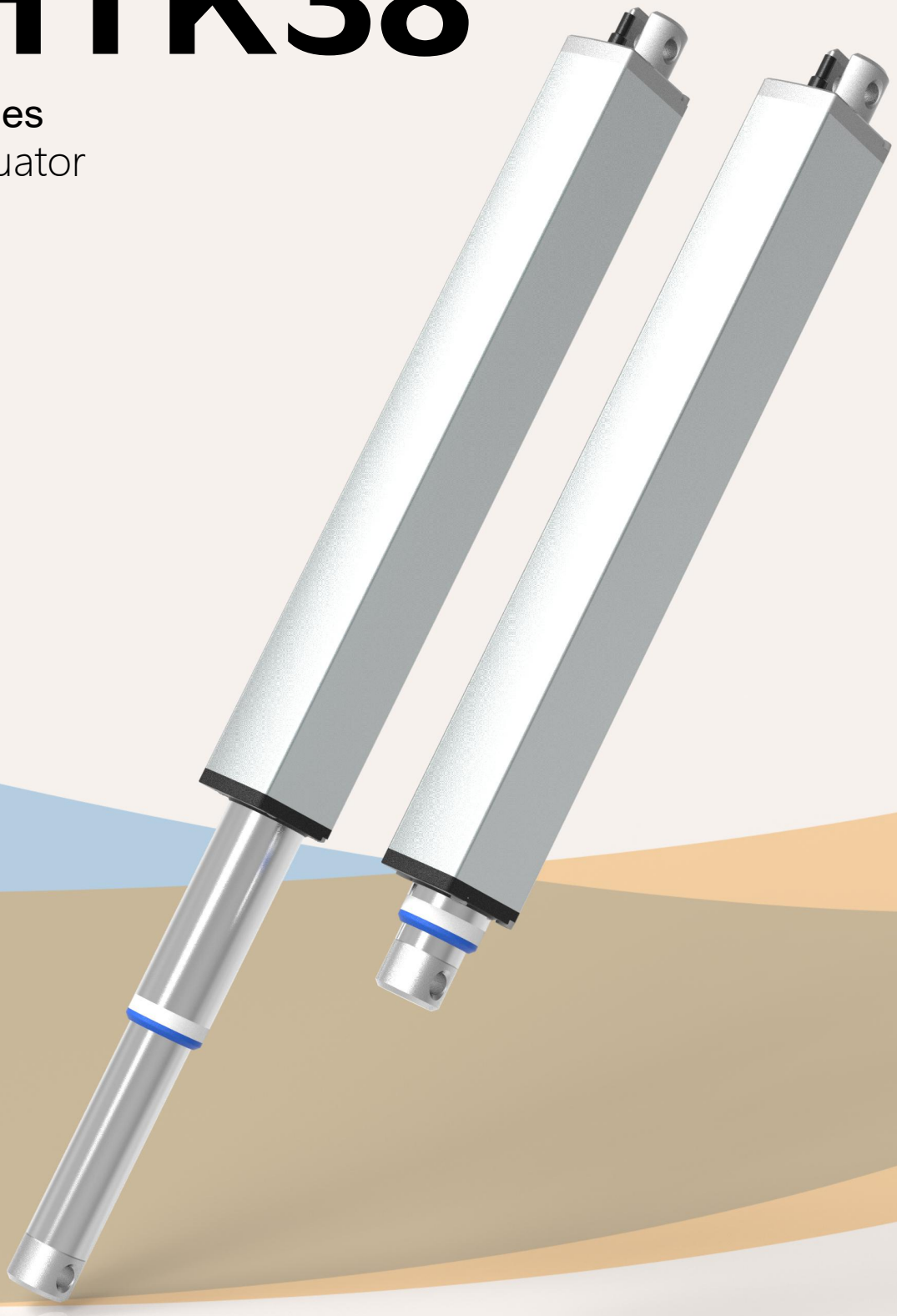
YABEi
MOTIONS DRIVE
GeMinG Group

HTK38

Series
Actuator



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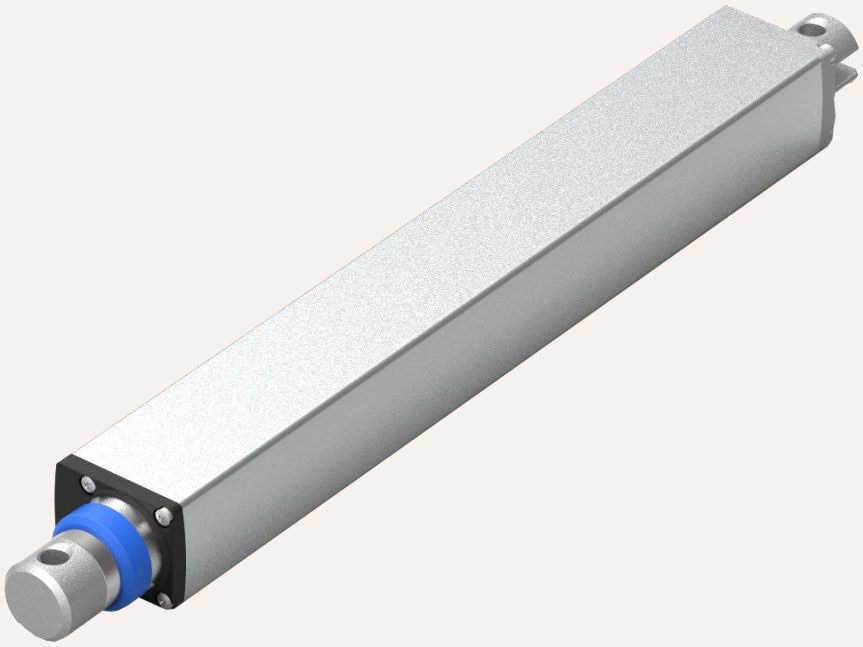
Actuator



Product Category

1. Industrial application
2. Automotive applications
3. Firefighting

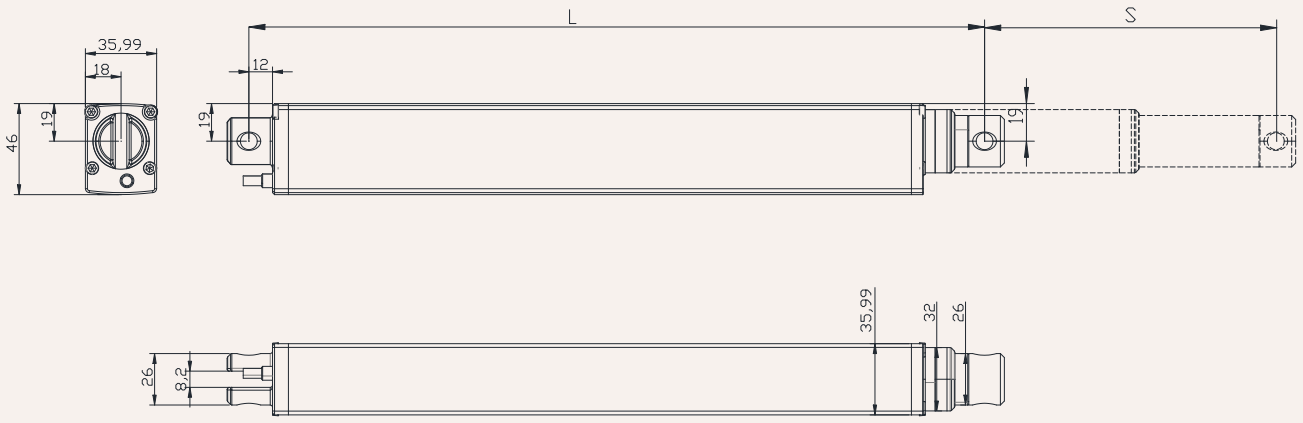
HTK38 is one of the powerful products in the industrial application product line. The compact installation size allows the K38 to be installed in small space applications without worrying about affecting its performance. The applicable industries of HTK38 are construction machinery, ventilation systems, or food and beverage automation equipment...etc.

