

# Model ALM601

## Feature

- Aluminum alloy housing
- Compact mechanical system
- Protect class IP65/IP66
- Built-in limit switches
- Imported POT/HALL sensors (options)
- Anti-corrosion grade C3 (options)
- CE certificated
- Widely work in the harsh environment



## Basic Spec.

Housing color	<input type="checkbox"/> Silver	<input type="checkbox"/> Black	<input type="checkbox"/> Customize colors		
Screw type	<input type="checkbox"/> T-screw				
Control	<input type="checkbox"/> Control box				
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"/> ≤ 65 dB				
Stroke	<input type="checkbox"/> 50-600mm	<input type="checkbox"/> Customize stroke			
Load	<input type="checkbox"/> ≤ 1200N				
Duty cycle	<input type="checkbox"/> 10%	<input type="checkbox"/> 20%			
Motor type	<input type="checkbox"/> Brushed DC motor				
IP rating	<input type="checkbox"/> IP65	<input type="checkbox"/> IP66			
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	
Cable length	<input type="checkbox"/> 1m	<input type="checkbox"/> 2m	<input type="checkbox"/> Customize length		



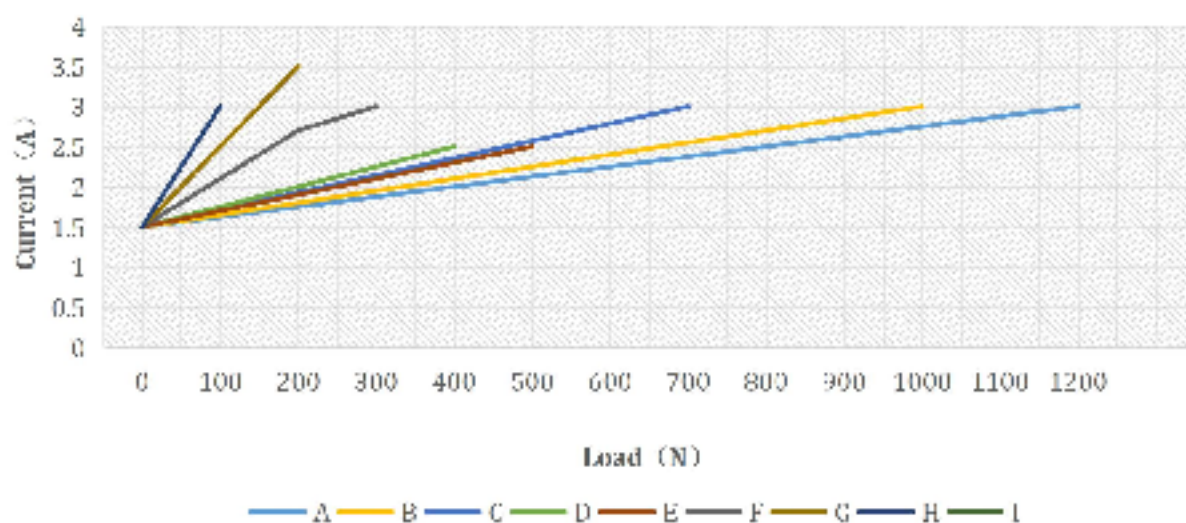
# Technical info

Code	Gear ratio	Screw pitch	Maxload (N)	No-load speed (mm/s)	Full load speed (mm/s)	No load current (A)				Full load current (A)			
						12V	24V	36V	48V	12V	24V	36V	48V
A	40:1	3	1200	5	3.5	1.5	0.6	0.3	0.2	3	1.5	0.8	0.7
B	30:1	3	1000	6.5	5	1.5	0.6	0.3	0.2	3	1.5	0.8	0.7
C	30:1	5	700	11.5	8	1.5	0.6	0.3	0.2	2.5	1.2	0.8	0.6
D	20:1	5	500	16.5	12	1.5	0.6	0.3	0.2	2.5	1.2	0.8	0.6
E	30:1	7.5	400	17	11.5	1.5	0.6	0.3	0.2	2.5	1.2	1	0.6
F	20:1	7.5	250	25	20	1.5	0.6	0.3	0.2	2.5	1.2	1	0.6
G	5:0.1	3	200	38	22	1.5	0.6	0.3	0.2	3.5	1.5	1.2	0.9
H	5:0.1	5	100	60	42	1.5	0.6	0.3	0.2	3	1.5	1.2	0.9
I	5:0.1	7.5	50	80	65	1.5	0.6	0.3	0.2	3	1.5	1.2	1

