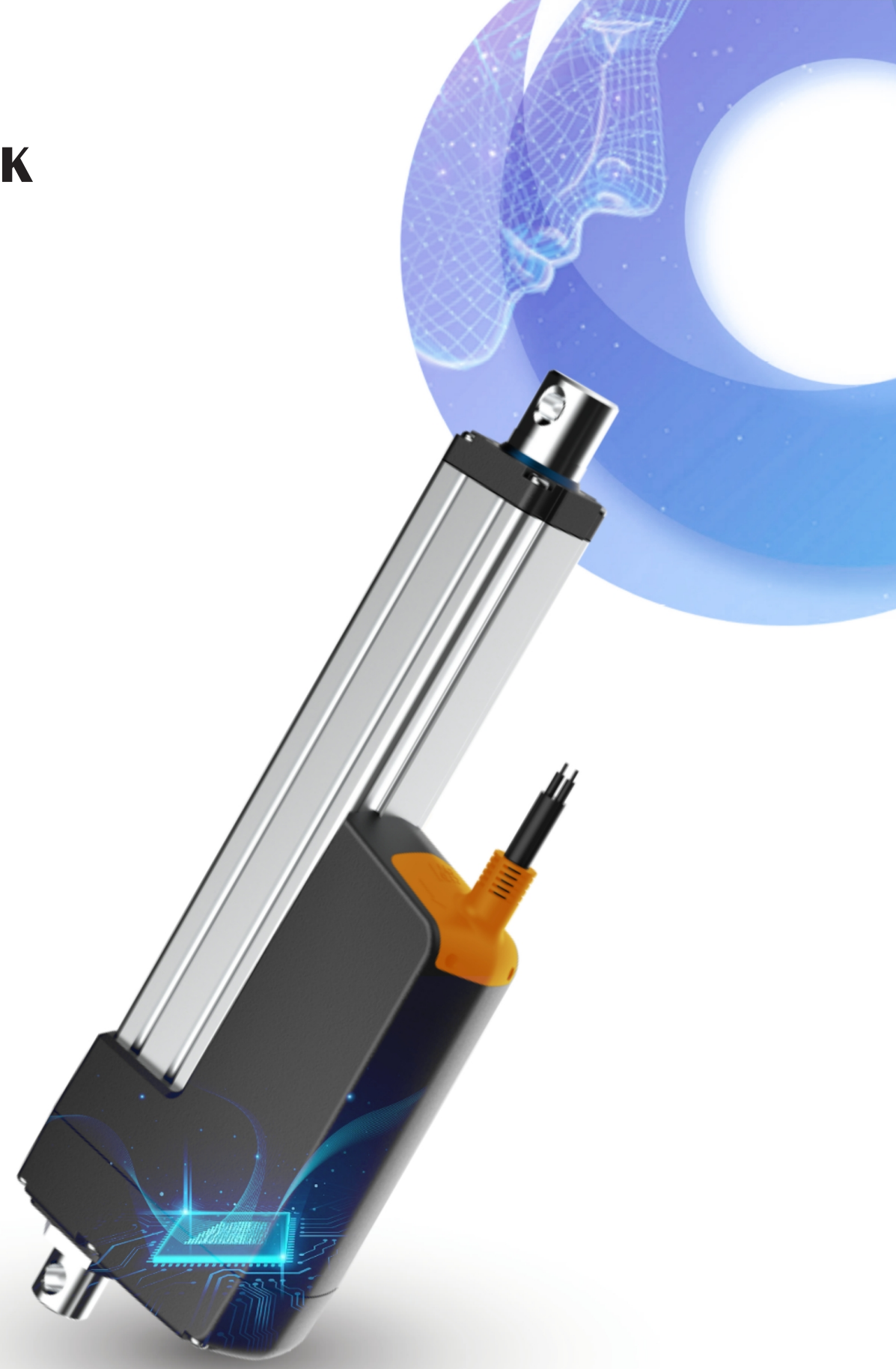
SLA-17K

Spec Sheet



CHANGXING

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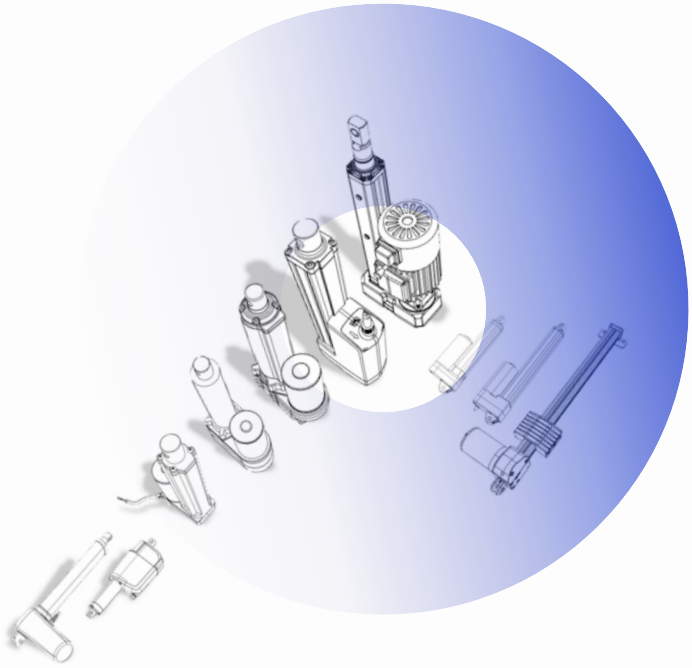
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Industrial Actuator Family

CX offers a wide range of linear actuators which can support force from 1kg to a couple of tons with various mechanical and electrical options.



