笼式异步电机 Squirrel cage induction motor
限位开关 Limit switch	开/关, 各1个SPDT, 250V AC 10A On/off, each 1 a SPDT, 250V AC 10A
辅助限位开关 Auxiliary limit switches	开/关, 各1个SPDT, 250V AC 10A On/off, each 1 a SPDT, 250V AC 10A
扭矩开关 Torque switch	开/关, 各1个SPDT, 250V AC 10A(CHQ-005/008/010除外) On/off, each 1 a SPDT, 250V AC 10A(CHQ-005/008/010 except)
行程 Trip	90°±10°(0°/270°可选) 90°±10°(0°/270° optional)
失效保护, 操作温度 Failure protection and operating temperature	内置过热保护, 开115℃±5℃关97℃±5℃ Built-in overheating protection, open 115℃±5℃ shut 97℃±5℃
指示器 Indicator	连续的位置指示刻度 Continuous position indicating device
手动操作 Manual operation	机械离合机构, 配手轮操作 Mechanical clutch, with hand wheel operation
自锁装置 Self-locking device	蜗轮, 蜗杆机构提供自锁 Worm gear, Provides a self-locking worm mechanism
机械限位 Mechanical limit	2个外部调整螺栓 2 An external adjustment bolts
干燥器 Dryer	7-10W(110/220V AC)
接线孔 Wiring hole	2个PF 3/4"
环境温度 Environment temperature	-20℃- +70℃
润滑 Lubrication	铝基润滑脂(EP型) Aluminum base grease(EP type)
材料 Material	钢, 铝合金, 铝青铜, 聚碳酸酯 Steel, aluminum alloy, aluminum bronze, polycarbonate
环境湿度 Humidity of the environment	最大90% RH(非凝结) Maximum 90% RH (condensation)
抗震性能 Seismic performance	XYZ10g, 0.2 - 34 Hz, 30分钟 XYZ10g, 0.2 - 34 Hz, 30 Minutes
外涂层 Outer coating	干粉, 环氧树脂, 具有超强防腐功能 Epoxy polyester powder, and it has strong corrosion function

■ 可选规格 Optional Specifications

编号 Serial number	可选配置 Optional configuration	备注 Note
1	防爆执行器 (Exd II BT4, Exd II CT5) Explosion-proof actuators (Exd II BT4, Exd II CT5)	BHQ系列 BHQ Series
2	防水执行器 (IP68, 10M, 250HR) Waterproof actuators (IP68, 10M, 250HR)	BHQ系列 BHQ Series
3	电位计 (1K-10K) Potentiometer (1K-10K)	BHQ系列 BHQ Series
4	比例控制单元 (输入、输出信号 4-20mA DC / 5V / 10V) Proportional control unit (input, output signal 4-20mA DC / 5V / 10V)	BHQ系列 BHQ 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) Drive the site control unit (local control/stop/off switch, local/remote switch)	BHQ系列 BHQ Series
6	行程 1200, 1800, 2700 Trip 1200, 1800, 2700	BHQ系列 BHQ Series
7	直流电机 (24V DC) Dc motor (24V DC)	BHQ系列 BHQ Series
8	附加扭矩开关 (SPDTX2 250VAC10A) Additional torque switch (SPDTX2 250VAC10A)	BHQ-005/008/010 除外 Except
9	电流位置传感器 (输出 4-20mA DC) Current position sensor (output 4-20mA DC)	BHQ系列 BHQ Series
10	断电后, 电动阀自动开或关控制柜 After power, electric valve automatically turn on or off the control cabinet	BHQ系列 BHQ Series
11	耐高温执行器 (-10°C ~ +100°C) High temperature resistant actuators (-10°C ~ +100°C)	BHQ系列 BHQ Series
12	耐低温执行器 (-40°C ~ +70°C) Resistance to low temperature actuator (-40°C ~ +70°C)	BHQ系列 BHQ Series
13	低速执行器 Low speed actuator	BHQ系列 BHQ Series

■ 结构 Structure Of The

电动执行器主要由以下几部分组成:

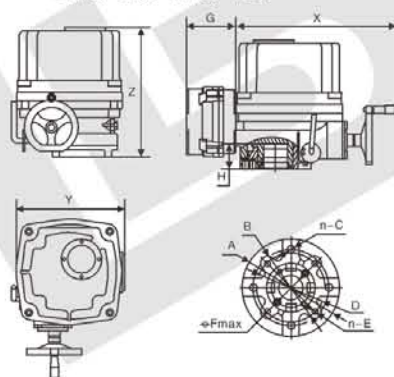
- 壳体部分: 包括外壳及底座部分;
- 传动机构: 双蜗轮与离合器部分;
- 力矩开关与限位开关部分;
- 驱动部分: 以高性能全封闭鼠笼式电机为动力源;
- 比例控制部分: 与机械部分分离, 提高可靠性;
- 开度检测与反馈部分。

Electric actuators is mainly composed of the following sections:

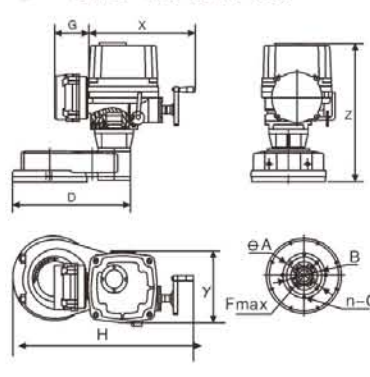
- Shell parts, including casing and the base part;
- Actuator: double worm gear with clutch parts;
- Torque switch and the limit switch part;
- In high-performance drive parts: fully enclosed squirrel-cage motor as a power source;
- Proportional control part: part and mechanical separation, improve reliability;
- The opening inspection and feedback part.

■ 外观图 Appearance Of The Figure

BHQ-005 BHQ-120



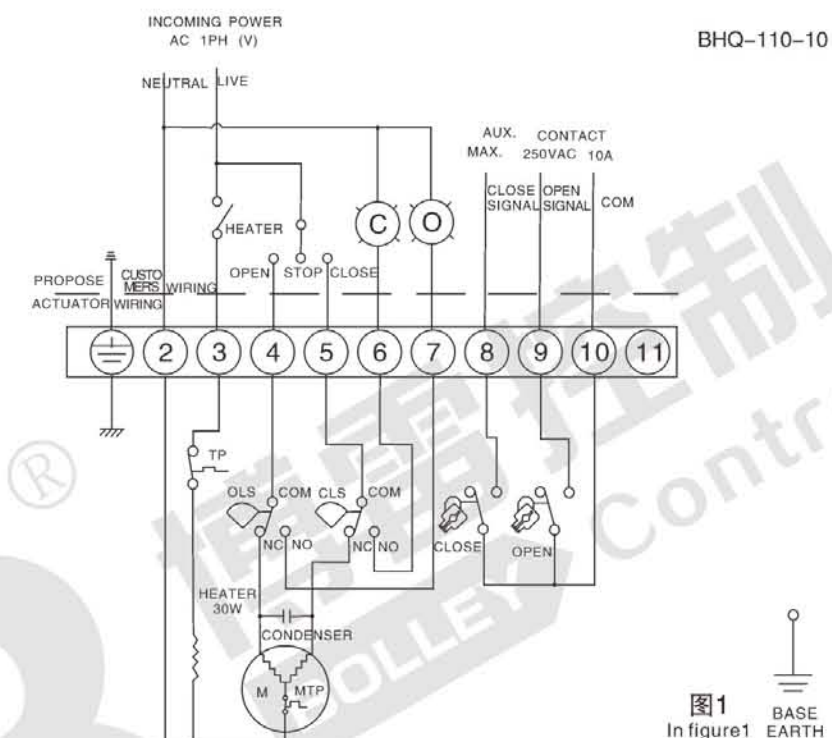
BHQ-150 BHQ-500



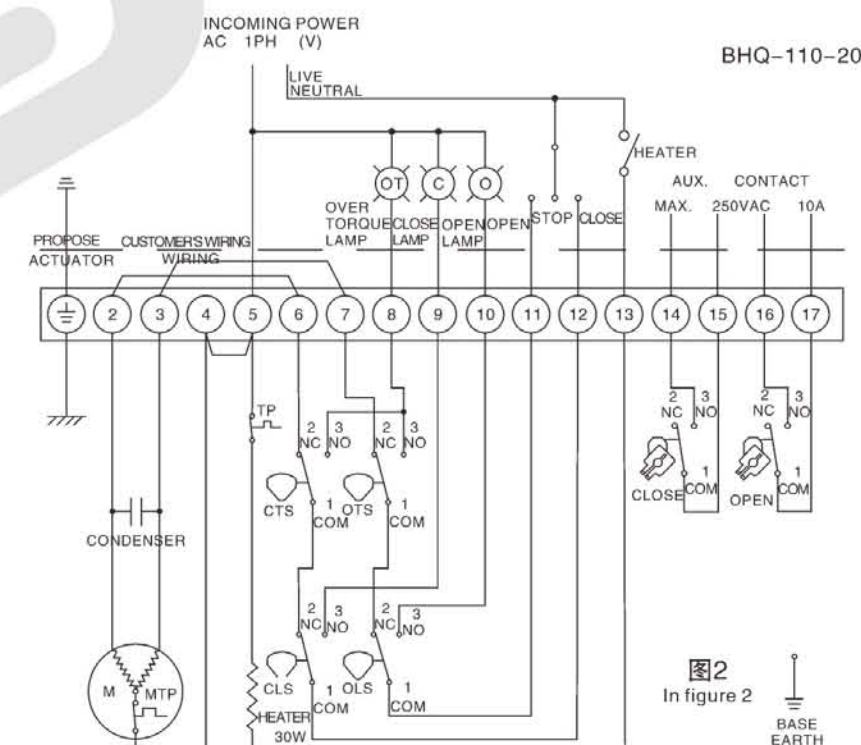
Model	X	Y	Z	A	B	N-C	D	N-E	F	G	H
BHQ-005	260	161	235.5	Φ90	Φ70	4-M8	/	/	Φ20	140	40
BHQ-008	260	161	235.5	Φ90	Φ70	4-M8	/	/	Φ20	140	40
BHQ-010	260	161	235.5	Φ90	Φ70	4-M8	/	4-M8	Φ20	140	40
BHQ-015	351	226	270	Φ125	Φ102	4-M10	Φ70	4-M8	Φ22	140	45
BHQ-020	351	226	270	Φ125	Φ102	4-M10	Φ70	4-M10	Φ22	140	45
BHQ-030	351	240	290	Φ150	Φ125	4-M12	Φ102	4-M10	Φ35	140	55
BHQ-050	367	240	290	Φ150	Φ125	4-M12	Φ102	4-M10	Φ35	140	55
BHQ-060	367	240	290	Φ150	Φ125	4-M12	Φ102	4-M12	Φ35	140	55
BHQ-080	410	276	330	Φ180	Φ140	4-M16	Φ125	4-M12	Φ45	140	65
BHQ-120	410	276	330	Φ180	Φ140	4-M16	454	/	Φ45	140	65
BHQ-150	410	276	534	Φ165	Φ140	8-M16	454	/	Φ45	140	696
BHQ-200	410	276	534	Φ165	Φ140	8-M16	454	/	Φ45	140	696
BHQ-300	410	276	534	Φ165	Φ140	8-M16	454	/	Φ45	140	696
BHQ-400	410	276	534	Φ165	Φ140	8-M16	454	/	Φ45	140	696
BHQ-500	410	276	534	Φ165	Φ140	8-M16	454	/	Φ45	140	696

■ 接线图 Wiring Diagram

1. BHQ-005~010 110/220VAC/60Hz, 1Ph (010 基本开关型) BHQ-K-101
 BHQ-005~010 110/220VAC/60Hz* 1Ph (010 Basic type switch) BHQ-K-101



2. BHQ-015~600 110/220VAC/50/60Hz, 1Ph (标准开关型) BHQ-K2-201
 BHQ-015~600 110/220VAC/50/60Hz, 1Ph (Standard type switch) BHQ-K2-201



