HITORK®
A HANKUN Brand

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Version 4.0

Due to the continuous development and improvement of the product, design and parameter changes will not be notified separately. Please call us for the latest product and technical information.

HITORK®
A HANKUN Brand

ELECTRIC ACTUATORS

Hankun Quality Driving The Future

Super Reliable
High Precision

Teamwork

Excellence

Upright

Choose Hankun, Choose Reliable, Easy and Satisfied.

Hankun was founded in 2007 with a vision to become a "respected international expert in fluid control." Hankun independently R&D and manufacture IoT intelligent electric actuators, pneumatic actuators, valves, as well as IoT intelligent hose pumps and unmanned dosing devices. Certified with 3C, TS, and relevant production qualifications. Hankun is a world-leading provider of fluid control solutions and integrated equipment systems.

Hankun is headquartered in Beijing with the factory in Shanghai and branch offices in Jinan, Xi'an, Chengdu, Changsha, Guangzhou, Moscow and other cities. Furthermore, Hankun has authorized distributors in Canada, Singapore, Indonesia, Thailand, Russia, Uzbekistan, Pakistan, India and other countries and regions, ensuring a robust and efficient sales network and service system.

With the mission of "Making fluid control more reliable and simpler under harsh working conditions of special medium", Hankun has long been dedicated to providing professional fluid control solutions for industries such as power plant, petrochemicals, water treatment and other process industries. Through the necessary technical exchanges, Hankun recommends safe, cost-effective, environmentally friendly solution and design based on the actual site conditions, effectively addressing issues such as leaks and blockages.

Reputation is paramount for Hankun. Hankun strictly adhere to contractual obligations by providing timely delivery, installation guidance, and commissioning to ensure compliance and smooth handover for customer use. Throughout the entire life cycle, Hankun provide whole process and considerate service.

K3 Series HKM.3

K2 Series HKM.2

K1 Series HKM.1

K3 Series HKP.3

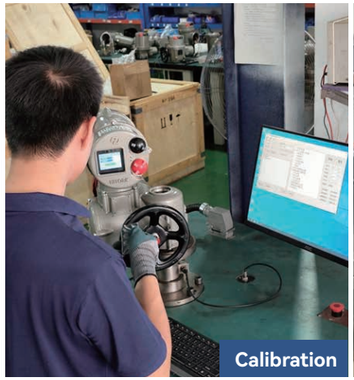
K2 Series HKP.2

K1 Series HKP.1

Company Qualifications

Product Certifications

Factory Tour



Product Overview

Electric actuator is a motorized drive device that generates linear or rotary motion to operate valves. It responds to control signals to perform on/off or precise modulating control of valves. There are 3 types classified by the motion characteristics: Multi-Turn, Part-Turn and Linear.

With the continuous development and innovation of industrial automation applications, high-performance electric actuators are increasingly being used in modern automated process and fluid control systems across various scenarios. Industries are now placing higher demands on electric actuator products in terms of diversification, intelligence, reliability, precision, and safety.

With 20 years of expertise in fluid control, Hankun continues to break through boundaries and innovate. Hankun independently R&D and manufacture the HITORK intelligent electric actuator, building a comprehensive product portfolio that fully covers diverse industry needs and application scenarios.

K3 Series - Ultimate

Boasting ultra-high torque output and intelligent control systems, cutting-edge solution integrates advanced technologies with modular design for flexible configuration. Manufactured with premium international components, which delivers exceptional performance while optimizing user experience, positioning itself at the forefront of the industry. Explosion-proof rating: Ex db IIC T4 Gb

K2 Series - Excellence

Modular design, high performance, IoT/Bluetooth mobile APP compatibility, large high-brightness color screen, excellent user operation experience, meets common expansion requirements, non-explosion-proof lightweight design. Protection class IP68.

K1 Series - Economy

Lightweight integrated design, high cost-performance, meets basic application requirements and expansion needs. Explosion-proof rating: Ex db IIB T4 Gb.

Design Features

High Reliability

Industrial-grade reliability design, low failure rate, and long-term stable operation have always been the top priority in the R&D and design of HITORK intelligent electric actuators.

High Precision

Although most application scenarios do not require high precision for electric actuators, HITORK intelligent electric actuators adopt high-standard materials and processes for key components, fully capable of meeting demanding requirements for both high precision and high-frequency operation.

Compact Size and Lightweight

While ensuring performance and functionality, HITORK intelligent electric actuators pursue ultimate compact design to adapt to various extreme operating conditions. It incorporates structural designs such as worm gears and double planetary gears to achieve self-locking function in a smaller size. The entire series features a housing cast from aluminum alloy with powder-coated surface, offering strong corrosion resistance and lighter weight.

Valve Position

The HITORK intelligent electric actuator adopts an advanced magnetic absolute encoder for valve position detection, featuring strong interference resistance and power-off data retention. This ensures more precise and reliable valve position detection and positioning.

Display

Featuring a high-brightness color screen with multi-language support, it delivers richer content and a more user-friendly operation experience. HKP.1 model adopts a dual-display design with both mechanical indicators and an electronic screen.

Control System

Powered by a high-performance ARM-core micro-controller, the proprietary actuator control system features streamlined menu architecture with intuitive operation. Designed with modular expandability, it supports flexible integration of Bluetooth, IoT connectivity, and fieldbus communications (e.g., Profibus, Modbus), offering configurable functionality through scalable firmware architecture.

Operational Data Logging

The device features a built-in data logger that continuously captures and stores critical operational parameters in real-time, including actuator cycle count, fault events, runtime duration, and full-stroke torque profiles. This comprehensive data collection capability facilitates predictive maintenance planning and efficient troubleshooting for optimal system performance and reliability.

Automatic Phase Sequence Correction

HITORK intelligent electric actuators do not need to concern themselves with phase sequence wiring. As long as the three-phase wires are correctly connected, the actuator system will automatically identify the phase sequence and execute the correct opening/closing direction.

Reliable Torque Protection

HITORK intelligent electric actuators are equipped with real-time torque detection and overload protection. When the operating torque exceeds the preset safety threshold, the system will automatically halt operation and trigger an alarm signal, effectively safeguarding both the valve and the actuator.

Motor Overheat Protection

The motor is equipped with a built-in temperature sensor, and the actuator system continuously monitors its temperature. If the preset overheat threshold is exceeded, the system will automatically shut down and trigger an external alarm signal, preventing severe electrical faults or equipment damage.

Modular Design

HITORK intelligent electric actuators feature a highly integrated electronic control system with strong versatility. This design simplifies spare parts inventory management, reduces costs, and enables split-type applications, ensuring reliable performance in harsh conditions such as high temperatures, excessive vibration, elevated installations, and water immersion.

Multi-Protection & Versatile Applications

Explosion-Proof Rating

K3 Series (HKM.3/HKP.3): Ex db IIC T4 Gb – Designed for highly hazardous explosive gas environments, including hydrogen, water gas, and acetylene.

K1 Series (HKM.1/HKP.1): Ex db IIB T4 Gb – Suitable for standard explosion-proof applications.

Protection Level

Standard: IP67; Optional: IP68

The actuator housing is specially designed with IP68-rated sealing protection.

Corrosion Protection

Customizable anti-corrosion coatings with ISO-12944 compliant surface treatment, delivering up to C5-M protection for harsh industrial and marine environments–including condensation, heavy pollution, high humidity, and saltwater exposure.

Deep Pit Applications

Customizable valve stem extension kits available for submerged/deep pit valve control installations.

Ultra-Low Temperature Applications

Customizable with built-in PFS heating modules in the actuator's electrical chamber, featuring automatic thermostatic control for reliable operation at temperatures as low as -60°C(-76°F).

High-Temperature Applications

The actuator can be customized for reliable operation in elevated temperature environments up to 80°C (176°F).

High-Vibration Environment

The actuator maintains stable performance under intense vibration conditions up to 150Hz frequency with 2g acceleration.

Modular Split-Structure

HITORK intelligent electric actuators feature a modular architecture, enabling separate installation of electrical and mechanical components through dedicated standardized interfaces. This innovative design ensures exceptional adaptability for specialized application environments.

Anti-interference

The entire series has passed EMC Level 3 testing.

Electrostatic Discharge (ESD) Immunity Test: Contact discharge 6kV, air discharge 8kV.

Radiated Radiofrequency Electromagnetic Field Immunity Test: Test field strength 10V/m.

Electrical Fast Transient (EFT) Burst Immunity Test: Power port 2kV peak voltage, signal port 1kV peak voltage.

Surge Immunity Test: Line-to-ground 2kV surge impact.

Valve Internal Leakage Self-Check

Optional Valve Internal Leakage Self-Check & Self-Compensation, features built-in leakage detection and Self-compensation.

Soft Start

The system offers customizable intermittent operation strategies, prolongs valve opening/closing time, effectively prevents water hammer effect, reduces valve impact, and protects pipeline network stability.

