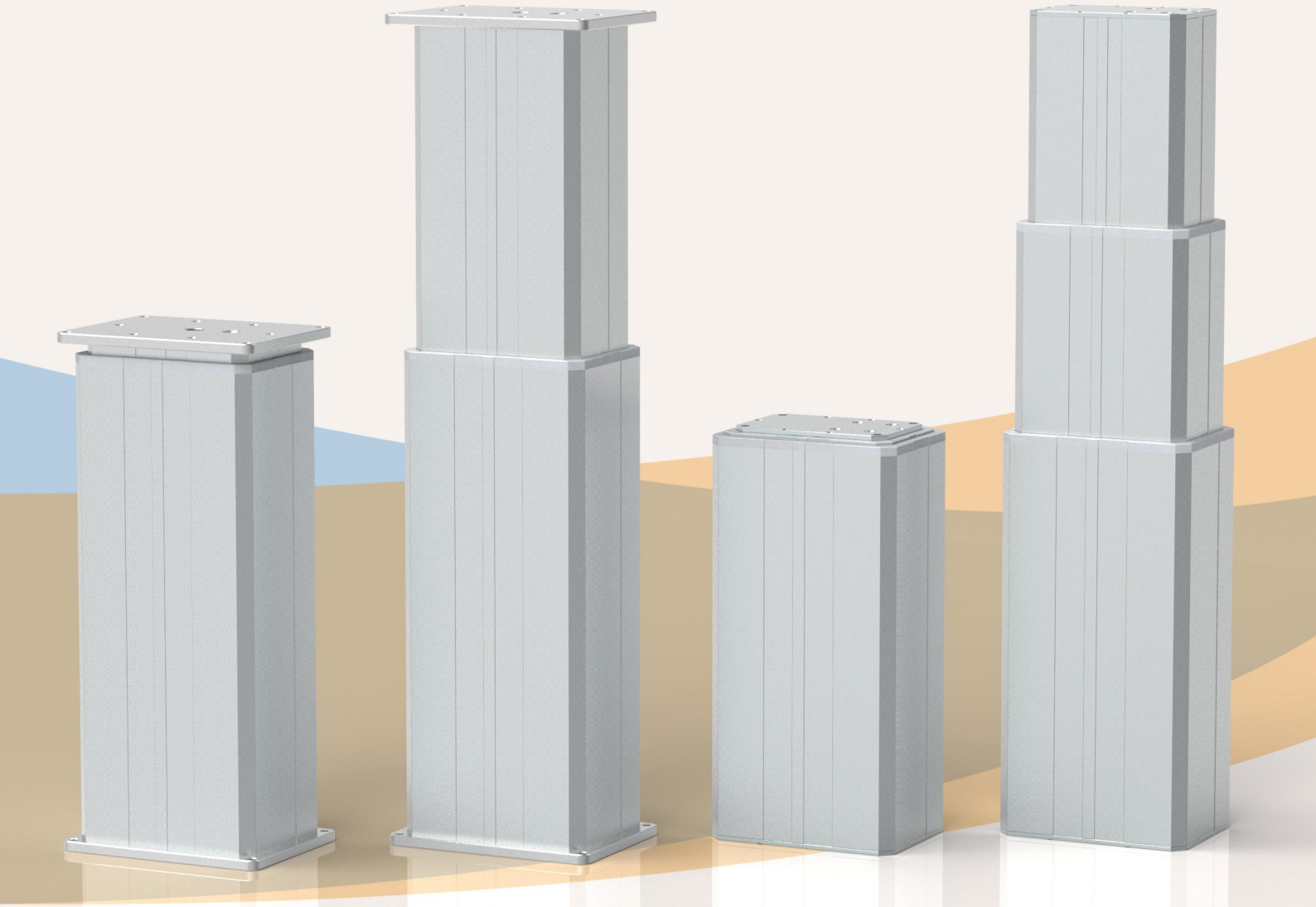
GeMinG Linear Drive

HTA

Series
Lifting Columns



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HTA2

Series

Lifting Columns

Product Category

1、medical applications

2、furniture applications

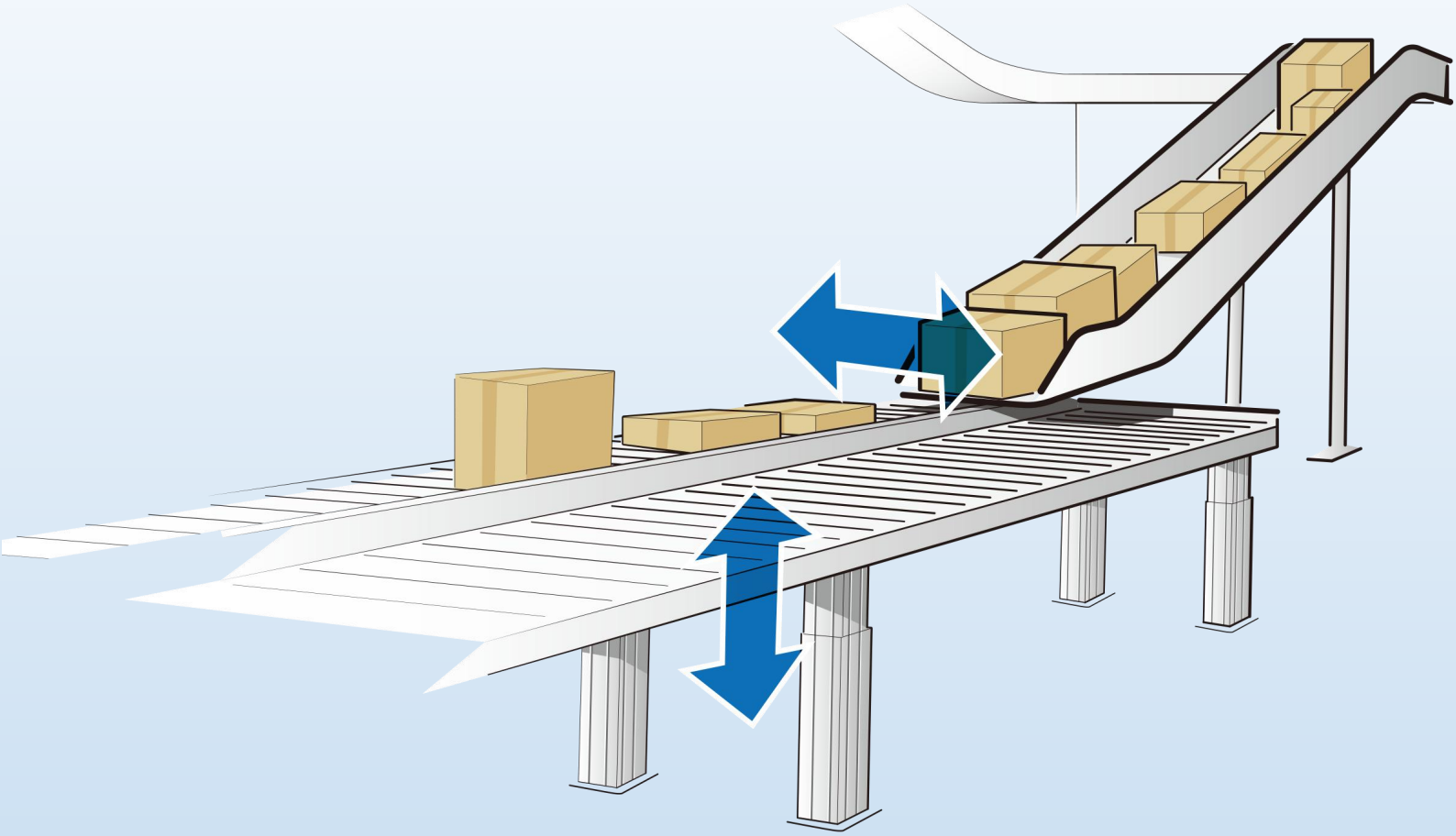
3、Industrial applications

Download 3D model

HTA2 Lifting Column is designed for use in a wide variety of workstation applications such as computer workstations, workbenches, assembly tables, medical equipment lifting platforms, and even kitchen height adjustment, where it is ideal. 2 HTA2 lifting columns can improve high synchronization performance and load operation capacity, a very powerful design and full-featured office series control box and controller. Depending on the control system, it can operate as a single system or 2 to 4 lifting columns in parallel..

Functional Overview

Voltage:	12V , 24V ,36V,48V DC， 220V AC
Motor options:	DC motor, AC motor
Maximum thrust (pull force):	8,000N / 4,000N
Slowest speed under load:	5.0mm/s (load 8,000N)
Maximum speed under load:	40 mm/s (load 1,800N)
Minimum installation size:	Stroke + 200mm
Dynamic lateral moment:	1000Nm
Static lateral moment:	1800Nm
color:	Silver gray, black
Voice:	48~54 DB
Adaptable temperature range:	-35°C ~ +75°C
Protection level:	IP54
Screw selection:	Ball screw, trapezoidal screw
Switch type:	Built-in limit switch,
Signal options:	Hall sensor, endpoint signal
Control options:	Synchronous control, independent control, integrated control, CAN bus control,
safety certificate:	Comply with ISO9001-2008, CE and RoHS regulations,