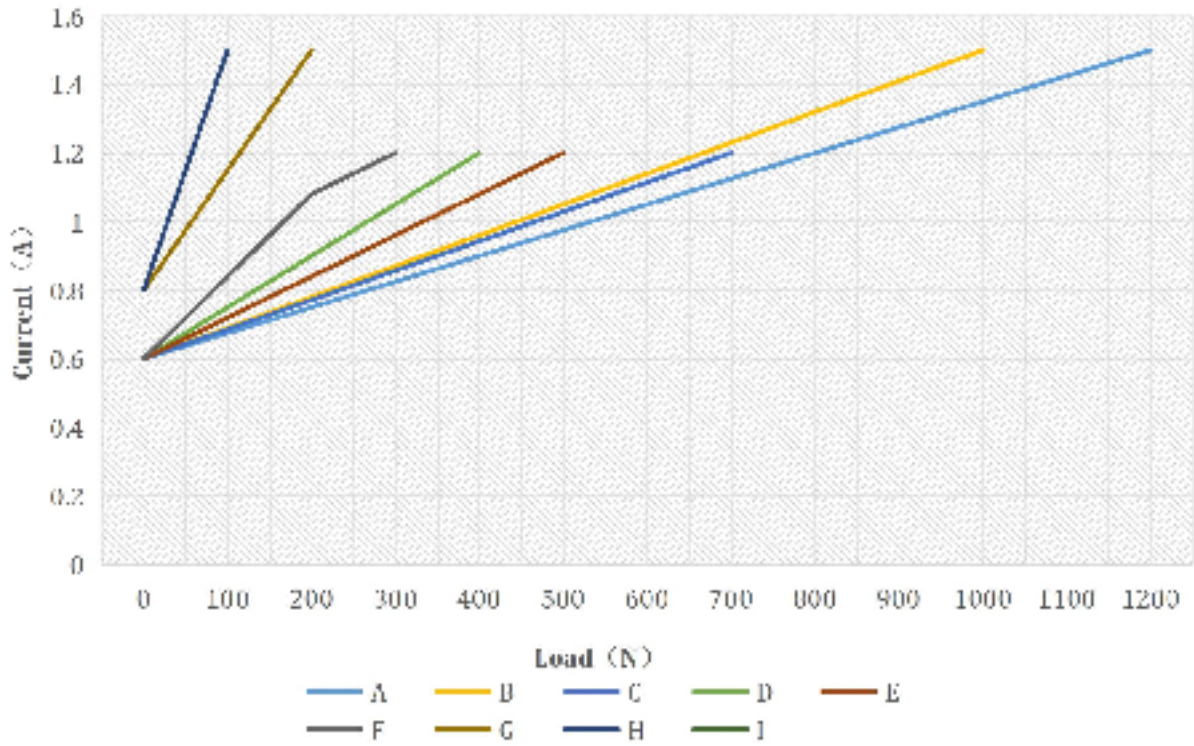
## Load & Current

(The letter corresponds to the transmission code in the selection parameter table)