Self-Powered

Employs wind-solar hybrid energy supply with high-quality MPPT power management controllers to precisely regulate battery charge/discharge parameters. The system dynamically controls power output from PV modules and batteries according to load demands, while integrated 4G/5G IoT modules enable flexible deployment and remote management of valve control applications in off-grid environments.

Voltage

Customizable power supply voltage options available to accommodate diverse voltage requirements:

AC: 50/60Hz 110V-690V

DC: 24V-72V

Model Example

HKM10.3-R

HK	M	10	3	R
Hankun	M: Multi-Turn P: Part-Turn L: Linear	Torque: 100Nm	K3 Series	Modulating Type

Multi-Turn

K3 Series HKM.3

Advantages

Ultra-High Torque: Maximum optional 3000Nm output, meeting the requirements of single-unit high-torque applications.

High Explosion-Proof Rating: Ex db IIC T4 Gb.

Torque detection is performed using a magnetic single-turn absolute encoder, featuring sensitive response and high accuracy. The torque protection value can be set via remote control without opening the housing, with torque adjustable range of 40%~120% .

Torque ≤200Nm support variable-frequency drive modules, enabling adjustable speed, soft start functionality, with 0.5% positioning accuracy.

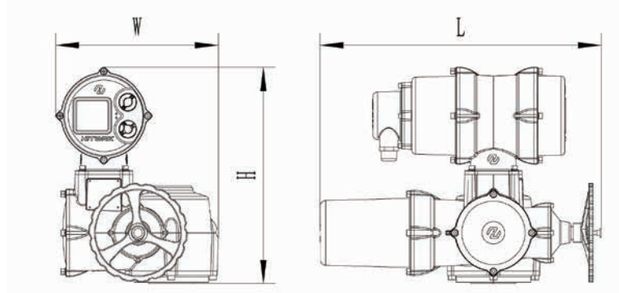
Superior Environmental Adaptability: Optional anti-corrosion housing coating, -60℃ ultra-low temperature operation, split-type installation suitable for high-temperature and high-vibration environments.

Safety Operation: Comprehensive self-diagnosis and alarm protection functions covering various actuator abnormal conditions, including over-torque in open/-close directions, motor overheating, reverse operation, power phase loss, motor stall, remote signal loss, valve position loss, etc., effectively preventing damage to actuators or valves caused by abnormal conditions.

Expandable support for multiple bus protocols (PROFIBUS, MODBUS, FF, DeviceNet, HART) and 4G/5G IoT applications.

Technical Parameters

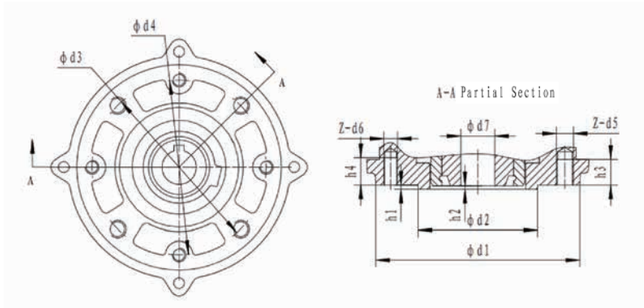
Models	Rated Torque Nm	Revolutions Per Minute rpm	Rated Power kW	Rated Current A @3ph AC380V 50Hz	Maximum Current A @3ph AC380V 50Hz	Maximum Shaft Diameter mm	Flange Type ISO5210	Weight kg
HKM03.3	30	32	0.12	0.6	1.7	28	F10	29
		64	0.25	1.4	3.2			
		128	0.37	2.4	5.6			
HKM05.3	50	32	0.25	1.4	3.2			
		64	0.37	2.4	5.6			
		128	0.55	2.8	7.6			
HKM10.3	100	32	0.37	2.4	5.6			
		64	0.55	2.8	7.6			
		128	0.75	3.2	8.7			
HKM20.3	200	32	0.55	2.8	7.6			
		64	0.75	3.2	8.7			
HKM30.3	300	32	0.75	3.2	8.7	36	F14	47
		64	1.5	6.8	17.1			
		128	3	10	26.8			
HKM45.3	450	32	1.1	4.3	11.8			
		64	2.2	8.3	22.4			
HKM60.3	600	32	1.5	6.8	17.1			
		64	3	10	26.8			
HKM80.3	800	32	2.2	8.3	22.4	60	F16	94
		64	4	13.3	36.4			
		128	7.5	25.2	56.3			
HKM100.3	1000	32	3	10	26.8			
		64	5.5	17.4	49.3			
HKM120.3	1200	32	3	10	26.8			
		64	5.5	17.4	49.3			
HKM200.3	2000	24	4	13.3	35.4	70	F30	145
		48	7.5	25.2	56.3			
HKM250.3	2500	24	5.5	17.4	49.3			
HKM300.3	3000	24	7.5	25.2	56.3			



Models	L	W	H	Bottom Connection Dimension
HKM03.3~HKM20.3	550	314	461	F10
HKM30.3~HKM60.3	627	363	481	F14
HKM80.3~HKM120.3	720	415	523	F16
HKM200.3~HKM300.3	829	530	579	F30

NOTE:

- Non-ISO standard connection dimensions can be customized upon request.



Models	d1	d2	d3	d4	d5	d6	d7	h1	h2	h3	h4	Z
HKM03.3~HKM20.3	120	70	102	102	M10	M8	20	2.5	2	15	16	4
HKM30.3~HKM60.3	166	100	140	140	M16	M8	30	3	4	20	16	4
HKM80.3~HKM120.3	210	130	165	180	M20	M16	50	5	6	25	24	4
HKM200.3~HKM300.3	336	228	298	/	M20	/	60	5	5	25	/	8

NOTE:

- Non-ISO standard connection dimensions can be customized upon request.
- For multi-turn applications requiring torque above 3000Nm, the HKM.3 series + gearbox solution is available.

Multi-Turn

K3 Series

HKM.3

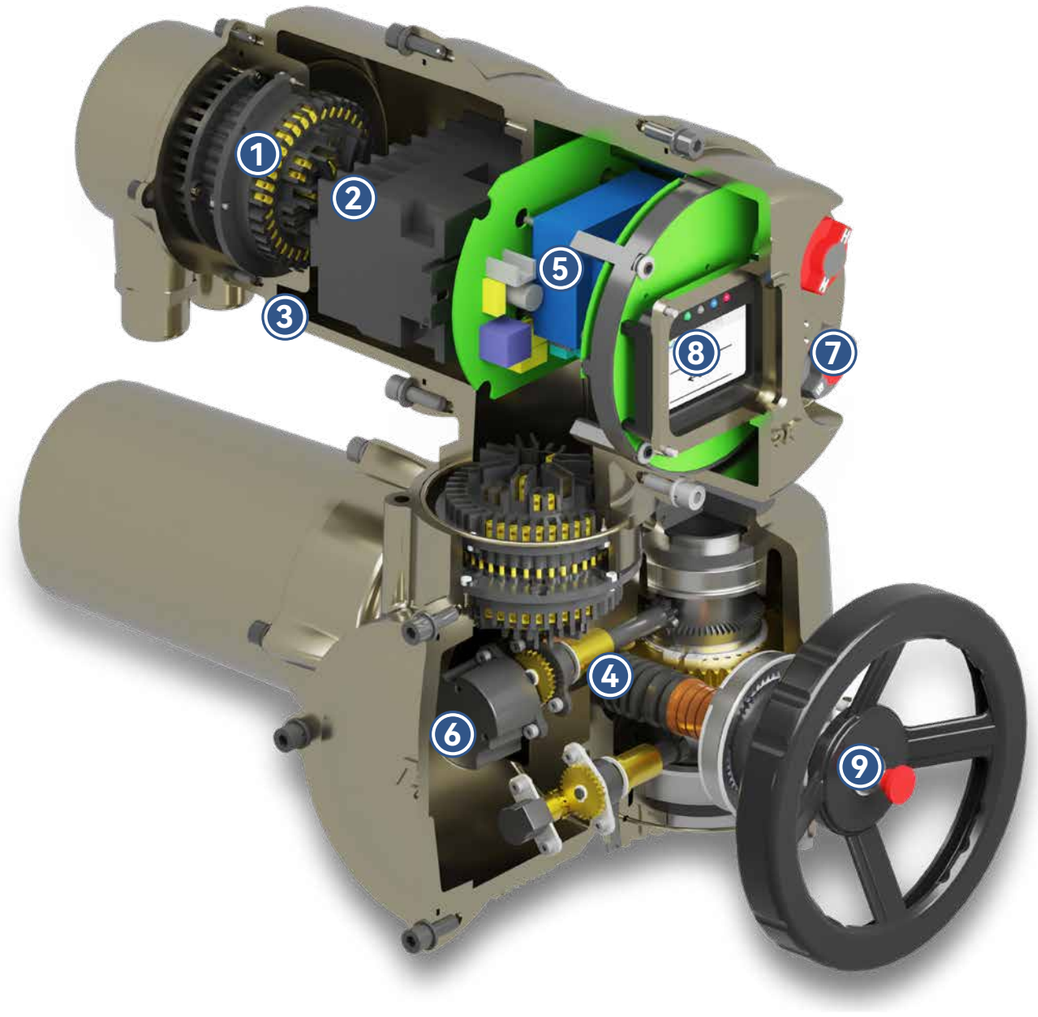
1 Aviation plug-type pluggable terminal block facilitates wiring and maintenance, eliminating repeated cable disassembly. "Wire once, use for life."

