

科技创新，节能环保

Technological innovation, energy conservation and environmental protection

罗托特自动化
ROTOT AUTOMATION

ELECTRIC ACTUATOR SERIES

电动执行器系列

天津罗托特自动化设备有限公司
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企业简介

天津罗托特自动化设备有限公司是一家集科研开发、设计咨询、销售于一体的经济企业, 专业研发、销售各类自控阀及电动执行器产品。多年来公司承蒙各级领导及广大新老客户的关心和支持, 取得了不断发展。罗托特公司在这些年的发展过程中见证了我国控制阀技术与完善, 同时也在在这个过程中不断消化吸收国内外控制阀产品的新技术、新经验, 不断进步, 锐意创新, 形成了有着自己鲜明特色的控制阀产品以及电动执行器系列。

近年来又根据市场需求, 开发出一系列新产品, 并成功应用于石油、化工、环保、电力、冶金、造纸、给排水、轻工等广泛的领域, 得到广大用户的一致认可!

本公司系列产品主要有: 电动调节阀、电动球阀、电动闸阀、电动蝶阀、电动执行器等多种电动阀门系列产品, 气动阀门系列产品。也可为客户定制非标系列产品, 用户的需求就是我们努力的方向。

为用户提供全程、全方位服务的公司宗旨, 使您在拥有一个好产品的同时更拥有放心的服务。从选型到售后, 我们可为您提供控制阀一站式解决方案。

专业、快捷、及时的售后服务, 使用户免除后顾之忧, 并获得投资回报率的优化。

本着“科技创新, 节能环保”的服务理念, 天津罗托特自动化设备有限公司倾力打造国产控制阀及电动执行器品牌, 并愿与各界朋友携手共进, 共创大业。



Tianjin Rotot Automation Equipment Co., Ltd. is an economic enterprise that integrates scientific research and development, design consulting, and sales. It specializes in the research, development, and sales of various types of automatic control valves and electric actuators. Over the years, the company has achieved continuous development thanks to the care and support of leaders at all levels and new and old customers. Rotot Company has witnessed the progress and improvement of control valves in China over the years of development. At the same time, it has continuously digested and absorbed new technologies and experiences from domestic and foreign control valve products, continuously improved and innovated, and formed its own distinctive control valve products and electric actuator series.

In recent years, a series of new products have been developed based on market demand and successfully applied in a wide range of fields such as petroleum, chemical, environmental protection, power, metallurgy, papermaking, water supply and drainage, and light industry, which have been unanimously recognized by a large number of users!

Our company's series of products mainly include electric control valve, electric ball valve, electric gate valve, electric butterfly valve, electric actuators and other electric valve series products, as well as pneumatic valve series products. We can also customize non-standard series products for customers, and their needs are the direction we strive for.

The company's mission is to provide users with full and comprehensive services, so that you can have a good product while also having reliable service. From selection to after-sales service, we can provide you with a one-stop solution for control valves.

Professional, fast, and timely after-sales service eliminates users' worries and optimizes their return on investment.

Adhering to the service concept of "technological innovation, energy conservation and environmental protection", Tianjin Rotot Automation Equipment Co., Ltd. is committed to building a domestic brand of control valves and electric actuators, and is willing to work together with friends from all walks of life to create great achievements.



AZ系列阀门电动装置 AZ Series Valve Electric Actuator

产品概述 Product Overview

AZ系列阀门电动执行器, 是我公司在原有成熟产品的基础上改进和完善结构, 优化防护性能及关键零部件, 完全自主研发的新一代产品, 具有结构紧凑、体积小、外形美观、性能稳定可靠等优点。良好的防护等级可满足多种设计的需要: 隔爆型、整体开关型、整体调节型。

AZ系列产品用以控制阀门的开启和关闭。适用于闸阀、截止阀、截流阀、隔膜阀, 其派生产品可适用于球阀、蝶阀和风门等, 它可以准确地按控制指令动作, 是对阀门实现远控、集控和自动控制的必不可少的驱动装置。

本产品性能符合JB/T8528-1997(普通型阀门电动装置技术条件)的规定。隔爆型的性能符合GB3836.1-2000(爆炸性气体环境用电气设备第一部分: 通用要求)、GB3836.2-2000(爆炸性气体环境用电气设备第二部分: 隔爆型"d")及JB/T8529-1997(隔爆型电动装置技术条件)的规定。

The AZ series valve electric actuator is a new generation product independently developed by our company, which improves and perfects the structure, optimizes the protective performance and key components based on the existing mature products. It has the advantages of compact structure, small volume, beautiful appearance, stable and reliable performance. A good level of protection can meet the needs of various designs: explosion-proof type, integral switch type, integral adjustment type.