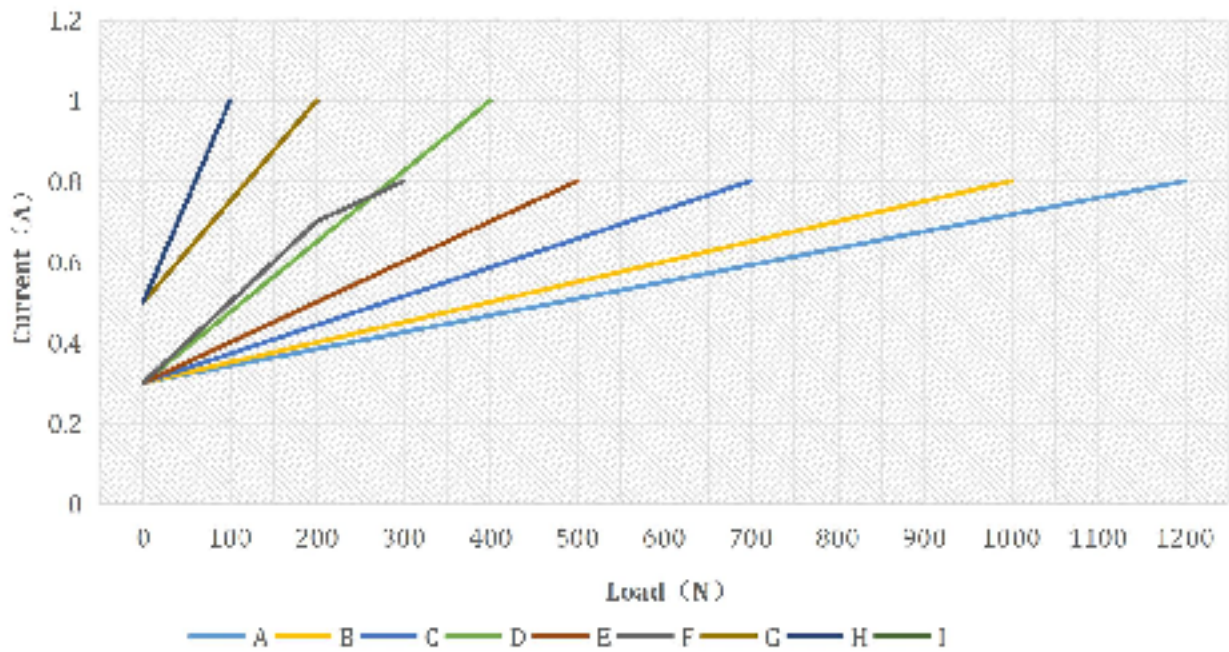
12V Load & Current



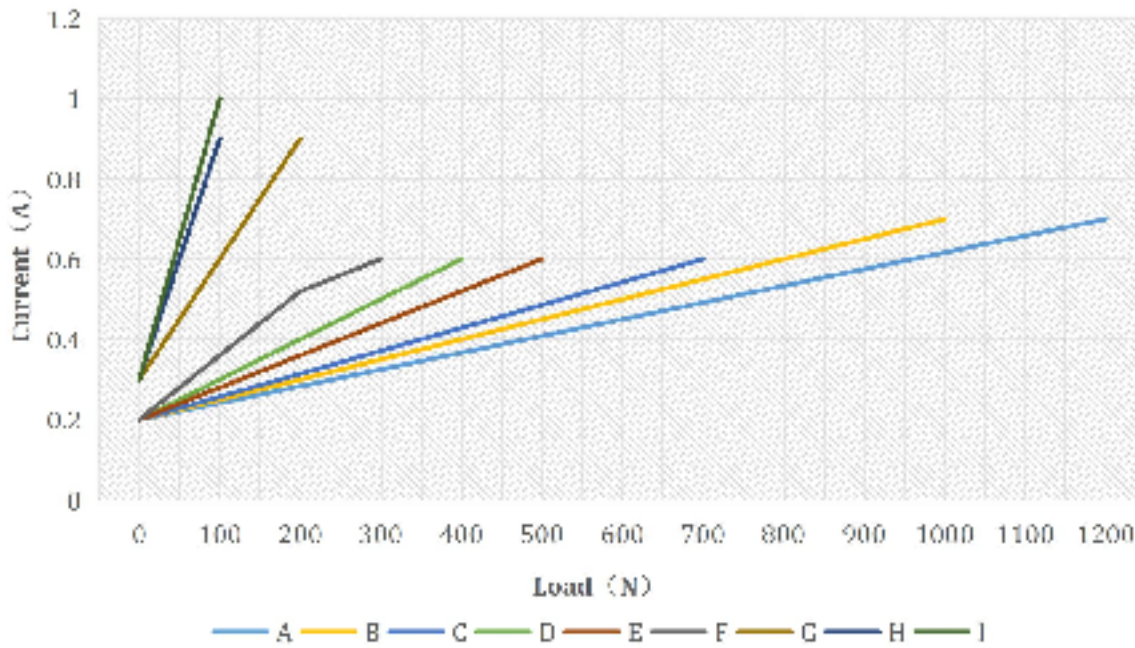
24V Load & Current



36V Load & Current



## 48V Load & Current



## Mounting length

### Stroke & Mounting length

#### Linear actuator without POT

S (mm)	Retracted L (mm)	Extended A (mm)	Simulate
50	155	205	$30 \leq \text{Stroke} \leq 300,$ $L = S + 105$ $A = L + S (A = S^2 + 105)$
100	205	305	
150	255	405	
200	305	505	
250	355	605	
300	405	705	
350	470	820	$300 < \text{Stroke} \leq 500,$ $L = S + 120$ $A = L + S (A = S^2 + 120)$