2 The motor drive system is compatible with AC contactors, solid-state relays, and variable-frequency drives to meet diverse application requirements.

3 High-quality aluminum alloy cast housing with CT4 explosion-proof structure design, featuring powder-coated or customized anti-corrosion paint for superior corrosion resistance.

4 Worm gear and worm drive, compact in structure, high transmission efficiency, independent sealed area, filled with long-lasting lubricant, capable of stable operation for extended periods.

5 Modularized electronic control board design, mounted with vibration-damping brackets, with high-power drive and low-power control sections isolated to effectively prevent interference and ensure stable operation of electrical components.



6 Stroke detection employs a magnetic multi-turn absolute encoder, featuring high sensitivity and precision, with position retention after power loss.

Torque detection utilizes a magnetic single-turn absolute encoder, enabling 40%~120% rated torque adjustment without disassembly.

7 Digital hall-effect rotary switch, featuring a non-penetrating shaft design, requires no mechanical linkage and detects knob movement through the housing, achieving true contactless switching. Its simple structure, excellent sealing, fast response, and high reliability ensure long-term durability.

8 2.8-inch full-color screen , supporting graphic/text display and multi-language switching, comprehensively presents actuator operating status and key parameters.

9 Push-to-release clutch mechanism with integrated handwheel design, featuring auto-reset function during motorized operation to ensure safe manual override.

Multi-Turn

K2 Series HKM.2

Advantages

Lightweight structural design ensures compact and easy installation, specifically engineered for non-explosive environments.

Integrated electronic torque detection utilizes real-time motor power parameter analysis to linearly match actuator torque characteristics, delivering high sensitivity, precision, and structural simplicity for enhanced reliability. This contactless system enables remote torque protection setting (adjustable 40%-120%) via handheld transmitter without housing disassembly.

Torque ≤200Nm support variable-frequency drive modules, enabling adjustable speed, soft start functionality, with 0.5% positioning accuracy.

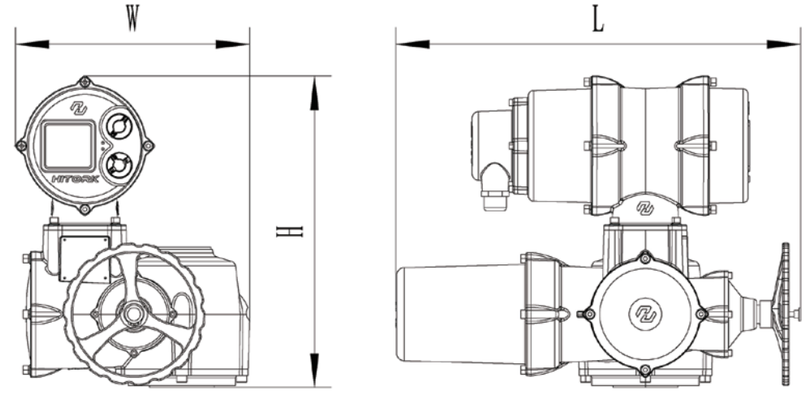
Superior Environmental Adaptability: Optional anti-corrosion housing coating, -60℃ ultra-low temperature operation, split-type installation suitable for high-temperature and high-vibration environments.

Safety Operation: Comprehensive self-diagnosis and alarm protection functions covering various actuator abnormal conditions, including over-torque in open/close directions, motor overheating, reverse operation, power phase loss, motor stall, remote signal loss, valve position loss, etc., effectively preventing damage to actuators or valves caused by abnormal conditions.

Expandable support for multiple bus protocols (PROFIBUS, MODBUS, FF, DeviceNet, HART) and 4G/5G IoT applications.

Technical Parameters

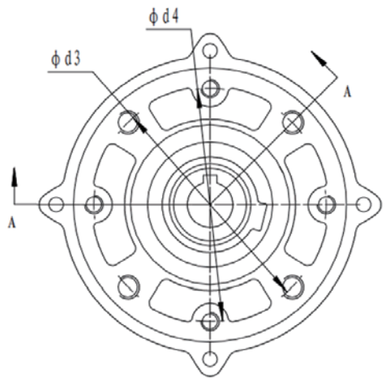
Models	Rated Torque Nm	Revolutions Per Minute rpm	Rated Power kW	Rated Current A @3ph AC380V50Hz	Maximum Current A @3ph AC380V 50Hz	Maximum Shaft Diameter mm	Flange Type ISO5210	Weight kg
HKM03.2	30	32	0.12	0.6	1.7	28	F10	27
		64	0.25	1.4	3.2			
		128	0.37	2.4	5.6			
HKM05.2	50	32	0.25	1.4	3.2			
		64	0.37	2.4	5.6			
		128	0.55	2.8	7.6			
HKM10.2	100	32	0.37	2.4	5.6			
		64	0.55	2.8	7.6			
		128	0.75	3.2	8.7			
HKM20.2	200	32	0.55	2.8	7.6			
		64	0.75	3.2	8.7			
HKM30.2	300	32	0.75	3.2	8.7	36	F14	45
		64	1.5	6.8	17.1			
		128	3	10	26.8			
HKM45.2	450	32	1.1	4.3	11.8			
		64	2.2	8.3	22.4			
HKM60.2	600	32	1.5	6.8	17.1			
		64	3	10	26.8			
HKM80.2	800	32	2.2	8.3	22.4	60	F16	92
		64	4	13.3	35.4			
		128	7.5	25.2	56.3			
HKM100.2	1000	32	3	10	26.8			
		64	5.5	17.4	49.3			
HKM120.2	1200	32	3	10	26.8			
		64	5.5	17.4	49.3			



Models	L	W	H	Bottom Connection Dimension
HKM03.2~HKM20.2	507	306	423	F10
HKM30.2~HKM60.2	571	354	442	F14
HKM80.2~HKM120.2	668	417	489	F16

NOTE:

- Non-ISO standard connection dimensions can be customized upon request.
- For multi-turn applications requiring torque above 1200Nm, the HKM.2 series + gearbox solution is available.



Models	d1	d2	d3	d4	d5	d6	d7	h1	h2	h3	h4	Z
HKM03.2~HKM20.2	120	70	102	102	M10	M8	20	2.5	2	15	16	4
HKM30.2~HKM60.2	165	100	140	140	M16	M8	30	3	4	20	16	4
HKM80.2~HKM120.2	210	130	165	180	M20	M16	50	5	6	25	24	4

Multi-Turn

K1 Series HKM.1

Advantages

Mechanical torque detection structure, capable of accurately detecting over-torque in both the opening and closing directions. The over-torque signal is fed back to the control board by triggering a micro switch. The over-torque protection value can be adjusted by opening the housing and fine-tuning the trigger cam.

Superior Environmental Adaptability: Features a corrosion-resistant coating process on the housing, IP68 protection rating, and suitability for extreme low-temperature environments down to -60℃. The split-type design accommodates high-temperature, high-vibration, and other harsh conditions.

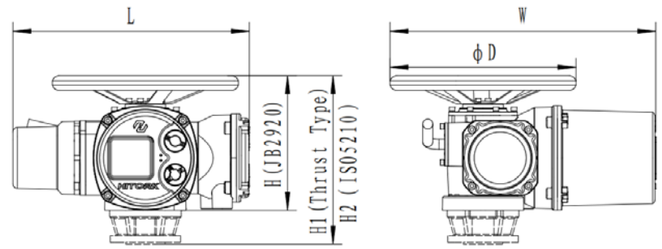
Safety Operation: Comprehensive self-diagnosis and alarm protection functions covering various actuator abnormal conditions, including over-torque in open/close directions, motor overheating, reverse operation, power phase loss, motor stall, remote signal loss, valve position loss, etc., effectively preventing damage to actuators or valves caused by abnormal conditions.

Expandable support for multiple bus protocols (PROFIBUS, MODBUS, FF, DeviceNet, HART) and 4G/5G IoT applications.