Functional Overview

Voltage:	12V DC or 24V DC
Maximum thrust (pull force):	1,500N
Slowest speed under load:	5 mm/s (load 1,500N)
Maximum speed under load:	100 mm/s (load 100N)
Minimum installation size:	Stroke /2 + 280mm
Dynamic lateral moment:	30Nm
Static lateral moment:	40Nm
color:	Silver gray, black
Voice:	52~58 DB
Adaptable temperature range:	-35°C ~ +75°C
Protection level:	IP65
Screw selection:	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,

Drawings

Standard size
MM



S: Stroke

L: Retracted length

L= Stroke /2 +280mm

Greater than 8 00MM stroke, installation dimensions L= Stroke /2 +300MM

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	1,500	1,500	1,500	2.0	6.0	4.8
B	950	950	950	2.0	12	9.5
C	400	400	400	2.0	26	21
D	200	200	200	2.0	53	42
E	100	100	000	2.0	100	84

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

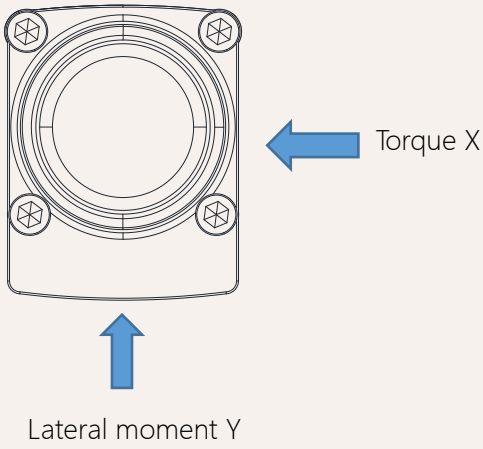
Remark:

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



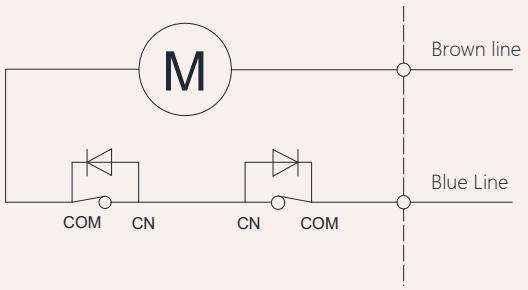
Stroke installation size reference chart

HTK38 Series	stroke ± 2 (mm)				Install ± 2 (mm)				
strokeMM	100	200	300	400	500	600	700	800	900
Install MM	330	380	430	480	530	580	630	680	750
weight KG	1,5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9

Actuator wiring diagram

No signal feedback wiring diagram

Code：N



Wiring Instructions:

1】Brown lead: motor positive +

2】Blue lead: motor negative pole -

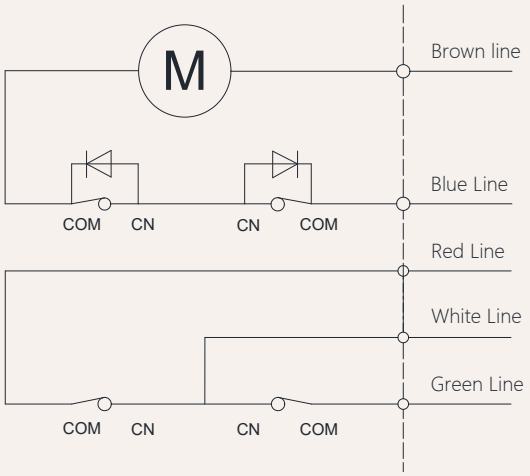
3】When the push rod is extended: the brown wire is positive +, the blue wire is negative -

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.

