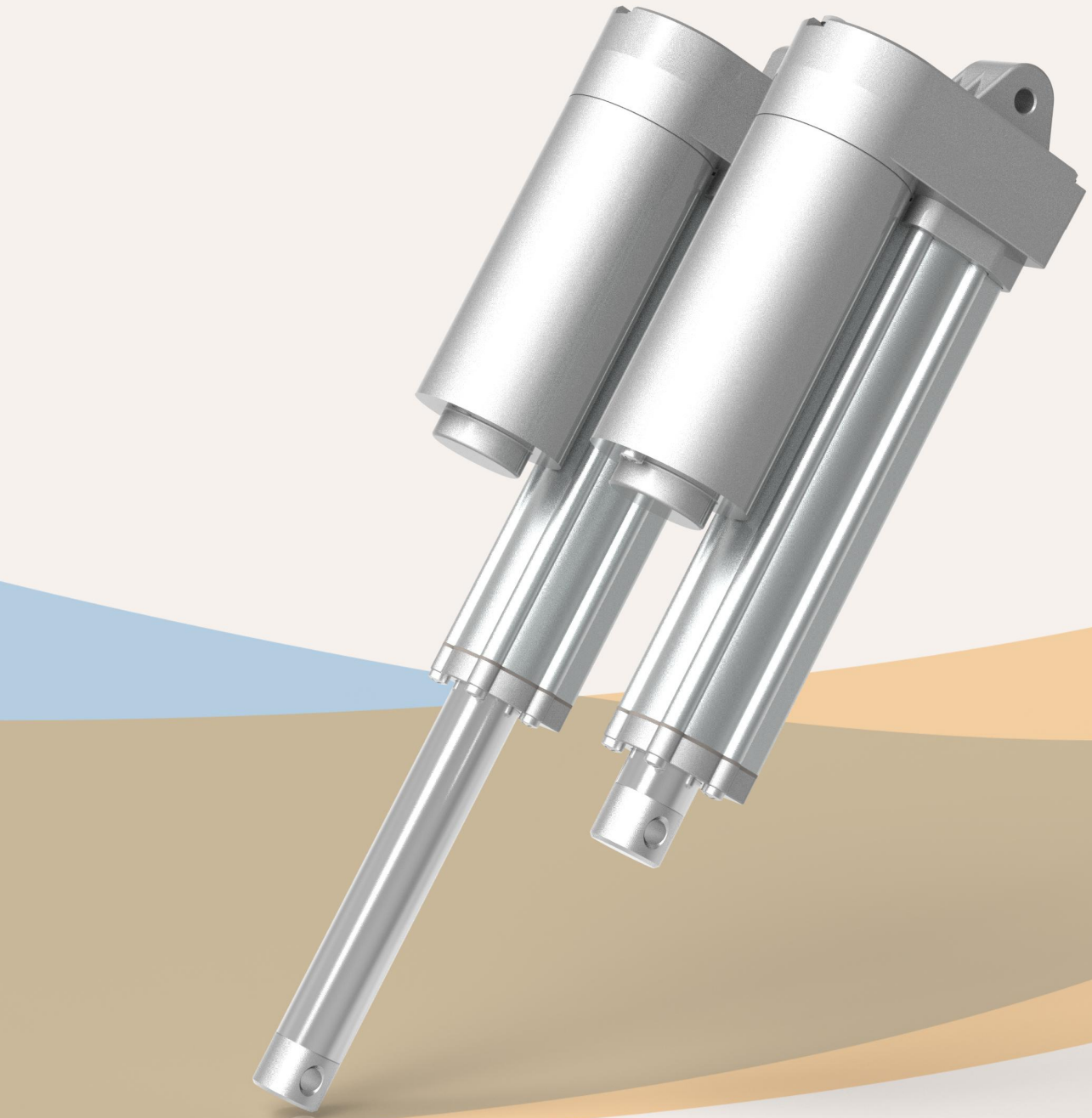
GeMinG Linear Drive

HTA15

Series

Actuators



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HTA15

Series

Linear Actuators

Product Category

1、Industrial applications

2、Automotive

3、Fire application

Download 3D model

HTA15 series micro electric actuator is a actuator designed for various applications such as industry, agricultural machinery, construction projects, cleaning sweepers, ships, automatic window control goods, etc. This product has small volume and capacity, compact design, and a protection level of IP65. It can be installed regardless of terrain. Distance limitation is an ideal product to replace hydraulic and pneumatic pressure. It not only saves energy consumption, but also can be controlled by a microcomputer to easily realize automation. Existing furniture, seats, actuators used in various equipment