400	520	920	
450	570	1020	
500	620	1120	
550	680	1230	$500 < \text{Stroke} \leq 600,$ $L = S + 130$ $A = L + S (A = S^2 + 130)$
600	730	1330	

#### Linear actuator with POT

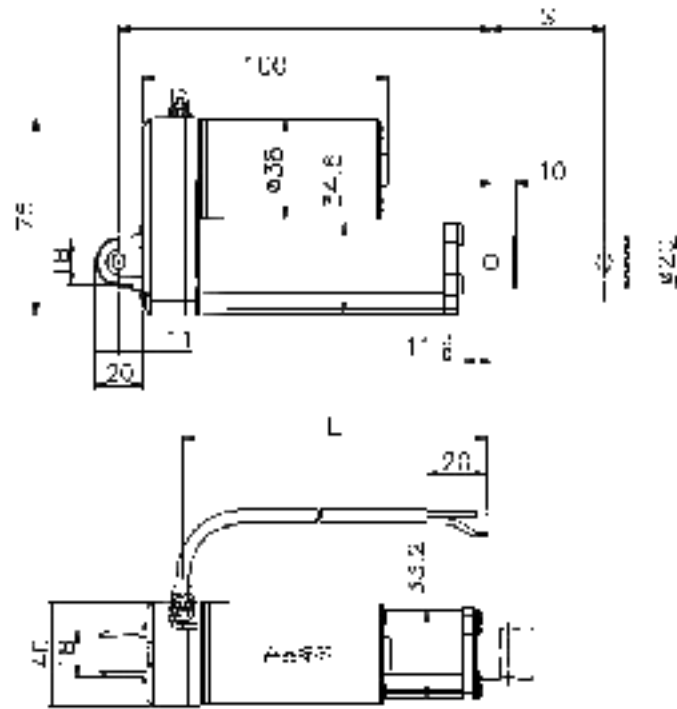
S (mm)	Retracted L (mm)	Extended A (mm)	Simulate
50	185	235	$30 \leq \text{Stroke} \leq 300,$ $L = S + 135$ $A = L + S (A = S^2 + 135)$
100	235	335	
150	285	435	
200	335	535	
250	385	635	
300	455	755	
350	505	855	$300 < \text{Stroke} \leq 450,$ $L = S + 155$ $A = L + S (A = S^2 + 155)$
400	555	955	
450	605	1055	