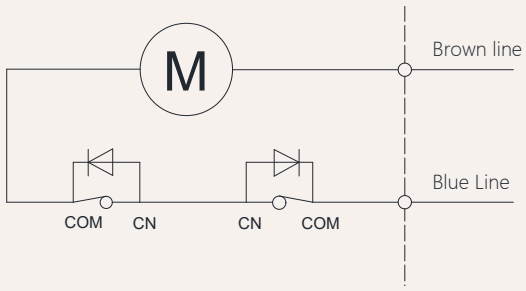
Other signal descriptions

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		

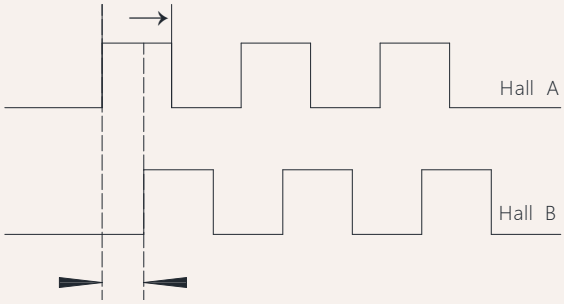
Signal feedback Hall sensor

Hall signal motor circuit diagram

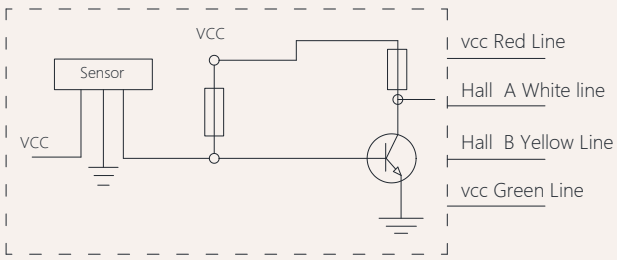
Code：H



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

HTK38 Model Description Selection Code Table

HTK38	-	24	-	A	-	200	-	380	-	O1	-	O1	-	0	-	1	-	T	-	A	-	N	-	07
①		②		③		④		⑤		⑥		⑦		⑧		⑨		⑩		⑪		⑫		⑬

①	Product number	HTK38			
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 =Conventional ordinary type, hole diameter 8.5mm		O2 = Conventional ordinary type, hole diameter 10.5mm	
		U1 = U-shaped, groove width 8mm, hole diameter 8.5mm		U2 = U-shaped, groove width 8mm, hole diameter 10.5mm	
		M1 = Type M, M14 thread, depth 20 mm		M2 = MType M, M16 thread, depth20 mm	
		T1 = T-type, M14 thread, length 20mm		T2 = T-type, M16 thread, length 20mm	
		L1 =L shape, width 8mm, aperture 8.5mm		L2 = L shape, width 8mm, aperture 10.5mm	
		G1 = Spherical bearing, bore 10mm, model GS10		G2 = Spherical bearing, bore 12mm, modelGS12	
⑦	lower type See page 14	O1 =Conventional ordinary type, hole diameter 8.5mm		O2 = Conventional ordinary type, hole diameter 10.5mm	
		U1 = U-shaped, groove width 8mm, hole diameter 8.5mm		U2 = U-shaped, groove width 8mm, hole diameter 10.5mm	
⑧	Installation angle (counterclockwise)	0 =0°，Degree		9 =90°，Degree	
⑨	Please refer to the outlet type	1 = Dare wire		2 = 01 Straight plug	
		4 = Four-pin straight plug		6 = Six-pin straight plug	
		7 = Waterproof plug		0 = Customized	
⑩	Lead screw options	T = Trapezoidal screw (default preferred)		G= Ball screw rod	
⑪	Control method	A = No Control	NY =Integrated wired control NW=Integrated wireless control	NT = Synchronous control NC = CAN bus	D= Customized
⑫	Signal output options	N = No	H =Hall sensor	D = Potentiometer	W=passive signal U=active signal
⑬	Cable length	07 = 700mm 30 = 300mm	10 = 1000mm 40 = 4000mm	15 = 1500mm 70 = 7000mm	20= 2000mm 00 =Customized