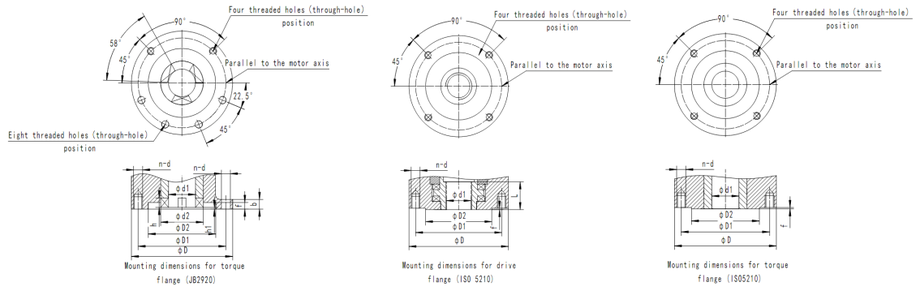
Explosion-Proof Rating: Ex db IIB T4 Gb

Technical Parameters

Models	Rated Torque Nm	Revolutions Per Minute rpm	Rated Power kW	Rated Current A @3ph AC380V 50Hz	Maximum Current A @3ph AC380V 50Hz	Maximum Shaft Diameter mm	Flange Type ISO5210	Weight kg
HKM05.1	50	18	0.12	0.6	1.7	28	F10	22
		24	0.18	1	2.4			
		36	0.25	1.4	3.2			
		48	0.37	2.4	5.6			
HKM10.1	100	18	0.18	1	2.4			
		24	0.25	1.4	3.2			
		36	0.37	2.4	5.6			
		48	0.55	2.8	7.6			
HKM15.1	150	18	0.25	1.4	3.2			
		24	0.37	2.4	5.6			
		36	0.75	3.2	8.7			
HKM20.1	200	18	0.37	1.65	5.6	40	F10	25
		24	0.55	2.8	7.6			
		36	0.75	3.2	8.7			
		48	1.1	4.5	11.8			
HKM30.1	300	18	0.55	2.8	7.6	40	F14	27
		24	0.75	3.2	8.7			
		36	1.1	4.5	11.8			
		48	1.5	5.2	17.1			
HKM45.1	450	18	1.1	4.3	11.8	48	F14	50
		24	1.1	4.3	11.8			
		36	1.5	6.8	17.1			
		48	2.2	8.3	22.4			
HKM60.1	600	18	1.1	4.3	11.8	48	F14	50
		24	1.5	6.8	17.1			
		36	2.2	8.3	22.4			
		48	3	10	26.8			
HKM80.1	800	18	2.2	8.3	22.4	60	F16	85
		24	2.2	8.3	22.4			
		36	3	10	26.8			
HKM100.1	1000	18	2.2	8.3	22.4			
		24	3	10	26.8			
		36	4	13.3	35.4			
HKM120.1	1200	18	2.2	8.3	22.4	60	F16	95
		24	3	10	26.8			
		36	4	13.3	35.4			



Models	L	W	ΦD	H JB2920	H1 Thrust Type	H2 ISO5210
HKM05.1~HKM15.1	419.5	472	330	239	300	290
HKM20.1~HKM30.1	446.5	490	330	252	330	300
HKM45.1~HKM60.1	547.5	534.5	378	288	378	328
HKM80.1~HKM120.1	570.5	534.5	460	348.5	460	423



Torque Type JB2920

Models	Flange	D	D1	D2	d1	d2	n-d	h	h1	f	b
HKM05.1-HKM15.1	2	145	120	90	30	45	4-M10	8	2	5	/
HKM20.1-HKM30.1	3	185	160	125	42	58	4-M12	10	2	5	/
HKM45.1-HKM60.1	4	225	195	150	50	72	4-ϕ18	12	2	5	30
HKM80.1-HKM120.1	5	275	235	180	62	82	4-ϕ22	14	2	6	25.5

Torque Type/Thrust Type ISO5210

Models	Flange	D	D1	D2	d1 (max)	n-d	L	f
HKM05.1~HKM15.1	F10	125	102	70	T28	4-M10	40	3
HKM20.1~HKM30.1	F14	175	140	100	T36	4-M12	55	4
HKM45.1~HKM60.1	F16	210	165	130	T44	4-M20	70	5
HKM80.1~HKM120.1	F25	300	254	200	T60	8-M16	90	5

NOTE:

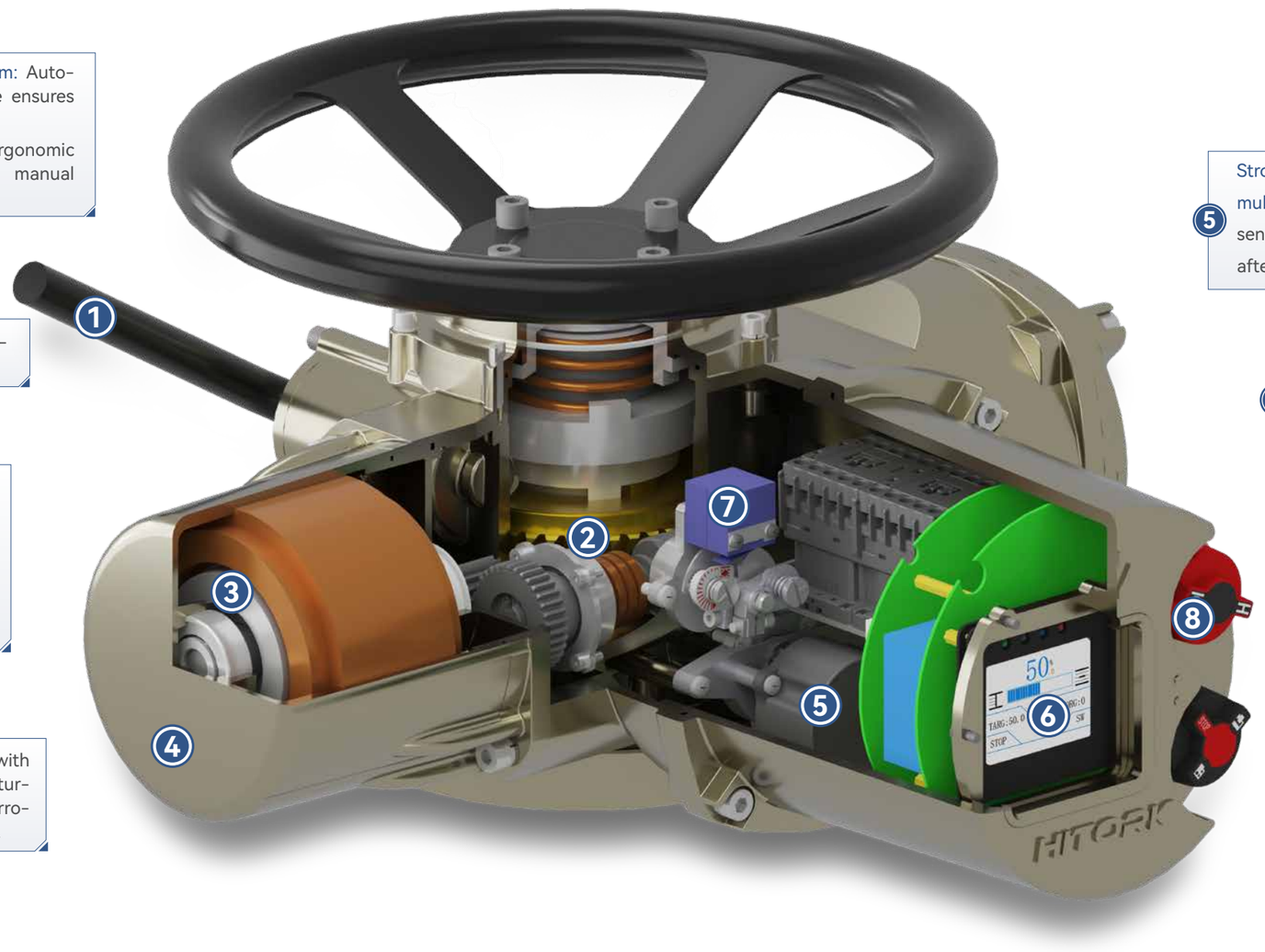
- Non-ISO standard connection dimensions can be customized upon request.
- For multi-turn applications requiring torque above 1200Nm, the HKM.1 series + gearbox solution is available.

Multi-Turn

K1 Series

HKM.1

1 Manual/electric switching mechanism: Auto-reset function during electric mode ensures operational continuity.
Oversized handwheel design: Ergonomic construction significantly reduces manual operating force.



2 Worm gear and worm drive: Compact structure with stable transmission.

3 Low-inertia High-torque Three-phase Asynchronous Motor delivers instant peak torque upon startup with exceptional torque output performance. Featuring an embedded temperature switch, it provides real-time overheating feedback to the control system for prompt warning and protection.

4 High-quality aluminum alloy cast housing with BT4 explosion-proof structure design, featuring powder-coated or customized anti-corrosion paint for superior corrosion resistance.

5 Stroke detection employs a magnetic multi-turn absolute encoder, featuring high sensitivity and precision, with position retention after power loss.

6 2.8-inch full-color screen, supporting graphic/text display and multi-language switching, comprehensively presents actuator operating status and key parameters.

7 Mechanical torque detection structure, capable of accurately detecting over-torque in both the opening and closing directions. The over-torque signal is fed back to the control board by triggering a micro switch.