3. BHQ-005-010 110/220VAC/50/60Hz, 1Ph (010基本调节型) BHQ-P2-101

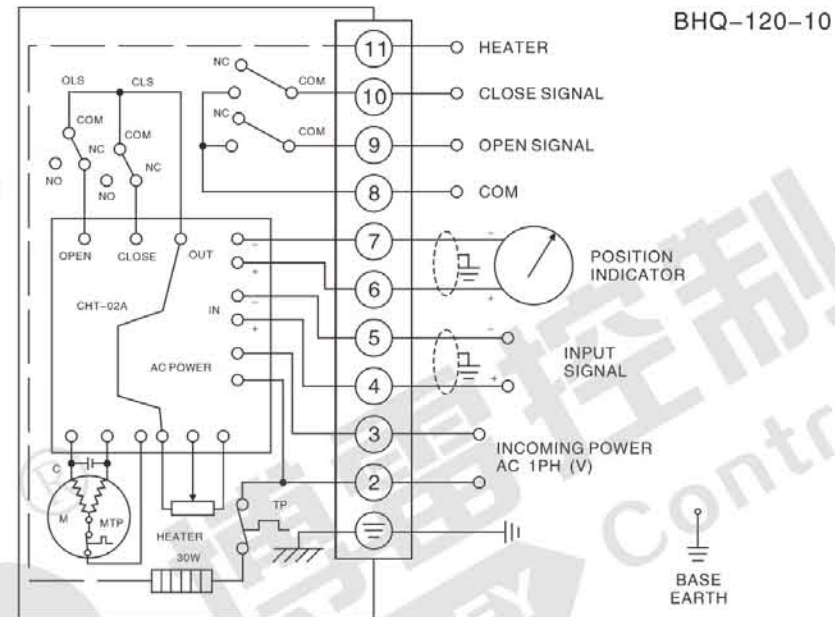


图3

4. BHQ-005-600 110/220VAC/50/60Hz, 1Ph (标准调节型) BHQ-P2-201

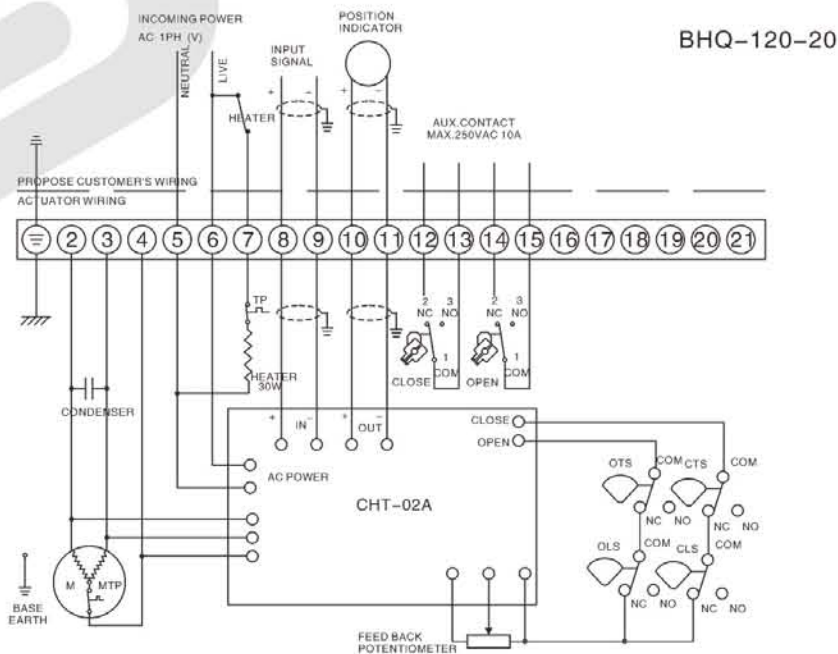


图4

5. BHQ-015-600 380/440VAC/50/60Hz, 3Ph (外置标准开关型) BHQ-k3-W201

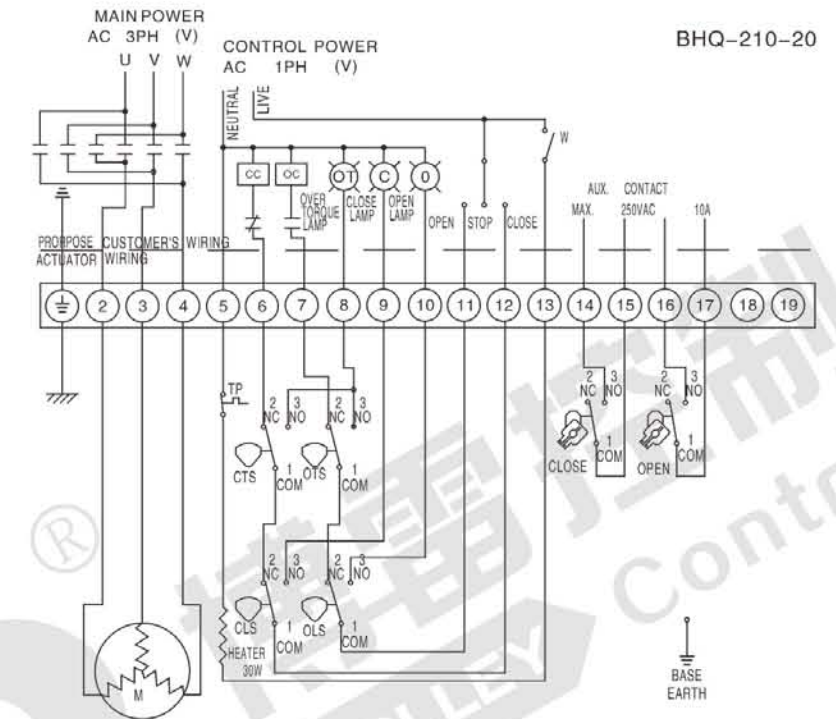


图5

6. BHQ-015-600 110/220VAC/50/60Hz, 3Ph (智能开关型)

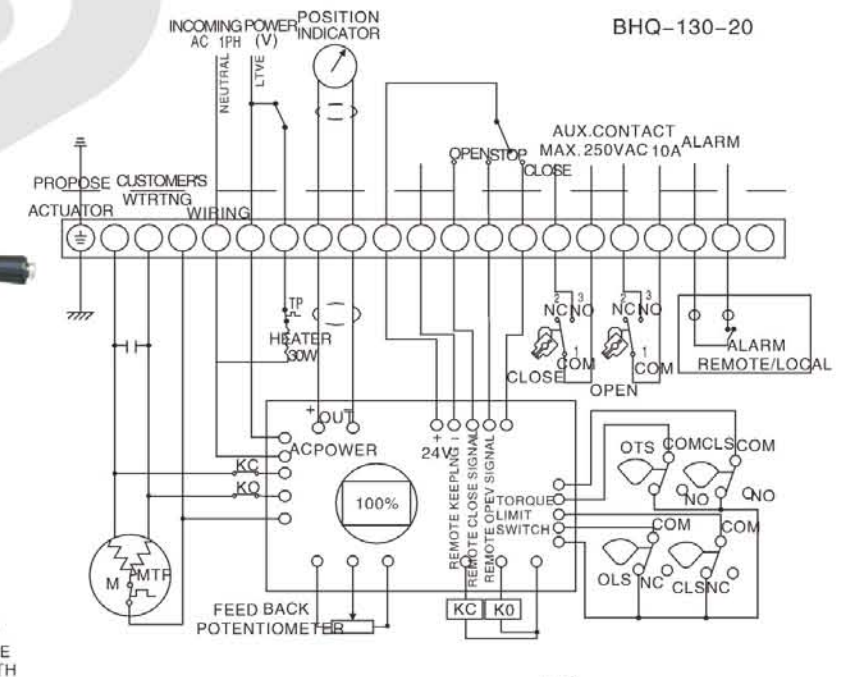


图6

■ 手操机构主要用途 Hand Operation Main use

本手操机构与气动装置联合使用，用于90度开启度的蝶阀、旋塞阀等实现手动或气动驱动。
 This hand operation and pneumatic device used in combination, for 90 opening degrees of butterfly valve plug valve and manual or pneumatic drive.

■ 产品特点

- ①体积小、重量轻，设计合理、式样新颖。此型号克服了老型号难操作、易损坏的特点，客户可以放心使用。
- ②产品系列化，输出转矩于气动装置，各种阀门匹配；蜗轮连接内孔有相隔90度的两个键槽，以便用户根据需要选择装置同阀体的相对位置。输入扭矩70NM-900NM；输出扭矩300NM-2000NM。
- ③转动手柄，旋转偏心装置180度，限位橡胶螺母旋紧，实现气动；反之，实现手动。
- ④产品出厂时，装有专业润滑脂，与阀门装配后，整体密封、防尘、防水、防护等级为IP65。

■ Product Features

- ①Small in size, Light in weight, Reasonable design, Novel design, model overcame in the old model is difficult to operation, characteristics of the easy damage, customers can rest assured use.
- ②Product series, the output torque in pneumatic device, matching all kinds of valves; Worm gear connected to the inner hole is 90 degrees apart two key way, so that the user device according to the need to select the relative position with the valve body. The input torque 70NM-900NM; Output torque 300NM-2000NM.
- ③Turn the handle, the eccentric rotating device 180 degrees, limit the rubber nut tighten, realize the pneumatic; On the other hand, the implementation manual.
- ④Professional product factory, equipped with grease, and valve assembly, whole sealing, dust, waterproof, Degree of protection for IP65.

■ 使用说明

- ①手轮机构底面与阀门连接，支架面与气缸连接，阀轴与蜗轮内孔配合穿过，阀轴端四方与气缸方孔配合。（工作过程：气动时，气缸带动阀轴、蜗轮同转。手动时，蜗杆与蜗轮合，带动阀轴转动，气缸活塞随动）。
- ②转动手柄在合上蜗杆时，会顶线顶齿现象，需转动手轮一个角度即可合上。操作手柄转动到位时，限位橡胶螺母需旋紧。
- ③旋出限位橡胶螺母，手柄位于合位置，手动操作，此时不能气动。转动手柄至离，蜗轮、蜗杆脱开，实现气动。
- ④旋出限位橡胶螺母，手柄位于离位置，气动切换手动。旋出限位橡胶螺母，手柄到和位置，可能会出现顶齿现象，需要回转动手柄，以确保蜗轮、蜗杆正确啮合。
- ⑤气动与手动不能同时驱动。

■ Directions For Use

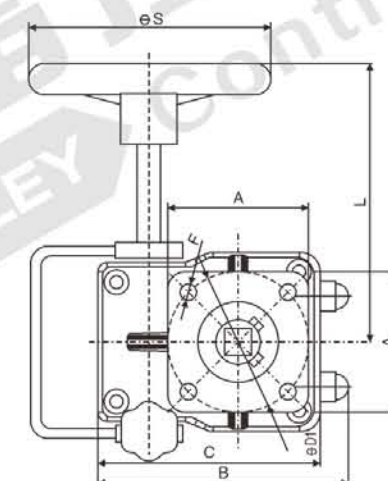
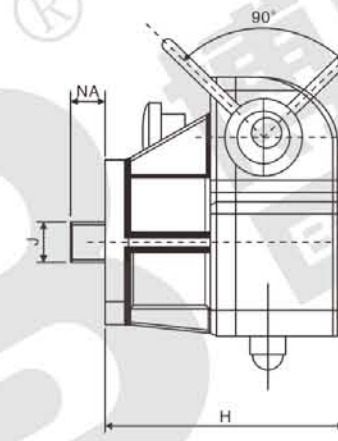
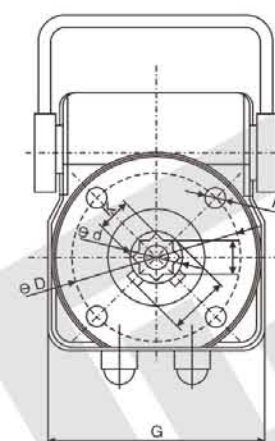
- ①Bottom connected to the valve handwheel institutions, stent surface connected to the cylinder, valve spindle with worm wheel inner hole through the square with square hole cylinder valve shaft end. (the work process: pneumatic, the cylinder drives the valve shaft, Worm gear with the transfer. Manual, worm and worm gear, drive the valve shaft rotation, cylinder piston follow-up).
- ②Turn the handle when closed worm, chi line end tooth phenomenon, need to turn the handwheel to close the a Angle. Operating handle when turning in place, limit rubber nuts need to tighten.
- ③Turn the limit nut, rubber handle is in closed position, the manual operation, not air at this time. Turn the handle to the from, worm gear, Worm out and realize the pneumatic.
- ④Spin out limit nut, rubber handle is located in the position, the pneumatic switch manually. Turn the limit nut, rubber Handle to and location, there may be the top tooth phenomenon, need to turn the handle, to ensure that the worm gear, worm gear right.
- ⑤Pneumatic and manual can't drive at the same time.

