GeMinG Linear Drive

HTK

Series
Actuator

www.Gemingtech.com

Version:Gem00373/10/2025TK35-No

HTK35

Series

Actuator

Product Category

1、Industrial Applications

2、Automotive

3、Firefighting

HTK35 has the same design as K55 and K75, which are linear actuators mainly used in industrial applications that require heavier loads. It is also very suitable for product applications that require a small installation space. The waterproof rating of this linear actuator can reach up to IP69 (optional). It can withstand high temperature, high pressure water impact, and the ingress of dust and other solid pollutants. It is suitable for engineering machinery, ventilation systems, or food and beverage automation equipment... etc.

Functional Overview

Voltage:	12V , 24V DC
Motor Options:	DC motor
Maximum thrust (pull):	1800 N
Slowest speed under load:	5.0mm / s (load 1800N)
Maximum speed under load:	50mm / s (load 200N)
Minimum installation size:	Stroke + 240mm
Dynamic lateral moment:	50Nm
Static lateral moment:	80Nm
color:	Silver grey, black
Voice:	55~65 DB
Applicable temperature range:	-35 ° C ~ + 75 ° C
Protection level:	IP68
Screw selection:	Ball screw, trapezoidal screw
Switch Type:	Unlimited switch,
Signal options:	Hall sensor,
Control options:	Synchronous control, independent control
Safety certification:	Comply with ISO9001-2008, CE and RoHS, specifications,