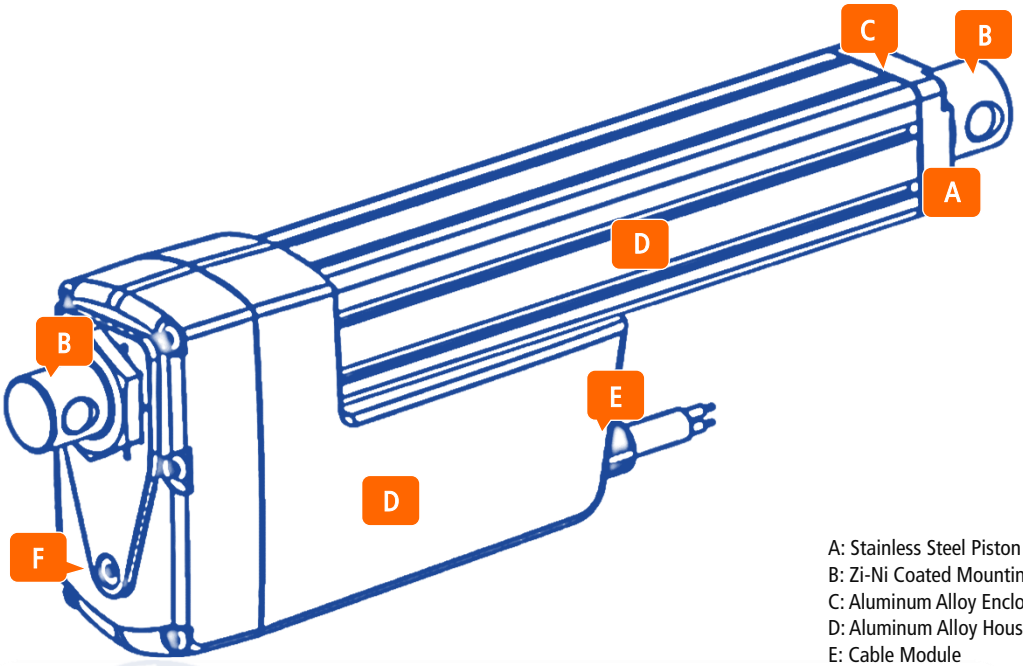
■Options for SLA-17K ☐Other Models

Color	■Silver Tube and Black Housing		☐Customized			
Leadscrew	■Acme Screw	■Ball Screw				
Operation Mode	☐Electrical	☐Electro-hydraulic	■Electrical with Manual Override			
Application	■Industrial	☐Furniture	☐Medical			
Operational Temp.	☐5 to 40℃	■-10 to 65℃	■-40 to 65℃			
Operating Noise	☐⩽45dB	☐⩽50dB	■⩽65dB			
Stroke Range	■50-600mm	■600-1000mm				
Dynamic Load	☐⩽1,200N	☐⩽2,500N	☐⩽4,000N	☐⩽7,000N	■⩽17,000N	☐⩽20,000N
Duty Cycle	☐10%	☐20%	■20-35%*	☐50%	☐100%	
Motor Type	■Brushed DC	☐Step Motor	☐Brushless	☐Servo		
Overload Protection	☐None	☐Clutch	■Electronic	☐Thermistor		
Weather Protection	☐IP20	☐IP43	☐IP54	☐IP65	☐IP66	■IP67
Position Feedback	■None	■End-stop Signal	■Hall Sensor	☐Potentiometer	☐Encoder	
	■Magnetic Switches		■Analog Signal			
Input Voltage	■12VDC	■24VDC	■36VDC	■48VDC	☐110VAC	☐220VAC

* Vary with different transmission code options

[Table 1]

Know About SLA-17K



A: Stainless Steel Piston Rod
B: Zi-Ni Coated Mounting Ends
C: Aluminum Alloy Enclosure Top Cap
D: Aluminum Alloy Housing
E: Cable Module
F: Manual Override

Stroke	How far the rod extends outwards from the body. The difference between fully extended length and fully retracted length. [Customizable]
Installation Size	As known as fully retracted size. [Customizable]
Shaft Mount	Optional.
Bottom Mount	Optional.
Mount Orientation	0°or 90°.
Dynamic Force	The max force that actuator is able to carry when it is moving.
Self-locking	The max force that linear actuator is able to hold when it stops.
Weather Protection	IP XX. The first digit: dust protection. The second digit: liquid protection. Please refer to [Table 1].
Duty Cycle	Continuous working time 'a', rest time 'b'. Duty cycle is a/(a+b)*100%. Please refer to [Table 1].
Speed	Include free-load speed and full-load speed.
Hall Effect Sensor	Provide pulse signals. Displacement measurement is achieved through pulse counting, and the phase difference of the waveform can be used to identify the rotation direction of motor. Check [Table 1] to see if it is available.
Potentiometer	Potentiometer is a three-terminal variable resistor with a rotating contact which is used to measure the displacement of actuators. Check [Table 1] to see if it is available.
Manual Override	Can be used to extend or retract the actuator without power for emergency. Check [Table 1] to see if it is available.

[Table 2]

【Parameters】 （1）Code： （2）Stroke mm：

Transmission Code	Lead Screw	Duty Cycle	Max Dynamic Force	Self-locking	Pitch	Speed±10% (mm/s)		Max Stroke at Full Capacity
			(N)	(N)	(mm)	Free Load	Full Load	(mm)
A	Ball Screw	20%	17,000	20,000	5	6.5	5	600 [2]
B		35%	13,500	15,000	5	9	6.5	1,000
C			10,000	12,000	5	14	9	1,000
D			7,500	10,000	10	18	13	1,000
E			5,000	8,000	10	28	20	1,000
F	ACME Screw	20%	12,000	15,000	4	7	5	1,000
G			10,000	12,000	8	10	7	1,000
H			7,500	10,000	8	14	8	1,000
I			5,000	8,000	8	23	13	1,000
J			3,500	5,000	12	35	23	1,000

