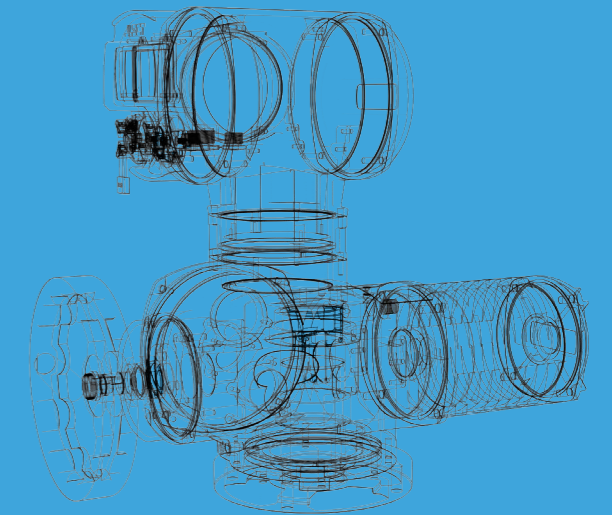


Ultratork Series Electric Actuator

VALVE INTELLECTUAL TECHNOLOGY EXPERT

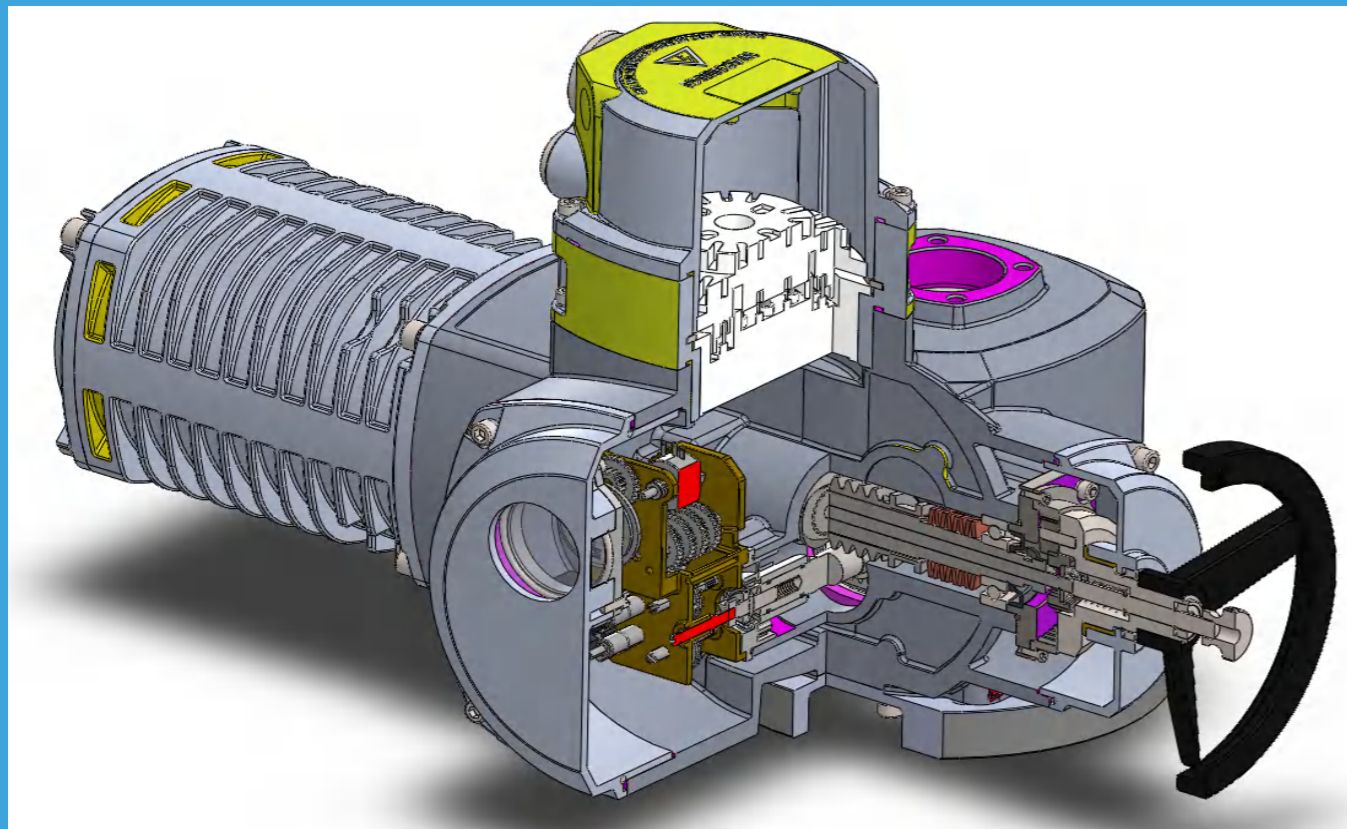


Wenzhou Valvespro Flow Control Technology Co.,Ltd
Add : NO.649-1 Jingde West Road Guoxi Road Ou Hai District,
Wenzhou, Zhejiang Province, China.
Tel: 86-577-86115146
Fex: 86-577-86110708
Email : sales@valvespro.com
Whatsapp: +8613777771223
Wechat: shaozhiqiang520
Website: www.valvespro.com



COMPANY PROFILE

The Valvespro possesses profound experience in the research, development, production, and sales of valve electric actuators. After years of technological accumulation, we have launched the new generation of Ultratork electric actuators, dedicated to providing users with safe, reliable, and durable overall pipeline valve control solutions.



SIX MAJOR ADVANTAGES

01

Precise control

Advanced motor drive and control technology ensure the precision of valve operation, meeting the requirements of various working conditions.

02

Highly reliable

Highly reliable mechanical transmission and electrical control units, with excellent adaptability and stability, can calmly cope with various complex application environments.

03

Smart control

Smart control unit can achieve efficient interconnection with various automatic control systems, ensuring precise implementation of remote monitoring and control.

04

Modular design

Modular design of each unit is characterized by flexible structure and strong interchangeability, significantly improving the efficiency of maintenance work.

05

Easy mounted

Easily mounted on the valve, with simple and quick parameter settings, providing more portable debugging.

06

Explosion-proof

Can be used in potential explosive environment, explosion-proof housing design, IECEx certified.

THE APPLICATION OF ULTRATORK ACTUATORS

Applications on gate valve



Ultratork multi-turn actuator is suitable for automatic control of gate valves. The independent actuator can output a maximum torque of 1000Nm. Actuator with gearbox can provide even greater output torque.

