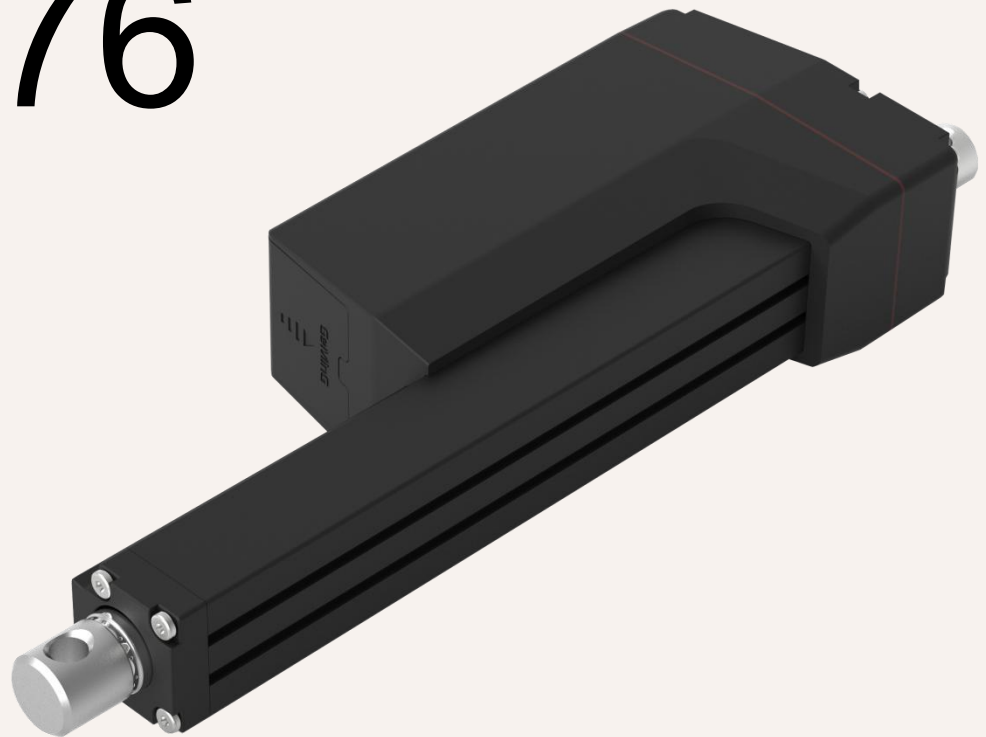


HTW76

Series model
Linear Actuator



Applications

1. Industrial
2. Agriculture
3. Automotive
4. Solar tracking
5. Military industry

HTW76 is specially designed for harsh industrial environments, especially suitable for some mechanical equipment with a large amount of consumption, such as farming machines and industrial equipment. Moreover, it can meet strict specifications and standards. The smart actuator is equipped with on-board electronic components and does not require a separate control system. With higher power up to 16 kN, it opens up more possibilities to replace the hydraulic applications, HTW76 would be a good choice!

Features

Voltage:	12V,24V,36V,48V,110V DC or 220V AC
Max Push/Pull Force:	18KN
Speed @ Full load	4.mm / s (load 18KN)
Retracted Length:	Stroke + 200mm Stroke + 250mm(S >400 MM)
Dynamic Torque:	100Nm
Static Torque:	200Nm
Color:	Black
Quality Management:	ISO9001-2008, certified by CE and ROHS
Ambient temp. Range:	-35 ° C ~ + 75 ° C
Operating Temp. Range:	+5 ° C ~ + 45 ° C
Protection Level:	IP69K
Screw Type:	Trapezoidal, Ball screw(no self-locking force)
Option for Signal Output:	Hall sensor, Potentiometer
Option for Control System:	100% synchronized control, individual control, Integrated control
Material:	High-strength metal zinc alloy gear box and housing
Limit Switches:	Built-in, but not adjustable; External magnetic switch, adjustable(developing)

