

**Feature**

- Max.load 8000N
- Product class IP65
- Compact mechanical system
- Built-in limit switches
- Imported POT/HALL sensors (options)
- CE certificated
- Widely work in the harsh environment



**Basic Spec.**

Housing color	<input type="checkbox"/> Black	<input type="checkbox"/> Customize colors			
Screw type	<input type="checkbox"/> T-screw	<input type="checkbox"/> Ball screw			
Control	<input type="checkbox"/> control box	<input type="checkbox"/> control system + manual			
Application	<input type="checkbox"/> Industrial				
Work environment	<input type="checkbox"/> 0~40°C	<input type="checkbox"/> -20~65°C	<input type="checkbox"/> -40~65°C		
Noise level	<input type="checkbox"/> ≤75dB				
Stroke	<input type="checkbox"/> 50-600mm	<input type="checkbox"/> Customize stroke			
Load	<input type="checkbox"/> ≤1200N	<input type="checkbox"/> ≤2000N	<input type="checkbox"/> ≤2500N	<input type="checkbox"/> ≤8000N	
Duty cycle	<input type="checkbox"/> 10%	<input type="checkbox"/> 20%			
Motor type	<input type="checkbox"/> Brushed DC motor				
IP rating	<input type="checkbox"/> No	<input type="checkbox"/> IP65			
Signal output	<input type="checkbox"/> No	<input type="checkbox"/> Switch signal	<input type="checkbox"/> Hall sensors	<input type="checkbox"/> POT	<input type="checkbox"/> Magnetic switch
Input voltage	<input type="checkbox"/> 12V	<input type="checkbox"/> 24V	<input type="checkbox"/> 36V	<input type="checkbox"/> 48V	<input type="checkbox"/> 72V
Cable length	<input type="checkbox"/> 1m	<input type="checkbox"/> 2m	<input type="checkbox"/> Customize length		

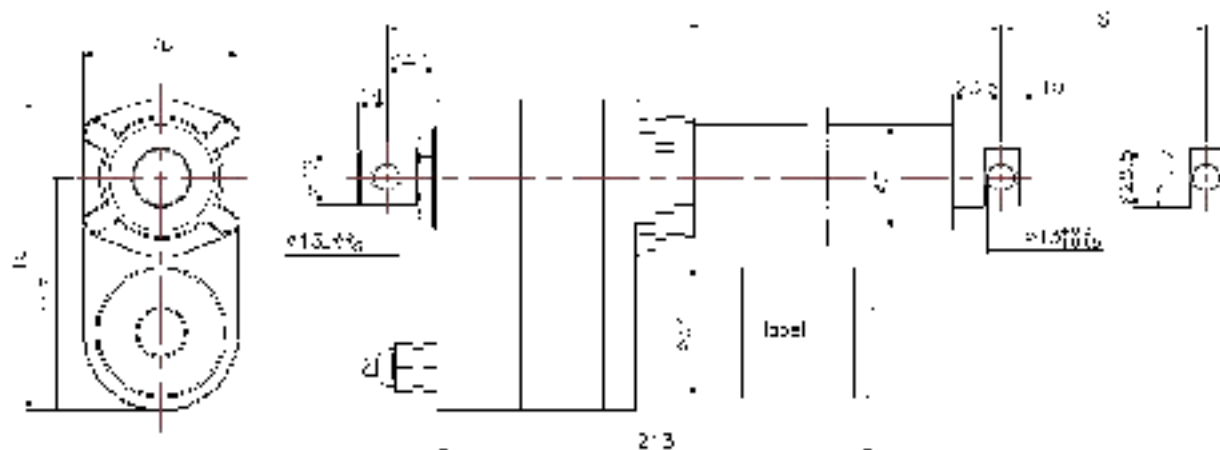


## Load & Speed & Current

Code	Gear ratio	Screw pitch	No-load speed (mm/s)	Full-load speed (mm/s) $\pm 5\%$	Max load (N)	Max. Self-locking (N)	No-load current (A)				Full-load current (A)			
							12V	24V	36V	48V	12V	24V	36V	48V
A	40:1	3	5	4	8000	9000	2.5	1.2	0.8	0.6	18	9	6	4
B		5	8.5	7	7000	8500	2.5	1.2	0.8	0.6	18	9	6	4
C		7.5	12	9	4500	5000	2.5	1.2	0.8	0.6	18	9	6	4
D	20:1	3	10	7.5	5000	6000	3	1.5	1.0	0.8	17	9	6	4
E		5	17	13	4000	5000	3	1.5	1.0	0.8	17	9	6	4
F		7.5	24	17	2600	3500	3	1.5	1.0	0.8	17	9	6	4
G	10:1	3	20	14	3000	4000	3	1.5	1.0	0.8	17	8	6	4
H		5	35	26	2000	3000	3	1.5	1.0	0.8	17	8	6	4
I		7.5	50	36	1000	1500	3	1.5	1.0	0.8	17	8	6	4