8 Digital hall-effect rotary switch, featuring a non-penetrating shaft design, requires no mechanical linkage and detects knob movement through the housing, achieving true contactless switching. Its simple structure, excellent sealing, fast response, and high reliability ensure long-term durability.

Part-Turn

K3 Series HKP.3

Advantages

Brushless DC motor with soft-start capability can be provided according to customer requirements.

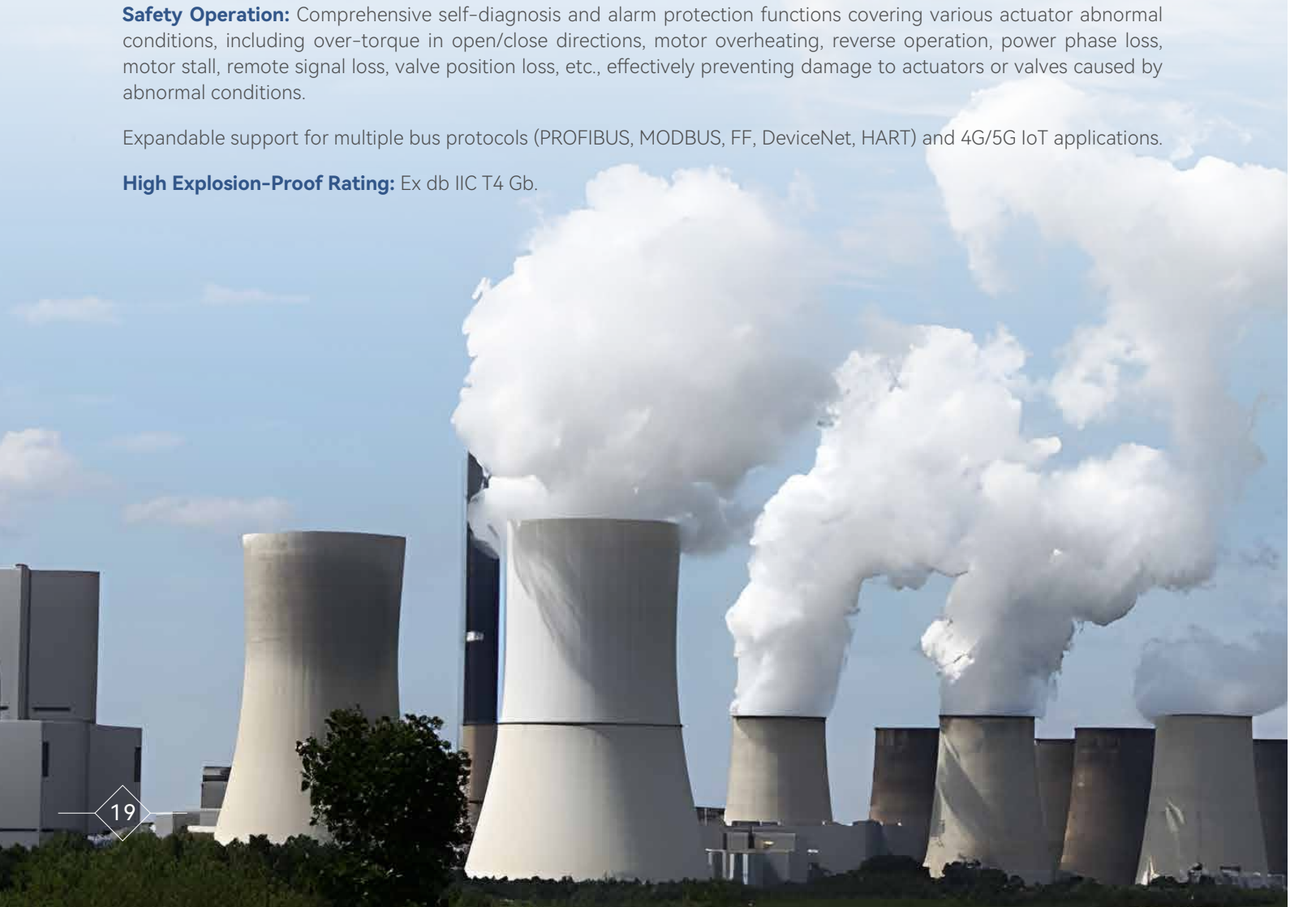
The system integrates electronic torque detection, which monitors and analyzes the actuator's electrical parameters during operation to linearly match its torque characteristics. This method offers high sensitivity, precision, and reliability with no mechanical transmission. The torque protection threshold can be adjusted between 40% and 120% via a remote control.

Superior Environmental Resilience: The system features a corrosion-resistant coated housing with IP68 protection rating, and the extreme conditions is -60℃. The split-type architecture specifically addresses challenging high-vibration applications while maintaining optimal performance.

Safety Operation: Comprehensive self-diagnosis and alarm protection functions covering various actuator abnormal conditions, including over-torque in open/close directions, motor overheating, reverse operation, power phase loss, motor stall, remote signal loss, valve position loss, etc., effectively preventing damage to actuators or valves caused by abnormal conditions.

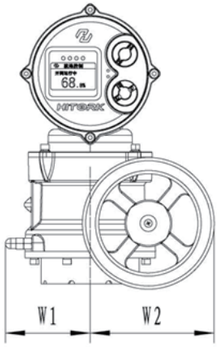
Expandable support for multiple bus protocols (PROFIBUS, MODBUS, FF, DeviceNet, HART) and 4G/5G IoT applications.

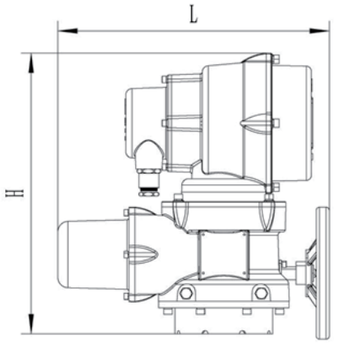
High Explosion-Proof Rating: Ex db IIC T4 Gb.

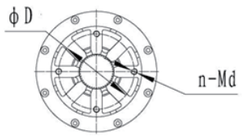


Technical Parameters

Models	Rated Torque Nm	90° Travel Time S	Rated Power W	Rated Current A @3ph AC380V 50Hz	Maximum Current A @3ph AC380V 50Hz	Maximum Shaft Diameter mm	Flange Type ISO5210	Weight kg
HKP10.3	100	15	90	0.26	0.76	38	F07	19
HKP20.3	200		90	0.26	0.76			
HKP30.3	300		150	0.37	1.07			
HKP40.3	400		150	0.37	1.07		F10	27
HKP60.3	600		200	0.81	2.2			
HKP80.3	800		200	0.81	2.2		F12	
HKP120.3	1200		370	1.6	4.5			
HKP150.3	1500		370	1.6	4.5		F14	29
HKP200.3	2000		370	1.6	4.5			
HKP300.3	3000	30	370	1.6	4.5	60	F16	36
HKP400.3	4000		550	2.5	7.2			40
HKP500.3	5000		550	2.5	7.2			







Models	L	W1	W2	H	D	n-ϕd
HKP10.3~HKP30.3	415.5	130	190	430	70	4-M8
HKP40.3~HKP60.3	415.5	130	190	430	102	4-M10
HKP80.3~HKP120.3	415.5	130	190	430	125	4-M12
HKP150.3~HKP200.3	415.5	130	190	430	140	4-M16
HKP300.3~HKP500.3	415.5	143	190	501	165	4-M20

NOTE:

- Non-ISO standard connection dimensions can be customized upon request.
- For part-turn applications requiring torque above 5000Nm, the HKM series + gearbox solution is available.