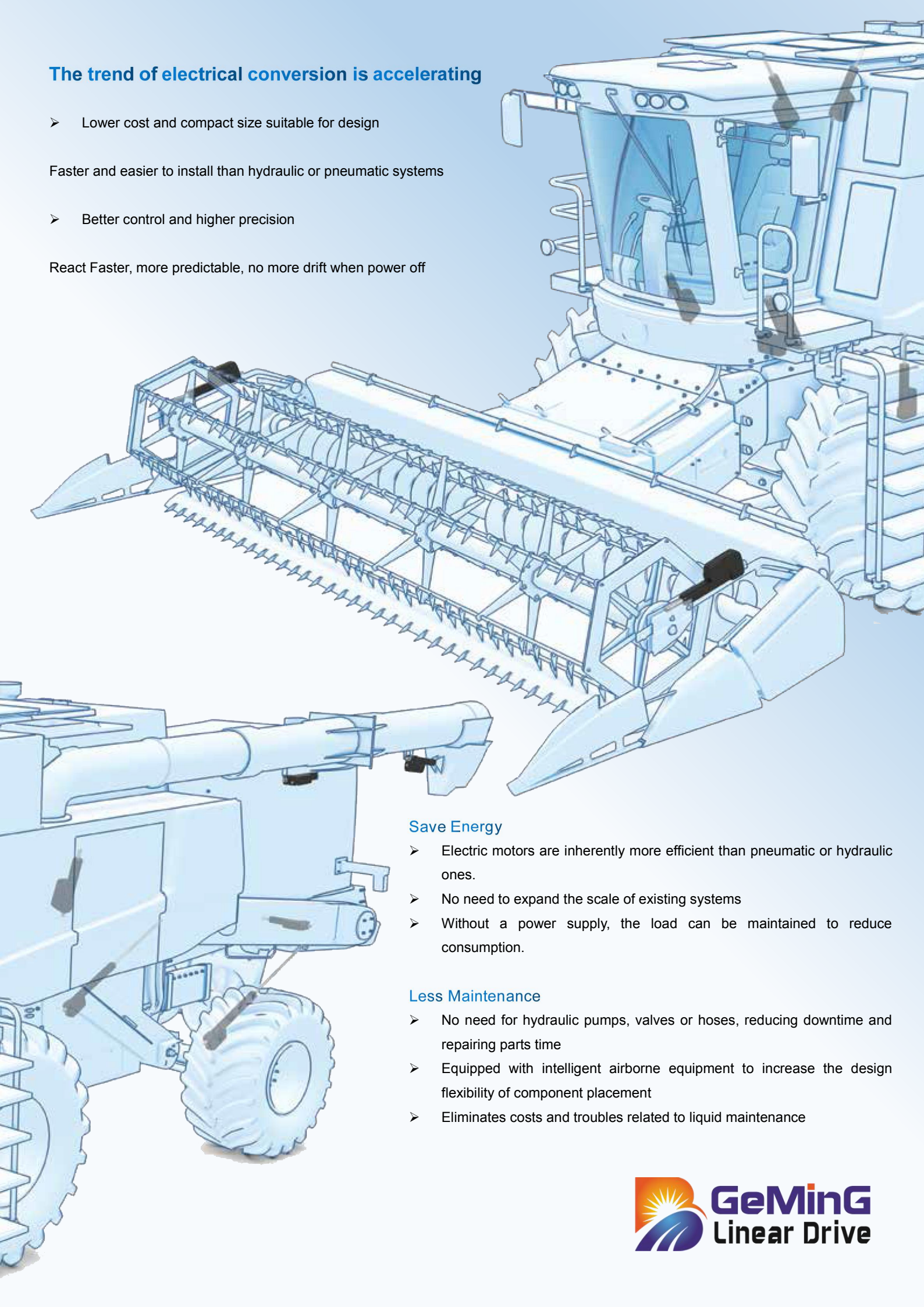
The trend of electrical conversion is accelerating

