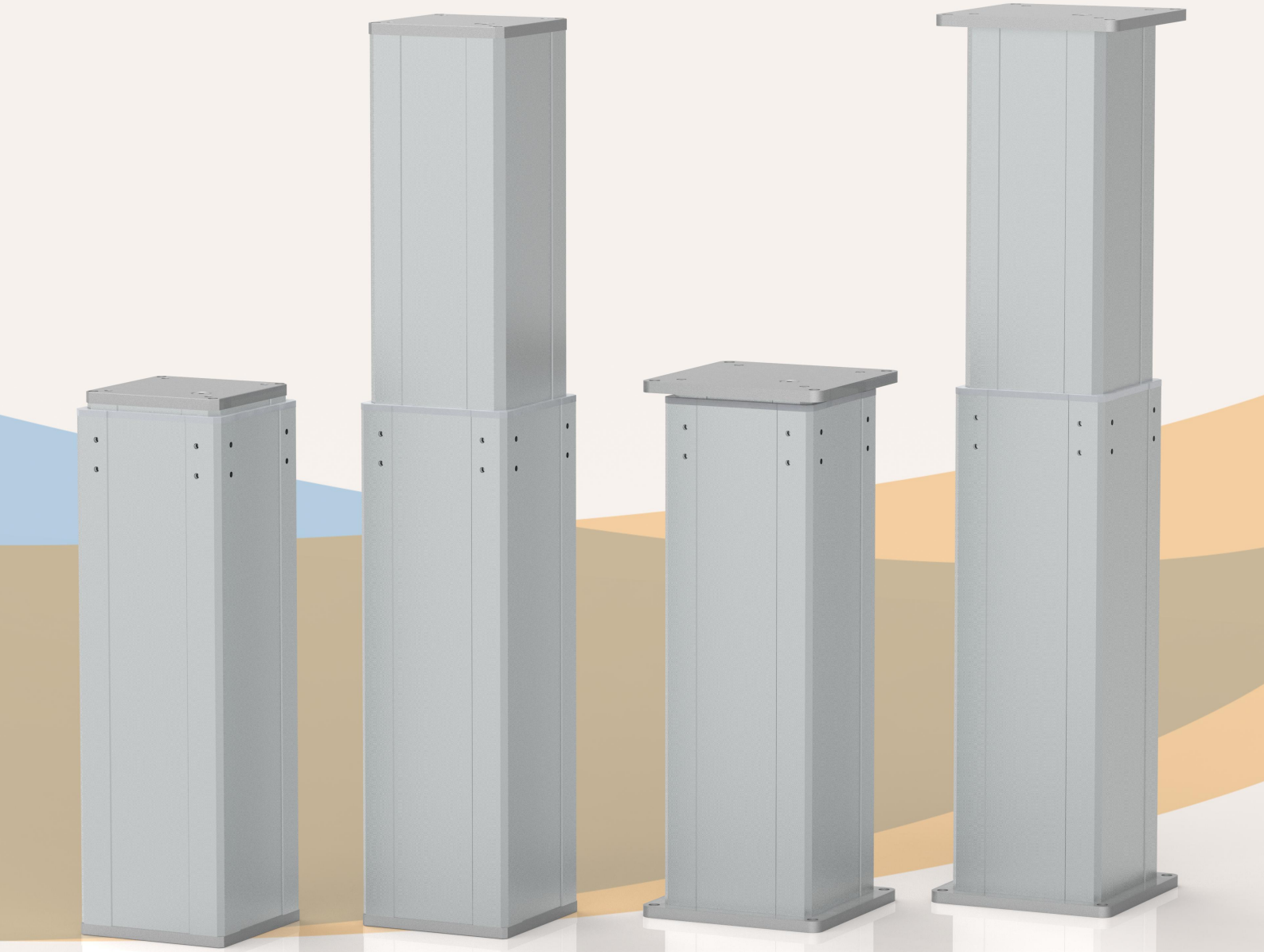
GeMinG
Linear Drive

HTB2

Series
Lifting Columns



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HTB2

Series

Lifting Columns

Product Category

1、medical applications

2、furniture applications

3、Industrial applications