Functional Overview

Voltage:	4V,36V,48V DC
Motor options:	DC
Maximum thrust (pull force):	1,400N / 1,400N
Slowest speed under load:	5.0mm/s (load 1,400N)
Maximum speed under load:	80mm/s (load 80N)
Minimum installation size:	Stroke + 105mm
Dynamic lateral moment:	50Nm
Static lateral moment:	80Nm
color:	Silver gray, black
Voice:	55~68 DB
Adaptable temperature range:	-35°C ~ +75°C
Protection level:	IP66
Screw selection:	Trapezoidal screw
Switch type:	Built-in limit switch,
Signal options:	Potentiometer, Hall sensor, endpoint signal
safety certificate:	Comply with ISO9001-2008, CE and RoHS regulations,

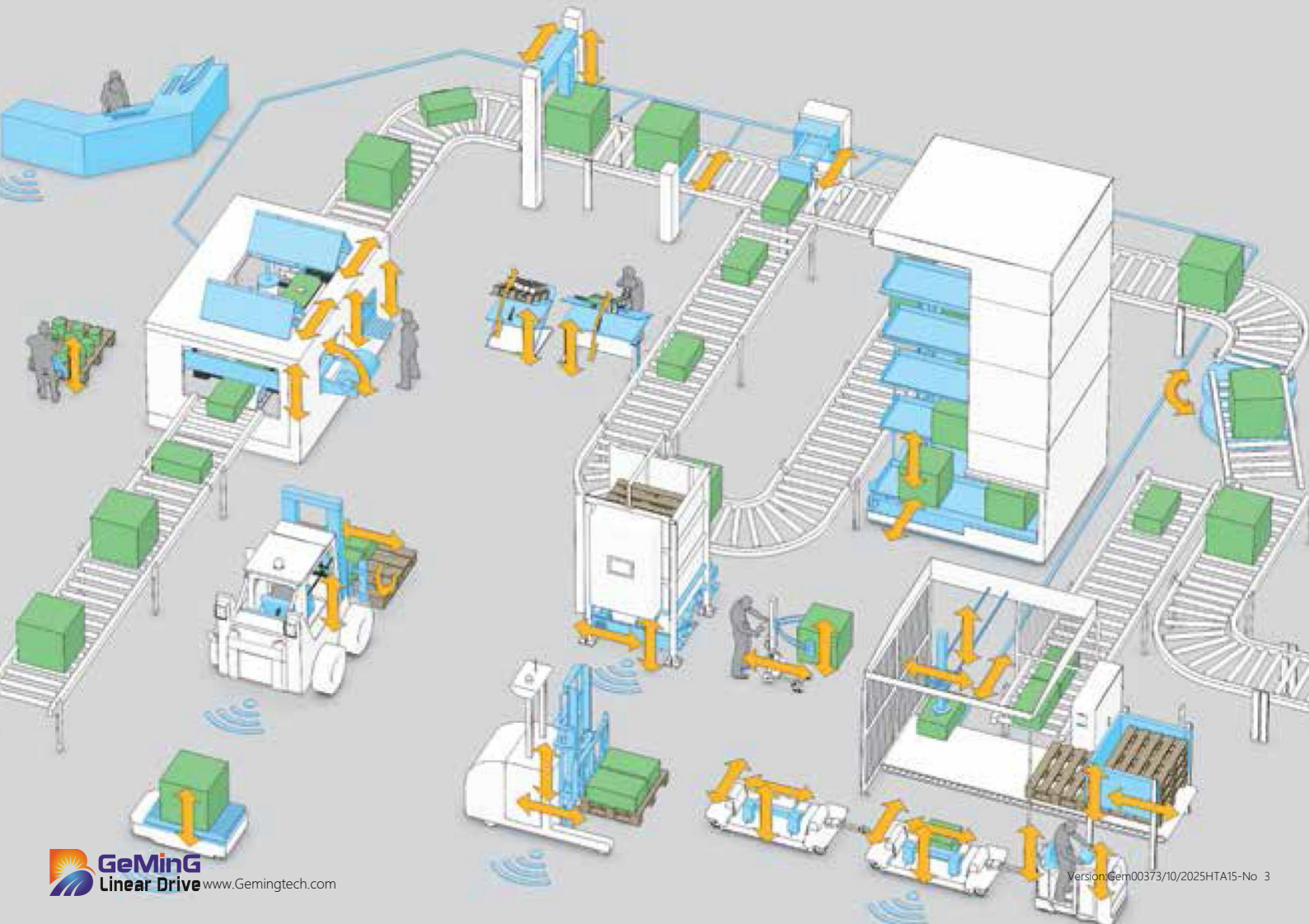
Intelligent drive

As the industrial world becomes increasingly connected, designers are increasingly demanding smart devices

Interactions between components that communicate and operate with each other without manual intervention are growing. Technology (GeMinG) is meeting this need and helping to usher in new possibilities

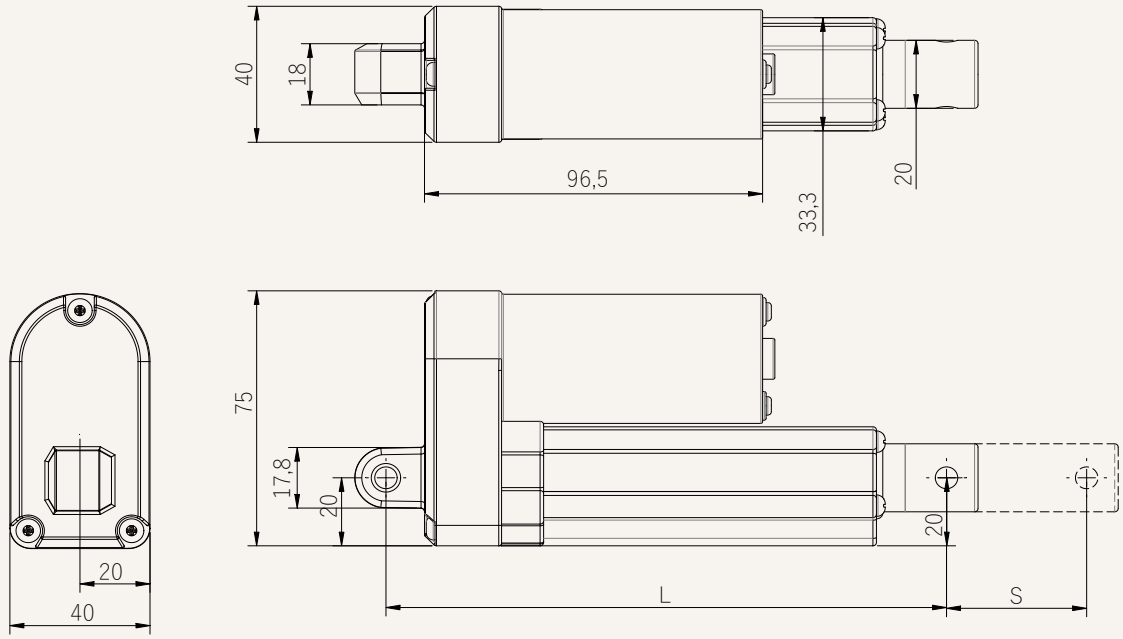
One of GeMinG's product actuators must be what you need.