- Lower cost and compact size suitable for design

Faster and easier to install than hydraulic or pneumatic systems

- Better control and higher precision

React Faster, more predictable, no more drift when power off



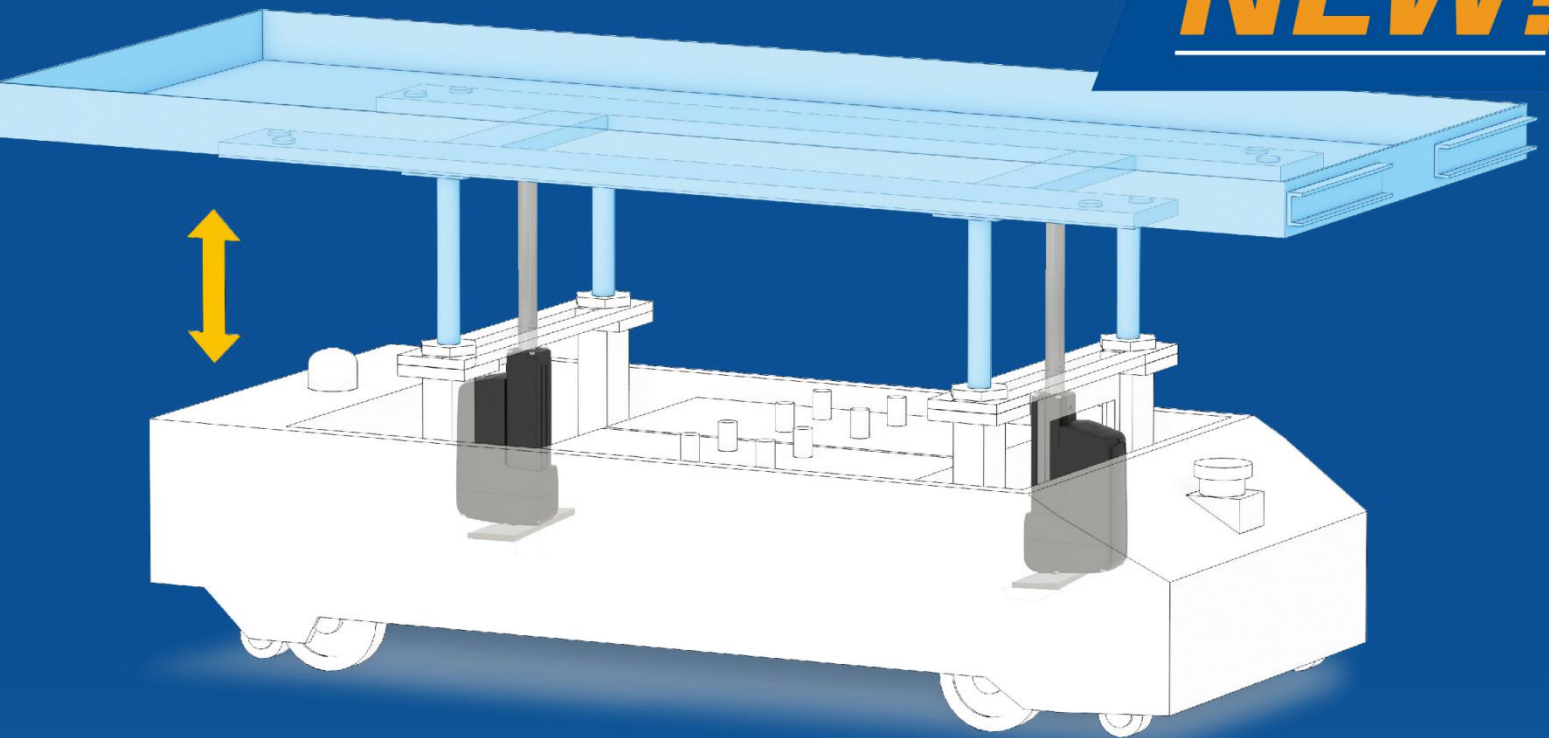
Save Energy

- Electric motors are inherently more efficient than pneumatic or hydraulic ones.
- No need to expand the scale of existing systems
- Without a power supply, the load can be maintained to reduce consumption.

Less Maintenance

- No need for hydraulic pumps, valves or hoses, reducing downtime and repairing parts time
- Equipped with intelligent airborne equipment to increase the design flexibility of component placement
- Eliminates costs and troubles related to liquid maintenance

NEW!



