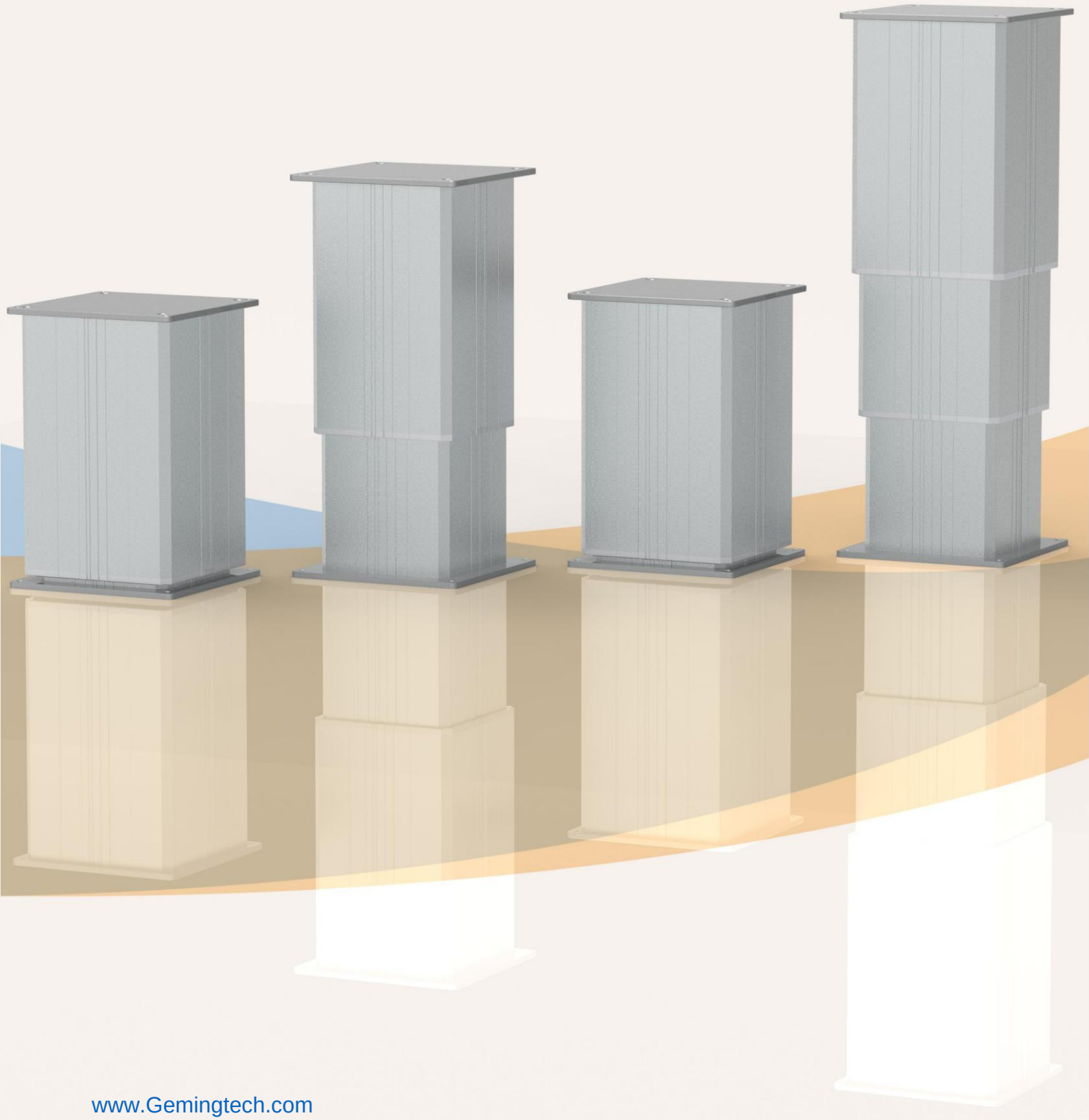
TDS

Series

Rising Columns



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TDS2

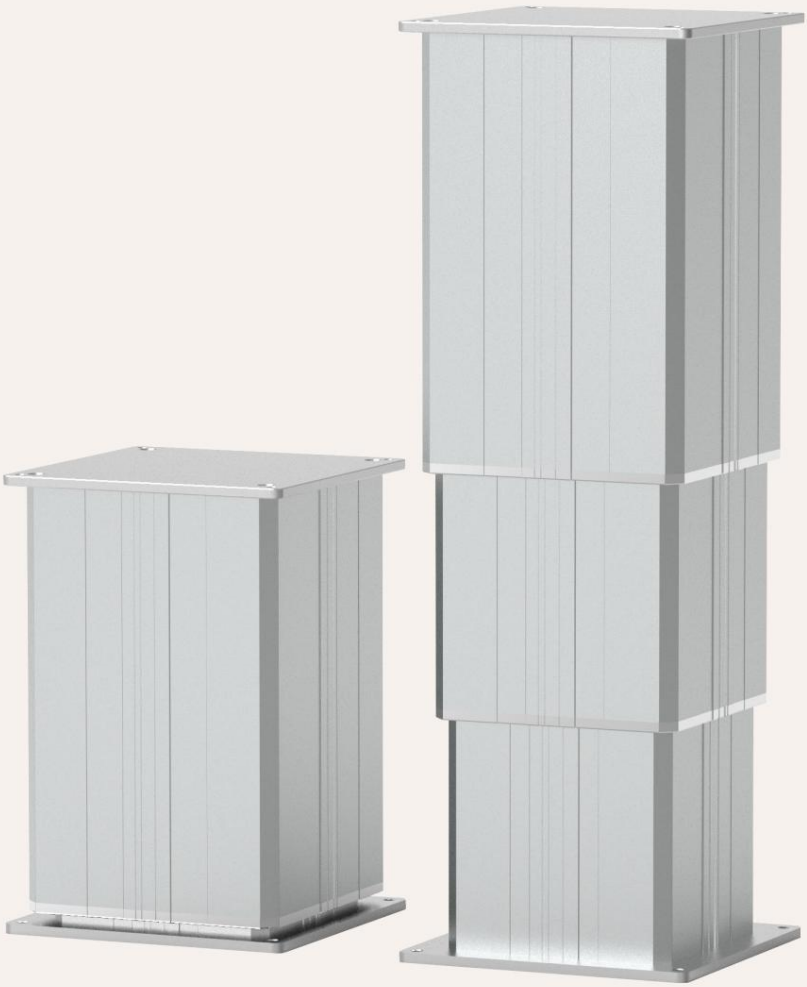
Series Electric

Lifting Column

TDS3

Series Electric

Lifting Column



Load & Speed Reference Chart

Speed ratio speed code	J	I	H	G	F	E	D	C	B	A
Model: TDS2										
220V AC load push-pull force (N)	1,000	1,200	1,600	2,000	3,000	4,000	5,000	6,000	8,000	10,000
Load speed (mm/s)	100	85	75	60	40	30	twenty four	20	15	10
Maximum load current: 48VDC (maximum 53VDC) = 8A, 220V AC (maximum 240VAC) = 2.5A										
Model: TDS3										
220V AC load push-pull force (N)		800	1,000	1,300	1,600	2,000	2,500	3,200	4,000	5,000
Load speed (mm/s)		100	80	60	48	40	30	twenty four	20	15
Maximum load current: 48VDC (maximum 53VDC) = 8A, 220V AC (maximum 240VAC) = 2.5A										

TDS2 series					TDS3 series			
S Itinerary MM	150	200	250	300	300	400	500	600
L Installation dimensions	350	400	450	500	375	400	500	550
S+L unfolding height	500	600	700	800	675	800	1000	1150

Product Category

1. Industrial Applications

2. Medical Applications

3. Furniture application

TDS is one of GeMinG's lift-up column products, professionally designed for medical and work environments such as hospital beds and home care.

