## Feature

**Model**

**ALM606**

- 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.

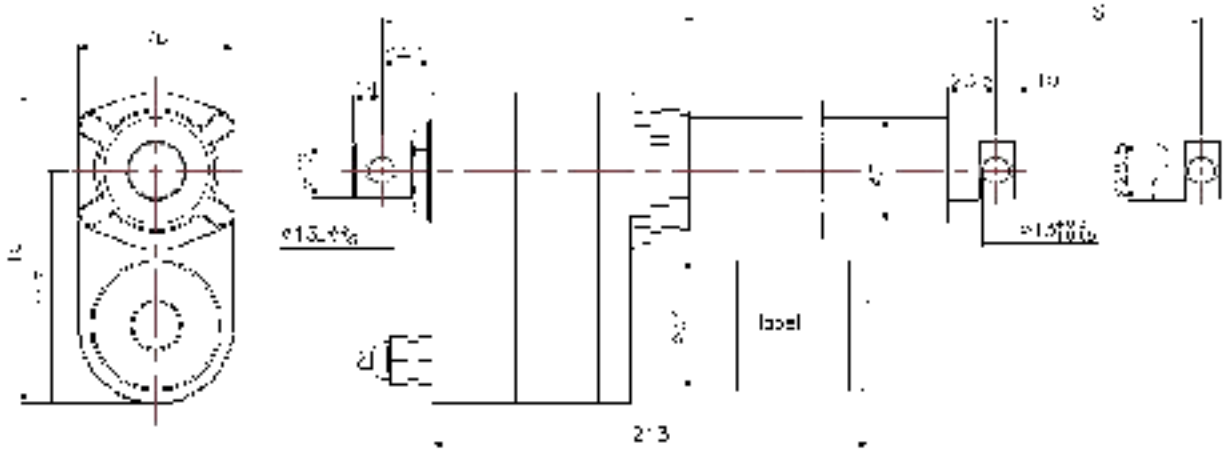
| | | | | | |
|---|---|---|---|---|---|
| Housing color | ☐Black | ☐Customize colors | | | |
| Screw type | ☐T-screw | ☐Ball screw | | | |
| Control | ☐control box | ☐control system + manual | | | |
| Application | ☐Industrial | | | | |
| Work environment | ☐0~40℃ | ☐-20~65℃ | ☐-40~65℃ | | |
| Noise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

# Load & Speed & Current

| Code | Gear ratio | Screw pitch | No-load speed (mm/s) | Full-load speed (mm/s) ±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**