Tooling machine

Library automation

GeMinG Linear Drive

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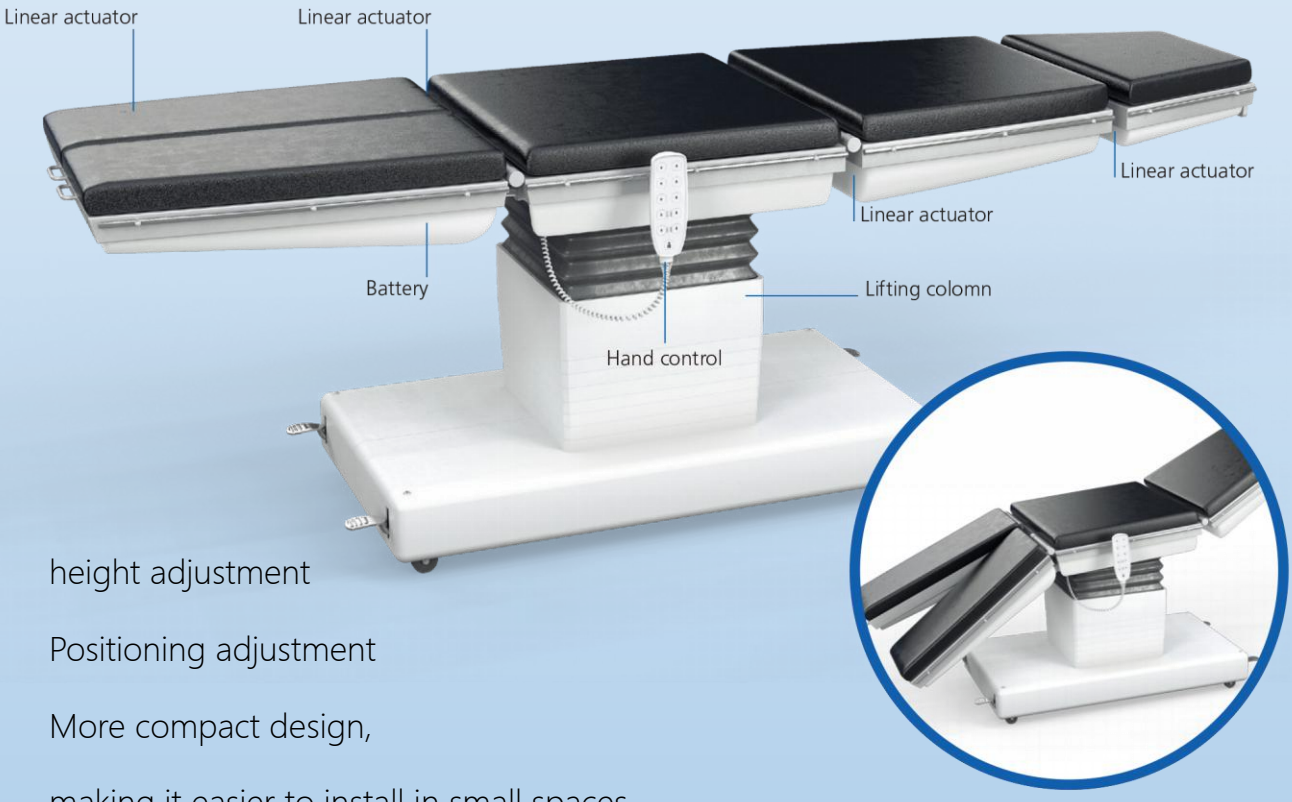
Medical industry actuator application system

Precise, powerful, fast and flexible to operate



height adjustment

Positioning adjustment

More compact design,

making it easier to install in small spaces,

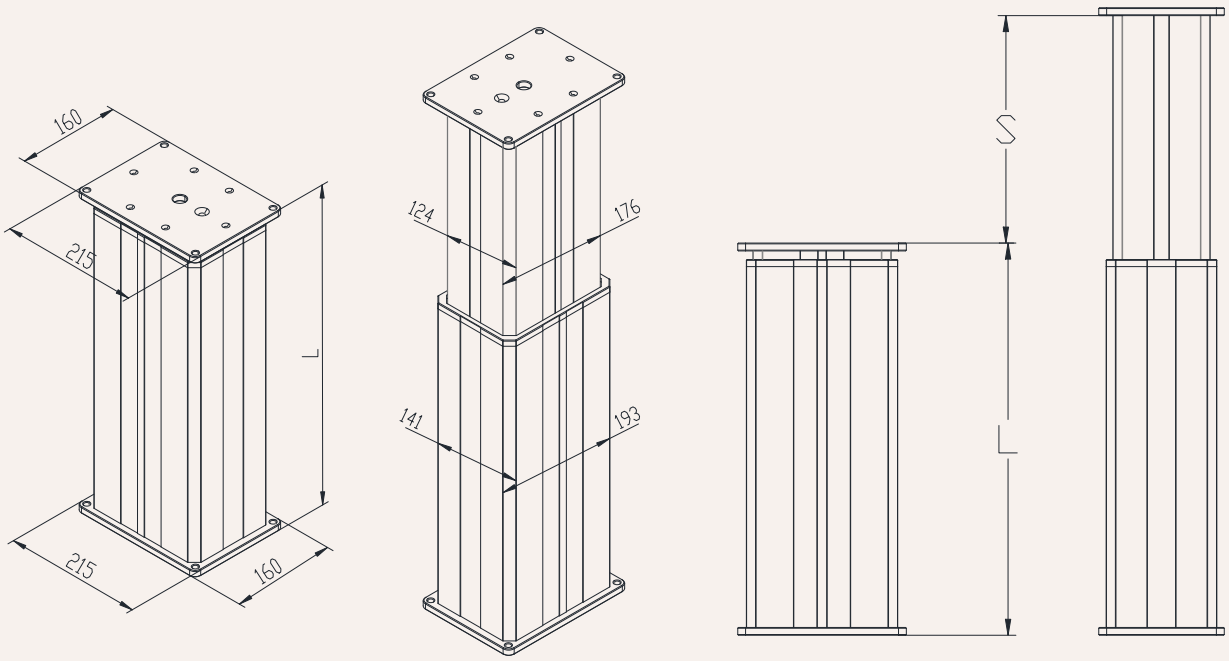
Very suitable for designing different types of automation equipment,

unmanned trucks and lifting equipment,

All while retaining many of the benefits that make it so popular!