连接方心上 Connection to heart	连接方心下 Connection from heart	气动执行器 Pneumatic actuators	球阀 Ball valve
11*11/14*14	11*11/14*14	GT52-GT63-GT83	Q641-16P/DN15-DN50
17*17/14*14	17*17/14*14	GT110-GT127	Q641F-16P/DN65-DN80
22*22/27*27	22*22/17*17	GT127-GT160	Q641F-16P/DN100-DN125
27*27/36*36	27*27/22*22	GT190-GT210	Q641F-16P/DN150-DN200

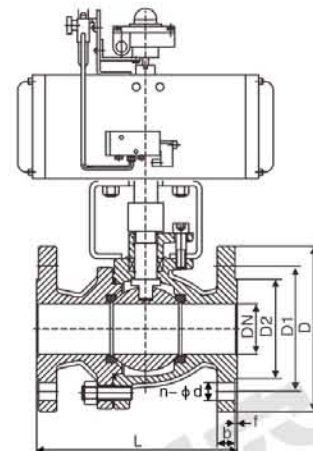
连接方心上 Connection to heart	键 kin	轴孔直径 Shaft hole diameter	气动执行器 Pneumatic actuators	蝶阀 Butterfly valve
11*11/14*14	3	12.6/12.6/15.9	GT52-GT63-GT83	D671X-16 DN50-DN80-DM100
17*17/14*14	5	19.1	GT83-GT110	D671X-16 DN125-DN150
22*22/27*27	5/8	22.3/28.7	GT127-GT160	D671X-16 DN200-DN250
27*27/36*36	8	31.8	GT190-GT210	D671X-16 DN300-DN400



手动机构
Manual institutions



输出转矩 Output torque	A	B	C	D	D1	F	G	H	J	K	M	L	NA	S	重量 WT (kg)
300	70	125	110	50	50	6.5	90	100	11	11	M6	130	15	180	2.3
				70	70	8.5			14	14	M8				
700	95	150	135	70	70	8.5	125	118	14	14	M10	150	20	220	3.5
				102	102	8.5			17	17	M10				
1200	115	185	160	102	102	10.5	140	125	22	22	M12	180	22	270	5.6
				125	125	12.5			27	27	M12				
2000	140	230	210	125	125	12.5	190	162	22	22	M12	300	32	320	12.5
				140	140	16.5			36	36	M16				



■ 主要性能参数 Main Performance Parameters

所配置气动执行机构技术参数 The configured actuator technology parameters				阀体主要技术参数 main technical parameters of Valve body			
气缸类型Cylinder type	GT系列 series、AT系列 series、AW系列 series			阀门类型 Valve type	分体式浮动球阀 Split type floating ball valve		
作用方式Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type			阀门型号 Valve model	Q641F/N/PPL/H/Y/W		
气源压力Air pressure	4~8bar			连接方式 Connection method	法兰面RF FF RTJ 等 Flange surface RF FF RTJ, etc		
工作介质Working medium	干燥、清洁不含腐蚀性气体 Dry, clean without corrosive gas			公称通径 Nominal diameter	DN15 ~ 200mm		
工作温度 Working temperature	常温型: -20℃ ~ 80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)			公称压力 Nominal pressure	1.0~10.0MPa 150~600LB		
	高温型: -20℃ ~ 160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)			阀体材质 Body material	铸钢、不锈钢304/316/316L等 Cast steel, SS304/316/316L, etc		
动作范围 Range of motion	0~90° ± 5°			球体材质 Ball material	13cr、不锈钢304/316/316L等 13cr, SS304/316/316L, etc		
接口螺纹 Interface thread	GT52~GT83 G1/8"			阀座密封 Seat tightness	RPTFE、NYLON、PPL、金属密封材料等 RPTFE, NYLON, PPL, Metal sealing material, etc		
	GT110~GT210 AT52~AT210 G1/4"			适用温度 Suitable temperature	RPTFE≤150℃、PPL≤300℃、金属密封≤425℃ RPTFE≤150℃, PPL≤300℃, Metal seal≤425℃		
阀位信号 Valve position signal	定位器: 4~20mA 回信器: 全开全关信号 Locator: 4~20 ma Reply: open close signal			适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc		

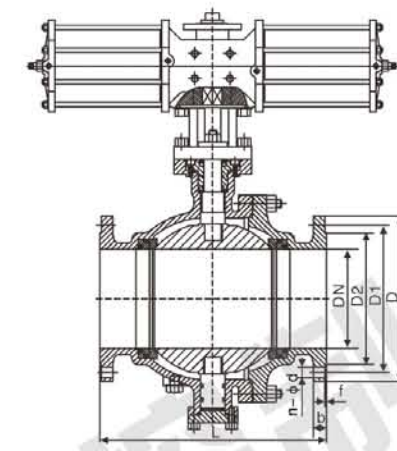
■ 主要外形连接尺寸 Main Connection Size Shape

通径 DN	1.6MPa							2.5MPa							150LB						
	L	D	D1	D2	b	f	n-φd	L	D	D1	D2	b	f	n-φd	L	D	D1	D2	b	f	n-φd
15	130	95	65	14	14	2	4-14	130	95	65	16	16	2	4-14	108	89	60.5	35	12	2	4-15
20	140	105	75	14	14	2	4-14	140	105	75	16	16	2	4-14	117	98	70	43	12	2	4-15
25	150	115	85	14	14	2	4-14	150	115	85	16	16	2	4-14	127	108	79.5	51	12	2	4-15
32	165	135	100	16	16	2	4-18	165	135	100	18	18	2	4-18	140	117	89	63	12	2	4-15
40	180	145	110	16	16	3	4-18	180	145	110	18	18	3	4-18	165	127	98.5	73	15	2	4-15
50	200	160	125	16	16	3	4-18	200	160	125	20	20	3	4-18	178	152	120.5	92	16	2	4-19
65	220	180	145	18	18	3	4-18	220	180	145	22	22	3	8-18	190	178	139.5	105	18	2	4-19
80	250	195	160	20	20	3	8-18	250	195	160	22	22	3	8-18	203	190	152.5	127	19	2	4-19
100	280	215	180	20	20	3	8-18	280	230	190	24	24	3	8-23	229	229	190.5	157	24	2	8-19
125	320	245	210	22	22	3	8-18	320	270	220	28	28	3	8-25	356	254	216	186	24	2	8-22
150	360	280	240	24	24	3	8-23	360	300	250	30	30	3	8-25	394	279	241.5	216	26	2	8-22
200	400	335	295	26	26	3	12-23	400	360	310	34	34	3	12-25	457	343	298.5	270	29	2	8-22

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
- 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
- 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等

- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
- 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
- 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

所配置气动执行机构技术参数 The configured actuator technology parameters				阀体主要技术参数 main technical parameters of Valve body			
气缸类型Cylinder type	GT系列 series、AT系列 series、AW系列 series			阀门类型 Valve type	分体式固定球阀 Split type fixed ball valve		
作用方式Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type			阀门型号 Valve model	Q647F/N/PPL/W/H/Y		
气源压力Air pressure	4~8bar			连接方式 Connection method	法兰面RF FF RTJ 等 Flange surface RF FF RTJ, etc		
工作介质Working medium	干燥、清洁不含腐蚀性气体 Dry, clean without corrosive gas			公称通径 Nominal diameter	DN150 ~ 500mm		
工作温度 Working temperature	常温型: -20℃ ~ 80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)			公称压力 Nominal pressure	1.0~10.0MPa 150LB~600LB		
	高温型: -20℃ ~ 160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)			阀体材质 Body material	铸钢、不锈钢304/316/316L等 Cast steel, SS304/316/316L, etc		
动作范围 Range of motion	0~90° ± 5°			球体材质 Ball material	13cr、不锈钢304/316/316L等 13cr, SS304/316/316L, etc		
接口螺纹 Interface thread	GT52~GT83 G1/8"			阀座密封 Seat tightness	RPTFE、NYLON、PPL、金属密封材料等 RPTFE, NYLON, PPL, Metal sealing material, etc		
	GT110~GT210 AT52~AT210 G1/4"			适用温度 Suitable temperature	RPTFE≤150℃、PPL≤300℃、金属密封≤425℃ RPTFE≤150℃, PPL≤300℃, Metal seal≤425℃		
阀位信号 Valve position signal	定位器: 4~20mA 回信器: 全开全关信号 Locator: 4~20 ma Reply: open close signal			适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc		

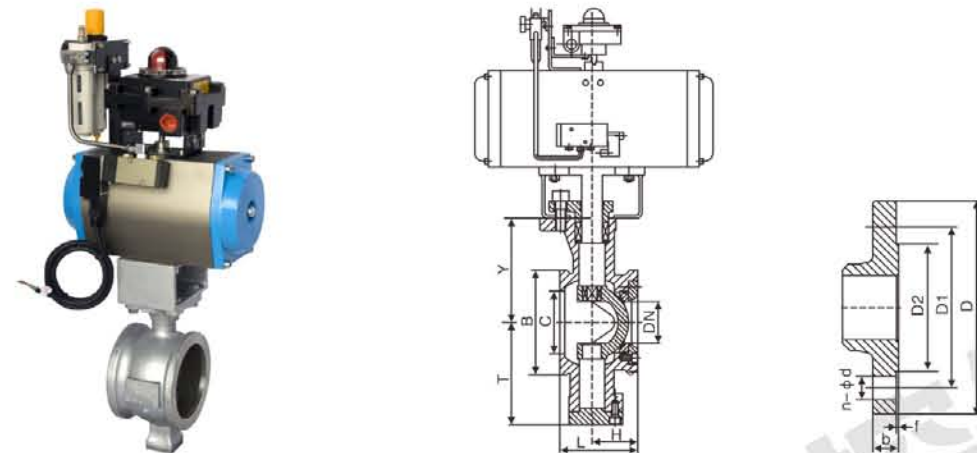
■ 主要外形连接尺寸 Main Connection Size Shape

通径 DN	1.6Mpa							2.5Mpa							150LB						
	L	D	D1	D2	b	f	n-φd	L	D	D1	D2	b	f	n-φd	L	D	D1	D2	b	f	n-φd
150	394	280	240	210	24	3	8-23	394	300	250	218	30	3	8-25	394	279	241	216	25	2	8-22
200	457	335	295	265	26	3	12-23	457	360	310	278	34	3	12-25	457	343	298	270	28	2	8-22
250	533	405	355	320	30	3	12-25	533	425	370	332	36	3	12-30	533	406	362	324	30	2	12-25
300	610	460	410	375	30	4	12-25	610	485	430	390	40	4	16-30	610	483	432	381	31	2	12-25
350	686	520	470	435	34	4	16-25	686	550	490	448	44	4	16-34	686	533	476	413	35	2	12-28
400	762	580	525	485	36	4	16-30	762	610	550	505	48	4	16-34	762	597	540	470	36	2	16-28
450	864	640	585	545	40	4	20-30	864	660	600	555	50	4	20-34	864	635	578	534	39	2	16-32
500	914	705	650	608	44	4	20-34	914	730	660	610	52	4	20-41	914	699	635	584	43	2	20-32