# Mounting length

## Dimension

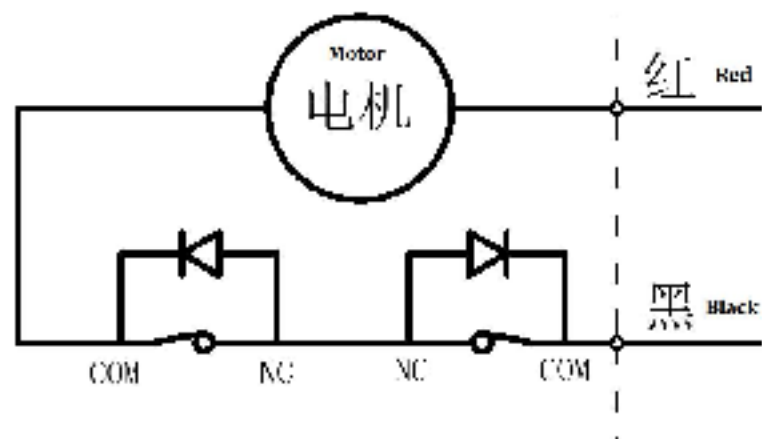


## Stroke & Length

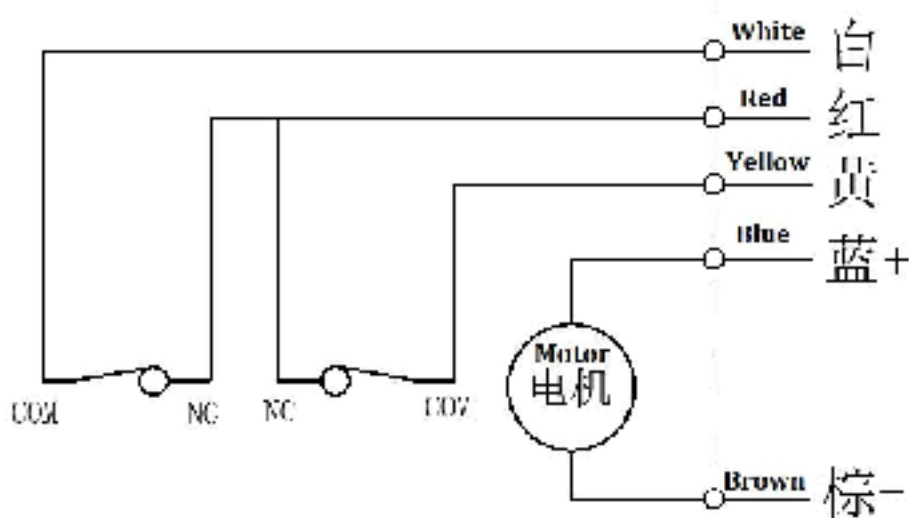
S (mm)	Retracted L(mm)	Extended A(mm)	Simulate
50	300	350	$50 \leq \text{Stroke} \leq 300,$ $L = S + 250$ $A = L + S(A = S^2 + 250)$
100	350	450	
150	400	550	
200	450	650	
250	500	750	
300	550	850	
350	650	1000	$300 < \text{Stroke} \leq 600,$ $L = S + 300$ $A = L + S(A = S^2 + 300)$
400	700	1100	
450	750	1200	
500	800	1300	
550	850	1400	
600	900	1500	
650	980	1630	$600 < \text{Stroke} \leq 900,$ $L = S + 330$ $A = L + S(A = S^2 + 330)$
700	1030	1730	
750	1080	1830	
800	1130	1930	
850	1180	2030	
900	1230	2130	