Drawings

Standard size
MM



S: Stroke

L: Retracted length

L= Stroke +200mm

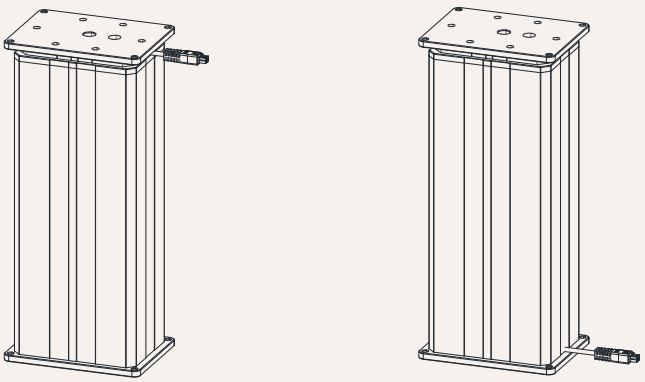
Greater than 600MM stroke, installation dimensions L= Stroke +250MM

Motor cable outlet method:

0 = Side, top outlet

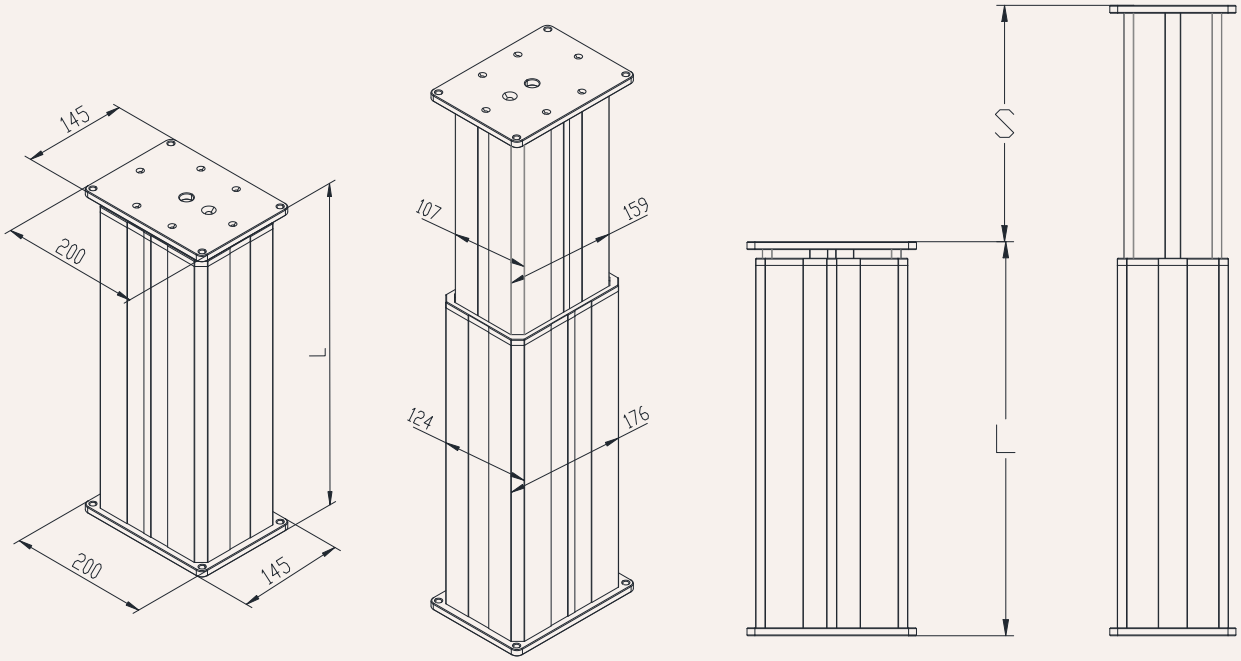
1 = Side, bottom outlet

K=Adjust at will



Drawings

Standard size
MM



S: Stroke

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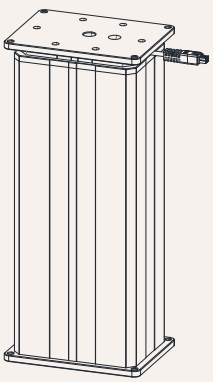
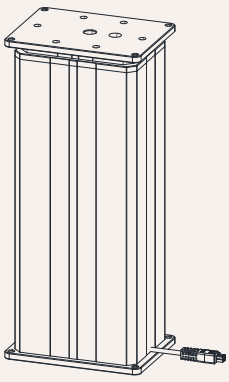
Greater than 600MM stroke, installation dimensions L= Stroke +250MM

Motor cable outlet method:

0 = Side, top outlet



1 = Side, bottom outlet



K=Adjust at will

load and speed

Code	Rated load Thrust N	Pull N	Self-locking force static conditions static N	Rated load current A	Output speed no load 24V DC mm/s	Rated load 24V DC mm/s
A Motor voltage (24V DC)						
A1	12,000	8,000	15,000	10.2	5.0	4.0
A2	7,000	7,000	10,000	10.2	10	8.0
A3	5,500	5,500	6,000	10.2	13	10
A4	3,800	3,800	4,500	10.2	20	16
A5	2,800	2,800	3,500	10.2	26	21
A6	1,800	1,800	3,000	10.2	40	32
A7	1,200	1,200	3,000	10.2	66	53
B Motor voltage (24V DC)						
B1	4,000	4,000	5,000	5.5	5.0	4.0
B2	2,000	2,000	2,800	5.5	11.0	9.0
B3	1,500	1,500	1,500	5.5	17.0	13.0
B4	1,000	1,000	1,000	5.5	22.0	18.0

Remark

1. The speed and current on the upper side are the materials that extend when pushed.

2. For 12V motor, the speed is about the same and the current is about 2 times higher.

3. The current & speed in the table are the test average values in the extension direction under thrust application.

4. The current & speed in the table and graph are the test average values of the GeMinG control box configuration, and there is an error of about 10% depending on the control box model.