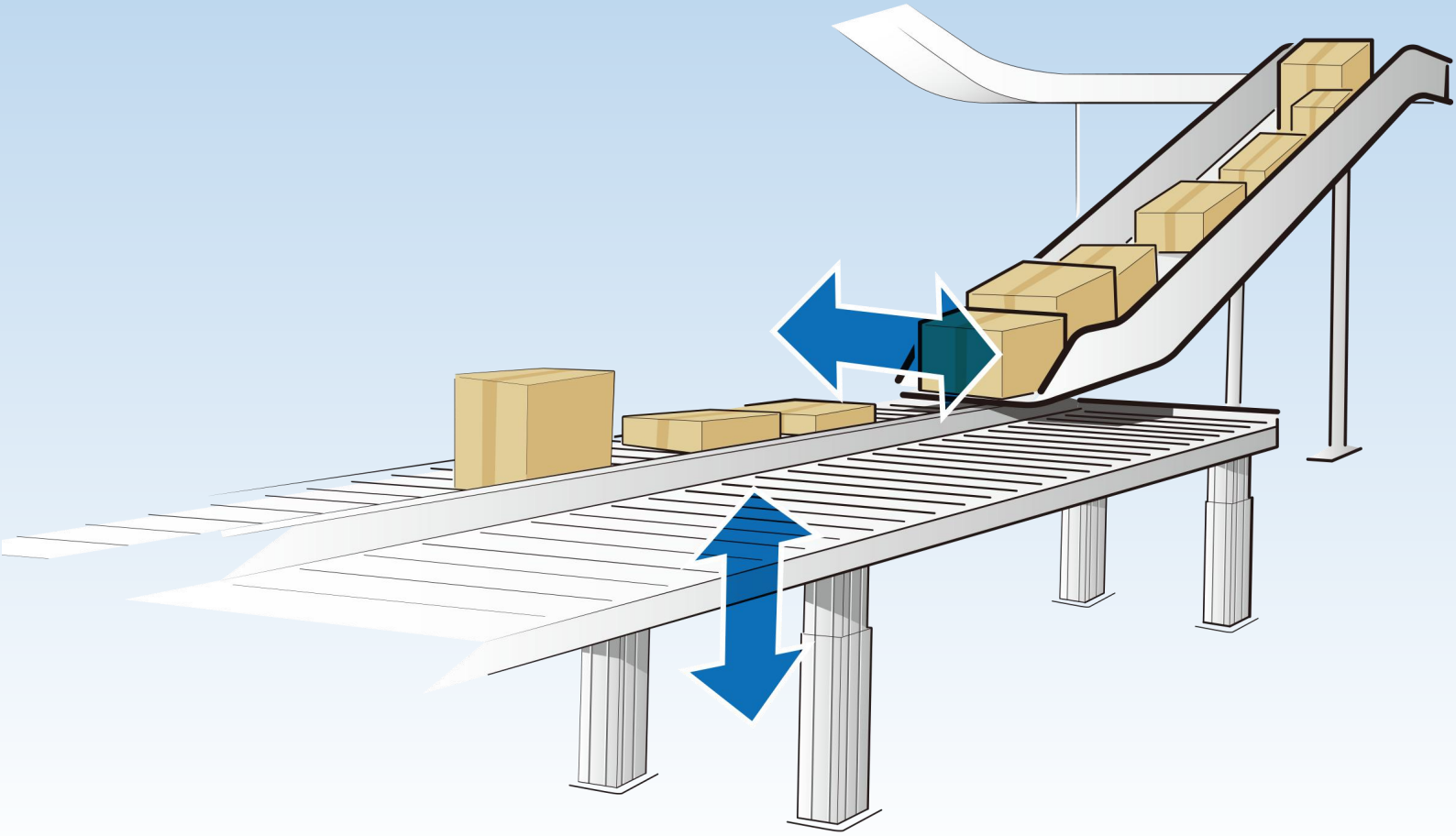
HTB2 lifting column is designed for a wide variety of workstation applications, such as computer workstations, workbenches, assembly tables, medical equipment lifting platforms, and even height adjustment in kitchens, where it is ideal.