- Flange installation can be added for rear attachment.
- Suitable for driver-less vehicles, mobile equipment and industrial automation

- Height adjustment
- Positioning adjustment
- The design is more compact,

Make it easier to install in a small space,

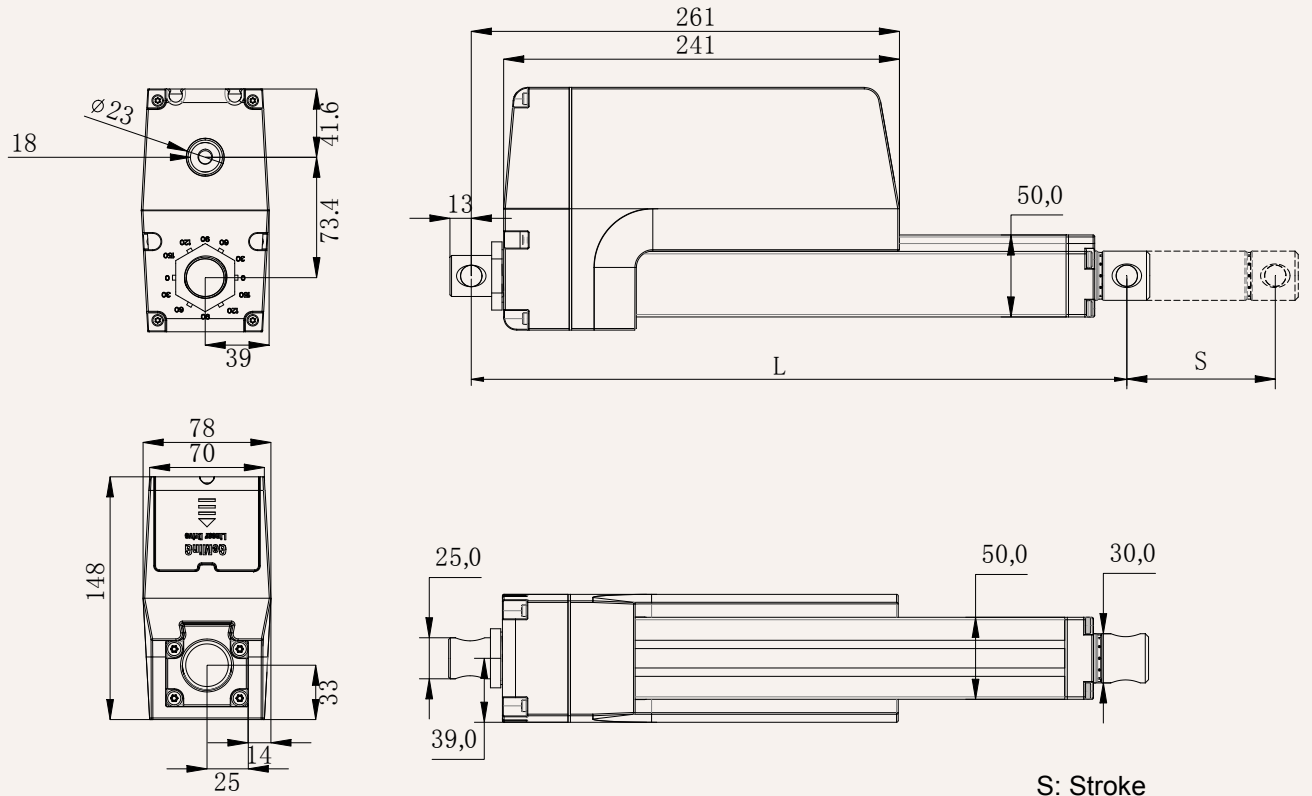
- Very suitable for designing different types of automation equipment,

Unmanned vehicles and lifting equipment,

While retaining many popular advantages!