## Signal feedback

### Standard limit switch diagram



### Limit switch signal output



## Hall sensor signal

Hall sensors built-in motor				
Code	Signal feedback	Magnetic pole	resolution (1 pair of pole) Pulse/mm	Resolution (4 pairs of poles) Pulse/mm
A	Hall sensors	1 pair of pole or 4 pairs of poles	13.78puls e/mm	55.11puls e/mm
B			8.265puls e/mm	33.06puls e/mm
C			5.51pulse/mm	22.04puls e/mm
D			6.67pulse/mm	26.67puls e/mm
E			4pulse/mm	16pulse/mm
F			2.67pulse/mm	10.67puls e/mm
G			3.83pulse/mm	12.92puls e/mm
H			1.94pulse/mm	7.75pulse/mm
I			1.29pulse/mm	5.17pulse/mm
Phase difference				
Phase difference 90°		<p>The diagram illustrates the phase relationship between two Hall sensors, Hall 1 and Hall 2, during two different motor phases: Extend (伸长) and Retract (缩回). In both phases, Hall 1 and Hall 2 signals are square waves that are 90 degrees out of phase. For the Extend phase, Hall 1 is high when Hall 2 is low, and vice versa. For the Retract phase, the signals are inverted. Blue arrows indicate the pulse width and the 90-degree phase shift between the two signals.</p>		

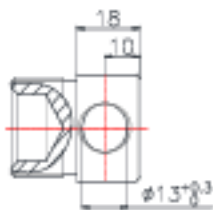
Notice: Hall sensor power supply 3.3V-24V, recommend to use 5V or 12V

**POT**

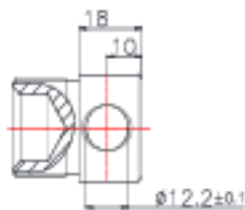
<b>POT information</b>			
<b>Resistance</b>	<b>Turn(s)</b>	<b>Tolerance</b>	<b>Remark</b>
10K	10	±5%	Actual resistance value may vary within the 0- 10KΩ range based on stroke length
5K	5	±5%	Actual resistance value may vary within the 0- 5KΩ range based on stroke length
<b>POT (10KΩ)</b>			
<b>Code</b>	<b>Initial resistance</b>	<b>10KΩ POT Max. stroke</b>	<b>10KΩ POT resolution (STD) Resistance/mm</b>
A、D、G	0.2-0.4	358	0.0279
B、D、E、H	0.2-0.4	598	0.0167
C、F、I	0.2-0.4	896	0.0112
<b>POT (5KΩ)</b>			
<b>Code</b>	<b>Initial resistance</b>	<b>5KΩ POT Max. stroke</b>	<b>5KΩ POT resolution (STD) Resistance/mm</b>
A、D、G	0.1-0.2	358	0.0140
B、D、E、H	0.1-0.2	598	0.0084
C、F、I	0.1-0.2	896	0.0056

# Attachment options

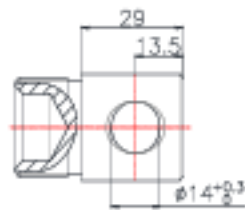
## Front



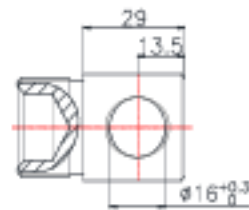
Q1



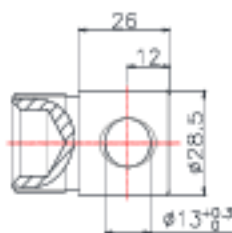
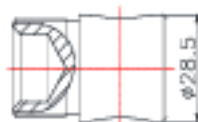
Q2



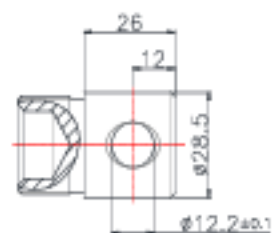
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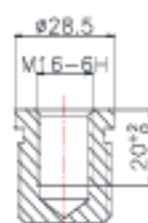
Q4



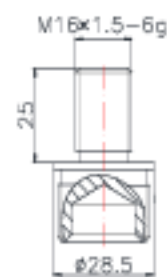
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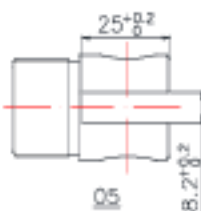
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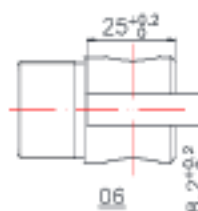
Q7



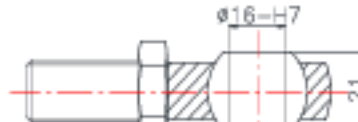
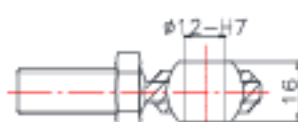
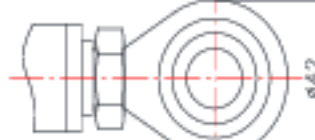
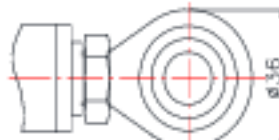
Q8