2 HTB2 lifting columns can improve high synchronization performance and load operation capacity, a very powerful design and full-featured office series control box and controller. Can operate as a single system or 2 to 4 lifting columns in parallel depending on the control system..

Functional Overview

Voltage:	24V -29V DC
Motor options:	DC motor, AC motor
Maximum thrust (pull force):	4,000N / 2,000N
Slowest speed under load:	5.0mm/s (load 4,000N)
Maximum speed under load:	22 mm/s (load 1000N)
Minimum installation size:	Stroke + 200mm ro Stroke +180MM
Dynamic lateral moment:	100Nm
Static lateral moment:	180Nm
color:	Silver gray, black
Voice:	48~54 DB
Adaptable temperature range:	-35°C ~ +75°C
Protection level:	IP54
Screw selection:	Ball screw, trapezoidal screw
Switch type:	Built-in limit switch,
Signal options:	Hall sensor, endpoint signal
Control options:	Synchronous control, independent control, integrated control, CAN bus control,
safety certificate:	Comply with ISO9001-2008, CE and RoHS regulations,

Download 3D model

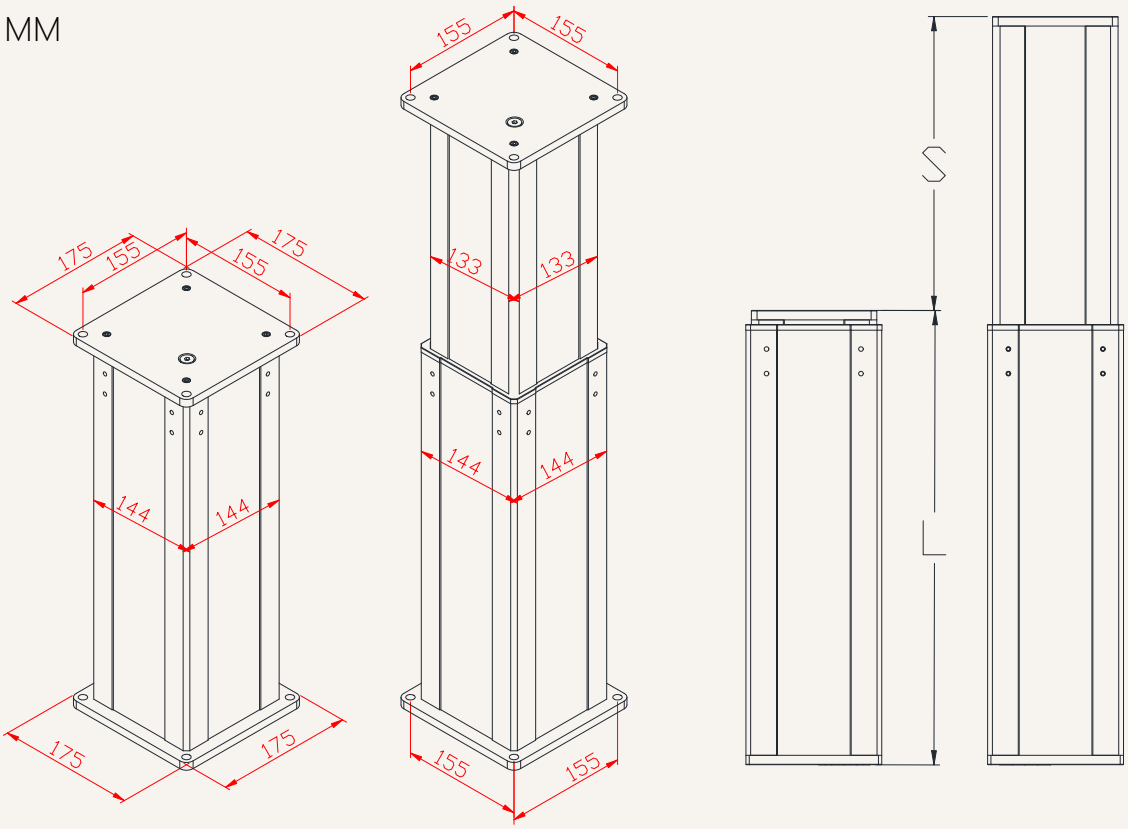


Tooling machine

Library automation

Drawings

Standard size
MM