Applications include beds, examination tables, and height-adjustable workbenches. The TDS3 uses a three-section outer tube to provide stable movement and offers...

Minimal installation size and longer travel options.

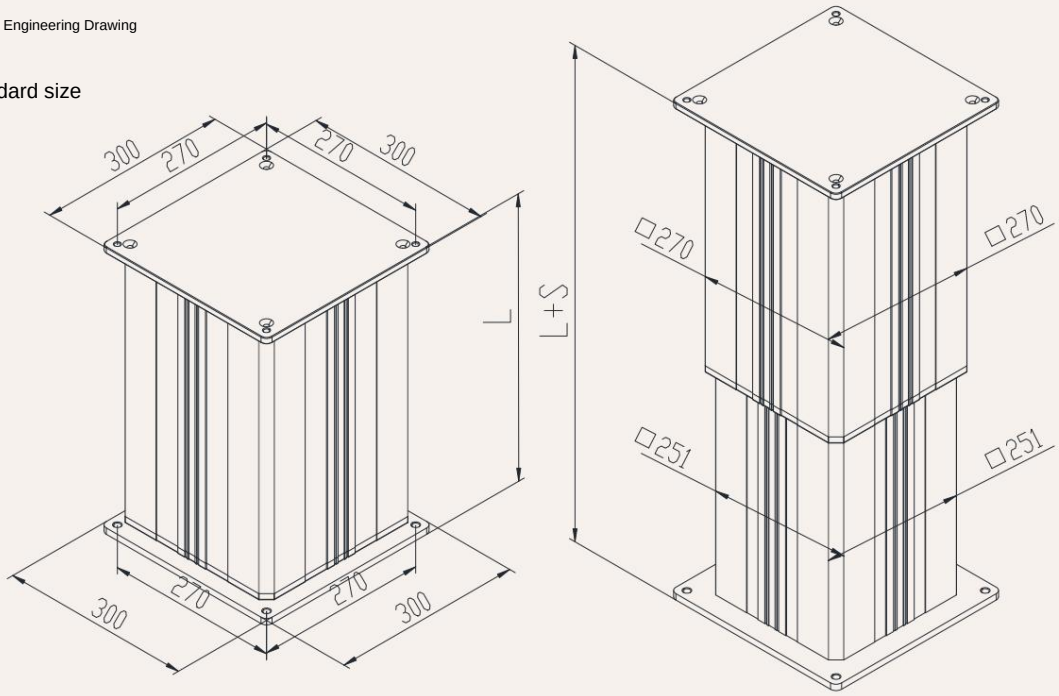
Function Overview

Voltage:	48V DC, 220V AC
Motor options:	DC motor, AC motor
Maximum thrust (pull):	8,000 N / 4,000 N
Slowest speed under load:	15mm / s (load 8,000N)
Maximum speed under load:	60 mm / s (load 2000N)
Minimum installation size:	Travel/2 + 200mm
Dynamic lateral torque:	2000Nm
Static lateral torque:	3500Nm
color:	Silver gray, black
Voice:	48~58 DB
Suitable temperature range:	-25°C to +65°C
Protection level:	IP54
Screw selection:	Trapezoidal Screw
Switch type:	Built-in limit switch
Signal options:	Hall effect sensor, endpoint signal
Control options:	Synchronous control, independent control, integrated control, CAN bus control.
Safety Certification:	Comply with ISO9001-2008.
High-strength zinc alloy gearbox and housing.	CE and RoHS regulations