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
- 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
- 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等

- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
- 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
- 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

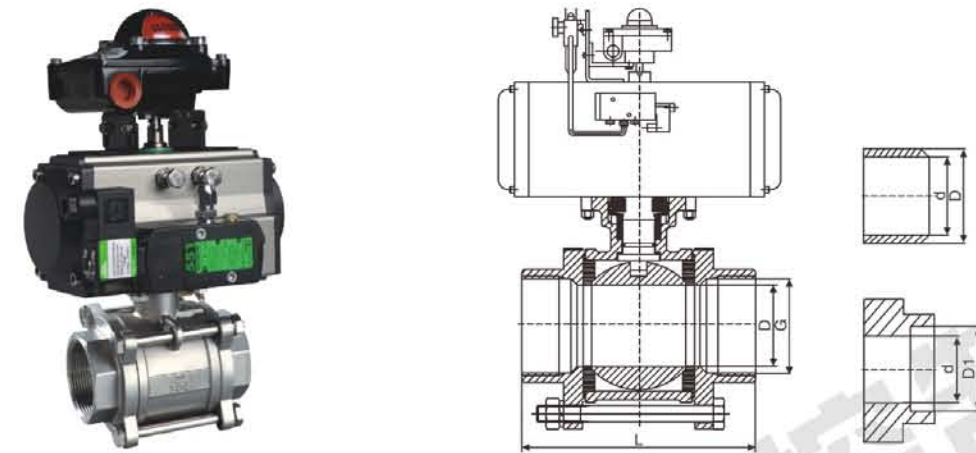
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 Main technical parameters of Valve body	
气缸类型 Cylinder type	GT系列 Series、AT系列 Series、AW系列 Series	阀门类型 Valve type	V型固定球阀 V fixed ball valve
作用方式 Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type	阀门型号 Valve model	QV677F/H/W/Y QV647
气源压力 Air pressure	4~8bar	连接方式 Connection method	对夹式 法兰式 Wafer Flange
工作介质 Working medium	干燥、清洁不含腐蚀气体 Dry, clean without corrosive gas	公称通径 Nominal diameter	DN25~250mm
工作温度 Working temperature	常温型: -20℃~80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)	公称压力 Nominal pressure	1.0~1.6MPa
	高温型: -20℃~160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)	阀体材质 Body material	铸钢、不锈钢304/316/316L等 Cast steel, SS304/316/316L, etc
动作范围 Range of motion	0~90° ±5°	球体材质 Ball material	13cr、不锈钢304/316/316L等 13cr, SS304/316/316L, etc
接口螺纹 Interface thread	GT52~GT83 G1/8"	阀座密封 Seat tightness	RPTFE、金属密封材料等 RPTFE, Metal sealing material, etc
	GT110~GT210 AT52~AT210 G1/4"	适用温度 Suitable temperature	RPTFE≤150℃、金属密封≤425℃ RPTFE≤150℃, Metal seal≤425℃
阀位信号 Valve position signal	定位器: 4~20mA 反馈器: 全开全关信号 Locator: 4~20 ma Reply: open close signal	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

DN	对夹式 Wafer				法兰式 Flange						
	L	H	B	C	L	D	D1	D2	f	b	n-φd
25	50	30	68	38	102	115	85	65	2	14	4-φ14
32	60	35	76	45	102	135	100	78	2	18	4-φ18
40	60	35	84	50	114	145	110	85	3	18	4-φ18
50	75	43	100	62	124	160	125	100	3	18	4-φ18
65	100	50	118	73	145	180	145	120	3	18	8-φ18
80	100	57	132	90	165	195	160	135	3	20	8-φ18
100	115	65	158	115	194	215	180	155	3	20	8-φ18
125	129	78	184	134	194	245	210	185	3	22	8-φ18
150	160	95	216	164	229	280	240	210	3	24	8-φ23
200	200	120	268	206	243	335	295	285	3	28	12-φ23
250	240	148	326	260	297	405	355	320	3	30	12-φ25

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
 - 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
 - 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等
- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

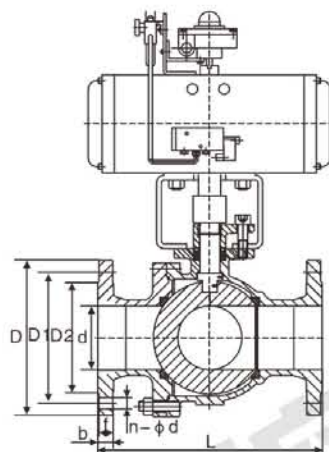
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 main technical parameters of Valve body	
气缸类型 Cylinder type	GT系列 series、AT系列 series、AW系列 series	阀门类型 Valve type	二片式 三片式 The second type Three panel
作用方式 Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type	阀门型号 Valve model	Q611F/N/PPL/H Q661
气源压力 Air pressure	4~8bar	连接方式 Connection method	螺纹NPT、RC、BSPT及BW SW等 Screw thread NPT、RC、BSPT and BW SW, etc
工作介质 Working medium	干燥、清洁不含腐蚀气体 Dry, clean without corrosive gas	公称通径 Nominal diameter	DN6~100mm
工作温度 Working temperature	常温型: -20℃~80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)	公称压力 Nominal pressure	1.6~6.4MPa 1000WOG
	高温型: -20℃~160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)	阀体材质 Body material	铸钢、不锈钢304/316/316L等 Cast steel, SS304/316/316L, etc
动作范围 Range of motion	0~90° ±5°	球体材质 Ball material	不锈钢304/316/316L等 SS304/316/316L, etc
接口螺纹 Interface thread	GT52~GT83 G1/8"	阀座密封 Seat tightness	RPTFE、PPL金属密封材料等 RPTFE, PPL, Metal sealing material, etc
	GT110~GT210 AT52~AT210 G1/4"	适用温度 Suitable temperature	RPTFE≤150℃、PPL≤300℃、金属密封≤425℃ RPTFE≤150℃, PPL≤300℃, Metal seal≤425℃
阀位信号 Valve position signal	定位器: 4~20mA 反馈器: 全开全关信号 Locator: 4~20 ma Reply: open close signal	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

尺寸 Size(mm)			6	10	15	20	25	32	40	50	65	80	100	
三片式 Three chip	内螺纹 Internal thread	G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	
		D	11.6	12.7	15	20	25	32	38	50	64	78	98	
		L	70	70	70	79	87	101	111	132	186	206	240	
	对焊式 Butt welding type	D	18	18	24	28	34	41	49	62	78	94	124	
		d	11.6	12.7	15.8	20	25	32	38	50	64	78	98	
		L	72	72	72	81	91	103	120	139	193	222	273	
	承插焊 Socket welding	D	11.6	12.7	15	20	25	32	38	50	64	78	98	
		D1	14.1	17.6	21.8	27.5	34.7	43	49	61.5	77	90	115.2	
		L	65	65	67	82	91	108	129	148	186	206	240	
		A	9.5	9.5	9.5	11.1	12.7	14.3	15.89	17.4	26.9	28.8	34.5	
	二片式 Two electronic	内螺纹 Internal thread	D	10	12	15	20	25	32	38	50	64	78	98
			L	62	62	62	72	85	100	107	120	160	178	216
执行器型号-推荐 Perform place - recommended			GTD-52	GTD-52	GTD-52	GTD-52	GTD-63	GTD-83	GTD-83	GTD-83	GTD-110	GTD-110	GTD-127	

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
 - 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
 - 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等
- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



气动三通球阀有T型和L型。T型能使三条正交的管道相互联通和切断第三条通道，起分流、合流作用。L三通球阀型只能连接相互正交的两条管道，不能同时保持第三条管道的相互连通，只起分配作用。

Pneumatic three-way ball valve with T and L. T can make three orthogonal pipes unicom and cut off the third passage, shunt, rivers. L three-way ball valve type can only be connected Orthogonal to each other of the two pipes, cannot maintain the third pipeline connected each other, only plays a role of allocation.

■ 主要性能参数 Main Performance Parameters

所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 main technical parameters of Valve body	
气缸类型Cylinder type	GT系列 series、AT系列 series、AW系列 series	阀门类型 Valve type	T型 L型 浮动球 T type L type floating ball
作用方式Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type	阀门型号 Valve model	Q644 Q645 Q614 Q615
气源压力Air pressure	4~8bar	连接方式 Connection method	法兰式 内螺纹 Flange internal thread
工作介质 Working medium	干燥、清洁不含腐蚀气体 Dry, clean without corrosive gas	公称通径 Nominal diameter	DN6 ~ 250mm
工作温度 Working temperature	常温型: -20℃ ~ 80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)	公称压力 Nominal pressure	1.6~2.5MPa
	高温型: -20℃ ~ 160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)	阀体材质 Body material	铸钢、不锈钢304/316/316L等 Cast steel, SS304/316/316L, etc
动作范围 Range of motion	0~90° ±5。	球体材质 Ball material	13Cr、不锈钢304/316/316L等 13Cr, SS304/316/316L, etc
接口螺纹 Interface thread	GT52~GT83 G1/8"	阀座密封 Seat tightness	RPTFE、PPL金属密封材料等 RPTFE, PPL, Metal sealing material, etc
	GT110~GT210 AT52~AT210 G1/4"	适用温度 Suitable temperature	RPTFE≤150℃、金属密封≤425℃ RPTFE≤150℃, Metal seal≤425℃
阀位信号 Valve position signal	定位器: 4~20mA 回信器: 全开全关信号 Locator: 4~20 ma Reply: open close signal	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

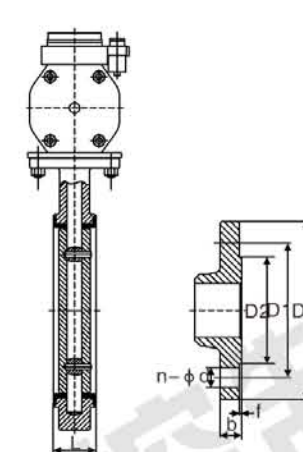
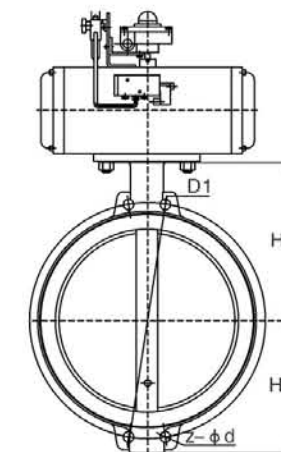
■ 主要外形连接尺寸 Main Connection Size Shape

DN	法兰式连接尺寸 Flange connection size								螺纹连接 Threaded connections	
	L	L1	D	D1	D2	b	f	n-φd	NPS	L
15	140	70	95	65	45	14	2	4-φ14	1/4"	64
20	160	80	105	75	55	14	2	4-φ14	3/8"	64
25	180	90	115	85	65	14	2	4-φ14	1/2"	68
32	200	100	135	100	78	16	2	4-φ18	3/4"	78
40	220	110	145	110	85	16	3	4-φ18	1"	86
50	240	120	160	125	100	16	3	4-φ18	1 1/4"	111
65	260	130	180	145	120	18	3	4-φ18	1 1/2"	126
80	280	140	195	160	135	20	3	8-φ18	2"	143
100	320	160	215	180	155	20	3	8-φ18	可做NPT BSPT RC螺纹 及定做非标准螺纹标准 To do NPT thread BSPT RC And customized non-standard thread standard	
125	380	190	245	210	185	22	3	8-φ18		
150	440	220	280	240	210	24	3	8-φ23		
200	550	260	335	295	265	26	3	12-φ23		
250	670	310	405	355	320	30	3	12-φ25		

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
- 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
- 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等

- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
- 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
- 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 main technical parameters of Valve body	
气缸类型 Cylinder type	GT系列 series、AT系列 series、AW系列 series	阀门类型 Valve type	中线式软密封蝶阀 center line soft sealing butterfly valve
作用方式 Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type	阀门型号 Valve model	D671X/F D641X/F
气源压力 Air pressure	4~8bar	连接方式 Connection method	对夹式、法兰式等 wafer, flange etc
工作介质 Working medium	干燥、清洁不含腐蚀气体 Dry, clean without corrosive gas	公称通径 Nominal diameter	DN40 ~ 500mm 150LB
工作温度 Working temperature	常温型: -20℃ ~ 80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)	公称压力 Nominal pressure	1.0~2.5MPa
	高温型: -20℃ ~ 160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)	阀体材质 Body material	铸铁、球墨铸铁、铸钢、不锈钢等 Cast iron, nodular cast iron, cast steel, stainless steel, etc
动作范围 Range of motion	0~90° ±5。	球体材质 Ball material	球墨铸铁、铸钢、不锈钢、铜等 Nodular cast iron, cast steel, stainless steel, copper, etc
接口螺纹 Interface thread	GT52~GT83 G1/8"	阀座密封 Seat tightness	NBR、EPDM、PTFE及氟橡胶等 NBR, EPDM, PTFE and fluorine rubber, etc
	GT110~GT210 AT52~AT210 G1/4"	适用温度 Suitable temperature	NBR、EPDM≤80℃ P TFE≤120℃
阀位信号 Valve position signal	定位器: 4~20mA 回信器: 全开全关信号 Locator: 4~20 ma Reply: open close signal	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

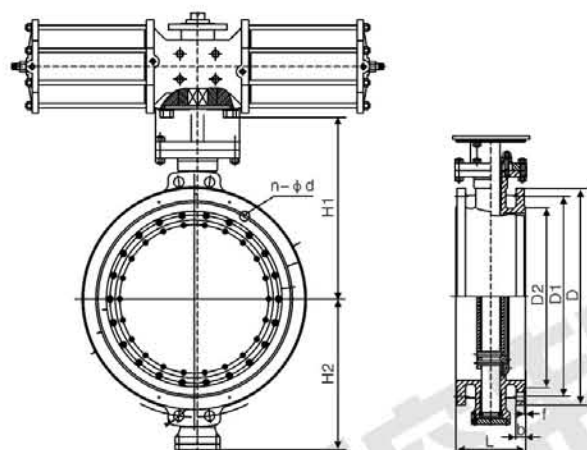
■ 主要外形连接尺寸 Main Connection Size Shape

对夹式 wafer								法兰式 flange									
DN	1.6MPa					150Lb		DN	1.6MPa								
	L	H1	H2	D1	4-M(d)	D1	4-M(d)		L	H1	H2	D	D1	D2	b	f	n-φ
50	43	160	80	125	4-φ19	120.5	4-φ19	100	127	240	120	220	180	156	24	3	8-φ19
65	46	175	88	145	4-φ19	139.5	4-φ19	125	140	270	130	250	210	184	24	3	8-φ19
80	46	180	96	160	4-φ19	152.5	4-φ19	150	140	300	150	285	240	211	26	3	8-φ23
100	52	200	115	180	4-φ19	190.5	4-φ19	200	152	330	180	340	295	255	28	3	12-φ23
125	56	215	130	210	4-φ19	216	4-φ22	250	250	400	220	405	355	319	28	4	12-φ28
150	56	225	140	240	4-φ23	241.5	4-φ22	300	270	410	220	460	410	370	28	4	12-φ28
200	60	260	175	295	4-φ23	298.5	4-φ22	350	290	460	270	520	470	429	30	4	16-φ28
250	68	290	200	350	4-φ28	362	4-φ25	400	310	510	290	580	525	480	30	4	16-φ31
300	78	330	240	410	4-φ28	432	4-φ25	450	330	560	320	640	585	548	34	4	20-φ31
350	78	360	265	470	4-φ28	476	4-φ28	500	350	590	360	715	650	609	34	4	20-φ37
400	102	390	300	525	4-φ31	540	4-φ28	600	390	660	390	840	770	720	35	5	20-φ37

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
- 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
- 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等

- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
- 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
- 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

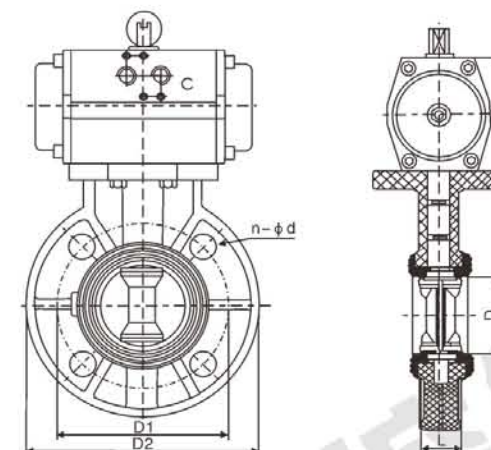
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 Main technical parameters of Valve body	
气缸类型 Cylinder type	GT系列 series、AT系列 series、AW系列 series	阀门类型 Valve type	三偏心硬密封蝶阀 Three partial hardness sealing butterfly valve
作用方式 Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type	阀门型号 Valve model	D673W/H/Y D643
气源压力 Air pressure	4~8bar	连接方式 Connection method	对夹式、法兰式等 Wafer, flange etc
工作介质 Working medium	干燥、清洁不含腐蚀性气体 Dry, clean without corrosive gas	公称通径 Nominal diameter	DN50 ~ 1000mm
工作温度 Working temperature	常温型: -20℃ ~ 80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)	公称压力 Nominal pressure	1.0~4.0MPa
	高温型: -20℃ ~ 160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)	阀体材质 Body material	铸钢/不锈钢304/316/316L等 Cast steel /SS304/316/316L, etc
动作范围 Range of motion	0~90° ± 5°	球体材质 Ball material	铸钢/不锈钢304/316/316L等 Cast steel /SS304/316/316L, etc
接口螺纹 Interface thread	GT52~GT83 G1/8"	阀座密封 Seat tightness	金属材料+石墨密封等 Metal material + graphite sealing, etc
	GT110~GT210 AT52~AT210 G1/4"	适用温度 Suitable temperature	金属密封 ≤ 425℃ Metal sealing ≤ 425℃
阀位信号 Valve position signal	定位器: 4~20mA 反馈器: 全开全关信号 Locator: 4~20 ma Reply: open close signal	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

对夹式 Wafer						法兰式 Flange					
DN	1.6MPa					DN	1.6MPa				
	L	H1	H2	D1	n-φd		L	H1	H2	D	n-φd
100	64	330	110	180	4-φ19	100	127	285	105	220	180
125	70	345	120	210	4-φ19	125	140	300	125	250	210
150	76	370	160	240	4-φ23	150	140	320	140	285	240
200	89	410	215	295	4-φ23	200	152	370	180	340	295
250	114	430	260	350	4-φ28	250	165	420	200	405	355
300	114	500	300	410	4-φ28	300	178	500	250	460	410
350	127	510	320	470	4-φ28	350	190	6530	270	520	470
400	140	520	330	525	4-φ31	400	216	570	300	580	525
450	152	590	380	585	4-φ31	450	222	600	320	640	585
500	152	610	390	650	4-M30	500	229	680	360	715	650
600	154	665	450	770	4-M33	600	267	750	420	840	770

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
 - 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
 - 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等
- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

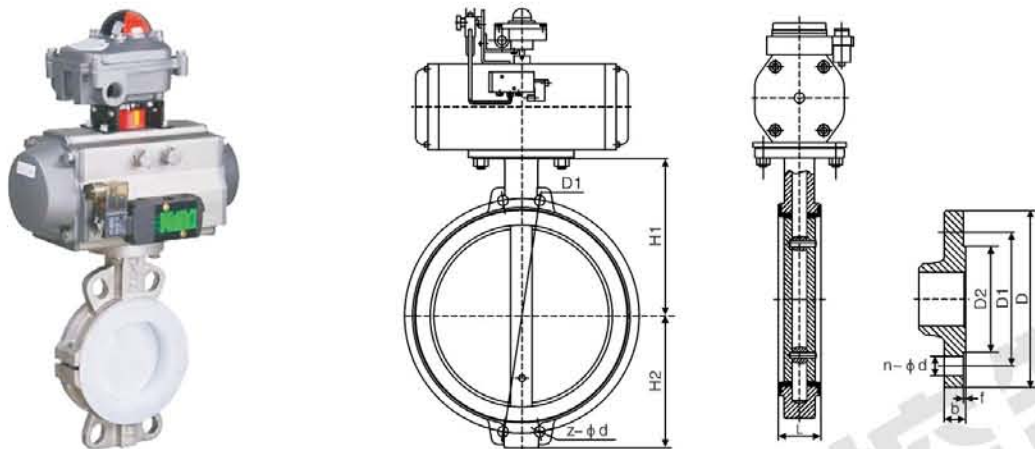
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 Main technical parameters of Valve body	
气缸类型 Cylinder type	GT系列 series、AT系列 series、AW系列 series	阀门类型 Valve type	中线式软密封蝶阀 Center line soft sealing butterfly valve
作用方式 Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type	阀门型号 Valve model	D671X/F
气源压力 Air pressure	4~8bar	连接方式 Connection method	对夹式等 wafer etc
工作介质 Working medium	干燥、清洁不含腐蚀性气体 Dry, clean without corrosive gas	公称通径 Nominal diameter	DN40~350mm
工作温度 Working temperature	常温型: -20℃ ~ 80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)	公称压力 Nominal pressure	0.6~1.6MPa
	高温型: -20℃ ~ 160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)	阀体材质 Body material	RPP、PVDF、CPVC、UPVC等etc
动作范围 Range of motion	0~90° ± 5°	球体材质 Ball material	RPP、PVDF、CPVC、UPVC等etc
接口螺纹 Interface thread	GT52~GT83 G1/8"	阀座密封 Seat tightness	EPDM、FPM及氟橡胶等 EPDM, FPM and fluorine rubber, etc
	GT110~GT210 AT52~AT210 G1/4"	适用温度 Suitable temperature	EPDM ≤ 80℃ 氟橡胶 Fluorine rubber ≤ 120℃
阀位信号 Valve position signal	定位器: 4~20mA 反馈器: 全开全关信号 Locator: 4~20 ma Reply: open close signal	适用介质 Applicable medium	水、汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

DN		主要外形尺寸 main dimension								气缸型号	
		D	D1				D2	L	n-φd	Cylinder model	
			D1	JIS	DIN	ANSI				GT系列series	AT系列series
40	11/2"	47	110	105	110	3.88	150	39	4-φ18	GTD52	AT52
50	2"	56	125	120	125	4.75	160	40	4-φ18	GTD52	AT52
65	21/2"	71	145	140	145	5.5	185	46	4-φ18	GTD63	AT63
80	3"	85	160	150	160	6	195	46	8-φ18	GTD83	AT83
100	4"	105	180	175	180	7.5	215	54	8-φ18	GTD83	AT83
125	5"	131	210	210	210	8.5	250	70	8-φ18	GTD110	AT105
150	6"	153	240	240	240	9.5	285	74	8-φ22	GTD110	AT105
200	8"	204	295	290	295	11.75	340	87	8-φ22	GTD127	AT125
250	10"	255	350	355	350	14.25	395	114	12-φ22	GTD160	AT140
300	12"	307	400	400	400	17	445	114	12-φ22	GTD160	AT140

■ 订货说明 Ordering Instructions

- 1、气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
 - 2、阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
 - 3、所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等
- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