S: Stroke

L: Retracted length

L= Stroke +180mm

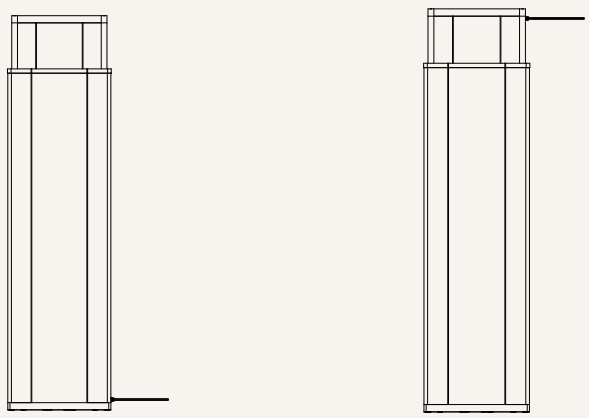
Greater than 600MM stroke, installation dimensions L= Stroke +200MM

Motor cable outlet method:

0 = Side, bottom outlet

1 = Side, top outlett

K=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
A Motor voltage (24V DC)						
A	4,000	2,000	4,000	6.2	6.0	5
B	2,000	2,000	2,000	6.2	12	8
C	1,000	1,000	1,000	6.2	22	17

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)
4,000	50-400
3,000	401-500
2,000	501-700
1,000	701-900
800	901-1000

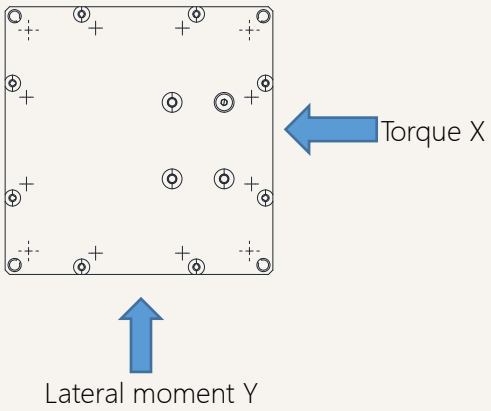
Remark:

Lateral moment Y direction = X*0.8

Static lateral moment = dynamic*2

Dynamic lateral moment (Nm)-X direction

Stroke	S+200	S+250
100-300	350	600
300-500	300	500
500-700	250	400
700-900	200	300



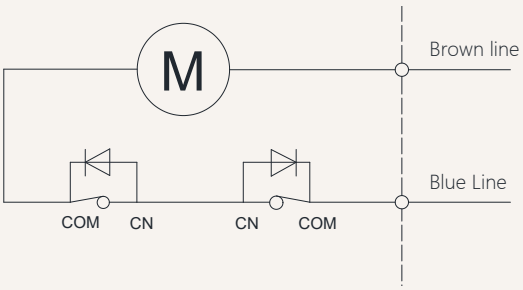
Stroke installation size reference chart

HTB2 Series	stroke ± 2 (mm)				Install ± 2 (mm)				
strokeMM	200	250	300	350	400	450	500	550	600
Install MM	380	430	480	530	580	630	680	730	800
weight KG	6.5	6.8	7.2	7.6	8.0	8.4	8.8	9.4	9.8

Actuator wiring diagram

No signal feedback wiring diagram

Code：N



Wiring Instructions:

1】Brown lead: motor positive +

2】Blue lead: motor negative pole -

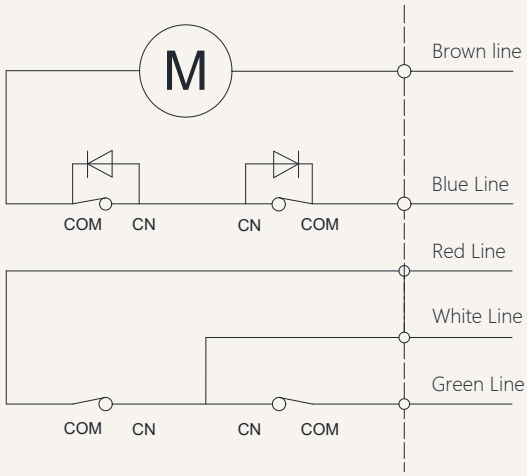
3】When the push rod is extended: the brown wire is positive +, the blue wire is negative -

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.

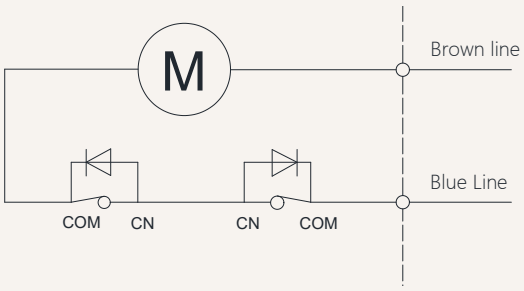
Other signal descriptions

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		

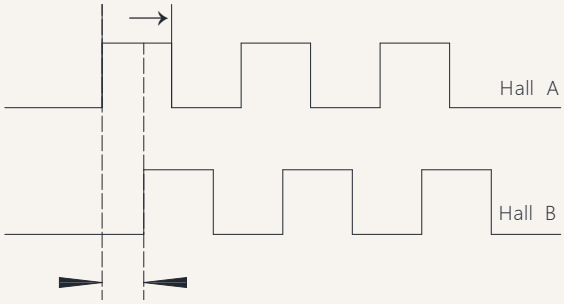
Signal feedback Hall sensor

Hall signal motor circuit diagram

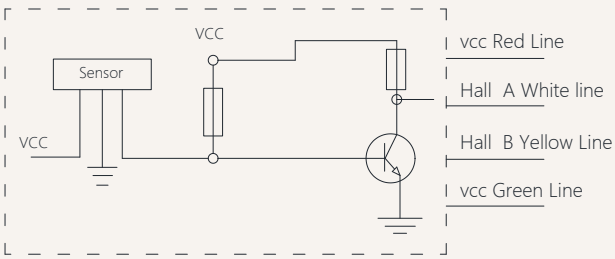
Code: H



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

HTB2 Model Description Selection Code Table

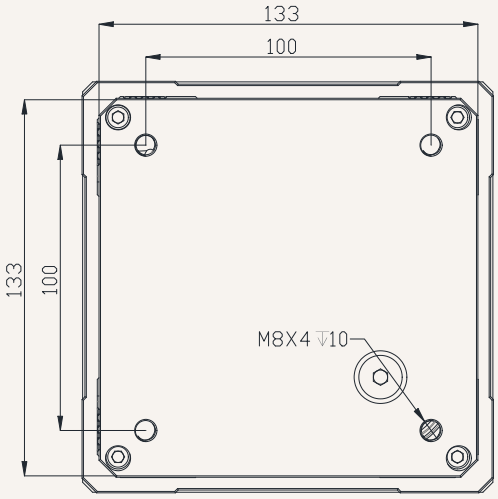
HTB2	-	24	-	B1	-	100	-	300	-	O1	-	O1	-	1	-	1	-	T	-	A	-	N	-	07
①		②		③		④		⑤		⑥		⑦		⑧		⑨		⑩		⑪		⑫		⑬