TDS2 - Engineering Drawing

Standard size

MM



S = Stroke

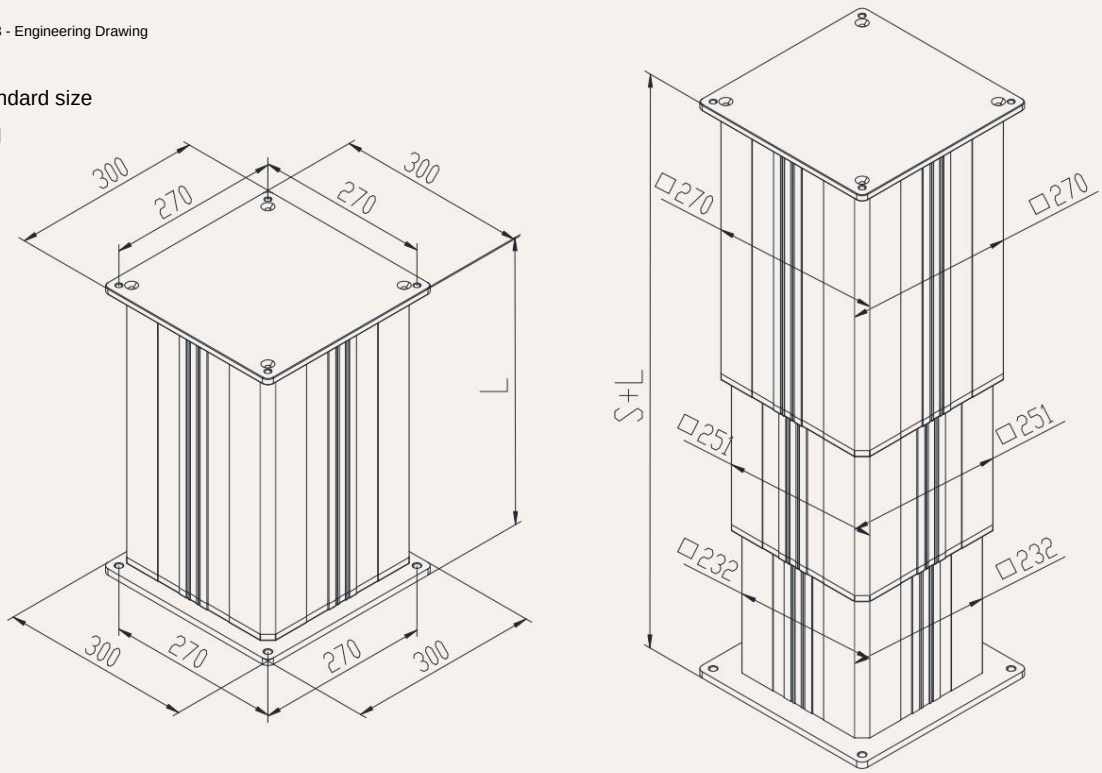
L = Minimum height (Retracted length)