Separately mounted control

Application scenarios:

Pipes and valves may be installed in inaccessible places such as height and well, or where there is significant vibration in the pipes and valves.

Solution:

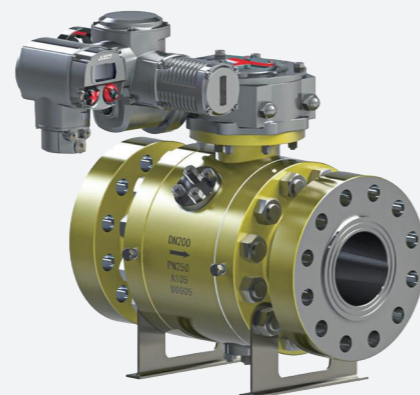
Ultratork actuator can separate the control unit from actuator. The actuator body is mounted on the valve, while the control unit is mounted in easily accessible place. Cable accessories for connecting the body and the control unit are also provided.



Applications on ball valve



To meet the 90° part-turn control of large-sized butterfly valves and ball valves, Ultratork actuator can be equipped with part-turn gearbox, providing a maximum 90° part-turn torque output of 10000Nm.



Underwater installation

Application scenarios:

pipes and valves may be installed in low-lying areas and water wells, which may be flooded by water and face the risk of long-term immersion.

Solution:

Ultratork actuator can provide IP68 protection level, which allows it to work in water up to 10 meters deep for a long time, and it also features special corrosion resistance treatment for exposed metal parts.



PRODUCT SERIES

Ultratork Max (Basic)

The electrical and logic control unit of Max basic model is provided externally. Therefore, the motor startup and the information provided by the sensors (Position limit, torque limit, overheat switch, etc.) must be processed by an external control unit.



Ultratork Smart control unit

Smart control unit is an independently designed modular control unit that can be used with the Ultratork Max (basic). It can achieve intelligent transformation for the basic model, providing users with the possibility of later upgrades.



Ultratork Pro (Intelligent)

The Pro intelligent integrated motor and logic control unit. Actuator can directly process the instructions from DCS system and provides feedback signals. And the current status can be observed on the screen. Local operation knobs provide on-site valve open-close and a choice of "local/remote" control mod.