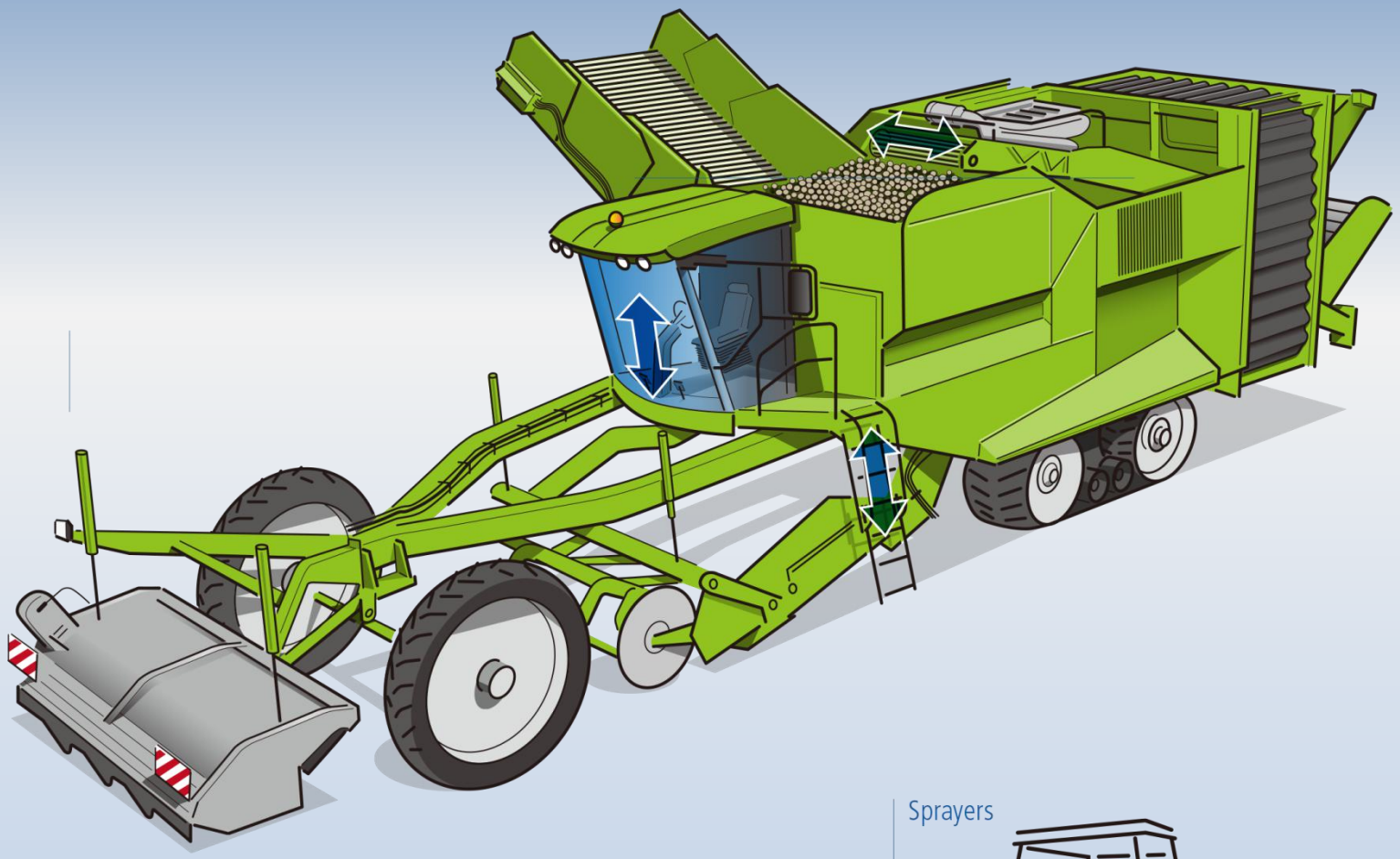
Download 3D model

Potato harvester application case

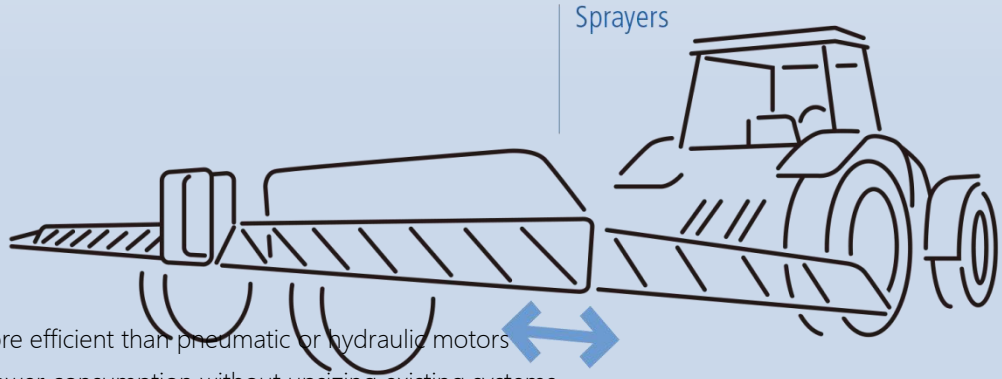
Adjust knives, tables and ladders.

Steering wheel and

Pilot seat



Sprayers



Reduce energy costs

- Electric motors are inherently more efficient than pneumatic or hydraulic motors
- Account for potential parasitic power consumption without upsizing existing systems
- No need for any power supply to maintain load and reduce power consumption

Reduced maintenance

- No use of hydraulic pumps, valves or hoses reduces downtime, maintenance parts and replacement
- Standalone device electronics with intelligent onboard devices requiring zero maintenance, increasing design flexibility for component placement
- Electric actuation eliminates the cost and hassle associated with fluid maintenance

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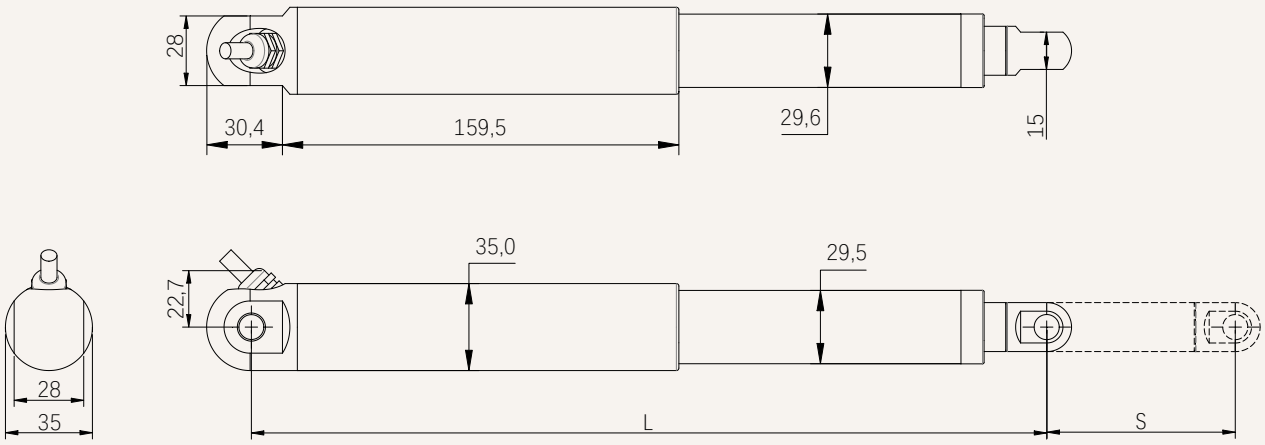
Drawings