The AZ series products are used to control the opening and closing of valves. Suitable for gate valve, globe valve, shut-off valve, diaphragm valve, and their derivative products can be applied to ball valves, butterfly valves, and dampers. It can accurately act according to control instructions and is an essential driving device for remote control, centralized control, and automatic control of valves.

The performance of this product meets the requirements of JB/T8528-1997 (Technical Conditions for Ordinary Valve Electric Devices). The performance of the explosion-proof type complies with the provisions of GB3836.1-2000 (Electrical Equipment for Explosive Gas Environments Part 1: General Requirements), GB3836.2-2000 (Electrical Equipment for Explosive Gas Environments Part 2: Explosion proof Type "d"), and JB/T8529-1997 (Technical Conditions for Explosion proof Electric Devices).



AZ 系列阀门电动装置
AZ Series Valve Electric Actuator

AZ 系列阀门电动装置
AZ Series Valve Electric Actuator

连接标准及外形尺寸 (见表 3、表 4) Connection STD and External Dimensions (See Tables 3 and 4)

阀门与电动执行器选配表 Valve and Electric Actuator Selection Table

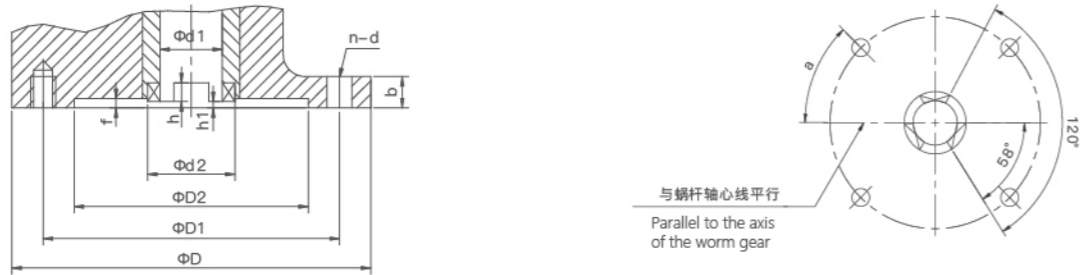


表 3 Table 3 执行标准 JB2920 (转矩型) Execute standard JB2920 (torque type)

型号 Model	机座号 Machine base No.	ΦD	ΦD1	ΦD2(H9)	h1	f	h	b	Φd1	Φd2	d	n	a
AZ10/15	2	145	120	90	2	5	8	12	30	45	M10	4	45°
	2(I)	115	95	75			6	10	26	39	M8		
AZ20/30	3	185	160	125			10	15	42	58	M12		
	3(I)	145	120	90			8	12	30	45	M10		
AZ45/60	4	225	195	150			12	20	50	72	M16		
AZ90/120	5	275	235	180			14	25	62	82	M20		
	5(I)	230	195	150			12	20	50	72	M16		
AZ180/250	7	330	285	220			3	6	16	30	72		
AZ350	8	380	340	280	20	35			82	118	φ22		