(The voltage is about 29V DC at no load, and drops to about 24V DC at rated load)

Stroke: minimum value ≥ 20mm, please refer to the table below for the maximum value of load and stroke

load (N)	Maximum stroke (mm)
8,000	50-200
7,000	201-300
6,000	301-400
5,000	401-600
4,000	601-900

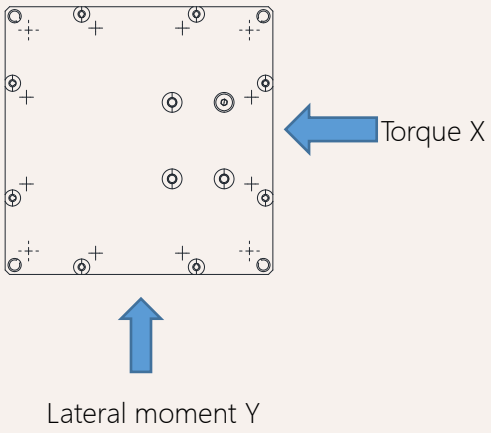
Remark:

Lateral moment Y direction = X*0.8

Static lateral moment = dynamic*2

Dynamic lateral moment (Nm)-X direction

Stroke	S+200	S+250
100-200	200	300
300-500	150	250
500-700	100	200
700-900	80	100



Stroke installation size reference chart

HTA2 Series	stroke ± 2 (mm)				Install ± 2 (mm)				
strokeMM	100	150	200	250	300	350	400	450	500
Install MM	300	350	400	450	500	550	600	650	700
weight KG	6.5	6.8	7.2	7.6	8.0	8.4	8.8	9.4	9.8

HTA3

Series

Lifting Columns

Product Category

1、medical applications

2、furniture applications

3、Industrial applications

Download 3D model

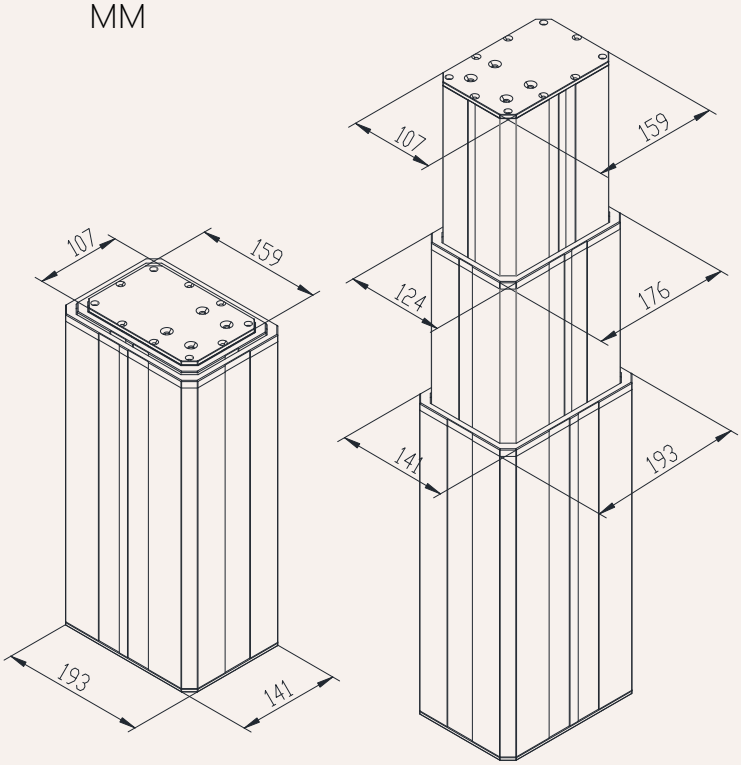
HTA3 is one of the lifting column products developed by GeMinG. It is specially suitable for medical and working environments, such as hospital beds, home care beds, diagnosis and treatment tables and height-adjustable working methods. HTA3 uses a three-section outer tube to provide stable movement, and can provide the smallest installation size and longer stroke options.