Part-Turn

K3 Series

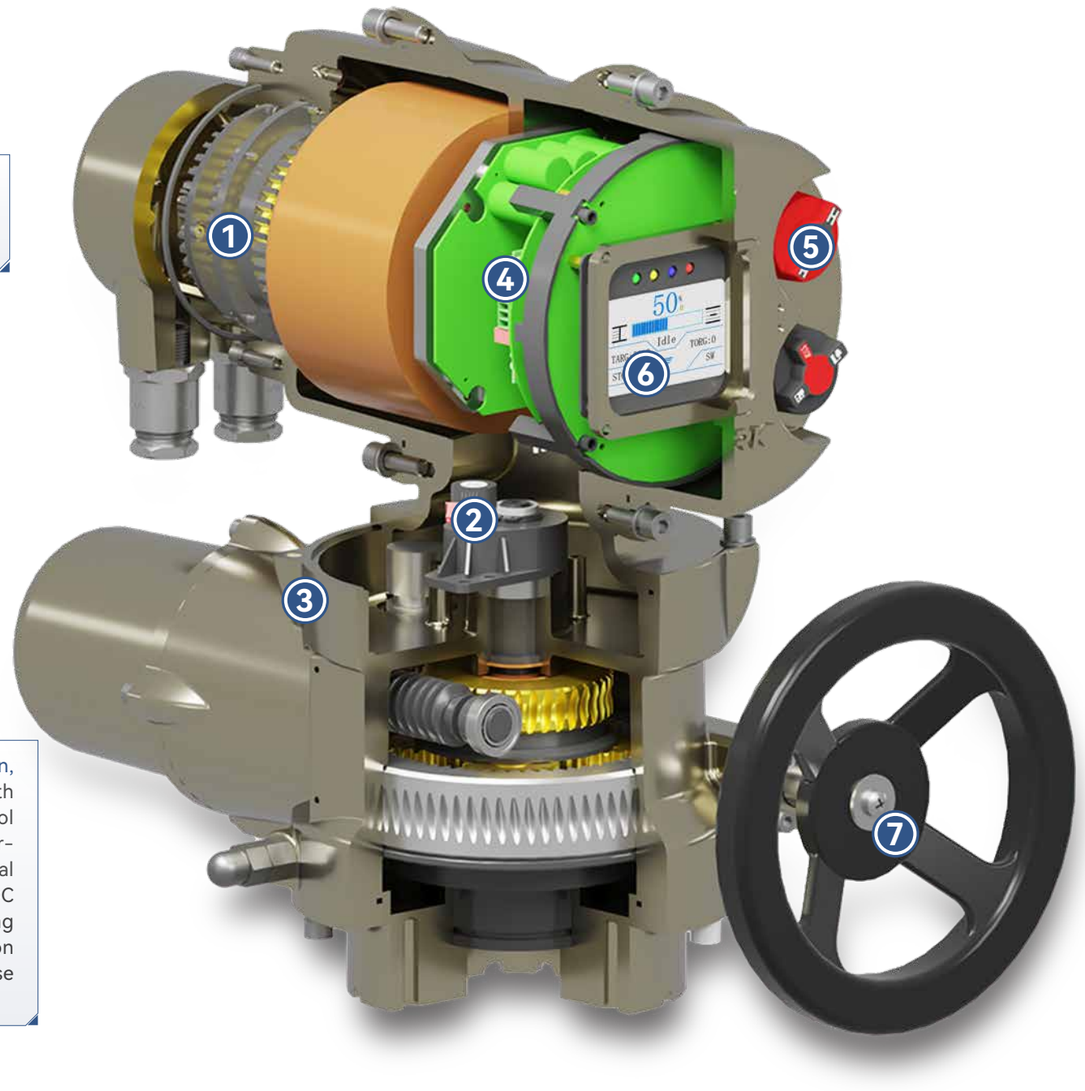
HKP.3

1 Aviation plug-type pluggable terminal block facilitates wiring and maintenance, eliminating repeated cable disassembly. "Wire once, use for life."

2 Stroke detection employs a magnetic single-turn absolute encoder, featuring high sensitivity and precision, with position retention after power loss.

3 High-quality aluminum alloy cast housing with CT4 explosion- proof structure design, featuring powder-coated or customized anti-corrosion paint for superior corrosion resistance.

4 Modularized electronic control board design, mounted with vibration-damping brackets, with high-power drive and low-power control sections isolated to effectively prevent interference and ensure stable operation of electrical components.HITORK provides both brushless DC motor (BLDC) drive solutions featuring soft-start/soft-stop and multi-speed operation capabilities, as well as standard three-phase asynchronous motor drive solutions.



5 Digital hall-effect rotary switch, featuring a non-penetrating shaft design, requires no mechanical linkage and detects knob movement through the housing, achieving true contactless switching. Its simple structure, excellent sealing, fast response, and high reliability ensure long-term durability.

6 2-inch full-color screen, supporting graphic/text display and multi-language switching, comprehensively presents actuator operating status and key parameters.

7 Manual/electric switching mechanism, combines a worm gear's self-locking feature with a two-stage planetary gear structure, eliminating the need for separate switching mechanisms while delivering compact design, user-friendly operation, and reliable safety.

Part-Turn

K2 Series HKP.2

Advantages

Lightweight structural design ensures compact and easy installation, specifically engineered for non-explosive environments.

Mechanical torque detection structure, capable of accurately detecting over-torque in both the opening and closing directions. The over-torque signal is fed back to the control board by triggering a micro switch. The over-torque protection value can be adjusted by opening the housing and fine-tuning the trigger cam.

Superior Environmental Resilience: The system features a corrosion-resistant coated housing with IP68 protection rating, and the extreme conditions is -60℃. The split-type architecture specifically addresses challenging high-vibration applications while maintaining optimal performance.

Safety Operation: Comprehensive self-diagnosis and alarm protection functions covering various actuator abnormal conditions, including over-torque in open/close directions, motor overheating, reverse operation, power phase loss, motor stall, remote signal loss, valve position loss, etc., effectively preventing damage to actuators or valves caused by abnormal conditions.

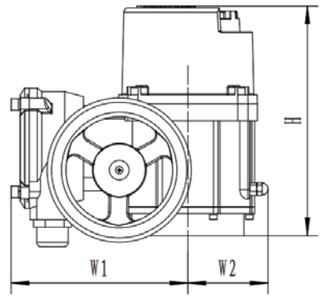
Expandable support for multiple bus protocols (PROFIBUS, MODBUS, FF, DeviceNet, HART) and 4G/5G IoT applications.

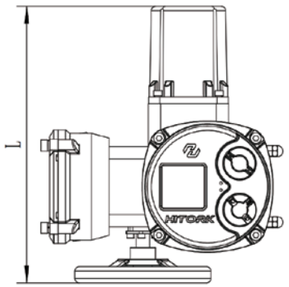
Technical Parameters

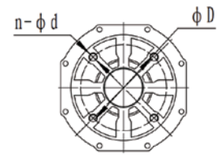
Models	Rated Torque Nm	90° Travel Time S	Rated Power W	Rated Current A @3ph AC380V 50Hz	Maximum Current A @3ph AC380V 50Hz	Maximum Shaft Diameter mm	Flange Type ISO5210	Weight kg
HKP05.2	50	15	45	0.16	0.42	19	F05	9
HKP10.2	100		60	0.18	0.45		F05	9
HKP15.2	150		75	0.22	0.6		F05/F07	9
HKP20.2	200		90	0.26	0.68	28	F07	13
HKP30.2	300		120	0.32	0.88		F07	13
HKP40.2	400		150	0.37	1.07		F07/F10	14
HKP60.2	600		180	0.72	1.68	38	F10	22
HKP80.2	800		200	0.81	2.2		F10/F12	22
HKP120.2	1200		250	1	2.8		F10/F12	22
HKP150.2	1500		370	1.6	4.5		F14	24
HKP200.2	2000		370	1.6	4.5		F14	24
HKP300.2	3000	30	370	1.6	4.5	60	F16	32
HKP400.2	4000		550	2.5	7.2		F16	37
HKP500.2	5000		550	2.5	7.2		F16	37

NOTE:

- Non-ISO standard connection dimensions can be customized upon request.
- For part-turn applications requiring torque above 5000Nm, the HKM series + gearbox solution is available.







Models	L	W1	W2	H	D	n-ϕd
HKP05.2~HKP15.2	250	114	68	252	50	4-M6
HKP20.2~HKP40.2	332	157	91	255	70	4-M8
HKP60.2~HKP120.2	424	203	143	291	102	4-M10
HKP150.2~HKP200.2	424	203	143	291	140	4-M16
HKP300.2	424	203	143	355	165	4-M20
HKP400.2~HKP500.2	424	203	143	355	165	4-M20