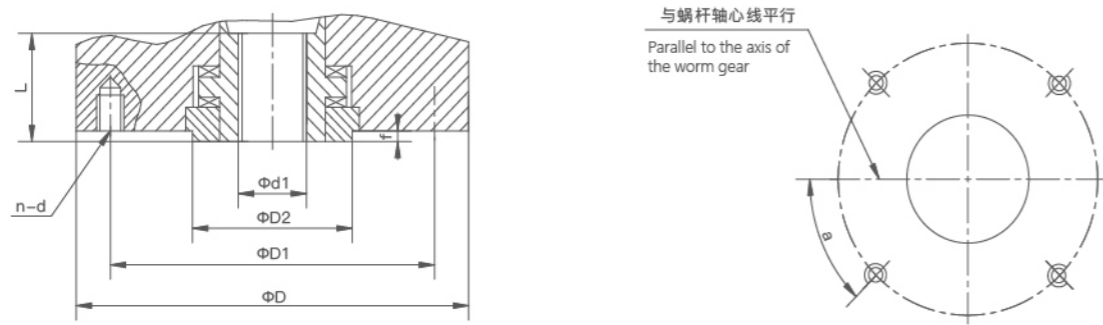


表 4 Table 4 执行标准 ISO 5210、GB/T12222 Execute standards ISO 5210 and GB/T12222

型号 Model	法兰号 Flange No.	ΦD	ΦD1	ΦD2	f	Φd1(max)	N-d	L	a
AZ10/15	F10	125	102	70	3	TR28	4-M10	40	45°
AZ20/30	F14	175	140	100	4	TR40	4-M16	55	
AZ45/60	F16	210	165	130	5	TR48	4-M20	70	
AZ90/120	F25	300	254	200		TR60	8-M16	90	22.5°
AZ180/250	F30	350	298	230		TR70	8-M20	130	
AZ350	F35	415	356	260		TR80	8-M30	130	

闸阀 Gate valve

DN/PN	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800
1	2.5	2.5	2.5	5	5	10	10	15	15	20	30	30	45	45	60	60
2.5	2.5	2.5	5	10	10	15	15	20	20	30	30	45	45	60	60	90
6	2.5	5	10	10	15	15	20	20	30	30	45	45	60	90	90	90
10	10	10	10	15	15	20	20	30	45	45	60	90	90	90	120	120
16	10	10	15	20	20	30	30	45	60	90	120	120	180	180	180	250
25	10	10	15	20	30	30	45	60	90	90	120	120	180	250	350	500
40	10	10	15	20	30	45	60	90	90	120	180	180	250	350	500	650
64	10	10	20	30	45	60	60	90	120	180	250	250	350	500	800	1000
100	15	20	30	45	60	60	90	120	180	250	350	500	600	800	1000	1500
160	20	30	45	60	90	90	120	180	250	350	500	800	1000	1200	1500	2000
200	20	45	60	90	90	120	180	250	350	500	700	1000	1200	1600	2000	3000
320	30	60	90	120	180	180	250	350	500	700	1000	1500	2000	2400	3000	4000

截止阀 Globe valve

DN/PN	15	20	25	32	40	50	65	80	100	125	150	200	225	250	300	350
6	5	5	5	5	5	5	5	10	10	15	20	30	45	60	60	90
10	5	5	5	5	5	5	8	10	15	20	30	45	60	60	90	120
16	5	5	5	5	10	10	10	20	30	30	45	60	90	120	180	180
25	5	5	5	10	10	15	20	30	30	45	50	90	120	180	250	350
40	5	5	10	10	20	30	30	45	45	60	90	120	180	250	350	500
64	5	10	10	20	30	30	45	45	60	120	120	180	250	350	500	700
100	10	10	20	25	30	30	45	60	90	120	180	350	400	550	800	1000
160	10	10	30	30	45	45	60	100	120	180	350	550	650	800	1200	1600
320	10	20	30	45	60	90	100	180	250	350	600	1000	1300	1600	2400	3200

球阀 Ball valve

DN/PN	50	65	80	100	150	150	200	225	250	300	350	400	450	500	600	700	800
16	5	10	10	20	60	60	60	90	120	200	250	400	500	600	800	1200	2500
25	5	10	20	20	60	60	90	120	200	250	400	500	600	800	1200	2000	3000
40	10	20	20	40	90	90	200	200	250	400	500	600	800	1200	2000	3000	6000
64	20	20	30	60	200	200	200	300	400	600	800	1000	1200	1500	3000	4500	8500
100	20	40	60	90	200	200		500	700	1000	1200	1500	2000	3000			
								Z30	Z45	Z60	Z60	Z90	Z90	Z120			