①	Product number	HTB2			
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 = **Conventional installation type, installation n8.5MMX4 through hole**		O2 = Pipe mounting threaded hole, screw M8 sinking 30MM	
		K = Customized			
⑦	lower type	O1 = **Conventional installation type, installation n8.5MMX4 through hole**		O2 = Pipe mounting threaded hole, screw M8 sinking 30MM	
		K = Customized			
⑧	Cable outlet type	1 = Side, top outlet 2 = Side, bottom outlet (default)		3 = Panel, top cable outlet 4 = Panel, bottom cable outlet	K= Customized
⑨	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

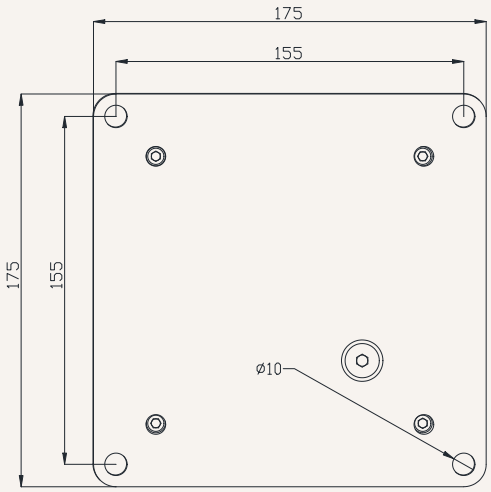
HTB2 Attachment Description Selection Code Table

Extended upper form:

O1 = **Conventional installation type, installation n8.5MMX4 through hole**

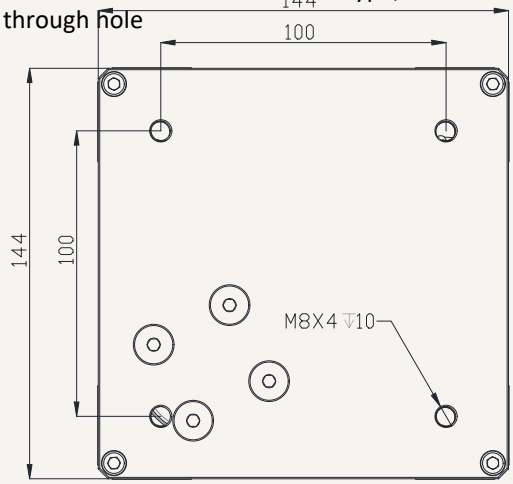


O2 = Pipe installation threaded hole, screw M8 sinking 30MM,

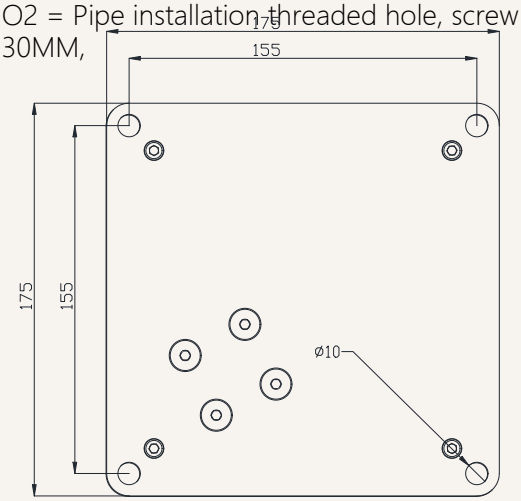


Lower end installation form:

O1 = **Conventional installation type, installation n8.5MMX4 through hole**



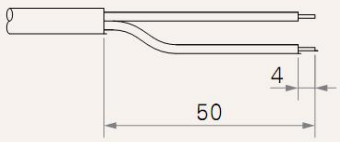
O2 = Pipe installation threaded hole, screw M8 sinking 30MM,



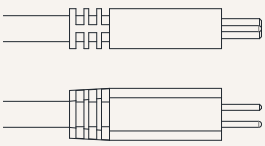
K = Customized, no pictures

Power cord type:

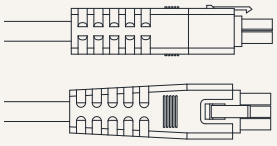
1 =Dare wire



2 = 01 Straight plug



4 =Four-pin straight plug



6 = Six-pin straight plug