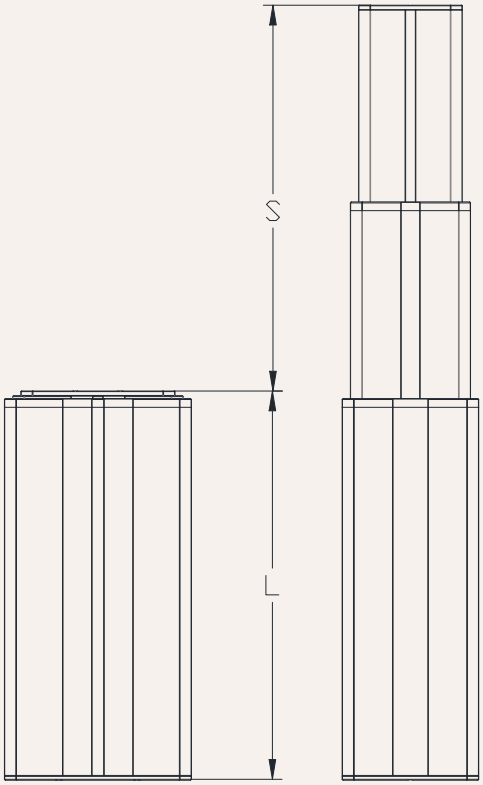
Functional Overview

Voltage:	12V , 24V ,36V,48V DC， 220V AC
Motor options:	DC motor, AC motor
Maximum thrust (pull force):	8,000N / 4,000N
Slowest speed under load:	4.0mm/s (load 8,000N)
Maximum speed under load:	110 mm/s (load 350N)
Minimum installation size:	Stroke /2 + 200mm
Dynamic lateral moment:	1000Nm
Static lateral moment:	1800Nm
color:	Silver gray, black
Voice:	48~58 DB
Adaptable temperature range:	-35°C ~ +75°C
Protection level:	IP54
Screw selection:	Ball screw, trapezoidal screw
Switch type:	Built-in limit switch,
Signal options:	Hall sensor, endpoint signal
Control options:	Synchronous control, independent control, integrated control, CAN bus control,
safety certificate:	Comply with ISO9001-2008, CE and RoHS regulations,

Drawings

Standard size
MM





S: Stroke

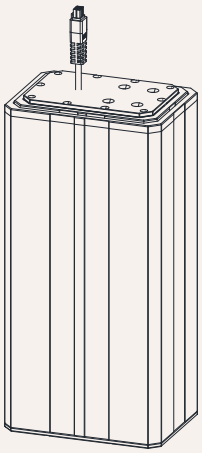
L: Retracted length

L= Stroke /2 +200mm

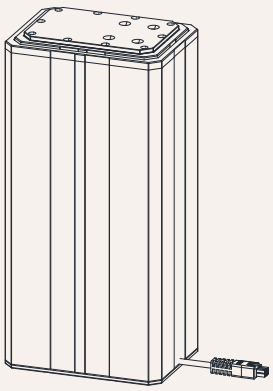
Greater than 800MM stroke, installation dimensions L= Stroke /2 +250MM

Motor cable outlet method:

0 = Side, top outlet



1 = Side, bottom outlet



K=Adjust at will

load and speed

Code	Rated load Thrust N	Pull N	Self-locking force static conditions static N	Rated load current A	Output speed no load 24V DC mm/s	Rated load 24V DC mm/s
Motor voltage (24V DC)						
A	7,000	4,000	8,000	6.2	4.0	3.0
B	5,000	4,000	7,000	6.2	7.0	6.0
C	3,500	3,000	6,000	6.2	11.0	9.0
D	2,800	2,800	4,500	6.2	14	11
E	1,400	1,400	3,500	6.2	28	23
F	1,000	1,000	3,500	6.2	38	30
G	700	700	3,000	6.2	57	46
H	500	500	3,000	6.2	76	61
I	350	350	3,000	6.2	110	92

Remark

1. The speed and current on the upper side are the materials that extend when pushed.

2. For 12V motor, the speed is about the same and the current is about 2 times higher.

3. The current & speed in the table are the test average values in the extension direction under thrust application.

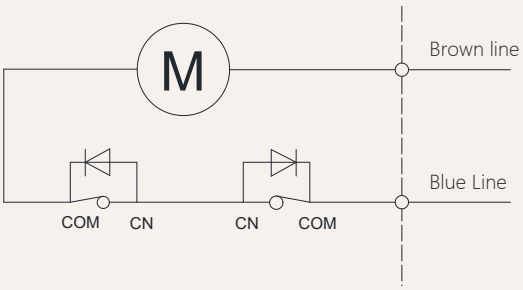
4. The current & speed in the table and graph are the test average values of the GeMinG control box configuration, and there is an error of about 10% depending on the control box model.

(The voltage is about 29V DC at no load, and drops to about 24V DC at rated load)

Actuator wiring diagram

No signal feedback wiring diagram

Code：N



Wiring Instructions:

1】Brown lead: motor positive +

2】Blue lead: motor negative pole -

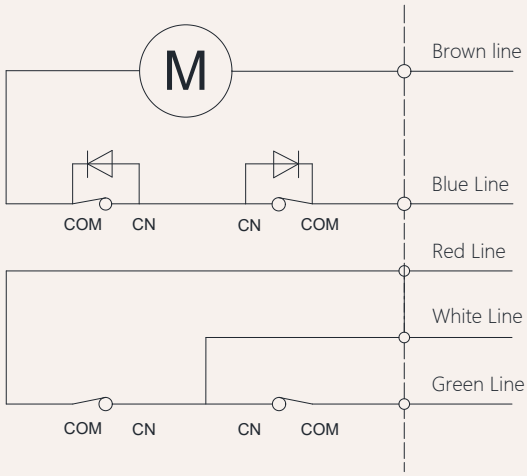
3】When the push rod is extended: the brown wire is positive +, the blue wire is negative -

4】When the push rod is retracted: the blue line is positive +, the brown line is negative -

Actuator wiring diagram Built-in control module

Built-in controller wiring diagram

Code：NY



Wiring Instructions:

1】Brown lead: motor positive +

2】Blue lead: motor negative pole -

3】When the push rod is extended: white line + red line

4】When the push rod retracts: white line + green line

5】White line: control output common line.