蝶阀 Butterfly valve

DN/PN	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	1600
2.5	10	20	40	60	90	120	120	200	250	400	500	700	800	1000	1500	2500
6	10	20	40	60	90	120	200	250	300	500	700	1000	1500	2000	2500	3800
10	10	30	60	90	120	200	300	400	500	600	800	1200	1500	2000	3000	4500
16	20	40	90	120	200	250	300	400	500	600	800	1200	1500	2000	3000	4500
25	30	60	120	200	300	400	450	500	700	1000	1500	2500	3500	4500	6000	7500
40	40	90	200	250	400	600	700	800	1000	2000						
64	90	200	250	300	500	700	1000	1500	2500	3800						
			Z15	Z20	Z30	Z45	Z60	Z90	Z120	Z180						

注: 本选型表仅供参考。
Note: The model selection table is only for reference.

Q 系列阀门电动执行装置 Q Series Valve Electric Actuator

产品概述 Product Overview

Q 系列阀门电动执行装置适用于中小口径的蝶阀、球阀等作 90° 回转的阀门和其他类似设备。作为稳定可靠的角行程执行器, 可适用于不同控制系统、不同工作环境的需要。传动机构一体化的设计, 使产品具有更小的体积和简洁的外观。安全可靠的自动设计, 无须切换手柄的全自动 / 电动切换。良好的防护等级可满足多种设计的需要: 防爆型、整体开关型、整体调节型。

The Q series valve electric actuator is suitable for small and medium-sized butterfly valves, ball valves, and other similar equipment that can rotate 90°. As a stable and reliable angular actuator, it can be adapted to the needs of different control systems and working environments. The integrated design of the transmission mechanism enables the product to have a smaller volume and a simpler appearance. Safe and reliable manual design, fully automatic manual/electric switching without the need to switch handles. A good level of protection can meet the needs of various designs: explosion-proof type, integral switch type, and integral adjustment type.

技术参数 technical parameter

- 1、电源: 电机为三相交流 AC380V/50Hz。
控制为二相交流 AC220V/50Hz(Exd II BT4)。
可选电源: AC220~660V, 50、60Hz(订货时需说明)。
- 2、环境温度: -20°C ~+60°C; 可选温度: -40°C ~+70°C
- 3、相对湿度: 不大于 95%(25°C时)。
- 4、工作环境: 普通型用于无易燃、易爆和强腐蚀介质的场所; 防爆型使用环境为 II A、II B 级 T1-T4 组的爆炸性气体混合物。
- 5、防护等级: IP65/67(特殊订货 IP68)。
- 6、电机为工作制: 额定运行时间 10 分钟。F 级绝缘。
- 7、防腐涂装: 高温烤漆。

1. Power supply: The motor is three-phase AC 380V/50Hz. Control as two-phase AC 220V/50Hz (Exd II BT4).
Optional power supply: AC220-660V, 50, 60Hz (to be specified when ordering).
2. Environmental temperature: -20°C ~ +60°C, optional temperature: -40°C ~ +70°C
3. Relative humidity: not exceeding 95% (at 25°C).
4. Working environment: ordinary type used in places without flammable, explosive, and highly corrosive media; The explosion-proof usage environment is IIA Explosive gas mixture of Class IIB T1-T4.
5. Protection level: IP65/67 (special order IP68).
6. The motor operates on a working system; The rated operating time is 10 minutes. F-class insulation.
7. Anti corrosion coating: High temperature baking paint.



