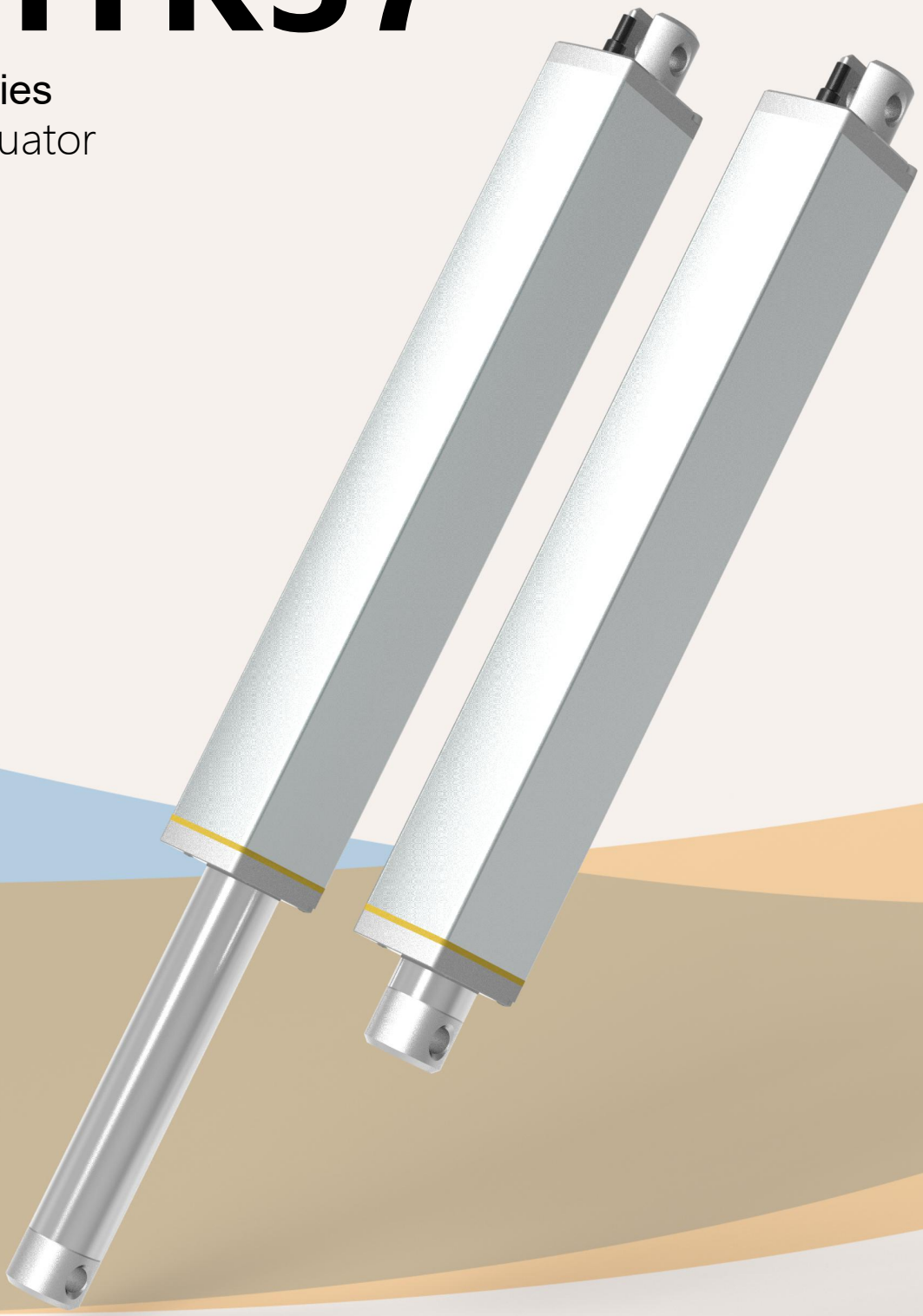
YABEi
MOTIONS DRIVE
GeMinG Group

HTK37

Series
Actuator

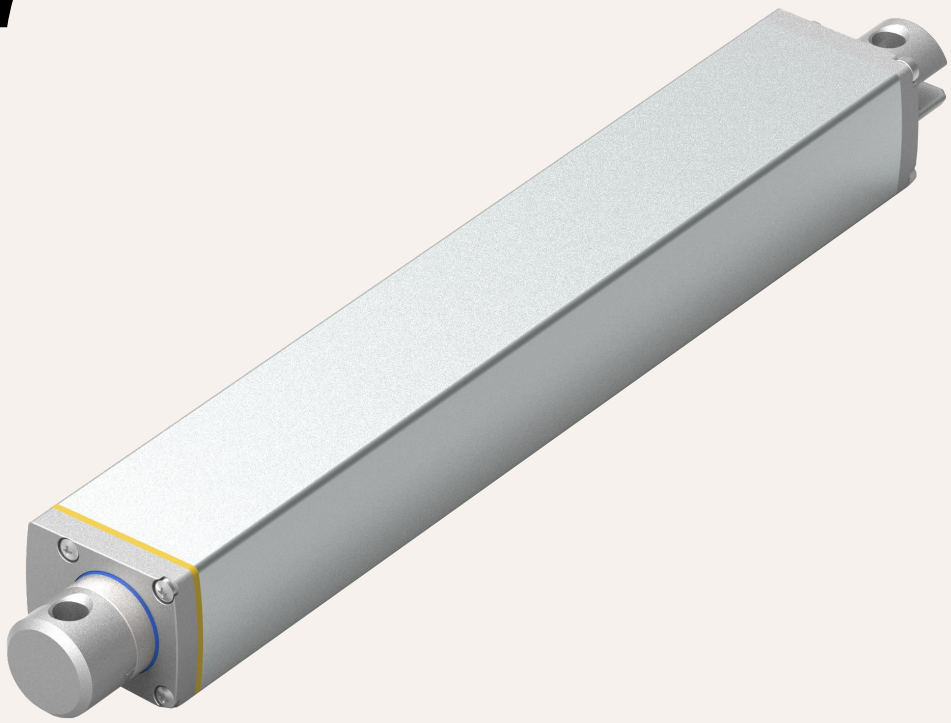


GeMing Driven Technology Co.,Ltd
YaBei Electrical Technology Co,Ltd
www.gemingtech.com

HTK37

Series

Actuator



Product Category

1. Industrial application
2. Automotive applications
3. Firefighting

HTK37 is one of the powerful products in the industrial application product line. The compact installation size allows the K37 to be installed in small space applications without worrying about affecting its performance. The applicable industries of HTK37 are construction machinery, ventilation systems, or food and beverage automation equipment...etc.