6】White and red lines: stretch out,

7】White and green lines: retract,

8】Wireless remote control, use wired control simultaneously.

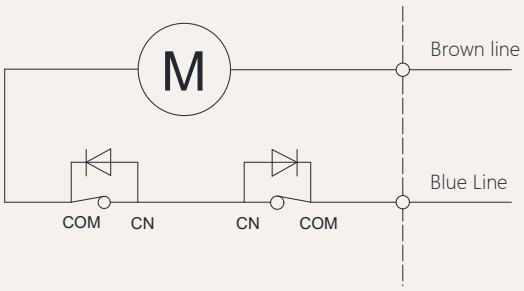
Other signal descriptions

Feedback signal	Description	Function
Active endpoint feedback signal	Voltage with this model	When the push rod reaches the end point, a signal will be fed back. This signal will always exist and will disappear during the operation of the push rod.,
Passive endpoint feedback signal	No voltage	When the push rod reaches the end point, it will feedback a signal. This signal always exists when the input power is not turned off. When the input power is turned off, the signal disappears. The signal will also disappear during the operation.
Note: For other needs, please contact the GeMinG team		

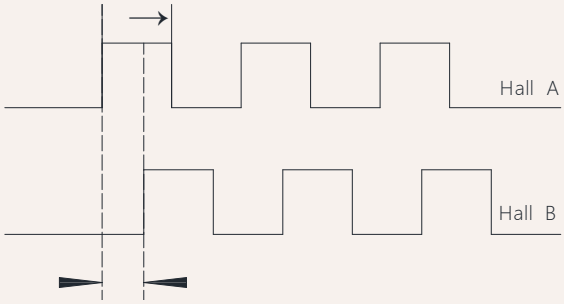
Signal feedback Hall sensor

Hall signal motor circuit diagram

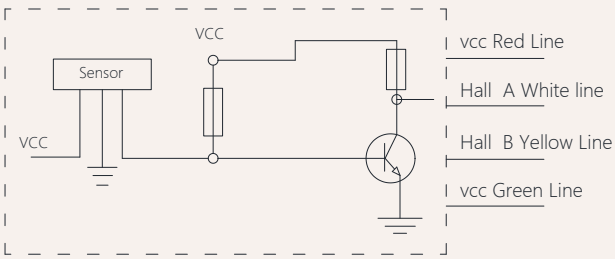
Code: H



Hall signal output waveform diagram



Schematic diagram of the internal circuit of the Hall signal



Wiring Instructions:

1】Brown lead: positive pole of motor +
2】Blue lead: negative pole of motor -
3】Red lead: VCC 5V voltage input +
4】Green lead: GND 5V voltage input -
5】White lead: Hall signal output A
6】Yellow lead: Hall signal output B

Notes:

1) Support dual-channel/single-channel Hall encoder
2) Current-consuming digital output
3) High-speed response frequency from: 0 KHz-100 KHz
4) Applicable temperature range:-40 ℃~+125 ℃

Characteristics	Symbol	Test conditions	MI	RE	M	Unit
Supply voltage	Vcc	----	3.5	---	24	V
Output saturation voltage	Vce/sat	Vcc=14V ; Ic=20mA	---	300	700	MV
Output leakage current	1 cex	Vce=14V ; Vcc=14V	---	<0	10	UA
Input voltage	1 ce	Vcc=20V ; Output open	---	1	10	M
Output fall time	R	Vcc=14V ; RL=820Ω ; CL=20pF	---	0.3	1.5	US

HTA Model Description Selection Code Table

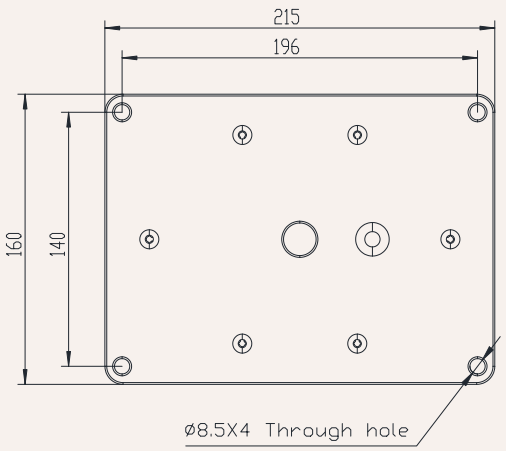
TA2	-	19	N	6F	-	24	A	***	***	-	O1	O1	0	1	T	N	N	30
①		②	③	④		⑤	⑥	⑦	⑧		⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯

①	Model preface	HTA2 = 2-Segment	HTA3 = 3-Segment		
②	Pipe diameter size	19= 193X141 MM Aluminum Profile	17= 176X124 MM Aluminum Profile		
③	Motor placement	N = Built-in motor	W = External motor		
④	Motor type	D8= 80 flange 150W DC motor (standard)	D6= 63 flange 300W brushless motor	6F =60F standard motor	
		S06= 60 flange 400W servo motor	S08 = 80 flange 750W servo motor		
⑤	Voltage	12= 12V DC	24= 24V DC	36= 36V DC	
		48= 48V DC	22= 220V AC	38= 380V AC	
⑥	Load(n)@Speed (mm/s)	See page 06			
⑦	Stroke(mm)	See page 06			
⑧	Installation size(mm)	NOTE: Please refer to the valid parameter sheet before selecting a size!			
⑨	Upper type See page 13	O1 = Conventional pipe type, mounting screw M8 sinks 30MM	O2 = enlarged panel type, mounting through hole 8MM,		
		K = Customization			
⑩	lower type See page 14	O1 = Conventional pipe type, mounting screw M8 sinks 30MM	O2 = enlarged panel type, mounting through hole 8MM,		
		K = Customization			
⑪	Outlet position	0 = top of upper panel	1 = upper side	2=lower side	3 = Internal wiring upper panel
		4 = upper side of inner wiring	5 = lower side of inner wiring		
⑫	Outlet type	1 =bare wire	2 = 01 straight plug	4 =Four-pin straight plug	6 = Six-pin straight plug
		7 = waterproof plug	0=Servo Cable	K =Customized	
⑬	Lead screw options	T = Trapezoidal screw (default preferred)		G=Ball screw rod	
⑭	Control method	N= no control	C = CANComm Control	T = Synchronous control	K=Customization
		Y = Integrated wired control	W = Integrated wireless remote control		
⑮	Signal output options	N = None	H =Hall sensor	U=active signa	W=passive signal
		AN = CAN Comm			
⑯	Cable length	07 =Cable length 0.7 M	10 = Cable length 1.0 M	15 =Cable length 1.5 M	20= Cable length 2.0 M
		30 =Cable length 3.0 M	40 =Cable length 4.0M	50 =Cable length 5.0 M	60= Cable length 6.0M
		70 =Cable length 7.0 M	70 =Cable length 8.0 M	90 =Cable length 9.0 M	00 =Customization

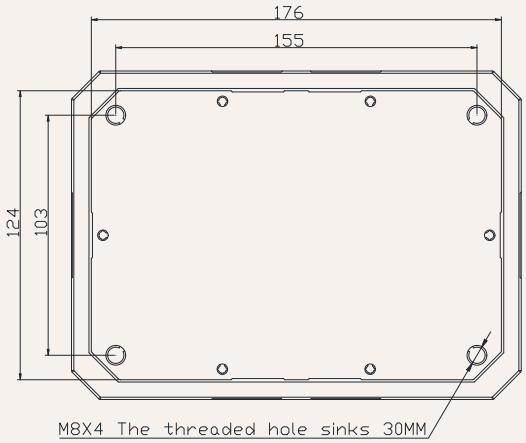
TA3 Attachment Description Selection Code Table

Extended upper form:

O1 = **Conventional installation type, installation n8.5MMX4 through hole**

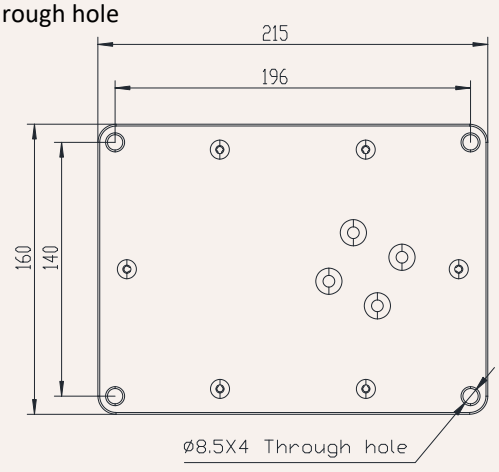


O2 = Pipe installation threaded hole, screw M8 sinking 30MM,

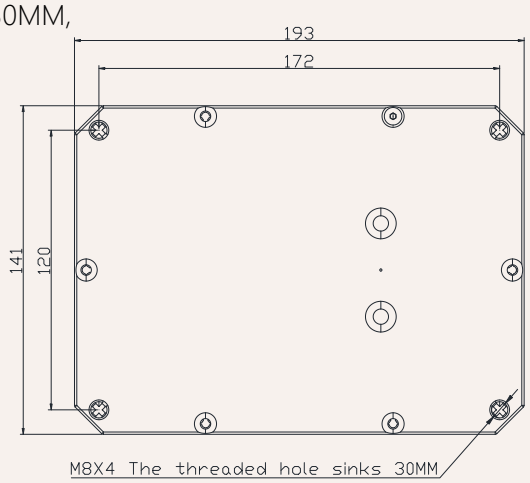


Lower end installation form:

O1 = **Conventional installation type, installation n8.5MMX4 through hole**



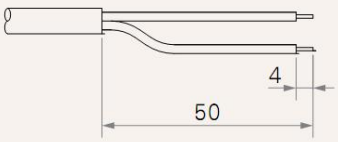
O2 = Pipe installation threaded hole, screw M8 sinking 30MM,



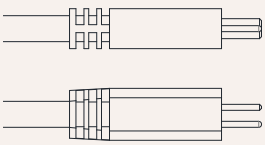
K = Customized, no pictures

Power cord type:

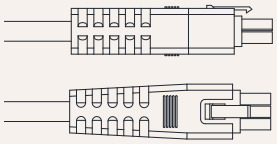
1 =Dare wire



2 = 01 Straight plug



4 =Four-pin straight plug



6 = Six-pin straight plug