Q 系列阀门电动执行装置 Q Series Valve Electric Actuator

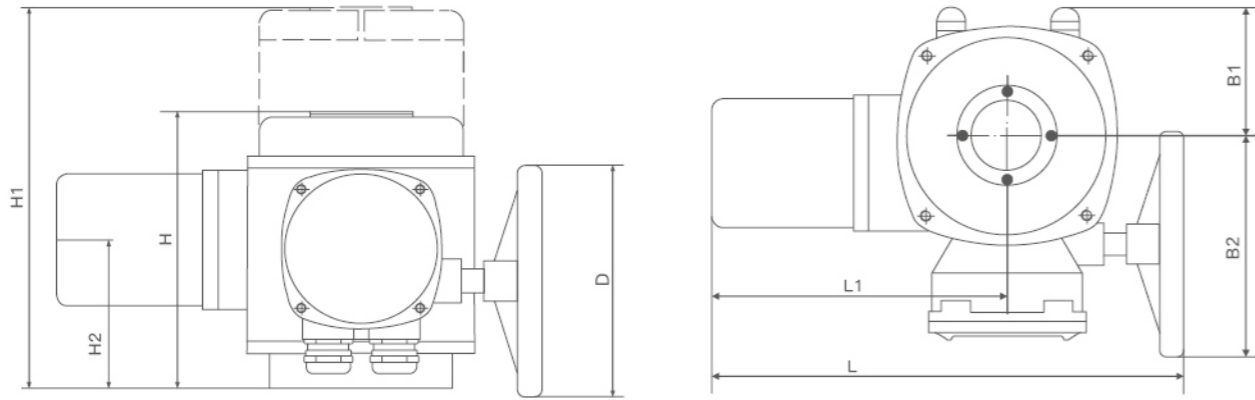
参数表 Parameter Table

型号规格 Model specifications	输出转矩 Output torque	输出转 Output speed	最大阀杆直径 Max stem diameter	手动速比 Manual speed ratio	电机功率 Motor power	额定电流 Rated current	参考重量 Reference weight
	N.m	r/min	mm		W	A	Kg
Q05	50	1	19	60	45	0.35	8.5
Q10	100	1	19	60	60	0.48	8.6
Q15	150	1	19	60	75	0.55	8.7
Q20	200	1	28	90	90	0.65	12.7
Q30	300	1	28	90	120	0.75	12.7
Q40	400	1	28	90	150	0.85	13
Q60	600	1	38	87	180	0.95	21
Q120	1200	1	38	87	250	1.3	21
Q180	1800	1	38	87	370	1.7	23
Q300	3000	0.5	55	348	370	1.7	35
Q500	5000	0.5	55	348	550	2.5	35

注: 以上参数为常规供货, 如有特殊需要可在订货时说明。
Note: The above parameters are for regular supply. If there are special needs, they can be explained when ordering.

Q 系列阀门电动执行装置
Q Series Valve Electric Actuator

外形尺寸 External Dimensions



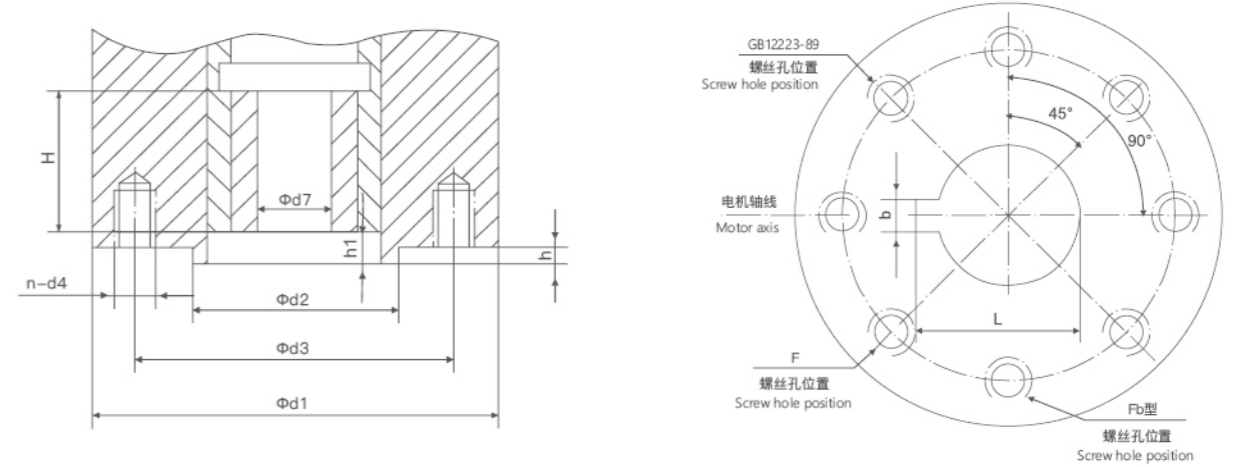
型号 Model	B1	B2	H	H1	H2	L	L1	D
Q05/15	68	114	156	270	73	250	157	140
Q20/40	91	157	191	273	103	332	208	160
Q60/180	143	203	227	309	126	424	232	250
Q300/500	143	203	291	373	190	424	232	250