Part-Turn

K2 Series

HKP.2

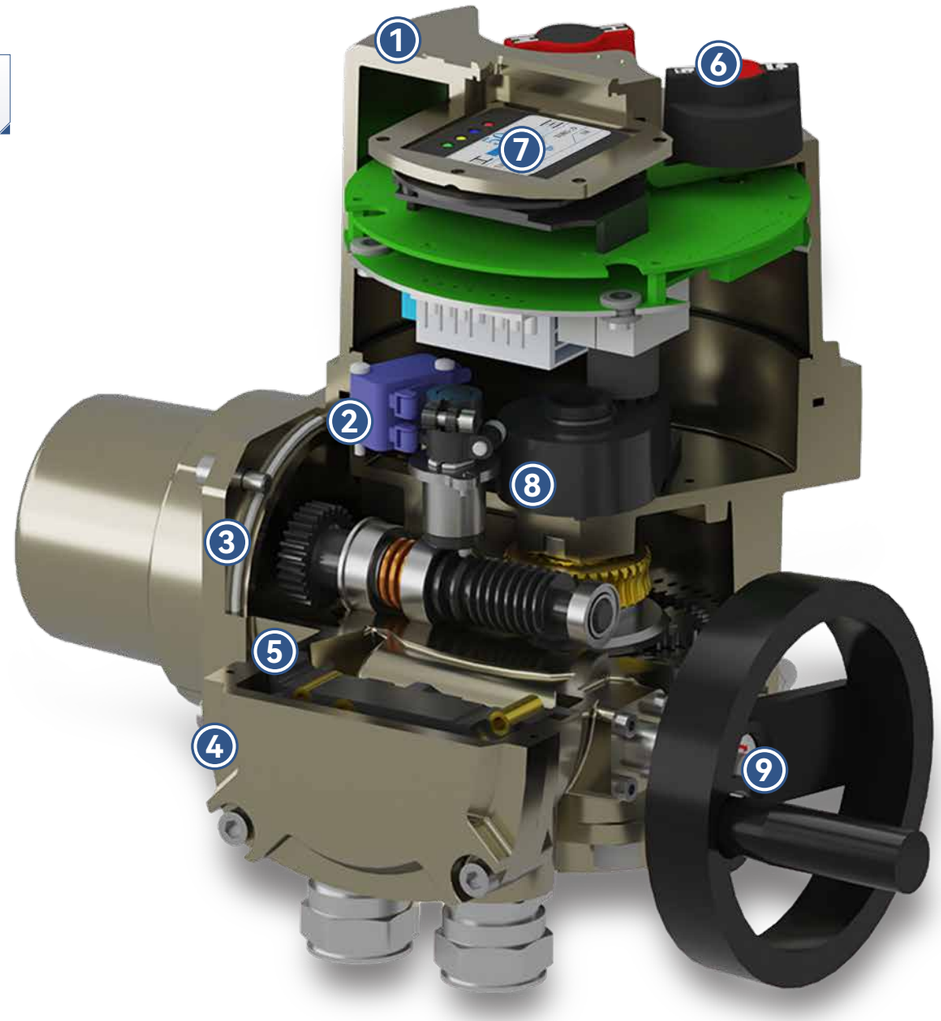
1 Integrated design: Sleek Appearance, Compact Structure, Small Size, and Light Weight.

2 Mechanical torque detection structure, capable of accurately detecting over-torque in both the opening and closing directions. The over-torque signal is fed back to the control board by triggering a micro switch. The over-torque protection value can be adjusted by opening the housing and fine- tuning the trigger cam.

3 Equipped with premium motors: High-efficiency torque output.

4 High-quality aluminum alloy cast featuring powder-coated or customized anti-corrosion paint for superior corrosion resistance.

5 Dual-sealed sunflower terminal block: A two-stage seal between the terminal block and housing prevents dust and moisture ingress, protecting the motor and control circuitry from corrosion while enhancing reliability.



6 Digital hall-effect rotary switch, featuring a non-penetrating shaft design, requires no mechanical linkage and detects knob movement through the housing, achieving true contactless switching. Its simple structure, excellent sealing, fast response, and high reliability ensure long-term durability.

7 High-resolution color screen with multi-language support, the actuator features a bright color screen capable of graphic/text display and multilingual switching, enabling comprehensive visualization of operational status and critical parameters in real-time.

8 Stroke detection employs a magnetic single-turn absolute encoder, featuring high sensitivity and precision, with position retention after power loss.

9 Manual/electric switching mechanism, combines a worm gear's self-locking feature with a two-stage planetary gear structure, eliminating the need for separate switching mechanisms while delivering compact design, user-friendly operation, and reliable safety.

Part-Turn

K1 Series HKP.1

Advantages

Dual-display with both Mechanical Indicator-Electronic screen

Mechanical torque detection structure, capable of accurately detecting over-torque in both the opening and closing directions. The over-torque signal is fed back to the control board by triggering a micro switch. The over-torque protection value can be adjusted by opening the housing and fine-tuning the trigger cam.

Superior Environmental Resilience: The system features a corrosion-resistant coated housing with IP68 protection rating, and the extreme conditions is -60℃. The split-type architecture specifically addresses challenging high-vibration applications while maintaining optimal performance.

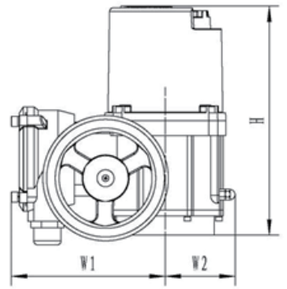
Safety Operation: Comprehensive self-diagnosis and alarm protection functions covering various actuator abnormal conditions, including over-torque in open/close directions, motor overheating, reverse operation, power phase loss, motor stall, remote signal loss, valve position loss, etc., effectively preventing damage to actuators or valves caused by abnormal conditions.

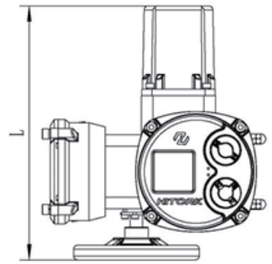
Expandable support for multiple bus protocols (PROFIBUS, MODBUS, FF, DeviceNet, HART) and 4G/5G IoT applications.

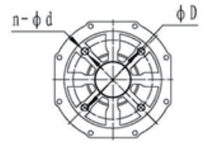
Explosion-Proof Rating: Ex db IIB T4 Gb

Technical Parameters

Models	Rated Torque Nm	90° Travel Time S	Rated Power W	Rated Current A @3ph AC380V 50Hz	Maximum Current A @3ph AC380V 50Hz	Maximum Shaft Diameter mm	Flange Type ISO5210	Weight kg
HKP05.1	50	15	45	0.16	0.42	19	F05	9
HKP10.1	100		60	0.18	0.45		F05	9
HKP15.1	150		75	0.22	0.6		F05/F07	9
HKP20.1	200		90	0.26	0.68	28	F07	13
HKP30.1	300		120	0.32	0.88		F07	13
HKP40.1	400		150	0.37	1.07		F07/F10	14
HKP60.1	600		180	0.72	1.68	38	F10	22
HKP80.1	800		200	0.81	2.2		F10/F12	22
HKP120.1	1200		250	1	2.8		F10/F12	22
HKP150.1	1500		370	1.6	4.5		F14	24
HKP200.1	2000		370	1.6	4.5		F14	24
HKP300.1	3000	30	370	1.6	4.5	60	F16	32
HKP400.1	4000		550	2.5	7.2		F16	37
HKP500.1	5000		550	2.5	7.2		F16	37







Models	L	W1	W2	H	D	n-ϕd
HKP05.1~HKP15.1	250	114	68	290	50	4-ϕ6
HKP20.1~HKP40.1	332	157	91	293	70	4-ϕ8
HKP60.1~HKP120.1	424	203	143	329	102	4-ϕ10
HKP150.1~HKP200.1	424	203	143	329	140	4-ϕ16
HKP300.1	424	203	143	393	165	4-ϕ20
HKP400.1~HKP500.1	424	203	143	393	165	4-ϕ20

Standard Linear Actuator

HKL.2

Advantages

Lightweight structural design ensures compact and easy installation.

Mechanical torque detection structure, capable of accurately detecting over-torque in both the opening and closing directions. The over-torque signal is fed back to the control board by triggering a micro switch. The over-torque protection value can be adjusted by opening the housing and fine-tuning the trigger cam.

Superior Environmental Resilience: The system features a corrosion-resistant coated housing with IP68 protection rating, and the extreme conditions is -60°C. The split-type architecture specifically addresses challenging high-vibration applications while maintaining optimal performance.

Safety Operation: Comprehensive self-diagnosis and alarm protection functions covering various actuator abnormal conditions, including over-torque in open/close directions, motor overheating, reverse operation, power phase loss, motor stall, remote signal loss, valve position loss, etc., effectively preventing damage to actuators or valves caused by abnormal conditions.

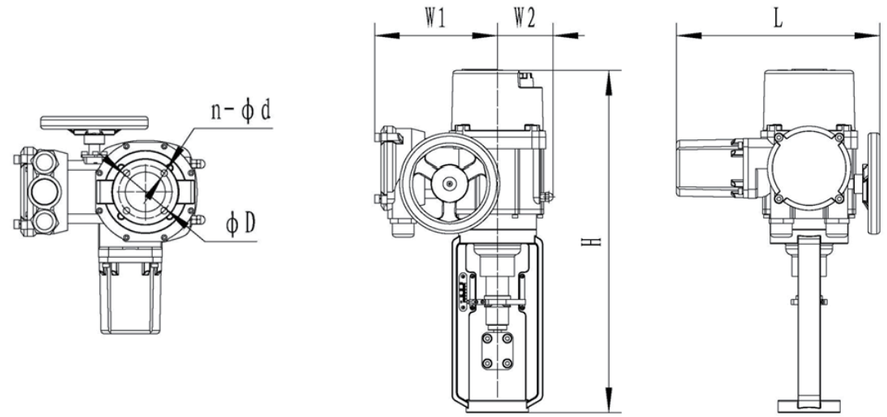
Expandable support for multiple bus protocols (PROFIBUS, MODBUS, FF, DeviceNet, HART) and 4G/5G IoT applications.