Functional Overview

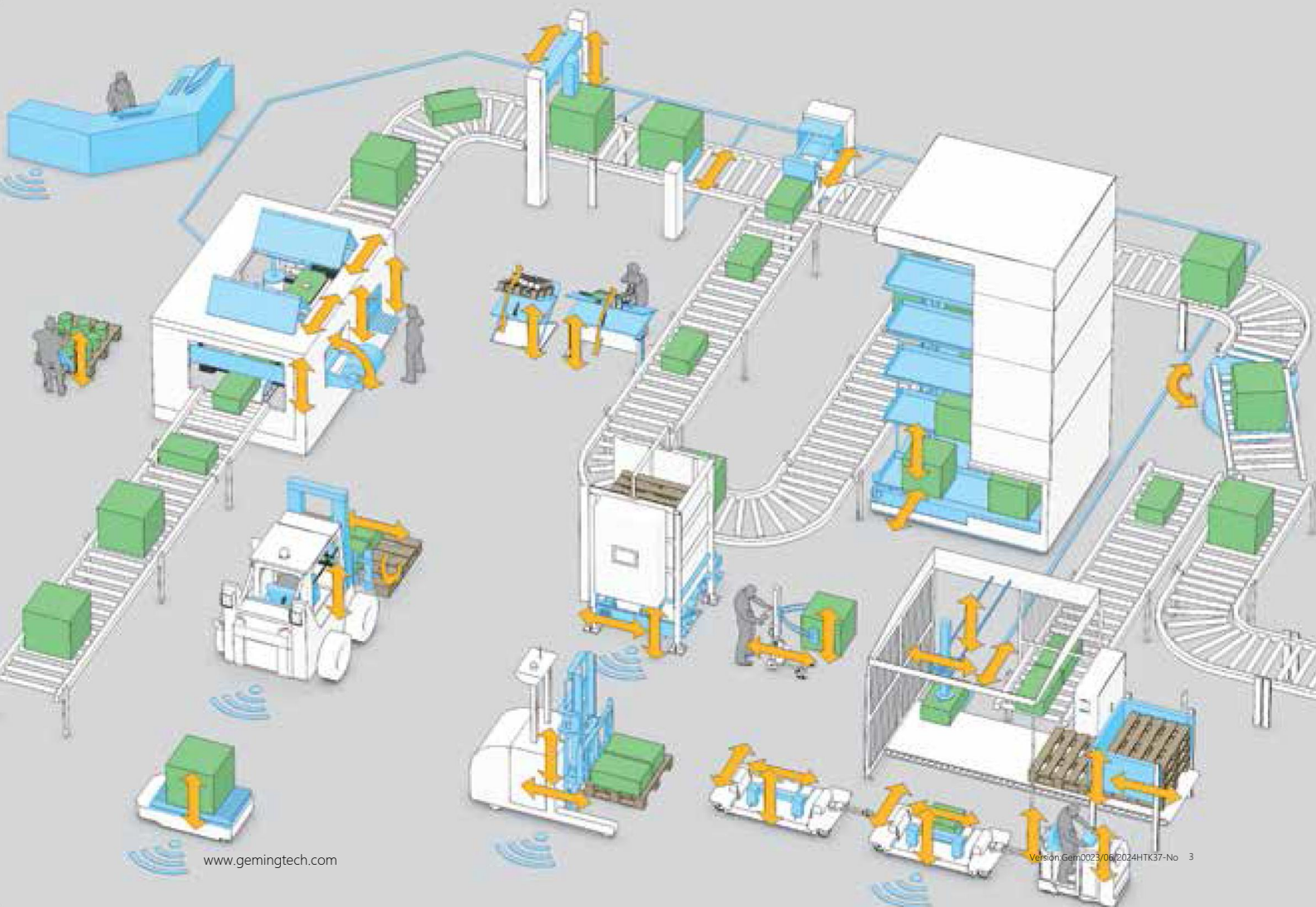
Voltage:	12V DC or 24V DC， Motor Power: 29W
Maximum thrust (pull force):	3000N
Slowest speed under load:	3.4mm/s (load 3000N)
Maximum speed under load:	50.9mm/s (load 200N)
Minimum installation size:	Stroke + 230mm
Dynamic lateral moment:	50Nm
Static lateral moment:	80Nm
color:	Silver gray, black
Voice:	52~58 DB
Adaptable temperature range:	-35°C ~ +75°C
Protection level:	IP65
Screw selection:	Trapezoidal screw, ball screw (default trapezoidal screw)
Switch type:	Built-in limit switch,
Signal options:	Hall sensor, active signal, passive signal,