L = Stroke + 200mm

TDS3 - Engineering Drawing

Standard size

MM



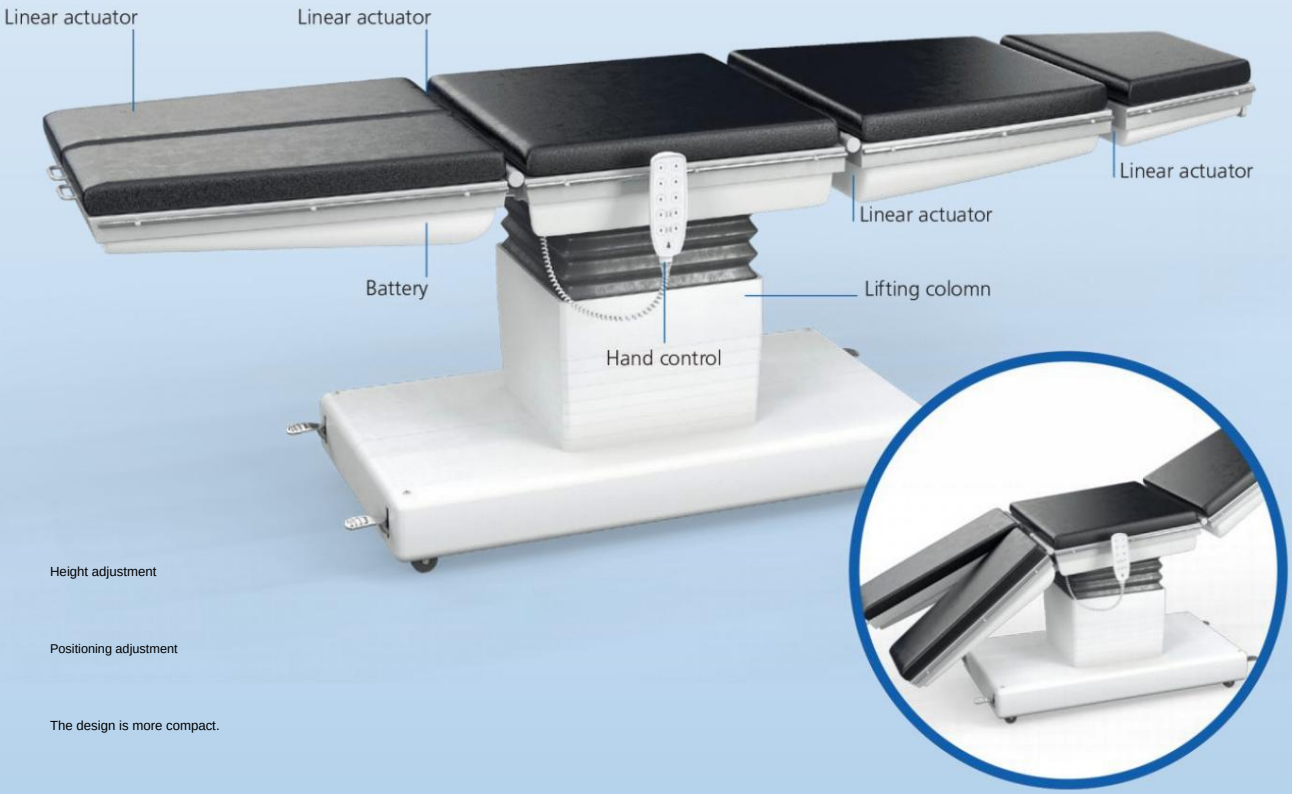
S = Stroke

L = Minimum height (Retracted length)

L = Stroke / 2 + 250mm

Medical actuator application system

Precise, powerful, fast, and flexible operation



Height adjustment

Positioning adjustment

The design is more compact.

This makes it easier to install in small spaces.

It is very suitable for designing different types of automation equipment.

Unmanned transport vehicles and lifting equipment,

At the same time, it retains many of its popular advantages!

Standard stroke: Minimum ÿ 20mm. Please refer to the table below for maximum load and stroke.

Load (N)	Maximum travel (mm)
8,000	200-300
6,000	301-400
4,000	401-500
3,000	501-600
2,000	601-900

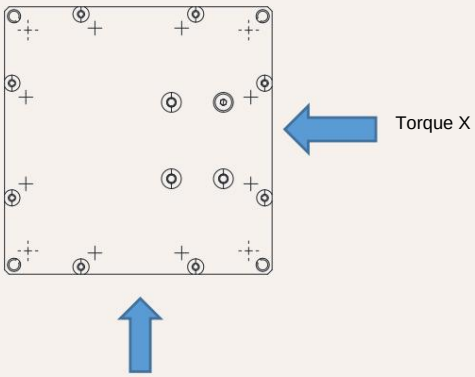
Note:

Lateral torque Y direction = X * 0.8

Static lateral torque = Dynamic * 2

Dynamic lateral torque (Nm) - X direction

journey	S/2+250	S/2+300
100-300	2000	3000
300-500	1500	2000
500-700	1200	1500
700-900	1000	1200