Technical Parameters

Models	Thrust N	Speed mm/S	Maximum Stroke mm	Rated Power W	Rated Current A @3ph AC380V 50Hz	Maximum Current A @3ph AC380V 50Hz	Weight kg
HKL30.2	3000	0.4/0.6	25	75	0.22	0.6	18
HKL50.2	5000	0.4/0.6	25	75	0.22	0.6	18
HKL80.2	8000	0.4/0.6	60	90	0.26	0.68	22
HKL100.2	10000	0.4/0.6	60	90	0.26	0.68	22
HKL130.2	13000	0.6	100	120	0.32	0.88	23
HKL150.2	15000	0.6	100	120	0.32	0.88	23

NOTE:

- Non-ISO standard connection dimensions can be customized upon request.
- For linear applications requiring thrust above 15000N, the HKM series + linear unit solution is available.



Models	L	W1	W2	H	D	n-ϕd
HKL30.2~HKL50.2	332	157	91	550	50	4-ϕ10
HKL80.2~HKL100.2	424	157	91	650	70	4-ϕ14
HKL130.2~HKL150.2	424	157	91	763	102	4-ϕ14

Configuration

Types	Series	Models	Torque (Thrust) Range	Standard Configuration	Display Screen	Mechanical Indicator	Terminal Box Type	Torque Adjustment	Torque Detection	Optional					
										Speed Control	Fieldbus	IoT	Bluetooth	Split-Type	Explosion Proof
Multi-Turn	K3 Series Ultimate	HKM.3	30 ~ 3000Nm	On-Off Type 380V IP67 -20℃~70℃	Color Screen	—	57-pin Sunflower Quick-Conn	Remote Control Setting	Mechanical (Encoder)	Optional (≤200Nm)	Optional	Optional	Optional	Optional	Optional
	K2 Series Excellence	HKM.2	30 ~ 1200Nm		Color Screen	—	57-pin Sunflower Quick-Conn	Remote Control Setting	Electronic	Optional (≤200Nm)	Optional	Optional	Optional	Optional	—
	K1 Series Economy	HKM.1	50 ~ 1200Nm		Color Screen	—	32-pin Sunflower Terminal	Cover Opening Adjustment	Mechanical	—	Optional	Optional	Optional	Optional	Optional
Part-Turn	K3 Series Ultimate	HKP.3	100 ~ 5000Nm	On-Off Type 380V IP67 -20℃~70℃	Color Screen	—	57-pin Sunflower Quick-Conn	Remote Control Setting	Electronic	Optional	Optional	Optional	Optional	Optional	Optional
	K2 Series Excellence	HKP.2	50 ~ 5000Nm		Color Screen	—	32-pin Sunflower Terminal	Cover Opening Adjustment	Mechanical	—	Optional	Optional	—	Optional	—
	K1 Series Economy	HKP.1	50 ~ 5000Nm		Monochrome Screen	Optional	32-pin Sunflower Terminal	Cover Opening Adjustment	Mechanical	—	Optional (Dual redundancy not available)	—	—	Optional	Optional
Linear	K3 Series Ultimate	HKL.3	3000 ~ 15000N	On-Off Type 380V IP67 -20℃~70℃	Color Screen	—	57-pin Sunflower Quick-Conn	Remote Control Setting	Electronic	Optional	Optional	Optional	Optional	Optional	—
	K2 Series Excellence	HKL.2	3000 ~ 15000N		Color Screen	—	32-pin Sunflower Terminal	Cover Opening Adjustment	Mechanical	—	Optional	Optional	—	Optional	—
	K1 Series Economy	HKL.1	3000 ~ 15000N		Monochrome Screen	—	32-pin Sunflower Terminal	Cover Opening Adjustment	Mechanical	—	Optional (Dual redundancy not available)	—	—	Optional	—

NOTE:
The listed above represent standard options. For specialized requirements, we provide tailored solutions to match your specific application needs.

Special Customization & Auxiliary Configurations

Special Customization

Split-Type

The split-type actuator is designed for high-temperature, high-vibration, water-immersion environments, as well as confined spaces or elevated locations where operation is difficult. It features Modbus communication between the electrical control unit and mechanical actuator, with a maximum separation distance of up to 150 meters.

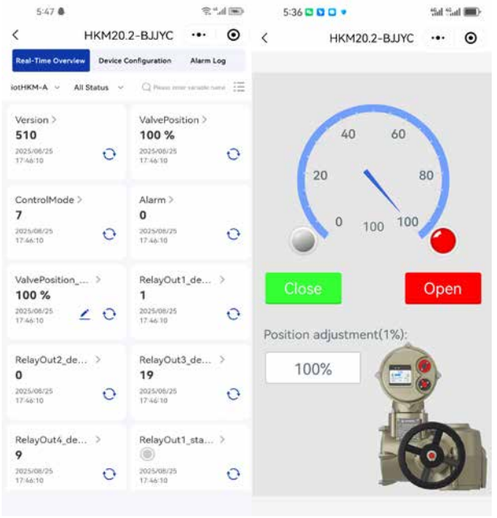
Self-Powered

HITORK Intelligent Electric Actuator offers a hybrid solar/wind power supply + IoT control solution, perfectly adapting to outdoor scenarios where traditional AC power cabling is impractical, significantly enhancing flexibility for remote valve control applications.

The hybrid solar/wind power supply system primarily consists of renewable energy components (small-scale wind turbine and photovoltaic panels), battery banks, high-quality MPPT power management controllers, and inverters. This system utilizes both solar and wind energy supplementation, where the MPPT controller precisely regulates and controls battery charging/discharging parameters while dynamically managing power output from both PV panels and batteries to meet load requirements. The integrated inverter ensures compatibility with various power specifications, providing reliable power assurance for electric actuator operation.

IoT

HITORK intelligent electric actuator offers optional 4G/5G modules for IoT connectivity. When integrated with the hybrid solar/wind power supply system, it significantly expands application scenarios by enabling wireless field deployment. This solution provides mobile client access for remote standalone IoT control, delivering flexible installation with low- carbon, high-efficiency operation.



Valve Internal Leakage Self-Diagnosis

The HITORK intelligent electric actuator features an integrated control board with additional analog signal acquisition and RS485 bus ports, enabling flexible expansion with external pipeline flow and pressure sensors. Combined with the actuator's built-in leakage detection and self-compensating shut-off functions (user-configurable for enable/disable), this system achieves automatic valve internal leakage inspection and self-compensating closure. The solution significantly enhances pipeline network stability while reducing maintenance costs and improving system efficiency.

Auxiliary Configuration

Gearbox

Multi-Turn Gearbox

The HITORK intelligent electric actuator can be equipped with an optional multi-turn gearbox, delivering an exceptional maximum output torque of 100,000 Nm in actuator-gearbox combination. The gearbox series adopts spiral bevel gears and thrust bearings, featuring smooth operation, high torque output, low noise, and high efficiency. All joints of the gearbox are fully sealed with gaskets, achieving waterproof and anti-leakage effects, with standard IP65 protection (IP68 customizable). Depending on stroke time requirements, either single-stage or double-stage reduction can be selected.

Part-Turn Gearbox

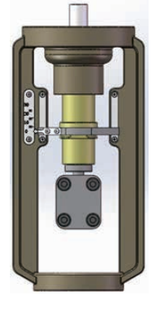
The HITORK intelligent electric actuator can be configured with a partial rotation gearbox. Through the combination of the actuator and gearbox, the maximum output torque can reach up to 450,000 Nm, making it suitable for partially rotating valves such as ball valves, butterfly valves, plug valves, and rotary ball valves. The gearbox housing in this series is precision-cast, featuring a worm gear mechanism with a self-locking structure on the worm wheel. Equipped with tapered roller bearings, it offers flexible transmission and high efficiency. The worm wheel material can be selected from ASTM A536-45-12, QA15, or D2, depending on the valve's operating frequency and the actuator's speed. The flange complies with the ISO 5211 standard for easy connection to valves. The standard protection rating is IP65 (IP68 available upon customization).

Base Crank-Type Gearbox

This series of gearboxes is mainly suitable for 90-degree rotation valves such as dampers and baffles. The base dimensions can be customized according to on-site conditions, and it can be paired with spherical hinges. The product features flexible design and easy installation. The gearbox ratio and output torque can be flexibly selected based on on-site stroke time requirements.

Linear Unit

The HITORK intelligent electric actuator can be configured with a linear thrust unit. The thrust unit converts partial or multi-turn torque into linear thrust via a screw-nut transmission mechanism. The screw is equipped with a thrust bearing capable of withstanding bidirectional thrust loads. The linear unit features a one-piece cast housing, and the internal lead screw nut is made of a special anti-seize alloy that delivers excellent performance under both high and low temperatures. This design ensures high transmission efficiency and wear resistance. The internal push rod and thrust seat adopt a piston structure with minimal clearance, providing superior linearity. This makes it particularly effective for control valves and other applications requiring high-precision straight-line motion.



Drive Bush

The actuator's bottom connection dimensions comply with the ISO 5210 standard. In addition to the standard key way-equipped hollow drive bush, we also offer three-jaw type drive bush and thrust-capable adapters with T-thread.

Both the bottom connection dimensions and the type/specifications of the drive bush can be customized according to user requirements.