Control options:	CE and RoHS regulations,
safety certificate:	Synchronous control, independent control Comply with ISO9001-2008,

Automation field applications

Actuator system provides smooth linear electric motion to the motor

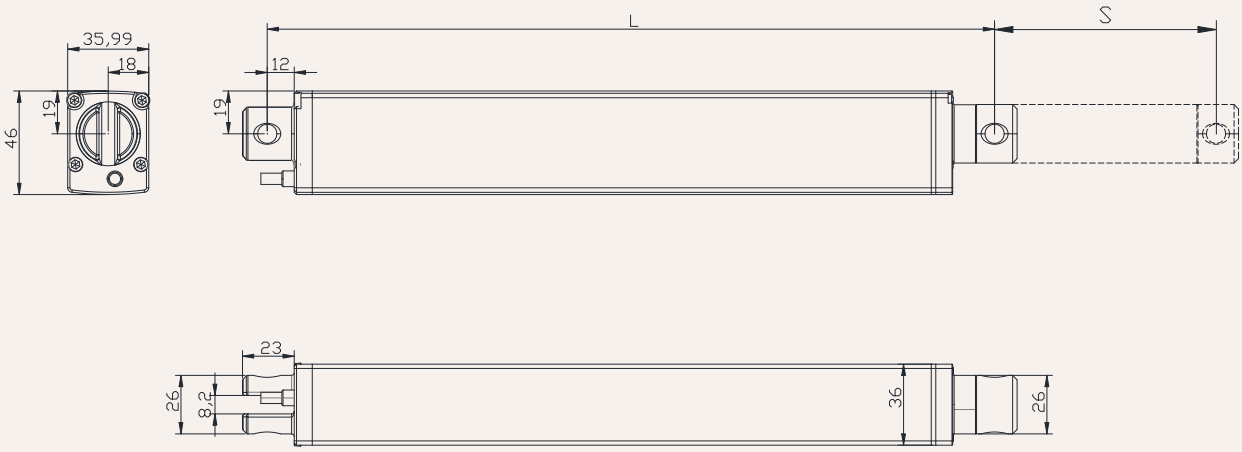
Everything becomes easy to control and easy to integrate

Due to its small size, it is put into a straw cone blower. GeMinG actuators are usually classified with more complex hydraulic systems and actuators, are easy to install, and provide reliable and simple operation even in harsh conditions.