Please visit: www.Gemingag.com



Drawings

Standard size
MM



S: Stroke

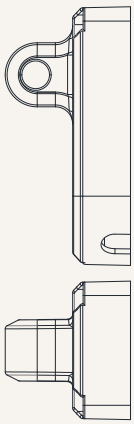
L: Retracted length

L= Stroke +105mm

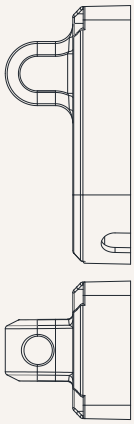
Greater than 600MM stroke, installation dimensions L= Stroke +120MM

Installation angle (counterclockwise):

0 =0 Degrees



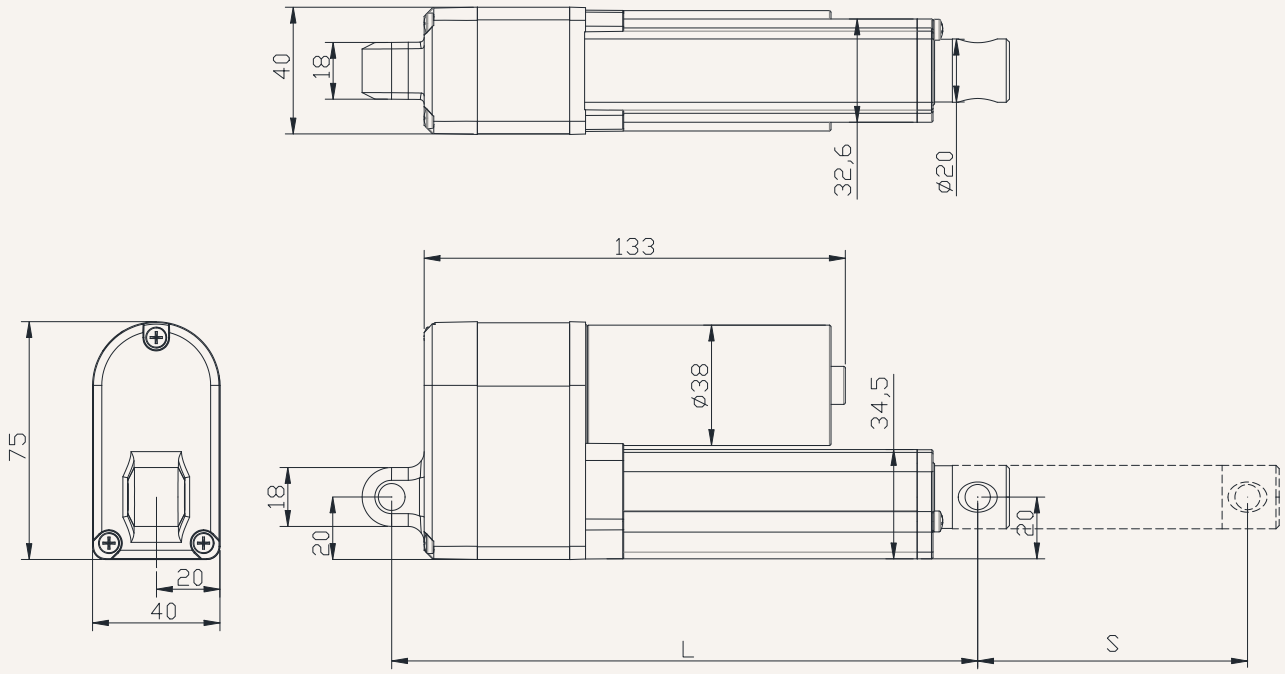
9 =90 Degrees



G=Adjust at will

Drawings - Potentiometer

Standard size
MM



S: Stroke

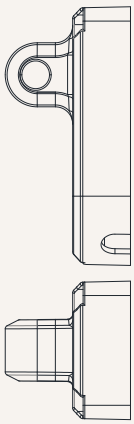
L: Retracted length

L= Stroke +125mm

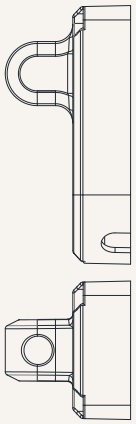
Greater than 600MM stroke, installation dimensions L= Stroke +140MM

Installation angle (counterclockwise):