Ultratork Plus (Modulation)

Including all functions of Pro model, the Plus modulation model can also process 4-20mA analog adjustment instructions from DCS system. The Modulation model uses solid-state relay as the driving unit of the motor, with a fast motor start-up response speed.

1200 TIMES/HOUR
Motor starting frequency

0.1%~0.5%
Modulation accuracy



PERFORMANCE PARAMETER

Parameter	Max (Basic)	Pro(Intelligent)	Plus(Modulation)
Power Voltage	Standard : Three-phase 380VAC(±10%) Single-phase 220VAC(±10%)	optional : Three-phase 220-480VAC(±10%)	Single-phase 110-220VAC(±10%)
Power Frequencies	Standard : 50 Hz	optional : 60 Hz	
Ambient temperature	Standard: -20℃~60℃ optional : -60℃~70℃		
Relative humidity	≤95% (25℃)		
Atmospheric pressure	86kPa~106kPa		
Protection level Standard	Standard : IP67	optional : IP68 (10m, 72h)	
Explosion-proof level	Ex d IIC T4		
Motor insulation level	Standard: Class F optional : Class H		
Motor working duty	S2-15min	S2-15min	S4-25%
Starting frequency	<100/h	<100/h	<100/h
Relay contact rating	2A 250VAC, 3A 30VDC		

FUNCTION CONFIGURATION

"-"Mean no such function , " "Mean optional, " "Mean has such function

Function configuration	Max (Basic)	Pro(Intelligent)	Plus(Modulation)
Non-intrusive commissioning	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Remote/Local control	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LCD status display	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Separately mounted control	-	<input type="checkbox"/>	<input type="checkbox"/>
Underwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical position limit switch	<input checked="" type="checkbox"/>	-	-
Absolute encoder limit positioning	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mechanical torque limit protection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Electronic torque limit protection	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Phase sequence self-identification	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Power phase-loss protection	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Over and under voltage protection	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Motor overheating protection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Motor overload and short circuit protection	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Remote analog modulation control	-	-	<input checked="" type="checkbox"/>
Valve position output (4-20mA)	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6 configurable relay outputs	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
hand-held remote control	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fieldbus control	-	<input type="checkbox"/>	<input type="checkbox"/>
Valve position display without power	-	<input type="checkbox"/>	<input type="checkbox"/>
Automatic temperature control heating	-	<input type="checkbox"/>	<input type="checkbox"/>

ELECTRICAL PARAMETER

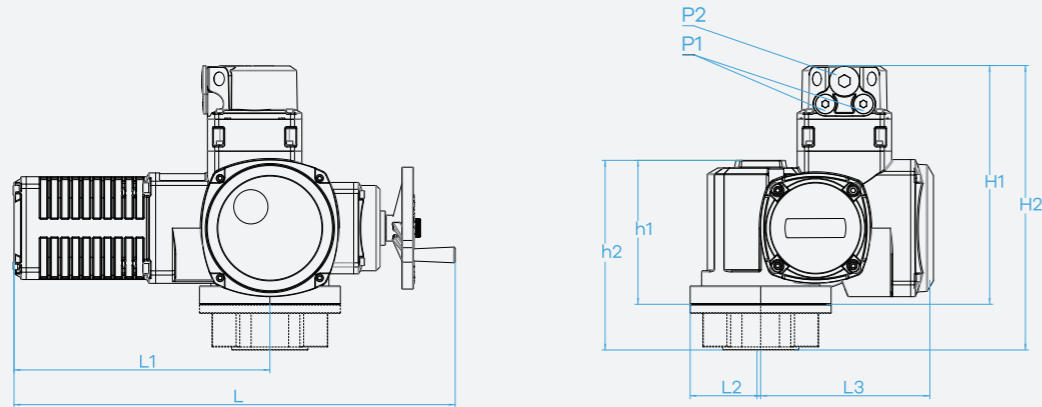
Type	Max Torque	Output Speed (50Hz)	Motor Speed (50Hz)	Rated Power	Nominal Current (30% load)	Max Current (100% load)	Efficiency	Power factor
	Nm	Rpm	Rpm	kW	A	A	%	cosφ
UTM03	30	25	1440	0.2	0.5	0.9	59	0.72
		50	1440	0.2	0.6	1.1	60	0.73
		100	2880	0.3	0.7	1.5	68	0.81
UTM06	60	25	1440	0.2	0.6	1.1	60	0.73
		50	1440	0.3	0.7	1.5	65	0.74
		100	2880	0.6	1.4	2.8	73	0.82
UTM12	120	25	1440	0.3	0.7	1.5	65	0.74
		50	1440	0.6	1.4	2.8	71	0.75
		100	2880	1.2	2.3	4.4	77	0.84
UTM16	160	25	1440	0.4	1.1	2.1	67	0.75
		50	1440	0.8	1.7	3.3	73	0.76
		100	2880	1.6	2.8	5.7	79	0.84
UTM22	220	25	1440	0.6	1.4	2.8	71	0.75
		50	1440	1.2	2.3	4.4	75	0.77
		100	2880	2.4	3.6	7.4	81	0.85
UTM32	320	25	1440	0.8	1.7	3.3	73	0.76
		50	1440	1.6	2.8	5.7	78	0.79
		100	2880	3	5.5	11.3	83	0.87
UTM50	500	25	1440	1.2	2.3	4.4	75	0.77
		50	1440	2.4	3.6	7.4	80	0.81
		100	2880	4	6.7	13.3	85	0.88
UTM100	1000	25	1440	2.4	3.6	7.4	80	0.81
		50	1440	4	6.7	13.3	84	0.82