Drawings

Standard size
MM



S: Stroke

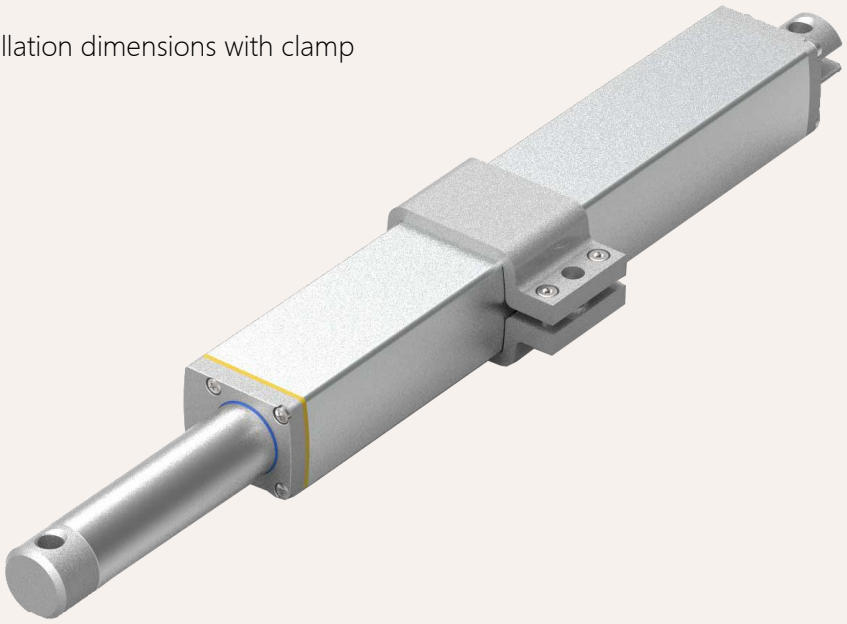
L: Retracted length

L= Stroke +230mm

Greater than 500MM stroke, installation dimensions L= Stroke +250MM

Free installation method:

X =Free installation dimensions with clamp



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	1700	1500	1700	4.1	6.7	5.4
B	1100	1200	1100	4.1	9.5	7.6
C	900	750	900	4.1	14.3	11.5
D	600	500	600	4.1	21.0	17.0
E	300	250	300	4.1	42.0	33.0
F	200	180	200	4.1	63.0	50.0
G	3000	2000	3400	4.1	3.4	2.7
H	2000	1600	2200	4.1	6.7	5.4

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
500	601-900

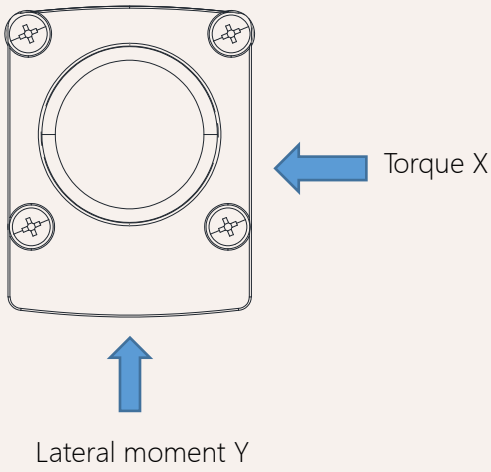
Remark:

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	80	120
300-500	70	90
500-700	50	70
700-900	30	50



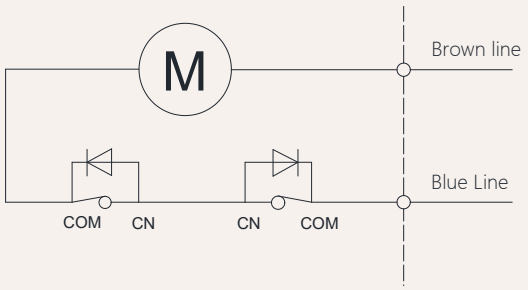
Stroke installation size reference chart

HTK37 Series	stroke ± 2 (mm)				Install ± 2 (mm)				
strokeMM	100	150	200	250	300	350	400	450	500
Install MM	330	380	430	480	530	580	630	680	750
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 -