Drawings

Dimension
(MM)



S: Stroke

L: Retracted length

$L = \text{Stroke} + 200\text{mm}$

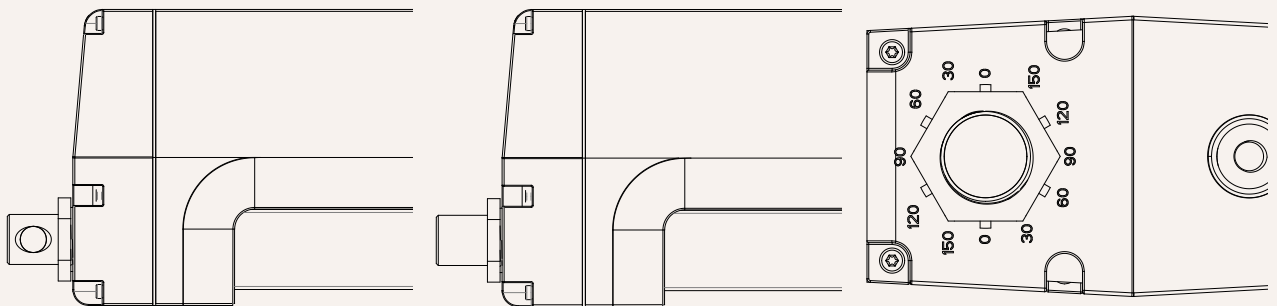
Stroke $\geq 400\text{MM}$, $L = \text{Stroke} + 250\text{MM}$

Mounting Angle(rear attachment)

1=0°

2=90°

3=G Customized



LOAD & SPEED

Code	Rated Load	Rated load	Self-locking	Rated Current	Rated Speed	Rated Speed
	Push N	Pull N	Static N	Full-load A	No-load mm/s	Full-load mm/s
Motor Voltage (24V DC)						
A	18,000	16,000	18,000	15	4.0	3.3
B	12,000	12,000	13,000	15	6.2	4.9
C	10,000	10,000	10,000	15	7.9	6.3
D	6,000	6,000	6,000	15	12	10
E	5,500	5,500	5,500	15	16	13
F	3,500	3,500	3,500	15	25	20
G	3,000	3,000	3,000	15	28	22
H	2,300	2,300	2,300	15	37	30
I	1,500	1,500	1,500	12	55	45
J	1,000	1,000	1,000	12	83	67

Motor Voltage (12V DC)

A	18,000	18,000	18,000	19	4.0	3.3
B	13,000	13,000	13,000	19	6.2	4.9
C	10,000	10,000	10,000	19	7.9	6.3
D	6,000	6,000	6,000	19	12.0	9.9
E	5500	5500	5500	19	15.9	12.7
F	3500	3500	3500	16	25	20
G	2400	2400	2400	13	37	30

Remark

1. The current and speed in the table are the averages tested when using push force.
2. The current & speed results in the table are based on the use of a GeMinG brand control box, and there will be an error of about 10% depending on different types of the control box.
3. 29V DC @ no-load, 24V DC @ rated load

Reference Chart

24vdc

HTW76	Load±10% (N)					Speed ± 2 (mm / sec)			
Load	18,000	12,000	10,000	6,000	5,500	3,500	2,400	1,500	1,000
Speed	4	6	8	12	16	25	37	55	83

HTW76	Stroke ± 2 (mm)					Retracted length ± 2 (mm)			
Stroke	80	100	150	200	250	300	350	400	450
L	280	300	350	400	450	500	550	650	700

Stroke VS Retracted length:

1. If stroke <400mm, Retracted length = stroke +200mm
Eg. Stroke 100mm, retracted length=300mm, extended length=400mm
2. If stroke >=400mm, Retracted length = stroke +250mm
Eg. Stroke 400mm, retracted length=650mm, extended length=1050mm

Potentiometer

Code (refer to Page3)	Stroke available	Resistance Range (KΩ)	
A,C,E,G	50-350MM	Stroke 50-200: 5.0	Stroke 50-30: 7.5
B,D,F	50-550MM	Stroke 50-200: 3.17	Stroke 50-400: 6.35

Note: potentiometer 10KΩ.(The actual resistance depends on specific stroke)