阀门选型表 Valve Selection Table

型号 Model	软密封蝶阀 Soft seat butterfly valve	硬密封蝶阀 Metal seat butterfly valve	球阀 Ball valve	通风蝶阀 Ventilation butterfly valve
Q05	≤ DN65	≤ DN40	≤ DN32	≤ DN100
Q10	DN80-DN100	DN40-DN65	DN40-DN50	DN100-DN200
Q15	DN125-DN150	DN80-DN125	DN65-DN80	DN250-DN300
Q30	DN150-DN200	DN125-DN150	DN80-DN100	DN300-DN400
Q40	DN200-DN250	DN150-DN200	DN100-DN125	DN400-DN500
Q60	DN250-DN300	DN200-DN250	DN125-DN150	DN500-DN600
Q120	DN300-DN350	DN250-DN300	DN150-DN200	DN600-DN800
Q180	DN400-DN450	DN300-DN400	DN200-DN250	DN800-DN1000
Q300	DN500-DN600	DN400-DN450	DN250-DN300	DN1000-DN1200
Q500	DN600-DN700	DN150-DN500	DN300-DN350	DN1200-DN1600

Q 系列阀门电动执行装置
Q Series Valve Electric Actuator

连接尺寸 Connection Dimensions



型号 Model	法兰型式 Flange type	Φd1	Φd2	Φd3	n-d4	Φd7		H	h	h1
						预留 Reserve	最大 Max			
Q05	FB1	77		57	4-M6	12.7	12.7	35		
Q10	FB1	77		57	4-M6	15.9	15.9	35		
	F05	65	35	50	4-M6	8	18	35	3	2
Q15 Q20	FB2	92		70	4-M8	19	19	42		
	F07	90	55	70	4-M8	12	28	42	3	2
Q30 Q40	FB3	115		89	4-M12	22.2	22.2	42		
	F10	125	70	102	4-M10	12	28	42	3	2
Q60	FB3	115		89	4-M12	28.6	28.6	50		
	F10	125	70	102	4-M10	15	38	50	3	2
Q120	FB4	140		108	4-M12	31.7	31.7	50		
	F12	150	85	125	4-M12	15	38	50	3	2
Q180	FB5	197		159	4-M16	33.3	33.3	60		
	F14	175	100	140	4-M16	20	38	60	3	3
Q300	FB5	197		159	4-M16	41.3	41.3	90		
Q500	F16	210	130	165	4-M30	20	60	90	3	3

注: 以上参数为常规供货, 如有特殊需要在订货时说明。
Note: The above parameters are for regular supply. If there are special needs, they can be explained when ordering.

小型阀门电动装置
Precision Small Valve Electric Actuator

产品概述 Product Overview

该阀门电动执行器与同类产品相比具有卓越的性能, 无可争辩的优势, 其外表精致小巧, 美观大方, 内部设计独特, 坚韧耐磨不易磨损。

Compared with similar products, the electric actuator of this valve has excellent performance and undeniable advantages. Its appearance is exquisite and compact, beautiful and generous, and its internal design is unique. It is tough, wear-resistant and not easy to wear.

产品特点 Product Features

- 1、体积小: 体积只有同类产品的 35% 左右;
- 2、轻便宜人: 重量相当于同类产品的 1/3;
- 3、美观大方: 压铸铝合金外壳, 外表精细流畅并能减少电磁干扰;
- 4、功能齐全: 开关型、无源触点型、比例型、智能调节型应有尽有;
- 5、精密耐磨: 蜗轮与蜗杆完美结合, 和谐联动, 蜗轮输出一体化有效地减少了;
- 6、连接间隙: 使传动精度大幅度提高;
- 7、使用方便: 免电检、免加油、防锈防水、任意角度安装;
- 8、多重保护: 电气限位、机械限位、过热保护、过载保护、除湿保护;
- 9、速度多样: 5 秒、8 秒、15 秒、30 秒、50 秒、100 秒等 (需指定);
- 10、数控调节: 高度集成智能化模块, 数字设定、数字整定、自诊断高度精确;
- 11、安全保障: 通过 AC1500V 耐压检测, H 级绝缘电机, 保障机体和生产安全;
- 12、配套简单: 采用单相, 三相, 直流电源, 外接线路简单。