STRUCTURAL PARAMETER

Type	Max Torque	Output Speed (50Hz)	Connector (ISO5210)	Max Stem Diameter	Hand wheel	Manual Ratio	Reference weight	
							Max	Pro/Plus
	Nm	Rpm		mm	mm		KG	
UTM03	30	25/50/100	F10	28	160	1:18/1:9	23	29
UTM06	60	25/50/100	F10	28	160	1:18/1:9	23	29
UTM12	120	25/50/100	F10	28	160	1:18/1:9	25	31
UTM16	160	25/50/100	F10	28	160	1:18/1:9	25	31
UTM22	160	25/50/100	F14	40	200	1:17/1:8.5	29	35
UTM32	320	25/50/100	F14	40	200	1:17/1:8.5	31	39
UTM50	500	25/50/100	F16	48	250	1:52/1:26	50	56
UTM100	1000	25/50	F25	60	250	1:52/1:26	55	61

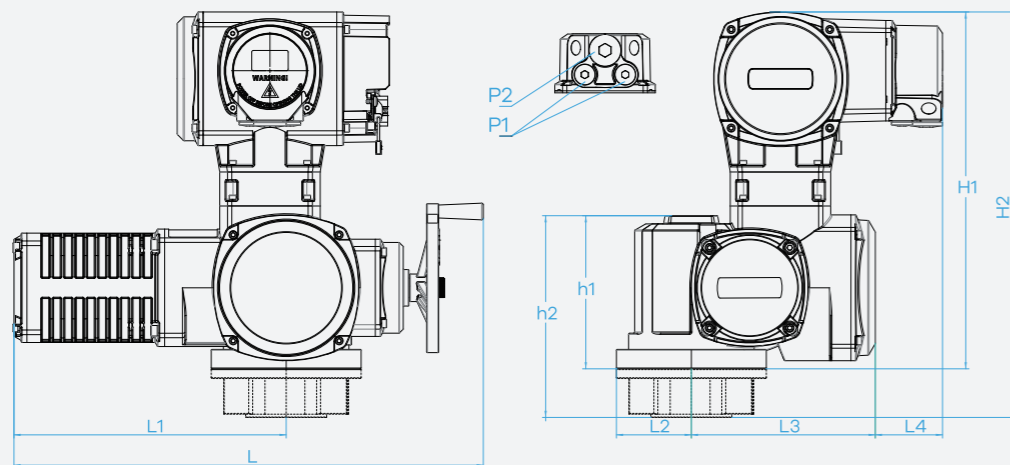
SIZE OF ULTRATORK ACTUATOR

Size of Max (Basic)



Type	Flange	L	L1	L2	L3	H1	h1	H2	h2	P1	P2
UTM03-16	F10	540	300	70	210	310	185	365	240	M30*2	M20*1.5
UTM32	F14	600	340	95	230	315	190	375	250		
UTM50	F16	700	440	145	255	360	230	445	315		
UTM100	F25	700	440	145	255	360	230	460	330		