0 =0 Degrees



9 =90 Degrees



G=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	1,400	1,400	2,500	3.2	5.0	4.0
B	800	800	1000	3.2	10	8.9
C	500	500	100	3.2	15	12
D	350	350	350	3.2	22	18
E	260	260	300	3.2	26	21
F	210	210	100	3.2	33	26
G	130	130	200	3.2	53	42
H	88	88	100	3.2	80	65

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)
2,000	50-200
1,200	201-300
1,000	301-400
800	401-600
600	601-900

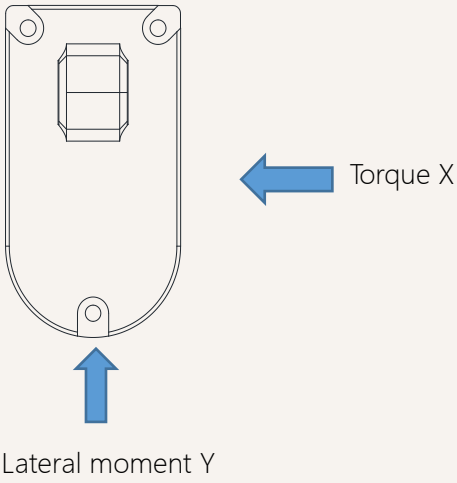
Remark:

Lateral moment Y direction = X*0.8

Static lateral moment = dynamic*2

Dynamic lateral moment (Nm)-X direction

stroke	S+230	S+250
100-200	50	80
300-500	40	60
500-700	30	50
700-900	20	40



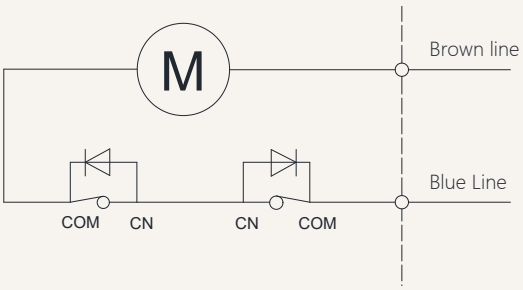
Stroke installation size reference chart

HTA15 Series	stroke ± 2 (mm)				Install ± 2 (mm)				
strokeMM	100	150	200	250	300	350	400	450	500
Install MM	205	255	305	355	420	470	520	570	620
weight KG	1,2	1.4	1.6	1.8	2.1	2.3	2.5	2.7	3.2

Actuator wiring diagram

No signal feedback wiring diagram

Code: N



Wiring Instructions:

1】Brown lead: motor positive +

2】Blue lead: motor negative pole -

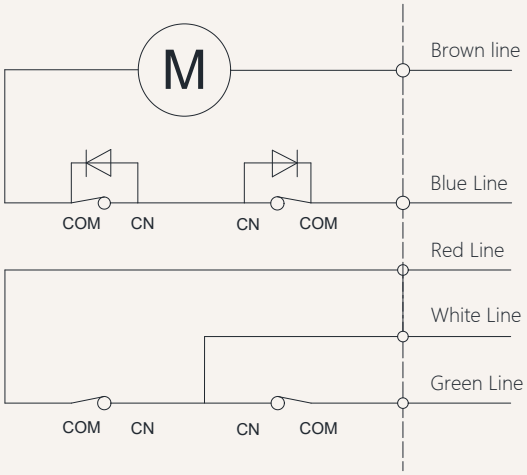
3】When the push rod is extended: the brown wire is positive +, the blue wire is negative -

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

Signal feedback An electrical signal & No electrical signal

Passive or active endpoint signal wiring diagram

Code: N passive signal, Code: Y active signal



Wiring Instructions:

1】Brown lead: positive pole of motor +

2】Blue lead: negative pole of motor -

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

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

5】White wire: signal output common line.