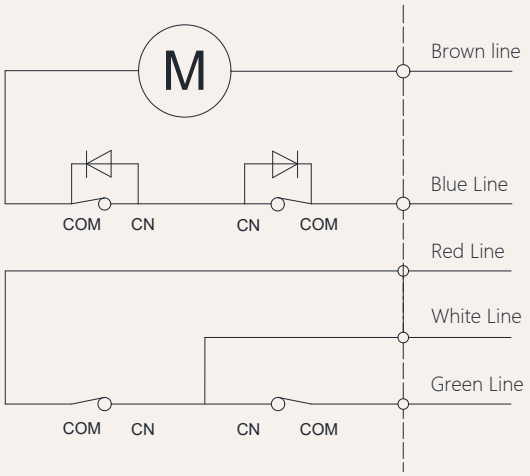
3】When the push rod is extended: the brown wire is positive +, the blue wire is negative -

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

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

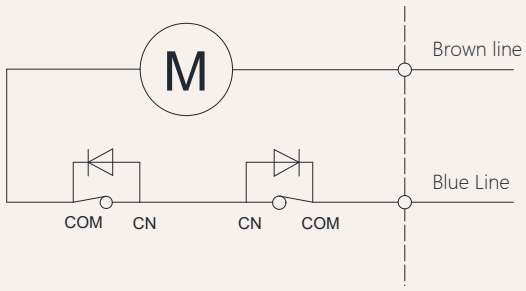
Feedback signal	Description	Function
Active endpoint feedback signal	Voltage with this model	When the push rod reaches the end point, a signal will be fed back. This signal will always exist and will disappear during the operation of the push rod.,
Passive endpoint feedback signal	No voltage	When the 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

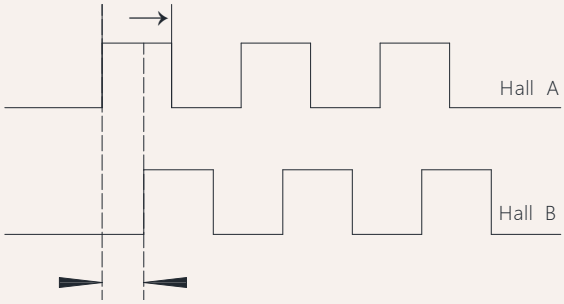
Signal feedback Hall sensor

Hall signal motor circuit diagram

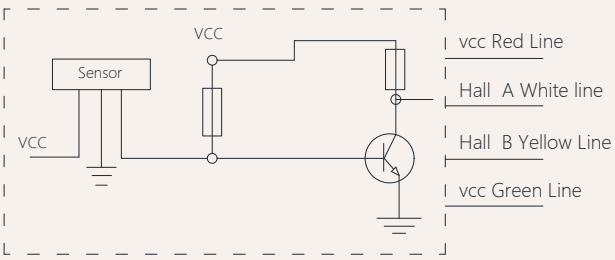
Code：H



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

HTK37 Model Description Selection Code Table

HTK37	-	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	HTK37			
②	Voltage	12=12V DC	24=24V 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 = Regular type, hole diameter 8.5mm	O2 = Regular type, hole diameter 10.5mm		
		U1 = slot width 15mm, hole diameter 8.5mm	U2 = slot width 15mm, hole diameter 10.5mm		
		M1 = M16 internal thread, depth 15 mm	M2 = M18 wind thread, depth 15 mm		
		T1 = M16 external thread, length 15mm	T2 = M18 external thread, length 15mm		
		L1 = 14mm width, 8.5mm aperture	L2 = 14mm width, 10.5mm aperture		
		G1 = Spherical plain bearing, type GS12	G2 = Spherical plain bearing, type GS14		
⑦	lower type See page 14	O1 = U-type, slot width 8.2mm, hole diameter 8.5mm	O2=U-type, slot width 8.2mm, hole diameter 10.5mm		
		KD =Customization			
⑧	Installation angle (counterclockwise)	0 =0°, Degree	9 =90°, Degree		
⑨	Please refer to the outlet type	12 = 2-core bare wire	25 = 7-core bare wire		
		4 = Four-pin straight plug	6 = Six-pin straight plug		
		7 = Waterproof plug	K = Customized		
⑩	Lead screw options	T = Trapezoidal screw (default preferred)	G=Ball screw		
⑪	Control method	A = No Control	C = ***	Y =***	N=***
		T = Synchronous control	K= Customization		
⑫	Signal output options	N = None	H =Hall sensor		
⑬	Cable length	07 = length 0.7 M	10 = length 1.0 M	15 =length 1.5 M	20= length 2.0 M
		30 = length 3.0 M	40 =length 4.0M	50 =length 5.0 M	60= length 6.0M
		70 = length 7.0 M	70 =length 8.0 M	90 =length 9.0 M	00 =Customization