## Dimension

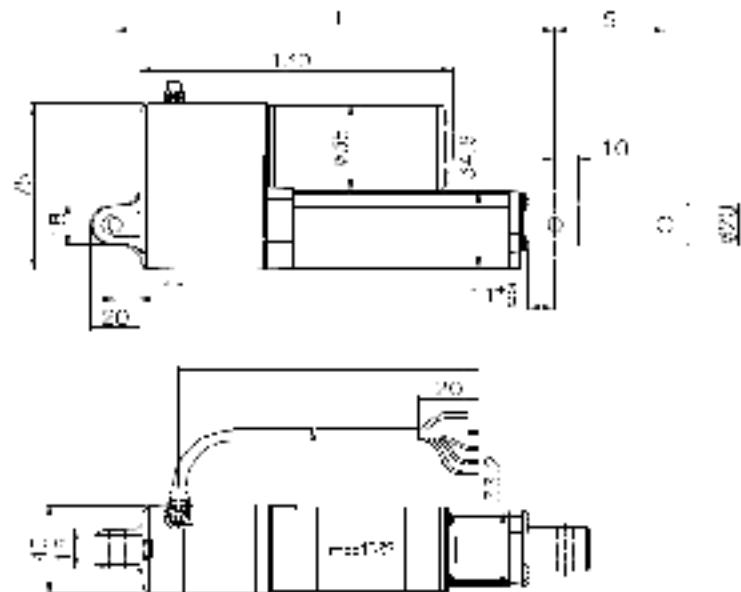
S: Stroke, the travel length of actuator

L: Length, the fully retracted length of actuator from front hole centre to rear hole centre

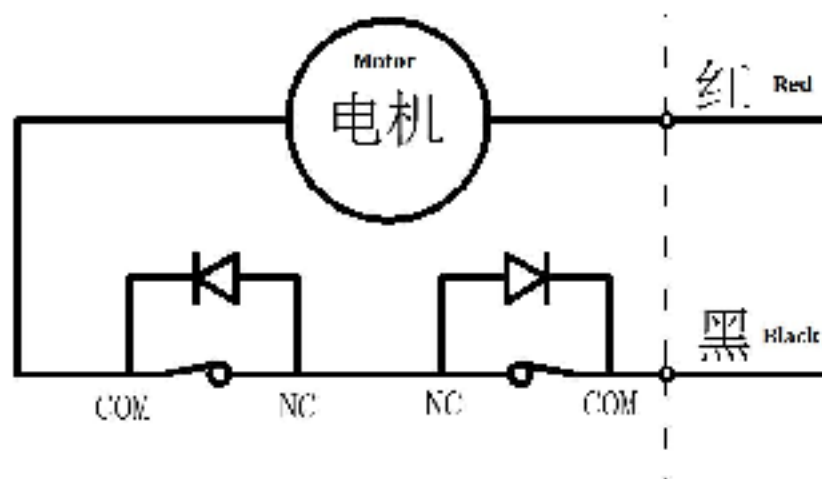
### (Standard type/without POT)