【Table 3】

Note：

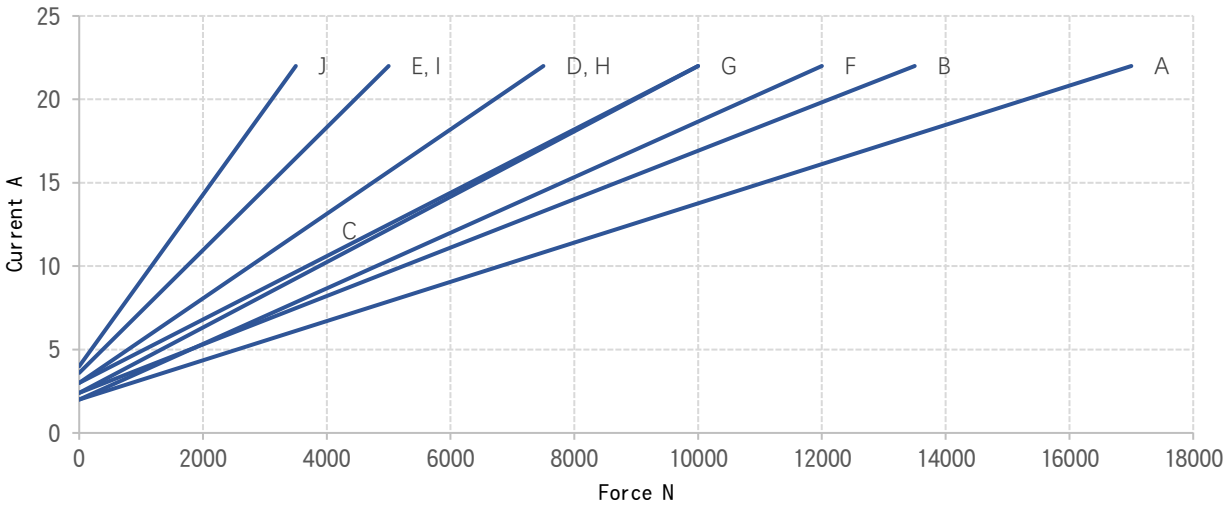
1. Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.
2. Code A comes with max 600mm stroke at its full capacity. From stroke 601mm to 1000mm, code A can still function but with a reduced max force of 14,500N.
3. For example, when dealing with an actual load of 9000N， opting for code (C) or （G） is suitable， Naturally, you also have the option to select (A)(B)(F)， each of which provides a greater load buffer, an increased safety factor, and an extended product service lifespan.
4. The max customizable stroke range is influenced by numerous factors, including load, speed, force direction, and more. Therefore, it is essential to take actual application scenarios into account. If the specific parameters you need are not provided, please don't hesitate to get in touch with our team of sales engineers.

【Performance Diagram】

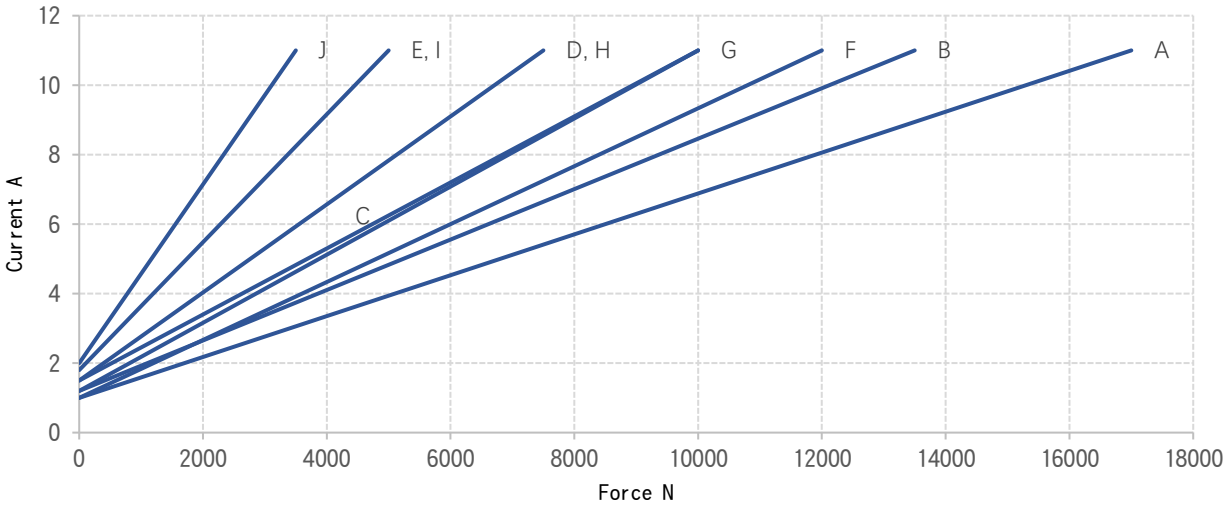
(3) Voltage Code:

Current VS Force

Code 1: 12V DC



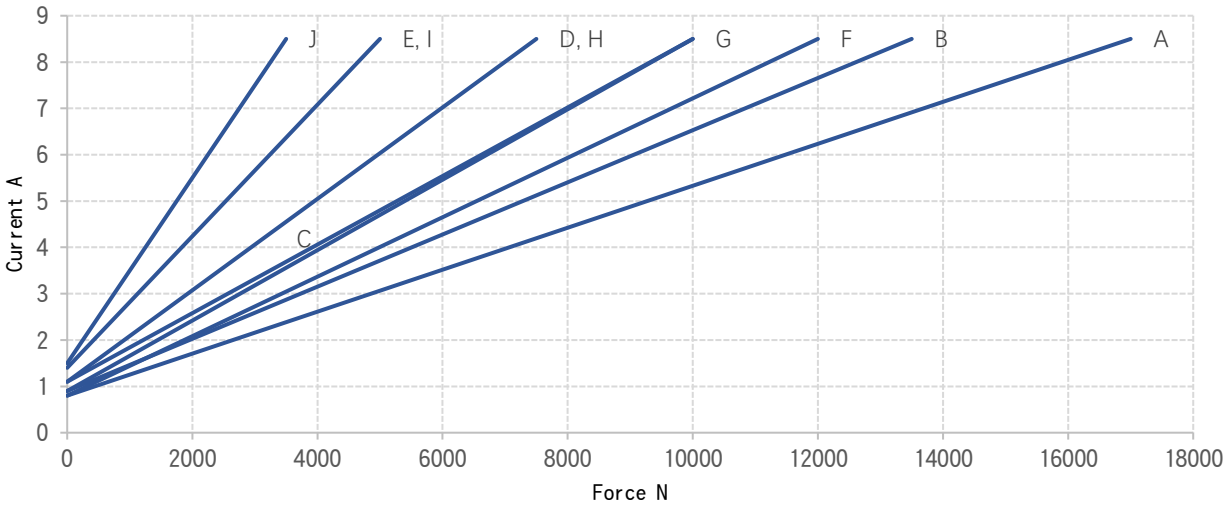
Code 2: 24V DC



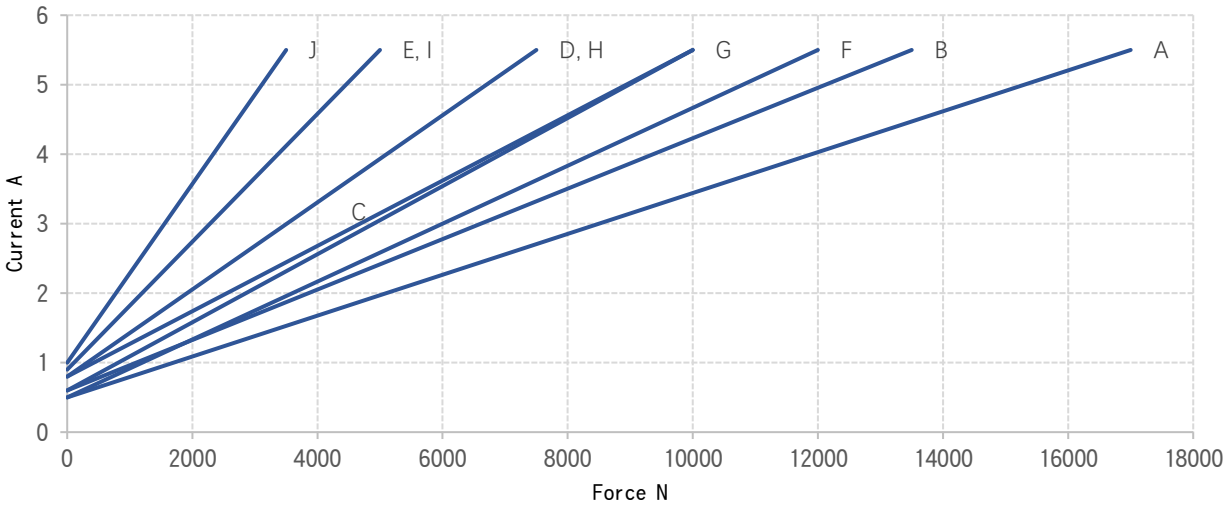
*Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.

【Performance Diagram】

Code 3: 36V DC

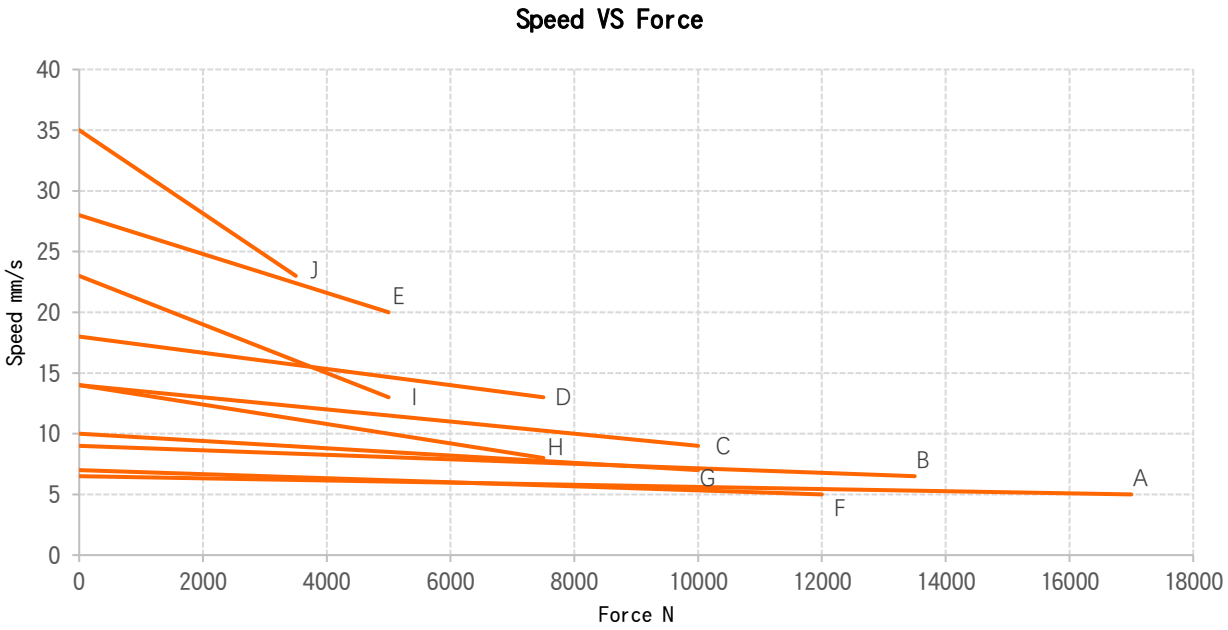


Code 4: 48V DC



*Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.

【Performance Diagram】

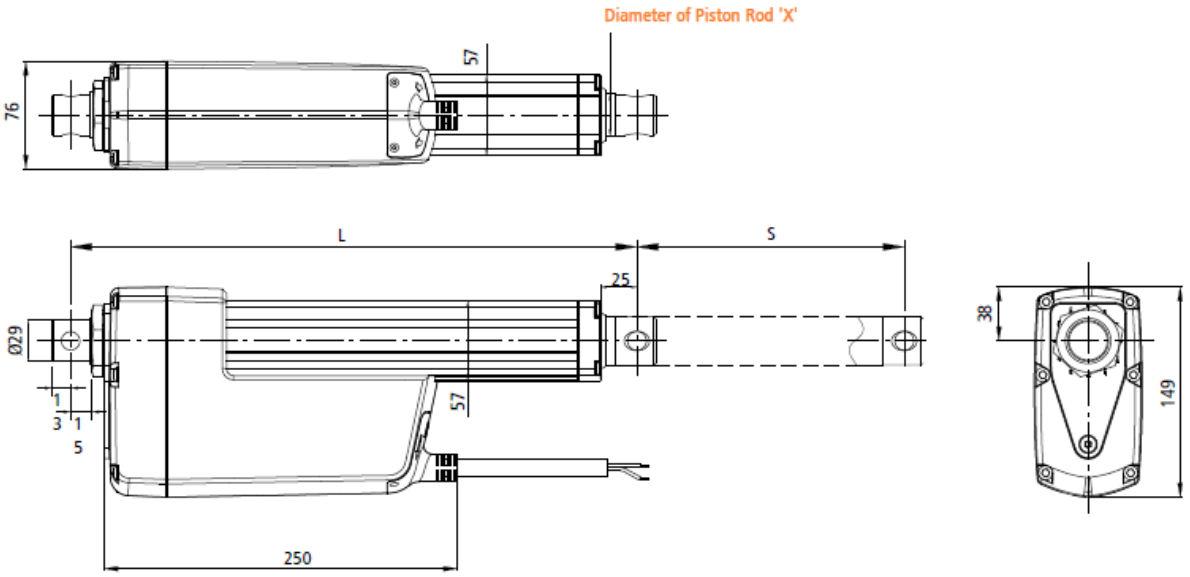


*Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.