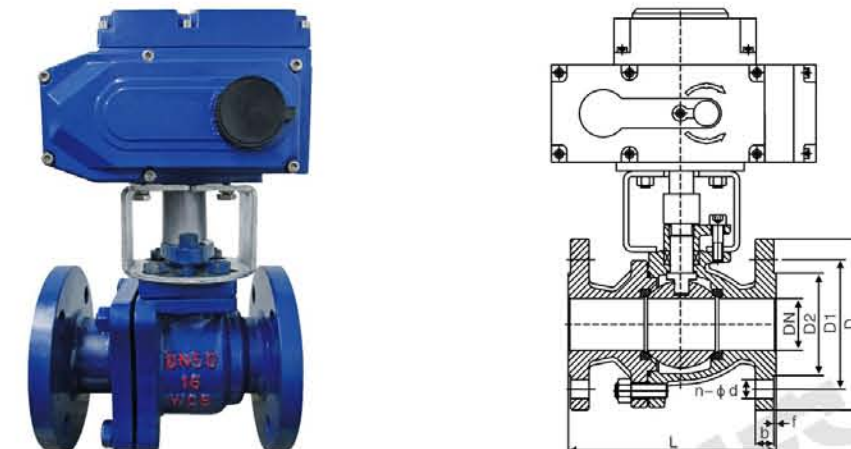
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 main technical parameters of Valve body	
气缸类型Cylinder type	GT系列 series、AT系列 series、AW系列 series	阀门类型 Valve type	中线式衬氟蝶阀 Midline fluorine-butterfly butterfly valve
作用方式Work way	双作用活塞式、单作用弹簧复位式 Double-acting piston、Single acting spring return type	阀门型号 Valve model	D671F46/F4 D641F46/F4等etc
气源压力Air pressure	4~8bar	连接方式 Connection method	对夹式、法兰式等 wafer, flange etc
工作介质 Working medium	干燥、清洁不含腐蚀性气体 Dry, clean without corrosive gas	公称通径 Nominal diameter	DN40 ~ 500mm
工作温度 Working temperature	常温型: -20℃ ~ 80℃(丁腈橡胶O型圈) Room temperature type: -20℃~80℃(nitrile rubber o-rings)	公称压力 Nominal pressure	1.0~1.65MPa
	高温型: -20℃ ~ 160℃(氟橡胶O型圈) High temperature type: -20℃~160℃(fluorine rubber o-rings)	阀体材质 Body material	铸钢/不锈钢等 Cast steel/SS etc
动作范围 Range of motion	0~90° ±5°	球体材质 Ball material	WCB+PTFE/PO/FEP
接口螺纹 Interface thread	GT52~GT83 G1/8"	阀座密封 Seat tightness	PTFE/PO/FEP等etc
	GT110~GT210 AT52~AT210 G1/4"	适用温度 Suitable temperature	PTFE/PO/FEP≤120℃
阀位信号 Valve position signal	定位器: 4~20mA 回信器: 全开全关信号 Locator: 4~20 ma Reply: open close signal	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

对夹式 wafer						法兰式 flange							
DN	1.6MPa					DN	1.6MPa						
	L	H1	H2	D1	4-M(d)		L	H1	H2	D	D1	D2	n-φd
50	43	75	130	125	4-φ19	100	127	122	160	220	180	156	8-φ19
65	46	90	140	145	4-φ19	125	140	138	180	250	210	184	8-φ19
80	46	95	160	160	4-φ19	150	140	158	200	285	240	211	8-φ23
100	52	105	180	180	4-φ19	200	152	188	220	340	295	255	12-φ23
125	56	135	200	210	4-φ19	250	165	224	260	405	355	319	12-φ28
150	56	145	220	240	4-φ23	300	178	254	290	460	410	370	12-φ28
200	60	175	260	295	4-φ23	350	190	288	340	520	470	429	16-φ28
250	68	205	290	350	4-φ28	400	216	305	370	580	525	480	16-φ31
300	78	245	340	410	4-φ28	450	222	340	742	640	585	548	20-φ31
350	78	275	370	470	4-φ28	500	229	372	742	715	650	609	20-φ37
400	102	305	400	525	4-φ31	600	267	440	922	840	770	720	20-φ37

■ 订货说明 Ordering Instructions

- 气动执行器作用方式及气缸类型: 作用方式(双作用、单作用)、气缸类型(GT/AT/AW系列)
 - 阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
 - 所需气动附件(可选): 电磁阀、定位器、限位开关、气源处理元件、手动机构等
- 1, pneumatic actuators way and cylinder type: acting, single (double role), the types of cylinder (GT/AT/AW series)
 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
 3, the pneumatic accessories (optional): solenoid valve, the locator, limit switch, air source treatment components, manual, etc



■ 主要性能参数 Main Performance Parameters

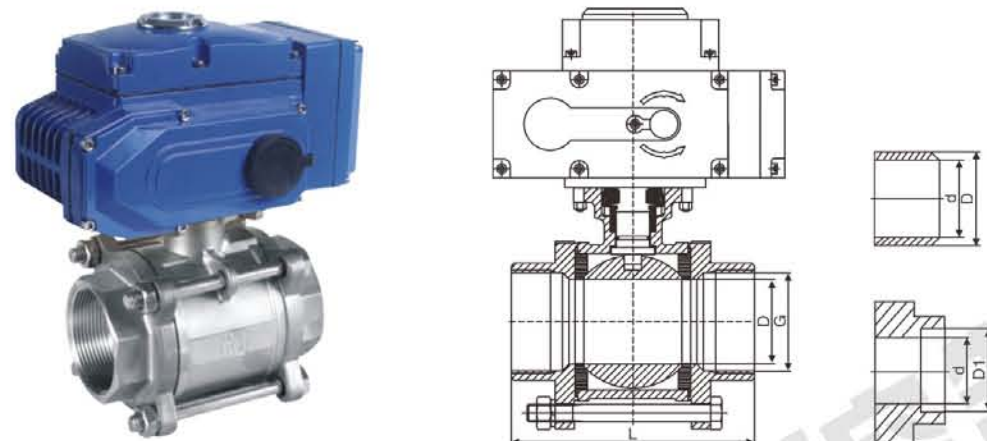
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 Main technical parameters of Valve body	
执行电源 Execute the power	AC220V AC110V AC380V DC24V	阀门类型 Valve type	分体式浮动球阀 Split type floating ball valve
输出扭矩 Output torque	30N.M ~ 2000N.M	阀门型号 Valve model	Q941F/N/PPL/H/Y/W
动作范围 Range of motion	0~90° ±5°	连接方式 Connection method	法兰面RF FF RTJ等 Flange surface RF FF RTJ, etc
动作时间 action time	15秒/30秒/60秒/100秒 15 seconds / 30 seconds to 60 seconds / 100 seconds	公称通径 Nominal diameter	DN15~200mm
环境温度 environment temperature	-30℃ ~ 60℃	公称压力 Nominal pressure	1.0~10.0MPa 150~600LB
手动操作 Manual operation	附带手动操作 Comes with manual operation	阀体材质 Body material	铸钢、不锈钢304/316/316L等 Cast steel, SS304/316/316L, etc
执行限位Perform limit	电气、机械二重限位 Electrical and mechanical double limit	球体材质 Ball material	13Cr、不锈钢304/316/316L等 13Cr, SS304/316/316L, etc
防护等级 Protection grade	IP67	阀座密封 Seat tightness	RPTFE、NYLON、PPL、金属密封材料等 RPTFE, NYLON, PPL, metal sealing material, etc
输入信号 input signal	4 ~ 20mA/1~5VDC	适用温度 Suitable temperature	RPTFE≤150℃、PPL≤300℃、金属密封Metal seal≤425℃
任选功能 Optional function	开关型、触点型、开度信号、智能调节型 switch type, contact type, signal, intelligent Adjust type	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

通径 DN	1.6Mpa							2.5Mpa							150LB						
	L	D	D1	D2	b	f	n-φd	L	D	D1	D2	b	f	n-φd	L	D	D1	D2	b	f	n-φd
15	130	95	65	14	14	2	4-14	130	95	65	16	16	2	4-14	108	89	60.5	35	12	2	4-15
20	140	105	75	14	14	2	4-14	140	105	75	16	16	2	4-14	117	98	70	43	12	2	4-15
25	150	115	85	4	14	2	4-14	150	115	85	16	16	2	4-14	127	108	79.5	51	12	2	4-15
32	165	135	100	16	16	2	4-18	165	135	100	18	18	2	4-18	140	117	89	63	12	2	4-15
40	180	145	110	16	16	3	4-18	180	145	110	18	18	3	4-18	165	127	98.5	73	15	2	4-15
50	200	160	125	16	16	3	4-18	200	160	125	20	20	3	4-18	178	152	120.5	92	16	2	4-19
65	220	180	145	18	18	3	4-18	220	180	145	22	22	3	8-18	190	178	139.5	105	18	2	4-19
80	250	195	160	20	20	3	8-18	250	195	160	22	22	3	8-18	203	190	152.5	127	19	2	4-19
100	280	215	180	20	20	3	8-18	280	230	190	24	24	3	8-23	229	229	190.5	157	24	2	8-19
125	320	245	210	22	22	3	8-18	320	270	220	28	28	3	8-25	356	254	216	186	24	2	8-22
150	360	280	240	24	24	3	8-23	360	300	250	30	30	3	8-25	394	279	241.5	216	26	2	8-22
200	400	335	295	26	26	3	12-23	400	360	310	34	34	3	12-25	457	343	298.5	270	29	2	8-22

■ 订货说明 Ordering Instructions

- 电源电压: DC24V、DC220V、AC110V、AC220V、AC380V
 - 阀体选择参数: 管道介质、温度、压力、口径、连接方式及阀体材质等
 - 控制类型: 开关型、无源触点型、阀位信号反馈型、智能调节型及防爆型。
 - 智能调节型: 输入信号4~20mA, 1~5V, 0~10V; 输出信号: 4~20mA, 1~5V, 0~10V。
- 1, power supply voltage: DC24V, DC220V, AC110V, AC220V, AC380V
 2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
 3, control types: switch type, passive contact type, valve position feedback signal type, intelligent DiaojieXing and explosion-proof type.
 4, smart DiaojieXing: 4~20 ma, the input signal from 1 to 5 v, 0 to 10 v; 4~20 ma output signal: 1~5 v, 0 to 10 v.



■ 主要性能参数 Main Performance Parameters

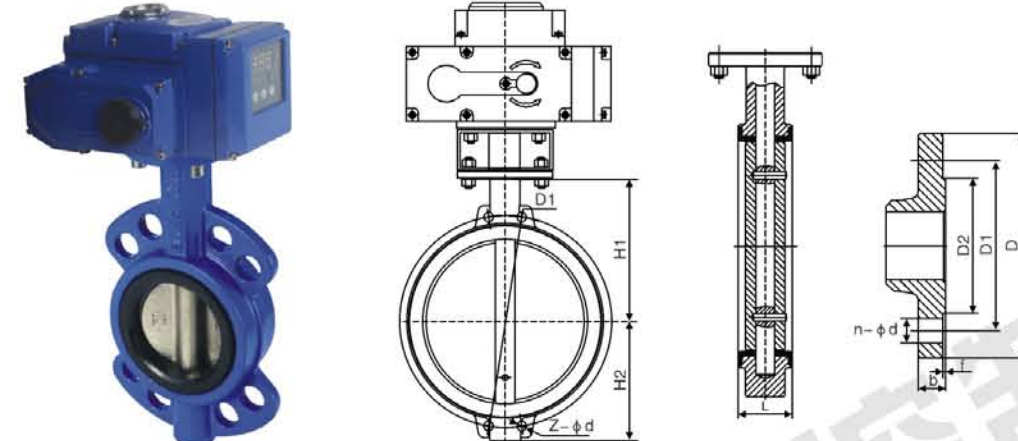
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 Main technical parameters of Valve body	
执行电源 Execute the power	AC220V AC110V AC380V DC24C	阀门类型 Valve type	二片式 三片式 Two electronic Three chip
输出扭矩 Output torque	30N.M ~ 2000N.M	阀门型号 Valve model	Q611F/N/PPL/H Q661
动作范围 Range of motion	0~90° ±5°	连接方式 Connection method	螺纹NPT、RC、BSPT及BW SW等 NPT threads and RC, BSPT and BW SW, etc
动作时间 Action time	15秒/30秒/60秒/100秒 15 seconds / 30 seconds to 60 seconds / 100 seconds	公称口径 Nominal diameter	DN6 ~ 100mm
环境温度 environment temperature	-30℃ ~ 60℃	公称压力 Nominal pressure	1.6~6.4MPa 1000WOG
手动操作 Manual operation	附带手动操作 Comes with manual operation	阀体材质 Body material	铸钢、不锈钢304/316/316L等 Cast steel, SS304/316/316L, etc
执行限位Perform limit	电气、机械二重限位 Electrical and mechanical double limit	球体材质 Ball material	不锈钢304/316/316L等 SS304/316/316L, etc
防护等级 Protection grade	IP67	阀座密封 Seat tightness	PTFE、PPL、金属密封材料等 PTFE, PPL, metal sealing material, etc
输入信号 input signal	4 ~ 20mA/1-5VDC	适用温度 Suitable temperature	RPTFE≤150℃、PPL≤300℃、金属密封Metal seal≤425℃
任选功能 Optional function	开关型、触点型、开度信号、智能调节型 switch type, contact type, signal, intelligent Adjust type	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