Q9

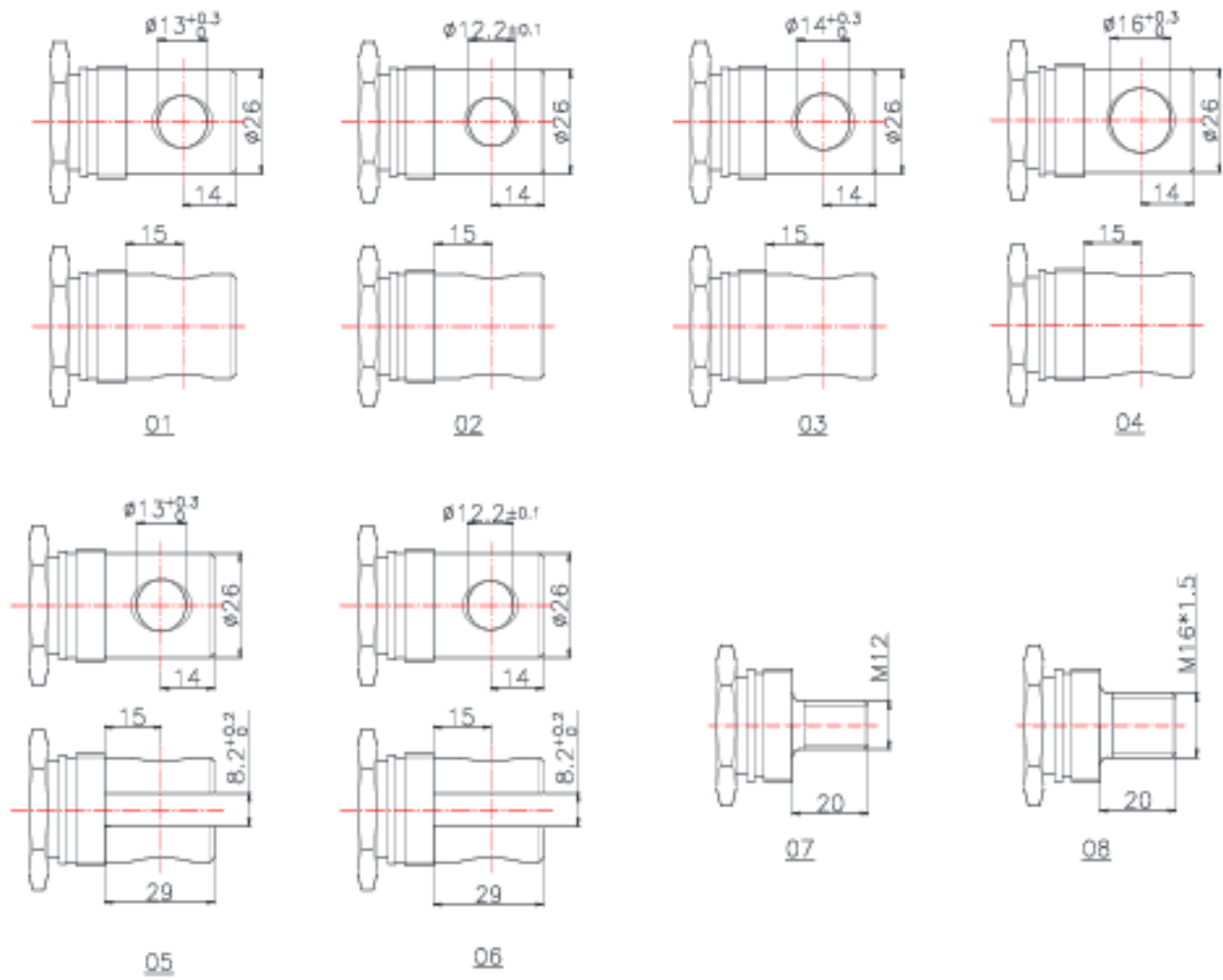


Q10



Q11

## Rear





## Main products

Model	Load (N)	Stroke (mm)	Speed (mm/s)	IP rating	Application
ALM501B	8000	50-600mm	5-17mm/s	IP65	Medical, furniture, industrial
ALM601	1200	50-600mm	3.5-80mm/s	IP65	Industrial
ALM602	2000	50-600mm	3.5-55mm/s	IP65	Industrial
ALM603	2500	50-600mm	5-15mm/s	IP65	Medical, furniture, industrial
ALM606	8000	50-900mm	5-50mm/s	IP65	Industrial
ALM606A	7000	50-600mm	5-50mm/s	IP65	Industrial
ALM607	5000	50-600mm	5-50mm/s	IP65	Industrial
ALM608	12000	50-1000mm	6.5-50mm/s	IP66	Industrial