【Dimensions】

Unit: mm

1. Overall Size



2. Diameter of Piston Rod Ø

Transmission Code	Stroke	
	50 - 600	601 - 1000
A, B	Ø35	Ø35
C-E	Ø30 [1]	Ø35
F-J	Ø30 [1]	Ø30 [1]

Note: 1. Ø35 can be an option if higher safety factor is required.

【Table 4】

3. Installation Size L≥a+b+c+d

(4) Installation Size L:

Unit: mm

The basic installation length is stroke + 200 mm. However, for safety considerations, an extra distance may be required based on different gearset options and stroke ranges to ensure the product can operate safely and achieve optimal performance. Additionally, the installation length calculation can also be influenced by the different styles of front and rear mounting ends that you select.

a. Basic Installation Length

≥ stroke + 200

【Table 5-1】

b. Transmission Code

A, B	+ 30
C - J	+ 0

【Table 5-2】

c. Stroke Length

30 – 300	+ 0
301 – 600	+ 50
601 – 1,000 [1]	+ 100

【Table 5-3】

d. Mounting Ends [2]

F01 – F12 [3]	+ 0
F13, F14 [4]	+ 40
R01 – R07	+ 0

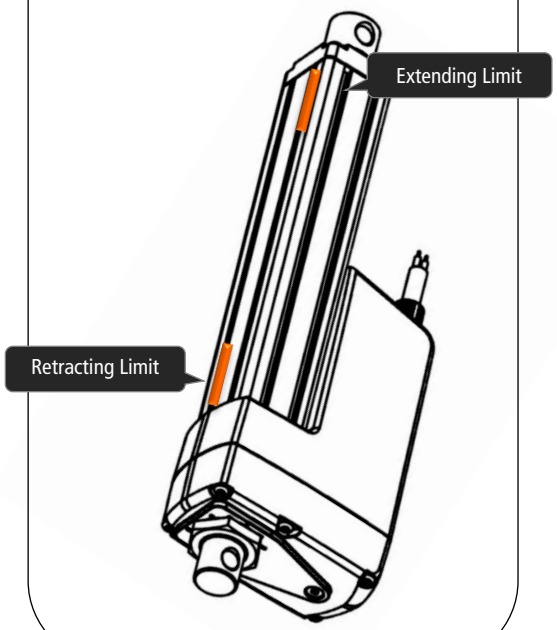
【Table 5-4】

Note:

1. Stroke 601-1000, code A is capable of 14,500N.
2. There are different definitions of installation length when it comes to different options of front and rear mounting ends. Please refer to the next page.
3. When you choose from F01-F12 with stroke≤100, the min installation length is 300.
4. When you choose from F13 and F14 with stroke≤100, the min installation length is 340.

Adjustable Stroke and Installation Length

If you require the product to be capable of adjusting the stroke and installation distance yourself after it leaves the factory, you can choose to include a magnetic switch. In this case, limiting the stroke at both ends need to fulfilled by your controller.



4. Example of Calculate Installation Length

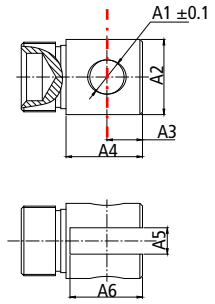
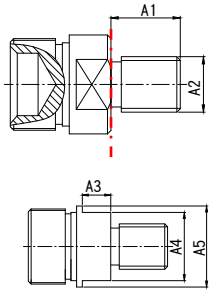
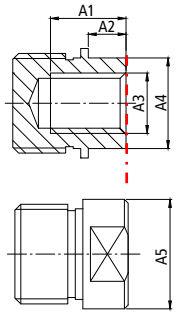
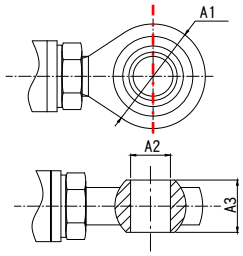
Stroke	Transmission Code	Piston End	Motor End	L≥ a+b+c+d
400	A	F13	R01	L≥ 400+200+30+50+40= 720
50	C	F01	R01	L≥ 300 [3]

【Table 6】

【Mounting Connectors】

1. Front Rod End

（5）Connector：

Type A: Cross Hole **Code:** F01 – F10	**Type B:** Male Thread **Code:** F11	**Type C:** Female Thread **Code:** F12	**Type D:** Joint Bearing **Code:** F13, F14
			

* The red dashed line indicates the measurement of 'installation distance'.

【Table 7】

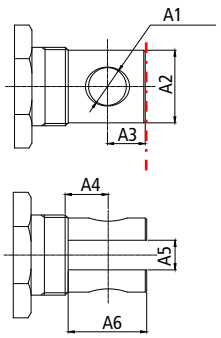
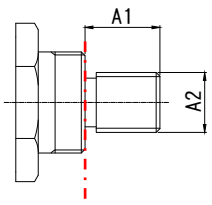
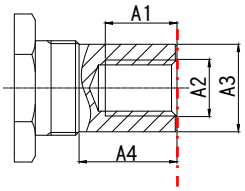
Piston Rod Size	Code	A1	A2	A3	A4	A5	A6
Ø 35 (See Table 4)	**F01**	Ø 12.2	Ø 34	13.5	29	w/o slot	
	F02	Ø 13.2	Ø 34	13.5	29		
	F03	Ø 14.2	Ø 34	13.5	29		
	F04	Ø 12.2	Ø 34	13.5	29	10	27.5
	F05	Ø 13.2	Ø 34	13.5	29	10	27.5
Ø 30 (See Table 4)	**F06**	Ø 12.2	Ø 29	13.5	29	w/o slot	
	F07	Ø 13.2	Ø 29	13.5	29		
	F08	Ø 14.2	Ø 29	13.5	29		
	F09	Ø 12.2	Ø 29	13.5	29	10	27.5
	F10	Ø 13.2	Ø 29	13.5	29	10	27.5
Ø30 [1]	**F11**	20	M16*2	10	24	Ø34	-
	F12	20	10	M16*2	24	Ø34	-
	F13	Ø32	Ø12-H7	16	-	-	-
	F14	Ø42	Ø16-H7	21	-	-	-

Note: 1. Ø35 can be an option if higher safety factor is required.