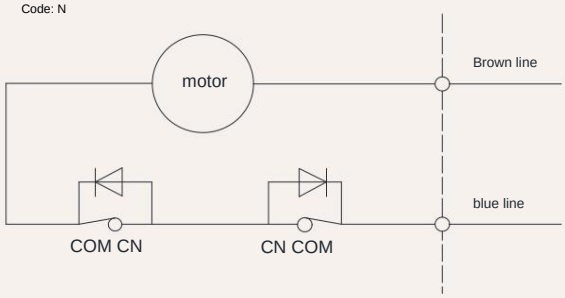
Installation Dimensions Reference Chart

TDS2 series				TDS3 series			
S-shaped route MM 150	200	250	300	300	400	500	600
L-mount size 350	400	450	500	375	400	500	550
S+L unfolding height 500	600	700	800	675	800	1000	1150

Actuator wiring diagram

Wiring diagram without signal feedback

Code: N



Wiring instructions:

1. Brown lead: Motor positive terminal +

2) Blue lead: Motor negative terminal -

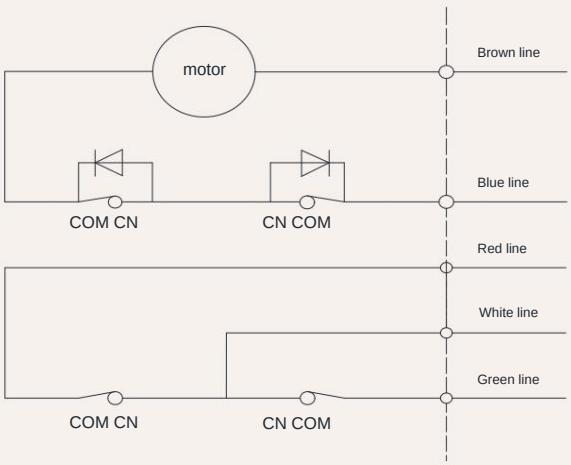
3. When the push rod extends: Brown wire is positive +, blue wire is negative -

4. When the push rod retracts: Blue wire is positive +, brown wire is negative -

Actuator wiring diagram with built-in control module

Wiring diagram of built-in controller

Code: Y



Wiring instructions:

1. Brown lead: Motor positive + 2. Blue lead:

Motor negative - 3. When the push rod extends:

White lead + Red lead 4. When the push rod retracts: White lead

+ Green lead

5ÿWhite line: Control output common line.

6ÿWhite and red lines: Extend; 7ÿWhite

and green lines: Retract; 8ÿWireless

remote control, can be used in conjunction with wired control.

Other signal descriptions

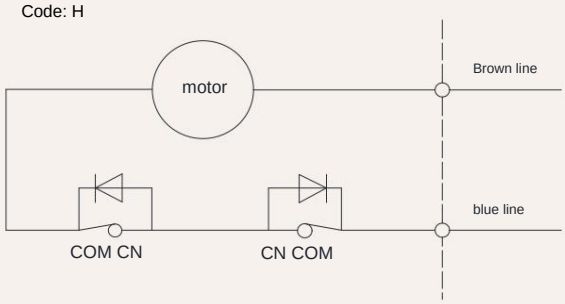
Feedback signal	illustrate	Function
Active endpoint feedback signal	With the voltage of this model	The putter sends a feedback signal when it reaches the finish line. This signal remains active and only disappears during the rest of the putter's stroke.
Passive endpoint feedback signal	No voltage	The push rod sends a feedback signal when it reaches the end point. This signal is sent when the input power is not turned off. The signal is always present in the normal state, but disappears when the input power is turned off. The signal will also disappear during operation.

Note: For other needs, please contact the GeMinG team.