### (With POT)



## Standard limit switch diagram



## Signal output

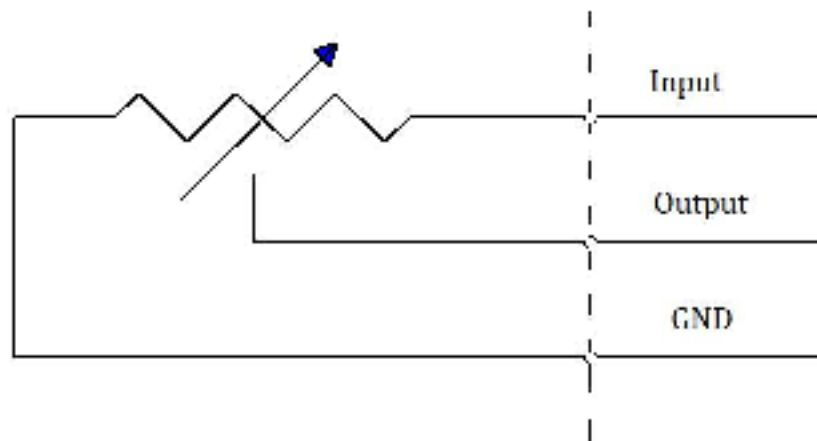
### Limit switch signal output

Closed <input type="checkbox"/>	Open <input type="checkbox"/>
<p>The diagram shows a closed limit switch. The switch is represented by a vertical line with a horizontal bar across it. The terminals are labeled "COM", "NC", and "NO". The "COM" terminal is connected to the top line, and the "NO" terminal is connected to the bottom line. A motor symbol is shown in the circuit.</p>	<p>The diagram shows an open limit switch. The switch is represented by a vertical line with a horizontal bar that is not connected to the top line. The terminals are labeled "COM", "NC", and "NO". The "COM" terminal is connected to the top line, and the "NO" terminal is connected to the bottom line. A motor symbol is shown in the circuit. Labels "Down limit switch" and "Upper limit switch" are present.</p>
C <input type="checkbox"/>	NC <input type="checkbox"/>
<p>The diagram shows a limit switch with terminals "COM", "NC", and "NO". The "COM" terminal is connected to the top line, and the "NO" terminal is connected to the bottom line. A motor symbol is shown in the circuit. Labels "Upper limit switch" and "Down limit switch" are present.</p>	<p>The diagram shows a limit switch with terminals "COM", "NC", and "NO". The "COM" terminal is connected to the top line, and the "NC" terminal is connected to the bottom line. A motor symbol is shown in the circuit. Labels "Upper limit switch" and "Down limit switch" are present. The bottom line is labeled "Red" and "black".</p>

## POT

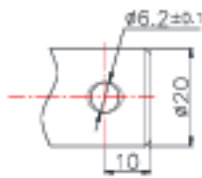
POT information			
Resistance	Turn(s)	Tolerance	Remark
10K	10	±5%	Actual resistance value may vary within the 0- 10KΩ range based on stroke length
5K	10	±5%	Actual resistance value may vary within the 0- 5KΩ range based on stroke length)
POT (10KΩ)			
Code	Initial resistance	10KΩ POT Max. stroke	For example
A, B, G	0.2-0.4KΩ	180Ω/540Ω	100Ω: 5556KΩ / 100Ω: 1.852KΩ
C, D, H	0.2-0.4KΩ	300Ω/600Ω	100Ω: 3.333KΩ / 100Ω: 1.667KΩ
E, F, I	0.2-0.4KΩ	540Ω/600Ω	100Ω: 1.852KΩ / 100Ω: 1.667KΩ
POT (5KΩ)			
Code	Initial resistance	5KΩ POT Max. stroke	For example
A, B, G	0.1-0.2KΩ	180Ω/540Ω	100Ω: 2.8KΩ / 100Ω: 0.926KΩ
C, D, H	0.1-0.2KΩ	300Ω/600Ω	100Ω: 1.667KΩ / 100Ω: 0.833KΩ
E, F, I	0.1-0.2KΩ	540Ω/600Ω	100Ω: 0.926KΩ / 100Ω: 0.833KΩ