Standard size
MM



S: Stroke

L: Retracted length

L= Stroke +240mm

More than 500MM stroke, installation size L= Stroke +260MM

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	1800	1800	2000	4.1	5.5	4.4
B	1200	1200	1000	4.1	8.5	7.6
C	750	750	300	4.1	14.3	11.8
D	500	500	1200	3.8	21.7	17.3
E	250	250	250	2.4	42.4	33.8
F	180	180	180	2.2	63.7	50.9

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

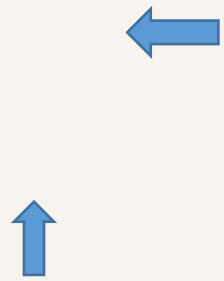
Remark:

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



Lateral moment Y

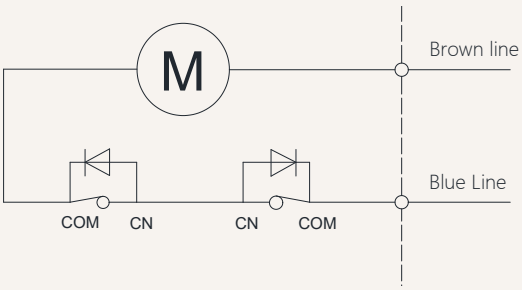
Stroke installation size reference chart

HTK35 Series	stroke ± 2 (mm)				Install ± 2 (mm)				
strokeMM	100	150	200	250	300	350	400	450	500
Install MM	340	390	440	490	540	590	640	690	760
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 -

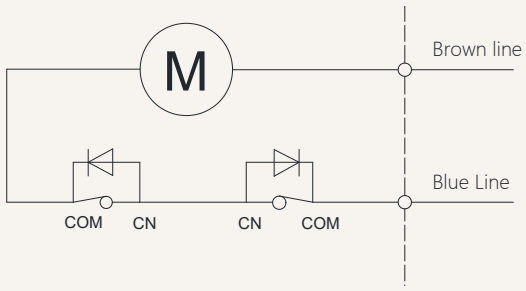
3】When the push rod is extended: the brown wire is positive +, the blue wire is negative -

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

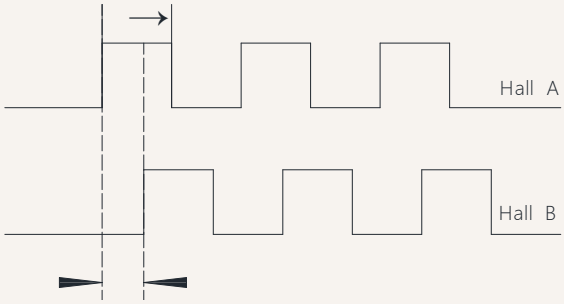
Signal feedback Hall sensor

Hall signal motor circuit diagram

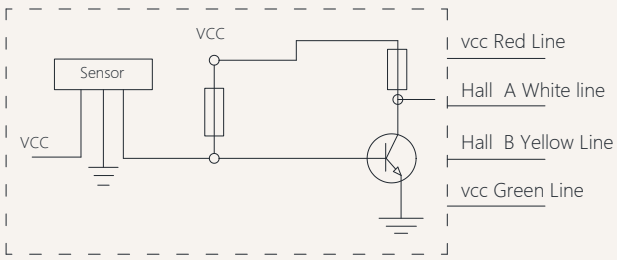
Code: H



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

HTK35 Model Description Selection Code Table

HTK35	-	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	HTK35			
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	O1 = Regular type, hole diameter 10.5mm	O2 = Regular type, hole diameter 12.5mm		
		U1 = slot width 15mm, hole diameter 10.5mm	U2 = slot width 15mm, hole diameter 12.5mm		
		M1 = M12 internal thread, depth 15 mm	M2 = M12 wind thread, depth 15 mm		
		T1 = M12 external thread, length 15mm	T2 = M12 external thread, length 15mm		
		L1 = 14mm width, 10.5mm aperture	L2 = 14mm width, 12.5mm aperture		
		G1 = Spherical plain bearing, type GS10	G2 = Spherical plain bearing, type GS12		
⑦	lower type	O1 = L-type, width 28mm, aperture 10.5mm	O2= L-type, width 28mm, aperture 12.5mm		
		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