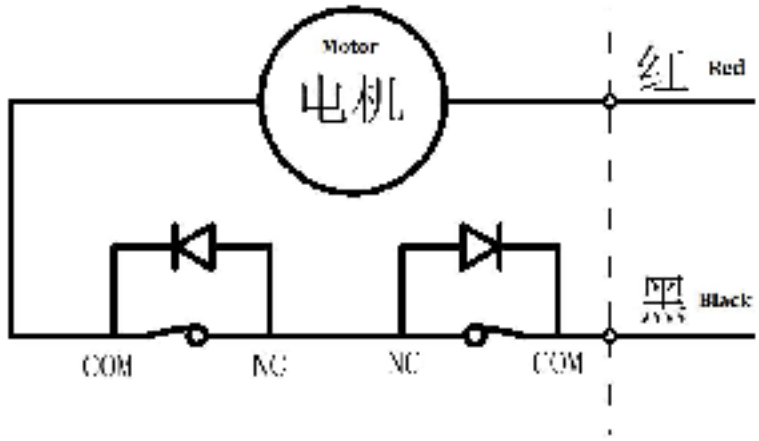


**Stroke & Length**

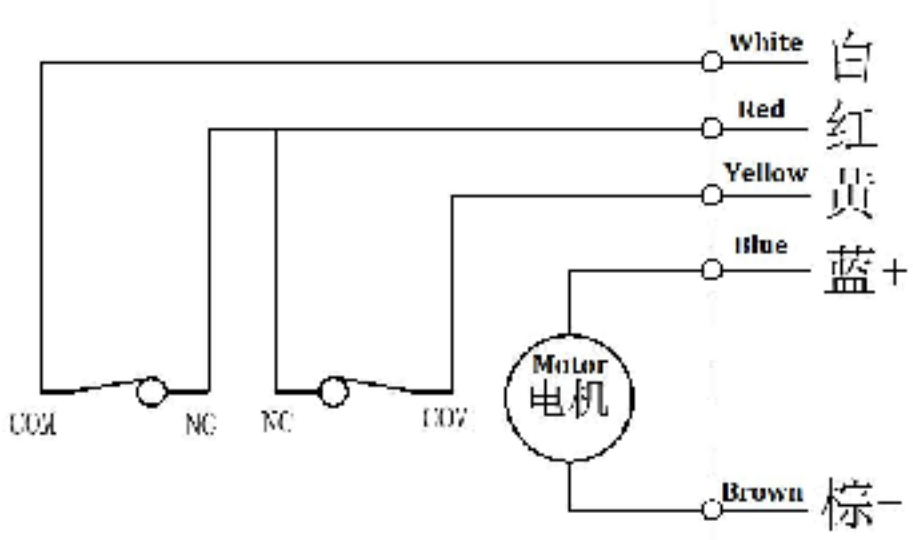
| S (mm) | Retracted L(mm) | Extended A(mm) | Simulate |
|---|---|---|---|
| 50 | 300 | 350 | 50≤ Stroke≤300, L=S+250 A=L+S(A=S*2+250) |
| 100 | 350 | 450 | |
| 150 | 400 | 550 | |
| 200 | 450 | 650 | |
| 250 | 500 | 750 | |
| 300 | 550 | 850 | |
| 350 | 650 | 1000 | 300＜Stroke≤600, L=S+300 A=L+S(A=S*2+300) |
| 400 | 700 | 1100 | |
| 450 | 750 | 1200 | |
| 500 | 800 | 1300 | |
| 550 | 850 | 1400 | |
| 600 | 900 | 1500 | |
| 650 | 980 | 1630 | 600＜Stroke≤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

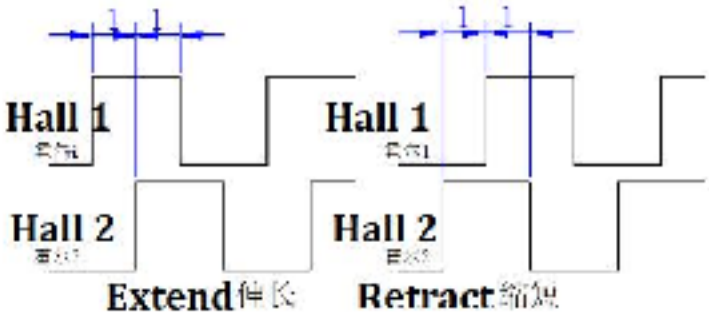
**Standard limit switch diagram**




**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 | 13.78pulse/mm | 55.11pulse/mm |
| B | | | 8.265pulse/mm | 33.06pulse/mm |
| C | | | 5.51pulse/mm | 22.04pulse/mm |
| D | | | 6.67pulse/mm | 26.67pulse/mm |
| E | | | 4pulse/mm | 16pulse/mm |
| F | | | 2.67pulse/mm | 10.67pulse/mm |
| G | | | 3.83pulse/mm | 12.92pulse/mm |
| H | | | 1.94pulse/mm | 7.75pulse/mm |
| I | | | 1.29pulse/mm | 5.17pulse/mm |
| Phase difference | | | | |
| Phase difference 90° |  | | | |