【Table 8】

【Mounting Connectors】

2. Rear Motor End （6） Type of Connector：

Type A： Cross Hole **Code:** R01-R05	**Type B：** Male Thread **Code:** R06	**Type B：** Female Thread **Code:** R07
		

* The red dashed line indicates the measurement of 'installation distance'.

【Table 9】

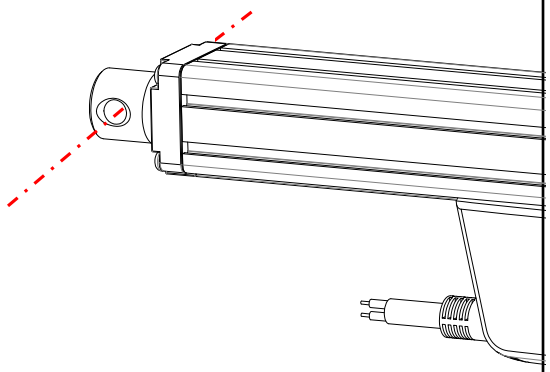
Code	A1	A2	A3	A4	A5	A6
R01	Ø 12.2	Ø 29	13	15	w/o slot	
R02	Ø 13.2	Ø 29	13	15		
R03	Ø 14.2	Ø 29	13	15		
R04	Ø 12.2	Ø 29	13	15	10	27
R05	Ø 13.2	Ø 29	13	15	10	27
R06	20	M16*2	-	-	-	-
R07	20	M16*2	29	28	-	-

【Table 10】

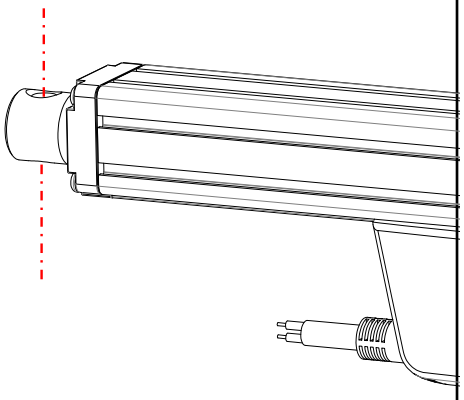
【Mount Orientation】

(7) Front Hole

Code 1: 90°

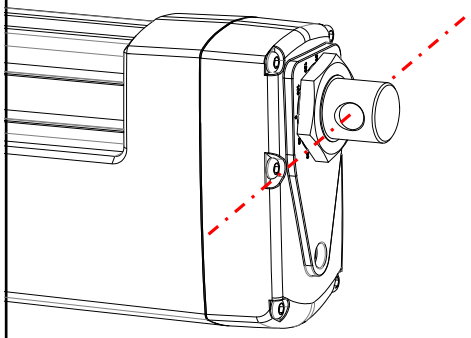


Code 2: 0°

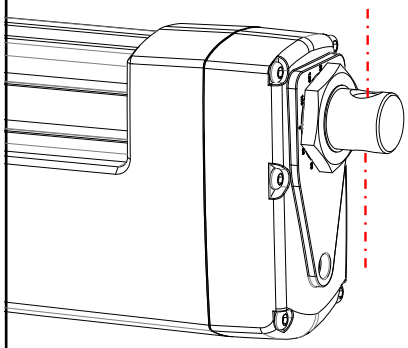


(8) Rear Hole

Code 1: 90°



Code 2: 0°



【Position Feedback】 （9）Code：

Code 0： Standard limit switches without position feedback

Standard HB-DJ805H comes with limit switches that shut off the motor automatically at the end of its travel.

	Black	Red
Extend	-	+
Retract	+	-

【Table 11】

Endstop signal at both ends：

Equipped with two separated switches. One is to cut off power supply at either end of stroke, and the other is to supply signals.

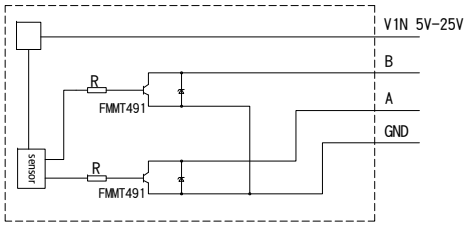
Code 1： NPN Signal

Code 2： PNP Signal

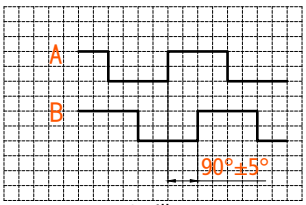
Code 3： Hall Effect Sensor

Code	Equivalent Pulse/mm
A	9.8
B	7.3
C	4.7
D	4.9
E	3.6
F	9.1
G	6.1
H	4.5
I	2.9
J	1.9

【Table 12】



Wiring Diagram



Oscillogram

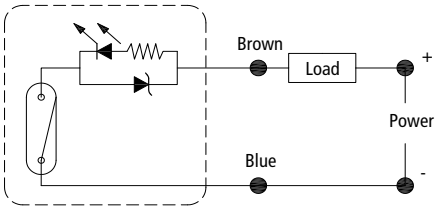
Analog Signal：

Code 4： 0 mA – 20 mA

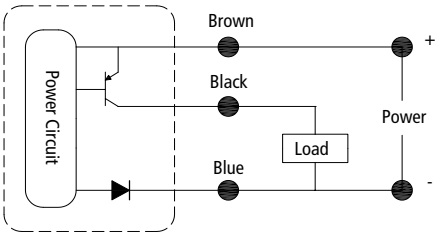
Code 5： 0 V – 5 V

Magnetic Switches:

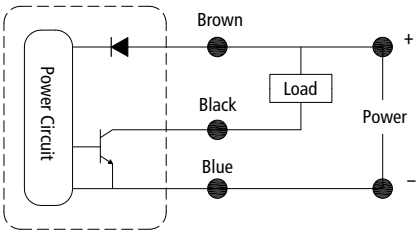
Code 6: Two-wire System



Code 7: Three-wire System PNP

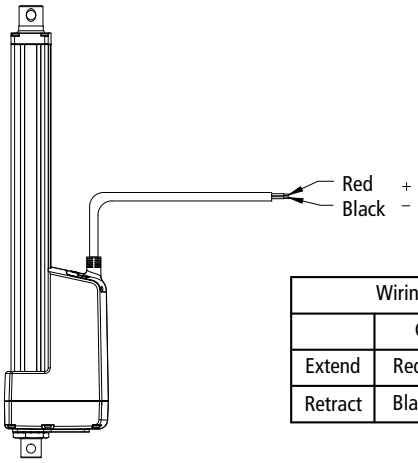


Code 8: Three-wire System NPN



【Control Modes】 （10）Code：

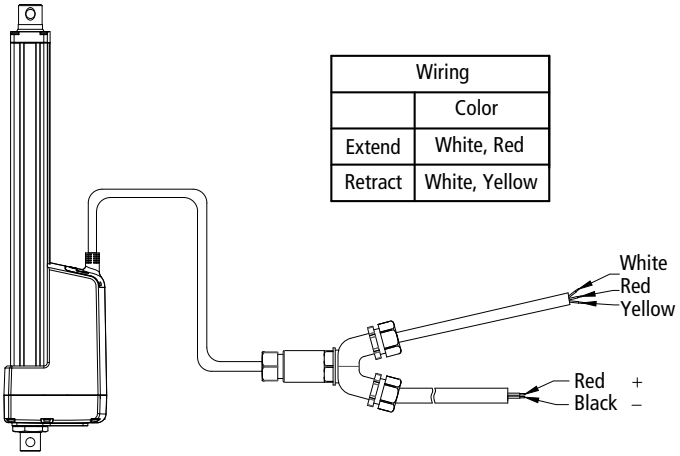
Code 0： The controller with polarity-switching is needed to extend and retract the actuator.



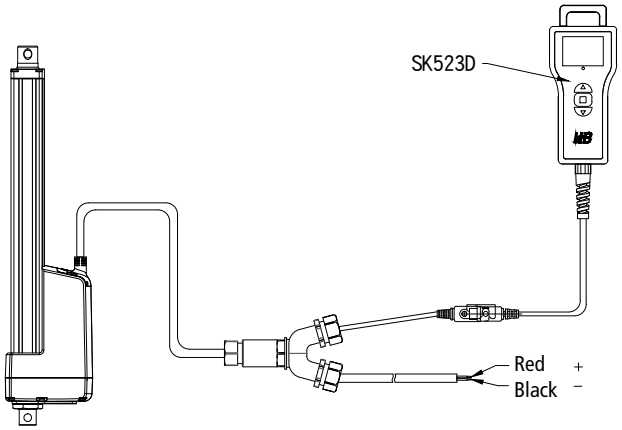
Wiring	
	Color
Extend	Red+ Black-
Retract	Black+ Red-