6】White and red wire: extension end signal,

7】White and green wire: retraction end signal,

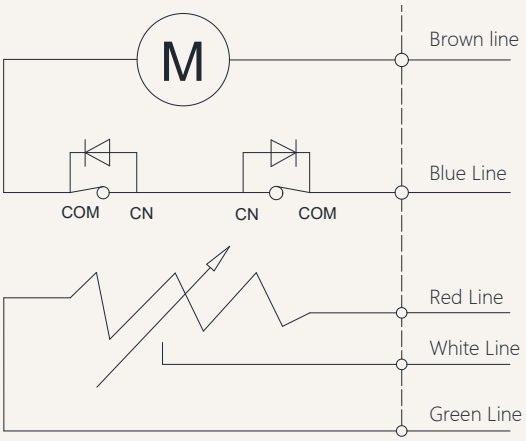
Other signal descriptions

Feedback signal	Description	Function
An electrical signal 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.,
No electrical signal 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 Potentiometer

Potentiometer wiring diagram

Code：K



Wiring Instructions:

1】Brown lead: positive pole of motor +
2】Blue lead: negative pole of motor -
3】When the push rod is extended: brown wire positive pole +, blue wire negative pole -
4】When the push rod is retracted: blue wire positive pole +, brown wire negative pole -
5】White and yellow leads: variable resistance signal output.
6】When the push rod is extended: red and white leads-resistance value gradually increases,
---------red and yellow leads-resistance value gradually decreases.
7】When the push rod is retracted: red and white leads-resistance value gradually decreases,
---------red and yellow leads-resistance value gradually increases.

Potentiometer Configuration Form

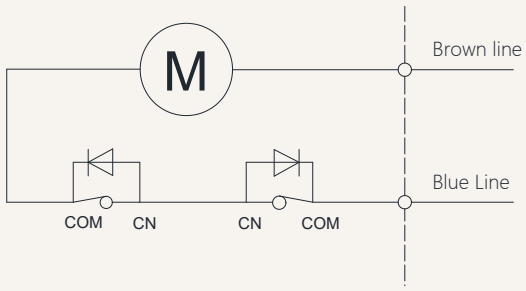
Transmission Code (See page 5)	Limit travel range	Resistance range unit（KΩ）	
A,C,E,G	50-350MM	50-200Stroke range5.0	50-300Stroke range7.5
B,D,F	50-550MM	50-200Stroke range3.17	50-400Stroke range6.35

Note: Potentiometer resistance is 10KΩ, actual output resistance depends on specific stroke

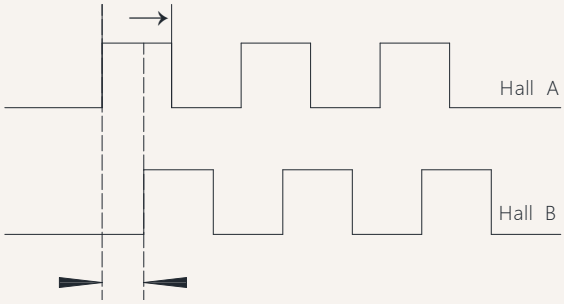
Signal feedback Hall sensor

Hall signal motor circuit diagram

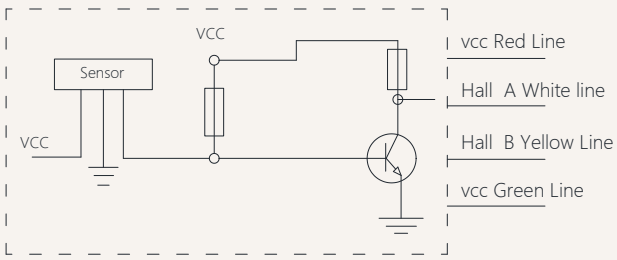
Code: H



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

HTA15 Model Description Selection Code Table

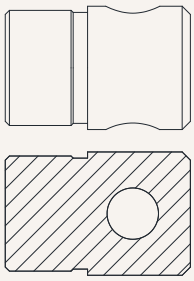
HTA15	-	24	A	***	***	-	O1	O1	0	1	T	A	N	07
①		②	③	④	⑤		⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬

①	Product number	HTA15			
②	Voltage	24=24V DC	36=36V DC	48=48V DC	12= 12V DC
③	Load(n)@Speed (mm/s)	See page 06			
④	Stroke(mm)	See page 06			
⑤	Installation size(mm)	Note: Before selecting a size, please refer to the valid data sheet! See page 05			
⑥	Upper type See page 13	O1 =Ordinary type, hole diameter 6.1mm		O2 = Ordinary type, hole diameter 8.1mm	
		U1 = Groove width 6.5mm, hole diameter 6.1mm		U2 = Groove width 6.5mm, hole diameter 8.1mm	
		M1 = Type M, M12 thread, depth 20 mm		M2 = MType M, M14 thread, depth20 mm	
		T1 = T-type, M12 thread, length 20mm		T2 = T-type, M14thread, length 20mm	
		L1 =L shape, width 6mm, aperture 6.1mm		L2 = L shape, width 6mm, aperture 6.1mm	
		G1 = Spherical bearing, bore 10mm, model GS10		KZ = Customized	
⑦	lower type See page 14	O1 =Ordinary type, hole diameter 6.1mm		O2 = Ordinary type, hole diameter 8.1mm	
		U1 = Groove width 6.5mm, hole diameter 6.1mm		U2 = Groove width 6.5mm, hole diameter 8.1mm	
		P1 = T-type, four mounting holes 6.1 mm		KZ = Customized	
⑧	Installation angle (counterclockwise)	0 =0˚, Degree		9 =90˚, Degree	
⑨	Please refer to the outlet type	1 = 1 2-core bare wire	5 = 1 5-core bare wire	6 = 1 6-core bare wire	
		7 = 1 2-core, 1 5-core bare wire	2 = OI plug	3 = 4-pin angled plug	
		4 = 4-pin straight plug	9 = 6-pin straight plug	8 = Waterproof plug	
		0 = Customized			
⑩	Lead screw options	G=Ball screw (default preferred)		T = Trapezoidal screw	
⑪	Control method	A = No control	C = ***	Y = ***	N= ***
		T = ***	D = Customized		
⑫	Signal output options	N = None	H = Hall sensor	D = Potentiometer signal	U=active signal
		W=passive signal	AN = ***		
⑬	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

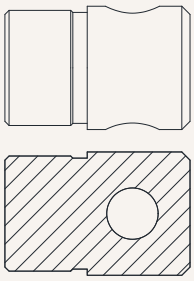
HTA15 Attachment Description Selection Code Table

Upper end form (extended):

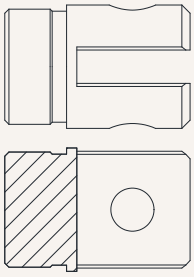
O1=Ordinary type, hole diameter 6.1mm



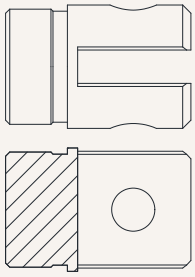
O2=Ordinary type, hole diameter 8.1mm



U1 = groove width 8.1mm, hole diameter 6.1mm



U2 = groove width 8.1mm, hole diameter 8.1mm

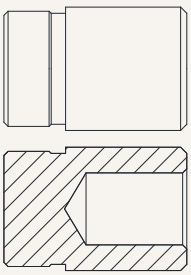


M1 = Type M, M12 thread, depth 20 mm

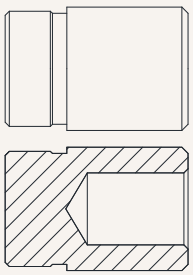
M2 = Type M, M14 thread, depth 20 mm

T1 = T-type, M12 thread, length 20mm

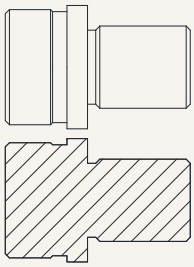
T2 = T-type, M14 thread, length 20mm



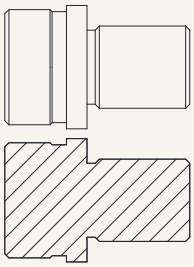
L1 = L shape, width 6mm, aperture 6.1mm



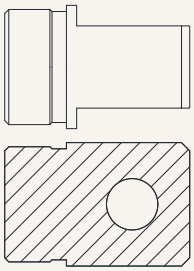
L2 =L shape, width 6mm, aperture 8.1mm

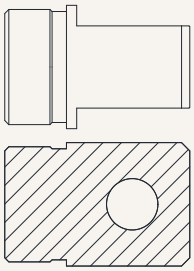


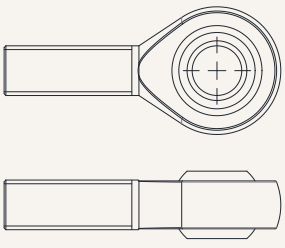
G1 = Spherical bearing, bore 10mm, model GS10