尺寸 Size(mm)			6	10	15	20	25	32	40	50	65	80	100
三片式 Three chip	内螺纹 Internal thread	G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
		D	11.6	12.7	15	20	25	32	38	50	64	78	98
		L	70	70	70	79	87	101	111	132	186	206	240
	对焊式 Butt welding type	D	18	18	24	28	34	41	49	62	78	94	124
		d	11.6	12.7	15.8	20	25	32	38	50	64	78	98
		L	72	72	72	81	91	103	120	139	193	222	273
	承插焊 Socket welding	D	11.6	12.7	15	20	25	32	38	50	64	78	98
		D1	14.1	17.6	21.8	27.5	34.7	43	49	61.5	77	90	115.2
		L	65	65	67	82	91	108	129	148	186	206	240
		A	9.5	9.5	9.5	11.1	12.7	14.3	15.89	17.4	26.9	28.8	34.5
	二片式 Two electronic	内螺纹 Internal thread	D	10	12	15	20	25	32	38	50	64	78
L			62	62	62	72	85	100	107	120	160	178	216
执行器型号-推荐 Perform shape - recommended			BL-05	BL-05	BL-05	BL-05	BL-05	BL-05	BL-05	BL-10	BL-15	BL-15	BL-20

■ 订货说明 Ordering Instructions

- 1、电源电压：DC24V、DC220V、AC110V、AC220V、AC380V
 - 2、阀体选择参数：管道介质、温度、压力、口径、连接方式及阀体材质等
 - 3、控制类型：开关型、无源触点型、阀位信号反馈型、智能调节型及防爆型。
 - 4、智能调节型：输入信号4~20mA，1~5V，0~10V；输出信号：4~20mA，1~5V，0~10V。
- 1, power supply voltage: DC24V, DC220V, AC110V, AC220V, AC380V
2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
3, control types: switch type, passive contact type, valve position feedback signal type, intelligent DiaojieXing and explosion-proof type.
4, smart DiaojieXing: 4~20 ma, the input signal from 1 to 5 v, 0 to 10 v; 4~20 ma output signal: 1~5 v, 0 to 10 v.



■ 主要性能参数 Main Performance Parameters

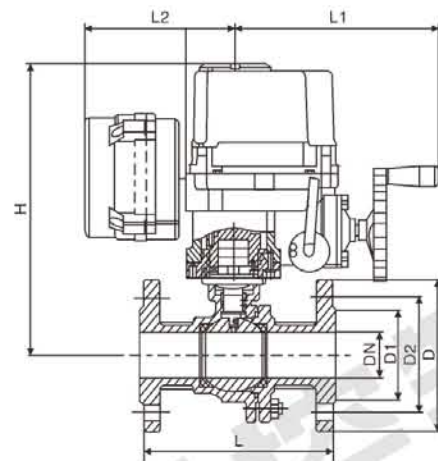
所配置气动执行机构技术参数 The configured actuator technology parameters		阀体主要技术参数 Main technical parameters of Valve body	
执行电源 Execute the power	AC220V AC110V AC380V DC24C	阀门类型 Valve type	中线式软密封蝶阀 center line soft sealing butterfly valve
输出扭矩 Output torque	30N.M ~ 2000N.M	阀门型号 Valve model	D971X/F D941X/F
动作范围 Range of motion	0~90° ±5°	连接方式 Connection method	对夹式、法兰式等 Wafer, flange etc
动作时间 action time	15秒/30秒/60秒/100秒 15 seconds / 30 seconds to 60 seconds / 100 seconds	公称口径 Nominal diameter	DN40 ~ 500mm 150LB
环境温度 environment temperature	-30℃ ~ 60℃	公称压力 Nominal pressure	1.0~2.5MPa
手动操作 Manual operation	附带手动操作 Comes with manual operation	阀体材质 Body material	铸铁、球墨铸铁、铸钢、不锈钢等 Cast iron, nodular cast iron, cast steel, SS, etc
执行限位Perform limit	电气、机械二重限位 Electrical and mechanical double limit	球体材质 Ball material	球墨铸铁、铸钢、不锈钢、铜等 Nodular cast iron, cast steel, stainless steel, copper, etc
防护等级 Protection grade	IP67	阀座密封 Seat tightness	NBR、EPDM、PTFE及氟橡胶等 NBR, EPDM, PTFE and fluorine rubber, etc
输入信号 input signal	4 ~ 20mA/1-5VDC	适用温度 Suitable temperature	NBR、EPDM≤80℃ P TFE≤120℃
任选功能 Optional function	开关型、触点型、开度信号、智能调节型 switch type, contact type, signal, intelligent Adjust type	适用介质 Applicable medium	水、蒸汽及油品等腐蚀性和非腐蚀性介质 Water, steam, oil corrosion and the corrosion medium, etc

■ 主要外形连接尺寸 Main Connection Size Shape

对夹式 wafer								法兰式 flange									
DN	1.6MPa				150Lb			DN	1.6Mpa								
	L	H1	H2	D1	4-M(d)	D1	4-M(d)		L	H1	H2	D	D1	D2	b	f	n-Φd
50	43	160	80	125	4-φ 19	120.5	4-φ 19	100	127	240	120	220	180	156	24	3	8-Φ19
65	46	175	88	145	4-φ 19	139.5	4-φ 19	125	140	270	130	250	210	184	24	3	8-Φ19
80	46	180	96	160	4-φ 19	152.5	4-φ 19	150	140	300	150	285	240	211	26	3	8-Φ23
100	52	200	115	180	4-φ 19	190.5	4-φ 19	200	152	330	180	340	295	255	28	3	12-Φ2
125	56	215	130	210	4-φ 19	216	4-φ 22	250	250	400	220	405	355	319	28	4	12-Φ2
150	56	225	140	240	4-φ 23	241.5	4-φ 22	300	270	410	220	460	410	370	28	4	12-Φ2
200	60	260	175	295	4-φ 23	298.5	4-φ 22	350	290	460	270	520	470	429	30	4	16-Φ2
250	68	290	200	350	4-φ 28	362	4-φ 25	400	310	510	290	580	525	480	30	4	16-Φ3
300	78	330	240	410	4-φ 28	432	4-φ 25	450	330	560	320	640	585	548	34	4	20-Φ3
350	78	360	265	470	4-φ 28	476	4-φ 28	500	350	590	360	715	650	609	34	4	20-Φ3
400	102	390	300	525	4-φ 31	540	4-φ 28	600	390	660	390	840	770	720	35	5	20-Φ3

■ 订货说明 Ordering Instructions

- 1、电源电压：DC24V、DC220V、AC110V、AC220V、AC380V
 - 2、阀体选择参数：管道介质、温度、压力、口径、连接方式及阀体材质等
 - 3、控制类型：开关型、无源触点型、阀位信号反馈型、智能调节型及防爆型。
 - 4、智能调节型：输入信号4~20mA，1~5V，0~10V；输出信号：4~20mA，1~5V，0~10V。
- 1, power supply voltage: DC24V, DC220V, AC110V, AC220V, AC380V
2, the valve selection parameters: the pipeline medium, temperature, pressure, diameter, connecting method and body material, etc
3, control types: switch type, passive contact type, valve position feedback signal type, intelligent DiaojieXing and explosion-proof type.
4, smart DiaojieXing: 4~20 ma, the input signal from 1 to 5 v, 0 to 10 v; 4~20 ma output signal: 1~5 v, 0 to 10 v.



虚线部分为模拟量控制盒, 开关无此尺寸
The dashed part for analog control box, switch without this size

■ 阀门技术参数 Valve Technical Parameters

公称通径 Nominal diameter	DN15~DN400(mm)
公称压力 Nominal pressure	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, oil, Nitrate class, Acetic acid class, 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 0 Conform to the ANSIB16.104 5 Grading standards
球体转角 A sphere around the corner	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) Teflon(Normal temperature), Special PPL(High temperature), Metal seal(High temperature)

■ 主要连接尺寸 Main Connection Dimensions

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

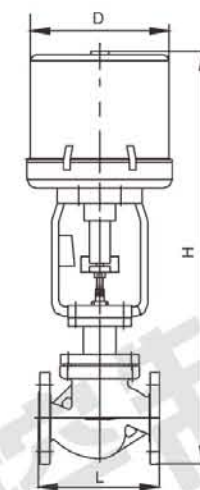
注：以上选配参数仅供参考，具体以实际情况为准！
Note: the above optional parameters are for reference only, specific to the actual situation shall prevail!
电动执行机构
Electric actuator
参照BHQ系列角行程电动执行器技术参数
With reference to BHQ series quarter-turn electric actuators technical parameters



ZDLP配 361L



ZDLP配 3810L



ZDLP电动单座阀

■ 主要零件材料 The Major Parts Material

零件名称 Part name	材料 Material
阀体、阀盖 Body and bonnet	WCB (ZG230-450) WCC (ZG270-500) WC6 (ZG15CrMo) CF8 (304) CF8M (316) CF3 (304L) CF3M (316L)
阀芯、阀座 Valve core and valve seat	304 (0Cr18Ni9) 316 (0Cr17Ni12Mo2) 316L (00Cr17Ni14Mo2) 并堆焊司太莱合金 And surfacing welding alloy department too 17-4PH(沉淀硬化型不锈钢 Precipitation hardening stainless steel)
填料 Packing	PTFE(聚四氟乙烯teflon) R.TFE(增强聚四氟乙烯Enhanced ptfe) Grafoil(柔性石墨Flexible graphite)
密封垫片 Sealing gasket	XB350(石棉橡胶板Asbestos rubber sheet)、PTFE、柔性石墨夹金属Metal flexible graphite
阀杆 Stem	304 316 316L 17-4PH

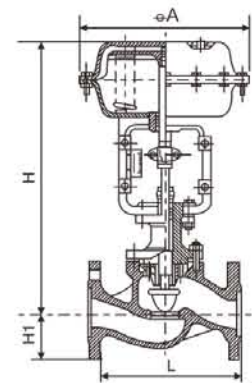
注：可根据工况选用其它材料 Note: other materials could be selected according to the working condition

■ 外形尺寸 Overall Dimensions

单位unit: mm

公称通径 Nominal diameter (mm)	L			H		D	重量 WT(Kg)		
	PN MPa			常温 Normal temperature	散热高温 High temperature heat dissipation		PN1.6 MPa	PN6.4MPa	
	1.6	4.0	6.4					常温 Normal temperature	高温 High temperature
G3/4	150	206	560	630	225		12	14	
20	150	206	565	635			25	28	
25	160	210	570	640		24	28	31	
32	180	222	595	665		26	29	32	
40	200	251	655	725	255	36	45	49	
50	230	286	660	735		39	49	53	
65	290	311	760	840		57	76	84	
80	310	337	770	840		72	95	105	
100	350	394	770	850	310	85	100	120	
125	400	440	1045	1135		150	175	190	
150	480	508	1100	1190		187	231	251	
200	600	610	1285	1380		242	365	355	
250	730	752	1335	1435		311	345	398	495

注：1、为便于维修，顶上预留200-300mm空间，以便不拆阀而只拆去执行机构
2、以配381L型执行机构为例
Note: 1、For ease of maintenance, please reserve on the top of the 200-300mm space, so that not only down open valve actuators
2、With 381 l actuators, for example



■ 概述

ZJHP型气动单座调节阀由气动多弹簧薄膜执行机构和低流阻单座阀组成, 新型执行机构高度低、重量轻、装校简便, 新型阀体结构紧凑、流通通畅, 具有大的流量系数。

本产品操作稳定, 具有可靠的动作特性, 微小的阀座泄露、精确的流量特性、宽大的可调范围等特点。它必将以独特的优点在广泛应用中取得高质量的控制效果, 符合GB/T4213-1992。

■ Outline

ZJHP pneumatic single seat control valve pneumatic multi-spring diaphragm actuators and low flow resistance of a single seat valve, new executionInstitutions a low profile, light weight, easy assemblyand calibration, the new body structure is compact, smooth flow, with a large flow coefficient. The operation of the product is stable, reliable operating characteristics, the tiny seat leak, precise flow characteristics, large adjustable range point. It will certainly unique advantages in a wide range of applications and quality control. Products comply with fossil power stations, accord with GB/T4213-1992.