Code 1： Logic level control

Wiring	
	Color
Extend	White, Red
Retract	White, Yellow

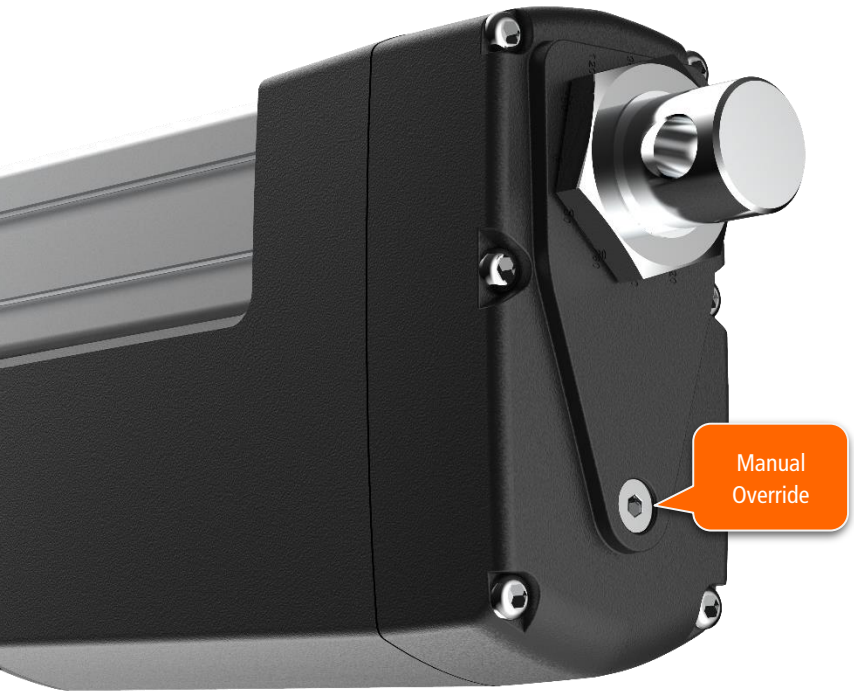


Code 2： Go with SK523D control



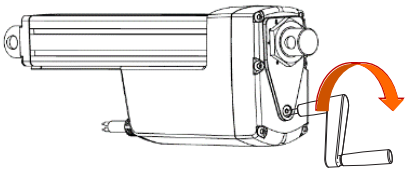
Code 3： Synchronized Control

Code 4： CANbus Control



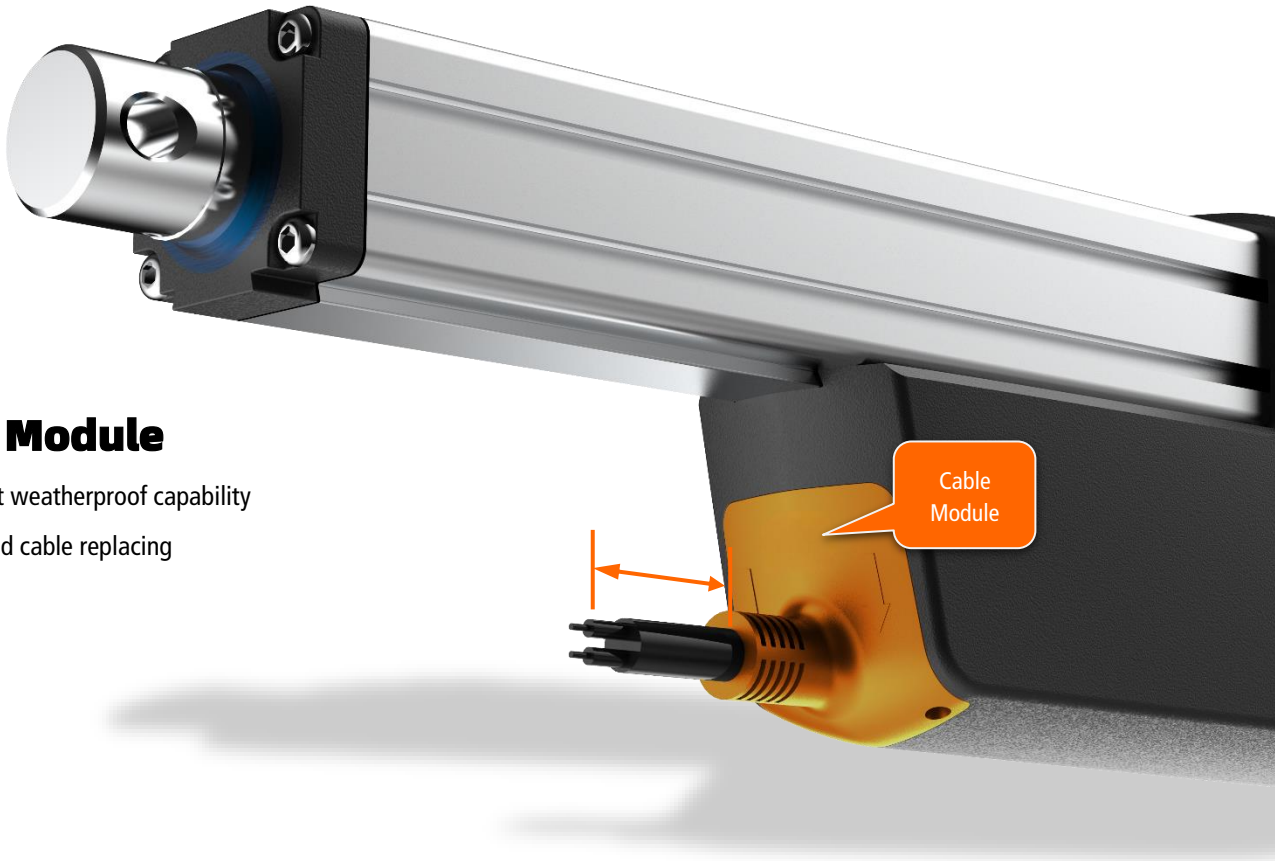
Unfazed by Power Outage

This model includes a standard manual operation feature and offers the option to use specialized tools instead of electric controls for emergency situations.



【Cable】

（11）Cable Length：	1=600, 2=1000, 3=1500, 4=2000, X=Custom	**Unit：mm**
（12）Connector：	0=Tinned bare wire, 1=Go with SK523D, X=Custom	



Cable Module

- Excellent weatherproof capability
- Simplified cable replacing

【Applications】

SLA-17K comes with increased load capacity, higher transmission efficiency with diverse control options. These features position it as a versatile and reliable solution suitable for a wide range of applications. Its robust construction and environmental resilience make it particularly competitive compared to traditional hydraulic systems and fully electric alternatives, especially in applications requiring dependable performance and resilience in varying operating environments.

Beyond just the product's inherent quality, it is important to consider specific operational conditions and potential extreme usage scenarios when selecting a product. These considerations influence whether the product's performance will meet your design requirements effectively. When configuring or selecting a product, providing detailed information about your application scenario is critical.

（13）Operating temp.: **Code 1**: -10℃ to 65℃ **Code 2**: -40℃ to 65℃

（14）Estimated cycles work per day:

（15）Estimated working days per year:

（16）Expected lifespan:

（17）Detailed application description:



Construction Vehicle and Machinery



Agricultural Machinery



Outdoor Power Equipment



Industrial Automation



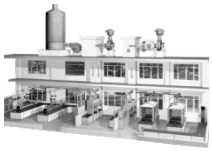
Bed Equipment for Medical Use



Vehicle for Diverse Abilities



Catering Automation



Ventilation and Animal Husbandry



Multifunctional Sofa



PV Solar and Wind energy



CSP Power Plant



Inteligent Industrial Equipments

【Ordering Code of SLA-17K】

RESET

	（1）Force and Speed	【Table 3】
	（2）Stroke mm	Should the required stroke fall outside the specified range, kindly reach out to us for further assistance.
	（3）Voltage	1 = 12V DC　2 = 24V DC　3 = 36V DC　4 = 48V DC
	（4）Body Length mm	【Table 5】-【Table 6】
	（5）Front Rod End	F01 - F14　FX = Custom
	（6）Rear Motor End	R01 - R05　RX = Custom
	(7) (8) Orientation	Shaft End 1 = 90°　2 = 0°　Motor End 1 = 90°　2 = 0°　Ø
	（9）Position Feedback	0 = None　1 = End-stop Signal　3 = Hall Effect Sensor　4 = Analog 0-20mA 5 = Analog 0-5V　6 = 2-wire Magnetic Switches　7 = 3-wire Magnetic Switches PNP 8 = Three-wire Magnetic Switches NPN
	（10）Controlling	0 = None　1 = Logic Level　3 = Go with SK523D Control　2 = Synchronized Control 3 = CAN bus Control
	（11）Cable	1 = 600mm　2 = 1,000mm　3 = 1,500mm　4 = 2,000mm　X = Custom
	（12）Cable Connector	0 = Tinned Bare Wire　1 = Go with SK523D Control　X = Custom
	（13）Temperature	1 = -10℃ to 65℃　2 = -40℃ to 65℃
Lifespan	（14）-（16）Lifespan	Cycles per day　Working days per year Expected lifecycles
Application	（17）End use	Application Description.
	Your Contact	Company Name　Phone Email

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