Load VS Stroke

Load (N)	Stroke range (mm)
16,000	50-400
10,000	401-600
2,000	601-800

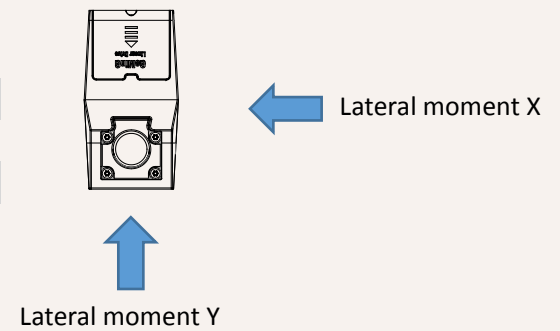
Note:

Lateral moment $Y = X * 0.8$

Static lateral moment = dynamic*2

Dynamic lateral moment(Nm)-X

Stroke	S/2+180	S/2+220
100-300	500	700
300-500	450	650
500-700	300	300
700-900	200	100



Hall Sensor Instruction

Code(refer to page 5)	Magnetic Ring	SIZE	Output Pulses
A	Φ32MM	4 pair,12MM	0.3528 pulse/mm
B	Φ32MM	4 pair,12MM	0.7938 pulse/mm
C	Φ32MM	4 pair,12MM	1.3122 pulse/mm
D	Φ32MM	4 pair,12MM	3.1753 pulse/mm
E	Φ32MM	4 pair,12MM	2.6245 pulse/mm
F	Φ32MM	4 pair,12MM	6.3506 pulse/mm
G	Φ32MM	4 pair,12MM	9.5259 pulse/mm
H	Φ32MM	4 pair,12MM	16.0751 pulse/mm
I	Φ32MM	4 pair,12MM	32.15 pulse/mm
J	Φ32MM	4 pair,12MM	48.225 pulse/mm
K	Φ32MM	4 pair,12MM	257.2 pulse/mm

Remark:

- 1) Support dual channel/single channel Hall encoder
- 2) Current consumption type digital output
- 3) High-speed response frequency from: 0 KHz-100 KHz
- 4) Applicable temperature range: -40 °C~+125 °C

Wiring

Brown	motor +
Blue	motor -
Red	Hall 5V +
White	Hall 5V -
Blue	Signal output A
Green	Signal output B

Features	Symbol	Test conditions	MI	RE	M	Unit
Input voltage	Vcc	---	3.5	---	24	V
Output vol.	Vce/sat	Vcc=14V ; Ic=20mA	---	300	700	MV
Leakage current	1 cex	Vce=14V ; Vcc=14V	---	<0	10	UA
Input voltage	1 ce	Vcc=20V ; Output open	---	1	10	M
Falling time	R	Vcc=14V ; RL=820Ω ; CL=20pF	---	0.3	1.5	US

Output circuit and output band



HTW76

<input type="checkbox"/>	Voltage	12=12V DC, 24=24V DC, 36=36V DC, 48=48V DC, 110=110V DC, 220=220V AC			
<input type="checkbox"/>	Speed(mm/s)	Refer to Page 5			
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Stroke(mm)				
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Retracted length (mm)	Refer to Page 5			
<input type="checkbox"/>	Load(n)	Refer to Page 5			
<input type="checkbox"/>	Front Attach. Refer to Page 8	1 = standard, dia 13mm 2 = standard, dia 14mm 3 = clevis head, slot width 8.5mm, depth 27mm, dia 13mm 4 = clevis head, slot width 8.5mm, depth 27mm, dia 14mm 5 = joint bearing, dia 12mm 6 = joint bearing, dia 16mm			
<input type="checkbox"/>	Rear Attach. Refer to Page 8	Same as front attachment			
<input type="checkbox"/>	Plug type	1 = stripped wire 3 = 4 pin 0° straight plug	2 = 4 pin 90° curved plug 4 = 6 pin 0° straight plug		
<input type="checkbox"/>	Screw	G= Ball screw(no self-locking)	P = Trapezoidal		
<input type="checkbox"/>	Control Method	A = NO	B = Integrated	C = synchronized	D= customized
<input type="checkbox"/>	Signal Output	N = NO	H = Hall sensor	D = Potentiometer	
<input type="checkbox"/>	Cable Length	1 = 700mm	2 = 1000mm	3 = 1500mm	4 = customized
Example: voltage 12V DC, stroke 100MM, speed 4MM / S, load 16000N, Code: HTW76-12-100-300/400-A-1-1-1-G-A-N-1					