### Potentiometer wiring diagram

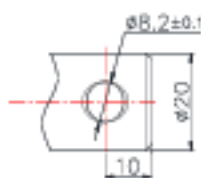


# Attachment options

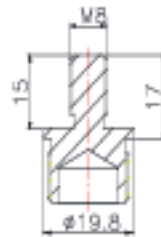
## Front



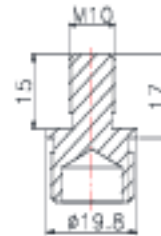
Q1  
□



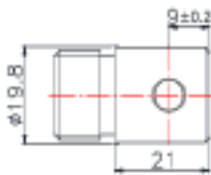
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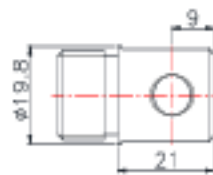
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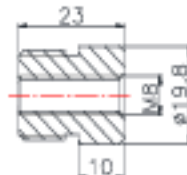
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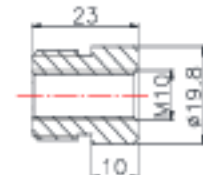
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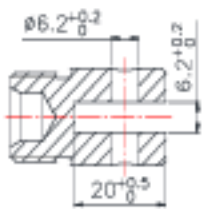
Q6  
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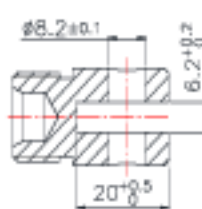
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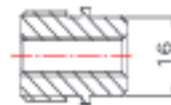
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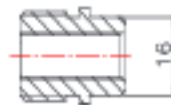
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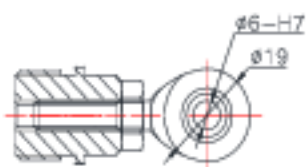
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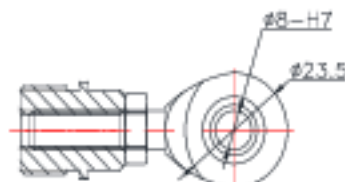
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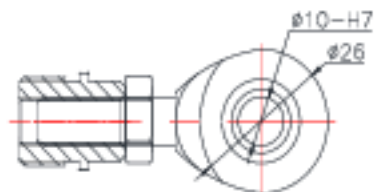
Q12  
□



Q13  
□



Q14  
□



Q15  
□



Q16  
□



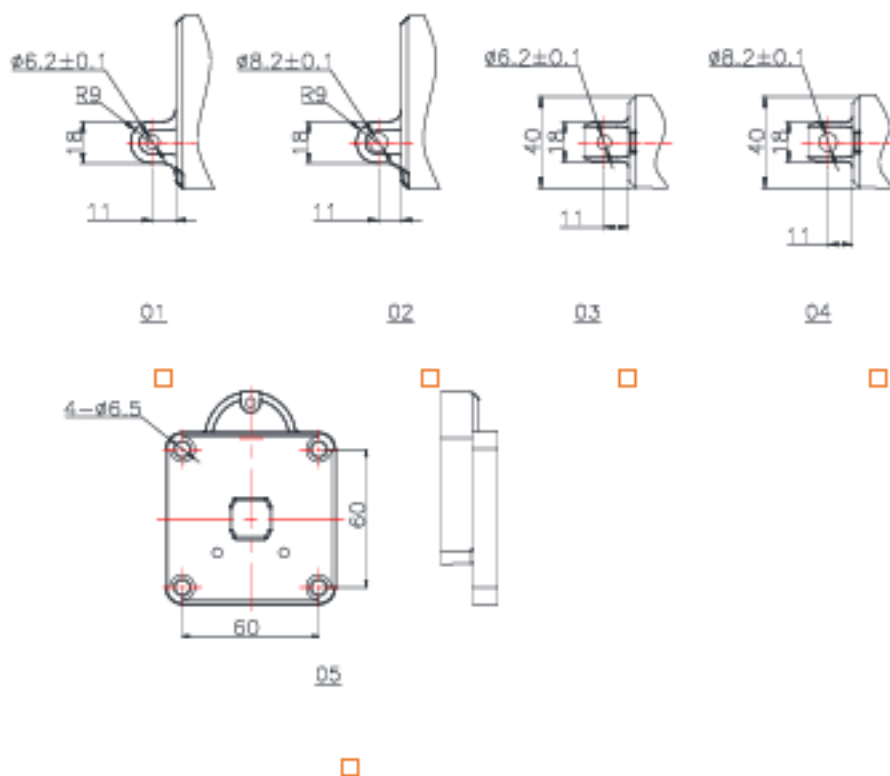
Q17  
□



Q18  
□



## 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	50-600mm	5-50mm/s	IP65	Industrial
ALM606A	7000	50-900mm	5-50mm/s	IP65	Industrial
ALM607	5000	50-600mm	5-50mm/s	IP65	Industrial
ALM608	12000	50-1000mm	6.5-38mm/s	IP66	Industrial