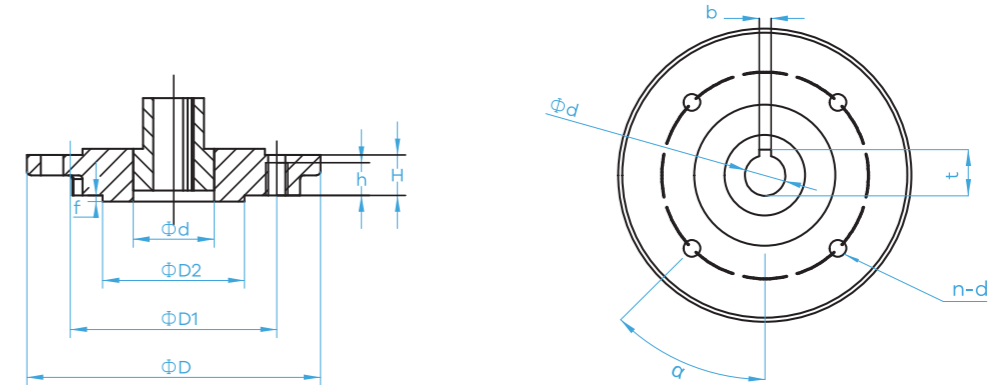
Size of Pro (Inteligent) and Plus (Modulation)



Type	Flange	L	L1	L2	L3	L4	H1	h1	H2	h2	P1	P2
UTM03-16	F10	540	300	70	210	85	435	180	490	235	M30*2	M20*1.5
UTM32	F14	600	340	95	230	85	445	190	505	250		
UTM50	F16	700	440	145	255	85	490	230	575	315		
UTM100	F25	700	440	145	255	85	490	230	590	330		

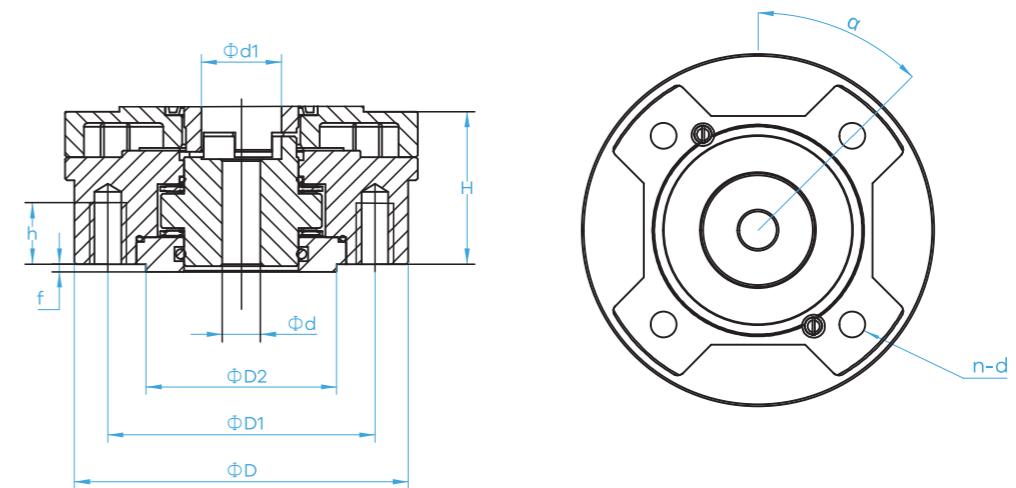
FLANGE SIZE OF ULTRATORK ACTUATOR

Executive Standard: ISO5210-B4



Flange	D	D1	D2	f	d(max)	h	H	n-d	alpha	b	t
F10	125	102	70	3	20	15	20	4-M10	45°	6	22.8
F14	175	140	100	4	30	20	24	4-M16	45°	8	33.3
F16	210	165	130	5	40	25	30	4-M20	45°	12	43.3
F25	300	254	200	5	50	20	30	8-M16	22.5°	14	53.8

Executive Standard: ISO5210-A



Flange	D	D1	D2	d(max)	d1	f	H	n-d	h	alpha
F10	125	102	70	Tr28	30	3	48	4-M10	20	45°
F14	175	140	100	Tr40	42	4	57	4-M16	32	45°
F16	210	165	130	Tr48	50	5	87	4-M20	40	45°
F25	300	254	200	Tr60	62	5	96	8-M16	30	22.5°