Statement

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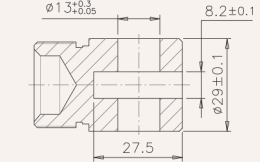
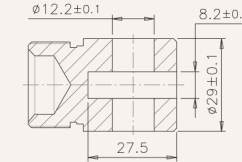
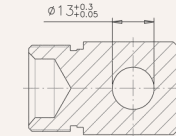
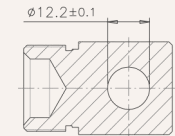
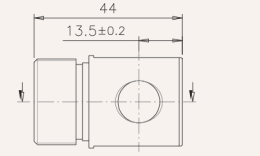
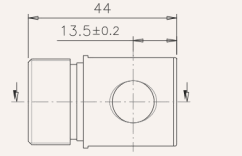
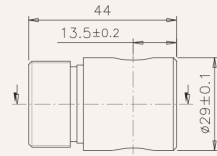
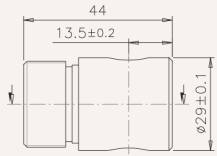
Front Attachment

1 = standard, dia 12.5mm

2 = standard, dia 13.5mm

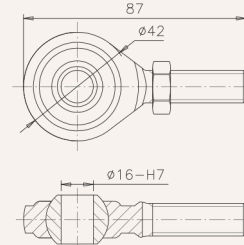
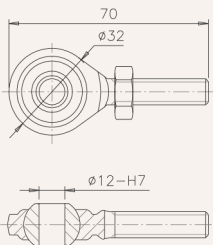
3 = clevis head, slot width 8.5mm, depth 27mm, dia 12.5mm

4 = clevis head, slot width 8.5mm, depth 27mm, dia 13.5mm



5 = joint bearing, dia 12mm

6 = joint bearing, dia 16mm



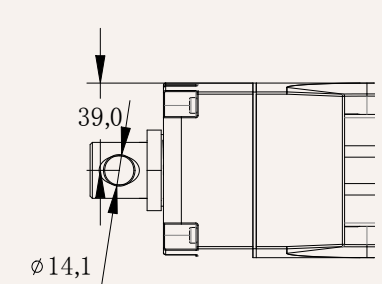
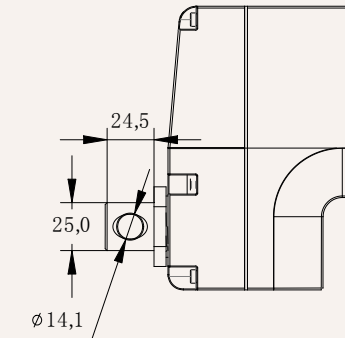
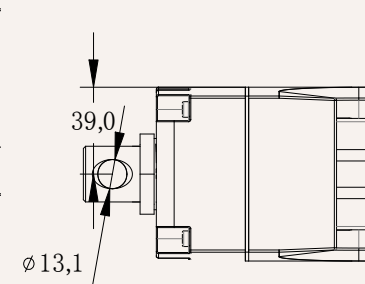
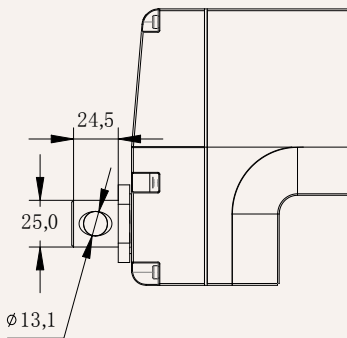
Rear Attachment

1 = 0 degree, dia 13mm

2 = 90 degree, dia 13mm

2 = 0 degree, dia 14mm

2 = 90 degree, 14mm



Plug

1 = stripped wire

2 = 4 pin 90° curved plug

3 = 4 pin 0° straight plug

4 = 6 pin 0° straight plug