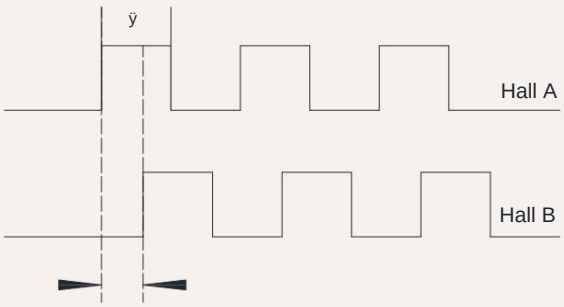
Signal feedback Hall effect sensor

Hall effect motor circuit diagram

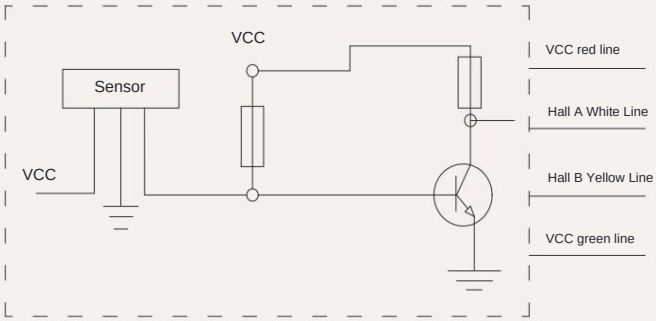
Code: H



Hall effect signal output waveform diagram



Hall effect internal wiring diagram



Wiring instructions:

Wiring instructions:

1. Brown lead wire: Motor positive terminal +

2ÿBlue lead wire: Motor negative terminal -

3ÿRed lead: VCC 5V voltage input +

4ÿGreen lead: GND 5V voltage input - 5ÿWhite

lead: Hall signal output A

6ÿYellow lead: Hall signal output B

Note:

1) Supports dual-channel/single-channel Hall encoders

2) Current-consuming digital output

3) High-speed response frequency from: 0 kHz to 100 kHz

4) Applicable temperature range: -40ÿ to +125ÿ

characteristic	Symbol test conditions	MI	RE	M	unit
Supply voltage Vcc	----	3.5	---	twenty four	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=820ÿ; CL=20pF ---		0.3	1.5	US

TDS2	-	48	A	***	***	-	O1	O1	0	1	T	N	N	30
1		2	3	4	5		6	7	8	9	10	11	12	13

1 Model prefix

TDS2 = Two-stage

TDS3 = Three-section

2 Voltage

48 = 48V DC

22 = 220V AC

3 Loading (n) @ speed (mm/s)

Please refer to page 12.

4 Travel (mm)

Note: Please refer to the valid parameter table before selecting a size!

5 Installation dimensions (mm)

6 Upper type

Please refer to page 12.

O1 = Standard pipe type, M8 mounting screws recessed 30mm.

O2 = Enlarged panel type, 8mm mounting hole.

K = Customization

7 Lower type

Please refer to page 12.

O1 = Standard pipe type, M8 mounting screws recessed 30mm.

O2 = Enlarged panel type, 8mm mounting hole.

K = Customization

8 Outbound Position

0 = Top of the upper panel

1 = Top side

2 = bottom side

3=Inner wiring panel

4= Side of the inner routing line

5=Inner side of the line

9 Type of outgoing line

1 = Bare wire

2 = 01 straight plug

4 = Four-pin straight insertion

6 = Six-pin straight insertion

7 = Waterproof plug

0 = Servo conventional drive cable

K = Customization

10 Screw Options

T = Trapezoidal lead screw (default preferred)

G = Ball screw

11 Control Method

N = No control

C = CAN communication control

T = Synchronization control

K = Customization

Y = Integrated wired control

W = Integrated wireless remote control

12 Signal Output Options

N = None

H = Hall sensor

U = active signal

W = Passive signal

AN = CAN communication

13 Cable length

07 = Line length 0.7 M

10 = 1.0 M line length

15 = 1.5 M line length

20 = Line length 2.0 M

30 = 3.0 M line length

40 = Line length 4.0M

50 = 5.0 M line length

60 = 6.0M cable length

70 = Line length 7.0 M

70 = Line length 8.0 M

90 = Line length 9.0 M

00 = Customization