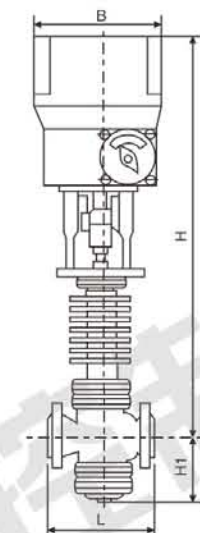
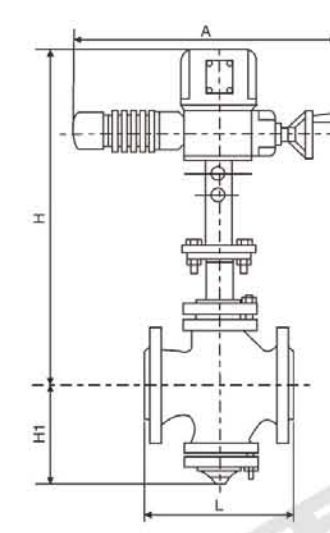
■ 主要外形尺寸 Main Outline Dimensions

单位Unit:mm

DN	L			H		H1				重量WT(Kg)		ΦA
	PN ₁₆	PN40	PN64	普通 Ordinary	高温 High temperature	PN6	PN16	PN40	PN64	PN6 PN16	PN40 PN64	
20	184	194	206	398	548	45	52		65	19	23	285
25	185	197	210	410	560	50	57		70	20	24	
32	200	210	220	418	578	56	70		78	24	31	
40	222	235	251	455	620	65	75		85	26	35	
50	254	267	286	475	627	70	82		90	30	40	
65	276	292	311	610	790	80	92		102	47	66	360
80	298	317	337	622	807	95	100		107	55	78	
100	352	368	394	640	850	105	110	117	125	65	99	
125	410	425	440	864	1122	120	125	135	148	120	140	
150	451	473	508	870	1130	132	142	150	175	130	160	
200	600	620	650	890	1150	160	170	187	207	175	250	470
250	650	670	690	1203	1523	187	202	225	235	350	470	
300	740	770	800	1234	1554	220	230	257	265	500	660	580

■ 主要零件材料 Main Part Material

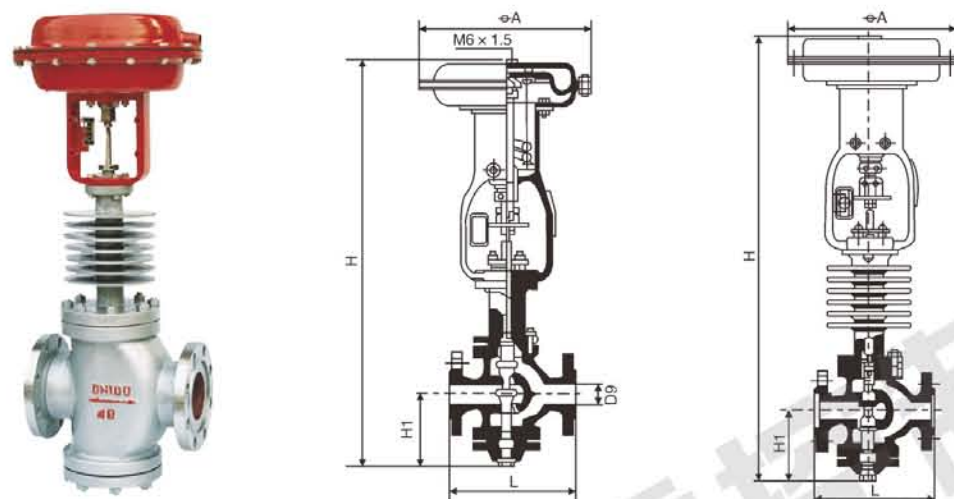
零件名称 Part Name	材料 Material	温度范围 Temperature range	备注 Note
阀体/上阀盖 Body On the valve cover	HT200	-15~200℃	
	WCB	-20~425℃	
	ZG1Cr18Ni9Ti	-40~550℃	
	ZG0Cr18Ni12Mo2Ti	-40~600℃	
阀芯、阀座 Spool, the valve seat	1Cr18Ni9	-40~550℃	
	0Cr18Ni12Mo2Ti	-40~550℃	
填料 Filler	聚四氟乙烯PTFE	-40~200℃	
膜片 Diaphragm	丁腈橡胶夹增强涤纶织物 Nitrile rubber clip enhanced polyester fabric		
压缩弹簧 Compression spring	60Si2Mn		
膜盖 Membrane cover	A3		



■ 主要外形尺寸 Main Outline Dimensions

单位Unit:mm

公称 口径 DN	L			ZMAP型 Type			ZMAN型 Type			A (长) Long	B (宽) Width	电动执行机构 型号 Electric adminis- terfram- ework type	出轴推 力MPa (kg/cm2) Output thrust	行程 h(mm) Journey	额定流量系数C Rating flux coefficient	
				H		H1	H		H1						单座 One- seater	双座 Two- seater
	PN1.6 (MPa)	PN4.0 (MPa)	PN6.4 (MPa)	常温型 normal temperature	散热型 Heat-scat- tering type		常温型 normal temperature	散热型 Heat-scat- tering type								
20	180	185	190	495	655	95	-	-	-	490	230	ZAZ-25 KDZ-310	2.5、40 (25.400)	10	1.2-5	-
25	185	190	205	767	928	112	787	937	117			DKZ-310	40 (400)	16	8	10
32	200	210	220	793	940	118	793	943	120						25	12
40	220	230	240	812	963	129	832	982	139					20		25
50	250	255	265	842	993	144	842	992	144					32	40	
65	275	285	295	967	1127	178	987	1147	188	520	260	DKZ-410	64 (640)	40	50	63
80	305	310	325	990	1142	191	1017	1177	208						80	100
100	350	355	370	999	1151	195	1041	1207	220						120	160
125	410	425	440	1092	1307	245	1142	1357	270					60	200	250
150	450	460	475	1112	1327	255	1162	1377	280						280	400
200	550	560	570	1187	1402	290	1244	1459	320	630	260	DKZ-510	160 (1600)	100	450	630
250	670	740	750	-	-	-	1472	1599	440						700	1000
300	770	805	820	-	-	-	1530	1747	502						1000	1600



■ 主要外形尺寸 Main Outline Dimensions

单位Unit:mm

公称 通径 DN	L		ZMAP型 Type			ZMAN型 Type			φ A	输出压力 (kgf/cm ²) Output pressure				额定流量系数C Rating flux coefficient	
										单座 One-seater		双座 Two-seater			
	PN1.6 (MPa)	PN6.4 (MPa)	H		H1	H		H1		0.2	4.0	0.2	4.0	单座 One-seater	双座 Two-seater
			常温型 normal temp erature	散热型 Heat-scattering type		常温型 normal temp erature	散热型 Heat-scattering type			允许压盖 Allowable gland		允许压盖 Allowable gland			
20	180	190	654	779	93	-	-	-	280	13	27	-	-	1.2-5	-
25	185	205	669	725	110	679	785	117		8	16	54	64	8	10
32	200	220	680	786	120	684	790	120		5	11	44	64	12	16
40	220	240	754	854	130	774	874	138	325	5	10	46	64	20	25
50	250	265	785	885	145	785	885	144		3	6	38	64	32	40
65	275	295	991	1138	180	1011	1158	188	410	3	6	47	64	50	63
80	305	325	1008	1162	190	1042	1196	208		2	4	36	64	80	100
100	350	370	1015	1169	195	1065	1219	220		1.2	2.4	28	56	120	160
125	410	440	1268	1461	240	1318	1501	267	495	1.2	2.4	37.5	64	200	250
150	450	475	1286	1469	250	1340	1523	278		0.8	1.6	27	54	280	400
200	550	570	1363	1546	290	1423	1660	320		0.8	1	21.5	43	450	630

特点: 单座调节阀: 具有易密封, 泄漏量少的特点, 但不平衡力加大, 故工作压差不能过高。双座调节阀: 具有额定流量系数大, 不平衡力小等优点, 因而被广泛应用。
Characteristic: Single-seat adjustable valve: seal easily, little leakage, big imbalance force, thereby working gland can't be very high. Double seats adjustable valve: with advantages of large rated coefficient, small imbalance force, thereby it is used widely.

服务体系 Service System

一、售前服务/Before Service

当好客户的参谋和助手, 让用户的每一份投资都获得丰厚的回报。

- (1) 设备型号的选择。
- (2) 根据客户的特殊要求, 设计制造产品。
- (3) 为客户培训技术人员。
- (4) 提供新、特、难工程施工技术咨询或拟定合适的施工方案。

Be good adviser and assistant to customer, make customer achieve rich return on each investment.

- (1) Model option.
- (2) Design&manufacture product according to customer's requirements.
- (3) Train technician for customer.
- (4) Offer new, special, hard engineering working technical consult or draw suitable working case.

二、售中服务/Under Service

尊重客户; 给客户一个放心, 一份轻松, 一份惊喜; 致力于提高客户的整体价值。

Respect customer; give customer rest assured, take easy, and surprise; devote to increase customer's whole value.

- (1) 保修期内送货上门。
- (2) 产品的预验收。
- (3) 向顾客介绍博雷控制的服务体系。
- (1) Provide home delivery service in warranty period.
- (2) Pre-inspection for product.
- (3) Introduction service system of BOLLEY CONTROL to customer.

三、售后服务/After Service

提高客户整体价值, 让客户无后顾之忧。

Increase customer's whole value, let customer don't have further trouble.

- (1) 协助用户拟定首次施工方案。
- (2) 设备安装调试。
- (3) 现场培训操作人员。
- (4) 定期巡检设备。
- (5) 快速主动, 现场排故。
- (6) 保修配件送货上门。
- (7) 重点工程的跟踪服务。
- (8) 积极寻找潜在不满意用户, 抱怨资源化。
- (9) 提供超值服务。
- (10) 提供技术交流的机会。
- (11) 开展大项维修业务。
- (1) Assist client draw up first construction case.
- (2) Equipment install and debug.
- (3) Train locale operation persons.
- (4) Timely test device.
- (5) Fast initiative, locale solve problem.
- (6) Home delivery for warranty spare parts.
- (7) Important engineering trace service.
- (8) Initiative looking for dissatisfy client, complain reclamation.
- (9) Offer above value service.
- (10) Offer technology communication opportunity.
- (11) Carry out big maintenance business.