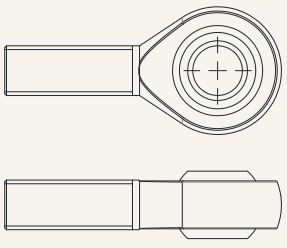


G1 = Spherical bearing, bore 12mm, model GS12







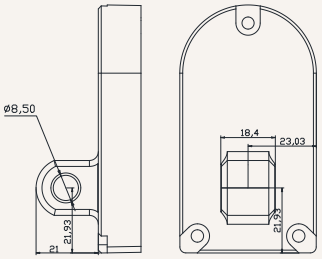


KZ = Customized

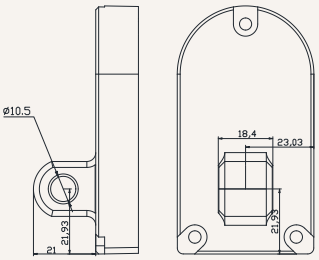
HTA15 Attachment Description Selection Code Table

Tail lower end form:

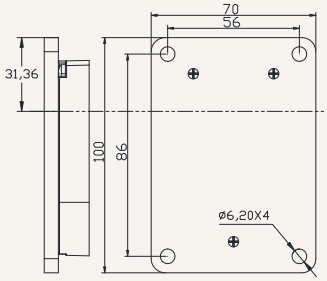
O1 = No slot, aperture 6.5mm



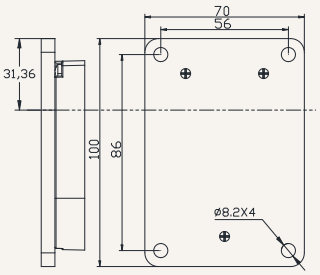
O2= No slot, aperture 8.5mm



P1 = T-type, four mounting holes 6.5 mm

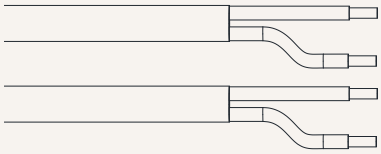


P2 = T-type, four mounting holes 8.5 mm

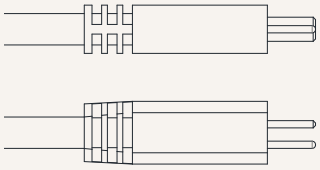


Power Cord Plug Type Code Table

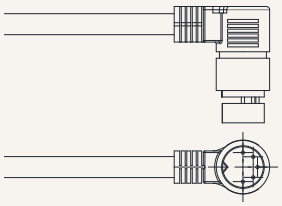
1 = Dare wire



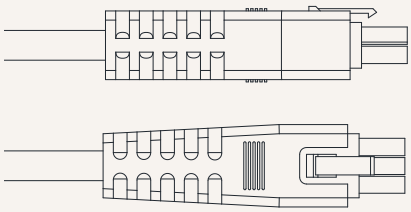
2 = O1 Straight plug



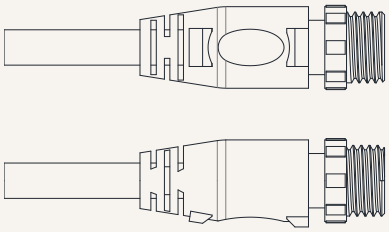
3 = 4-pin angled plug



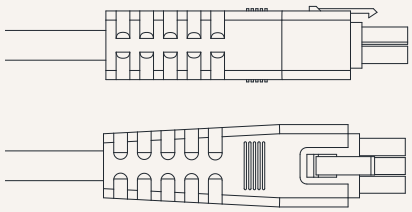
4 = 4-pin straight plug



8 = Waterproof plug



9 = 6-pin straight plug



0 = Customized

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