1. Compact size: Only about 35% of the size of similar products;
2. Lightweight and pleasant: The weight is equivalent to one-third of similar products;
3. Beautiful and elegant: Die cast aluminum alloy shell, with a fine and smooth appearance and can reduce electromagnetic interference;
4. Fully functional: Switch type, passive contact type, proportional type, intelligent adjustment type are all available;
5. Precision wear resistance: The worm gear and worm gear are perfectly combined, harmoniously linked, and the integrated output of the worm gear is effectively reduced;
6. Connection gap: Significantly improves transmission accuracy;
7. Easy to use: No electrical inspection, no refueling, rust and waterproof, can be installed at any angle;
8. Multiple protections: Electrical limit, mechanical limit, overheating protection, overload protection, dehumidification protection;
9. Diverse speeds: 5 seconds, 8 seconds, 15 seconds, 30 seconds, 50 seconds, 100 seconds, etc. (to be specified);
10. Numerical control adjustment: Highly integrated intelligent module, digital setting, digital tuning, self diagnosis highly accurate;
11. Safety guarantee: Through AC1500V withstand voltage testing, H-class insulated motors ensure the safety of the machine body and production;
12. Simple supporting: Using single-phase, three-phase, DC power supply, with simple external wiring.

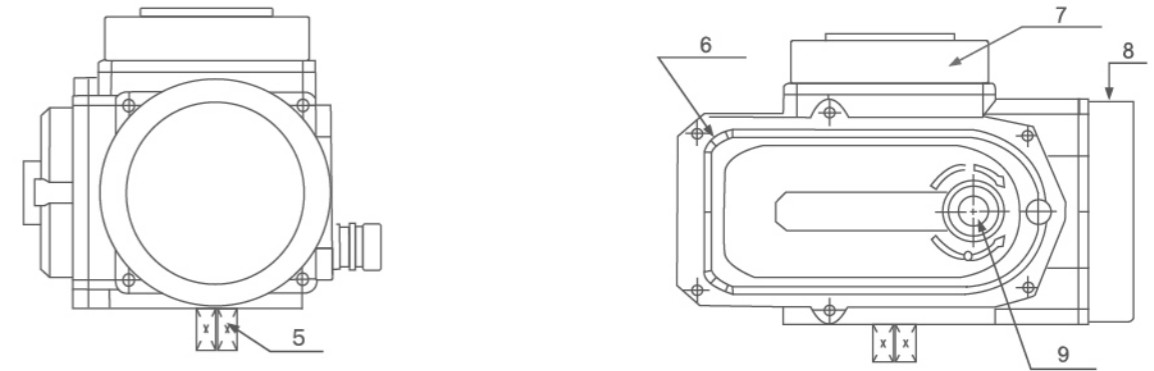


小型阀门电动装置
Precision Small Valve Electric Actuator

技术参数 Technical Parameter

型号 Model	扭矩 N.m Torque	橡胶蝶阀 Rubber butterfly valve	球阀 Ball valve	硬密封蝶阀 Metal seat butterfly valve
LFZK-05	50	DN50-80	DN15-32	DN50
LFZK-16	160	DN100-150	DN32-50	DN65-80
LFZK-25	250	DN150-200	DN65	DN100-150
LFZK-50	500	DN250	DN80	DN150-200
LFZK-100	1000	DN250-350	DN80-100	DN250-300
LFZK-200	2000	DN350-450	DN100-200	DN350

外观图 Outside View



零件说明表 Parts Description Table

No.	零件名称 Part name
1	箱体 Box body
2	开度计 Openness meter
3	电缆夹头 Cable clamp
4	手动操作口橡胶塞 Rubber plug for manual operation port
5	输出轴 output shaft
6	减速箱盖 Gearbox cover
7	电气箱盖 Electric box cover
8	接线箱盖 Junction box cover
9	手动操作口 Manual operation port