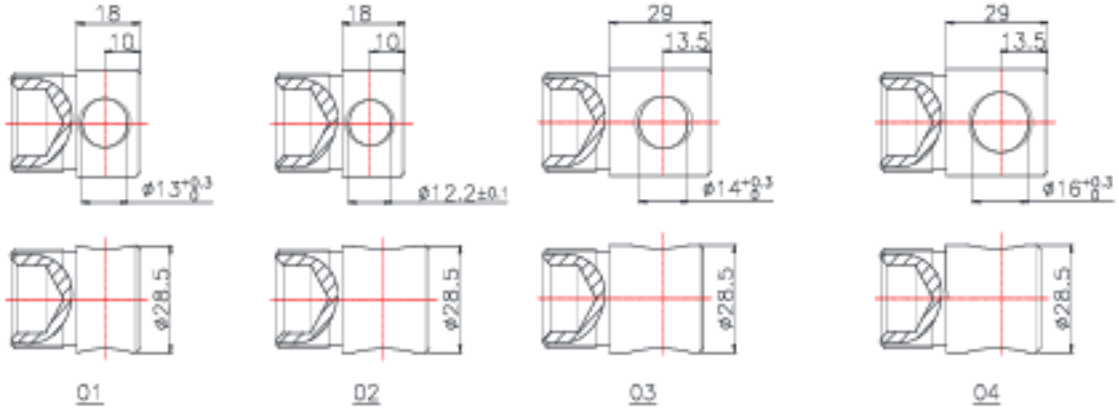
*Notice: Hall sensor power supply 3.3V-24V, recommend to use 5V or 12V*

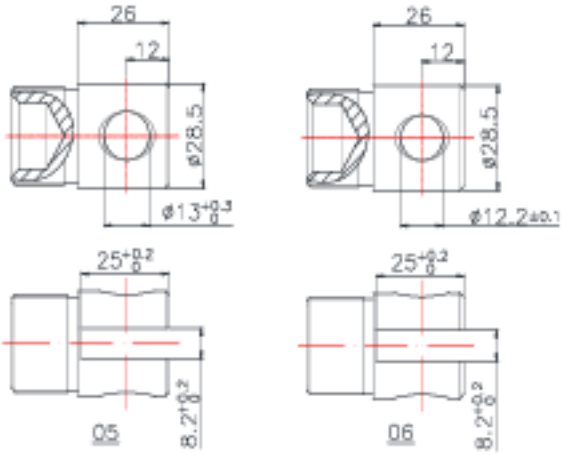
## POT

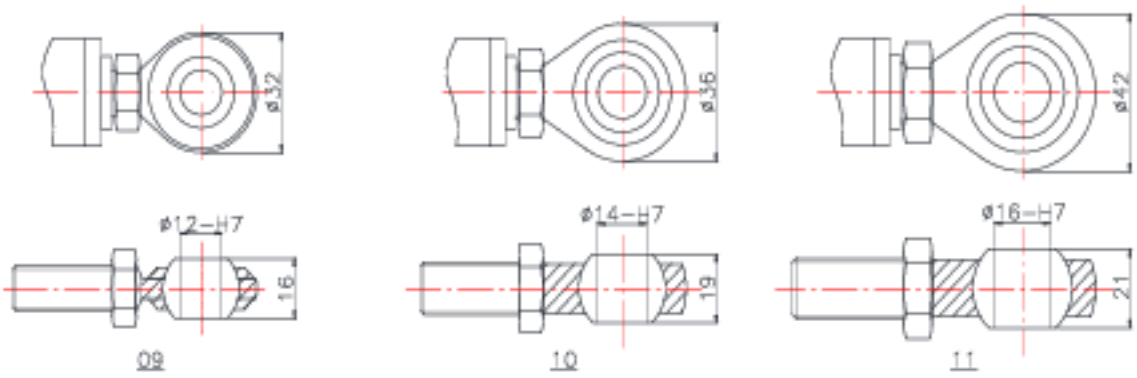
| POT information | | | |
|---|---|---|---|
| Resistance | Turn(s) | Tolerance | Remark |
| 10K | 10 | ±5% | Actual resistance value may vary within the 0-10KΩ range based on stroke length |
| 5K | 5 | ±5% | Actual resistance value may vary within the 0-5KΩ range based on stroke length |
| **POT (10KΩ)** | | | |
| Code | Initial resistance | 10KΩ POT Max. stroke | 10KΩ POT resolution（STD） Resistance/mm |
| 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 |
| **POT (5KΩ)** | | | |
| Code | Initial resistance | 5KΩPOT Max. stroke | 5KΩ POT resolution（STD） Resistance/mm |
| 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

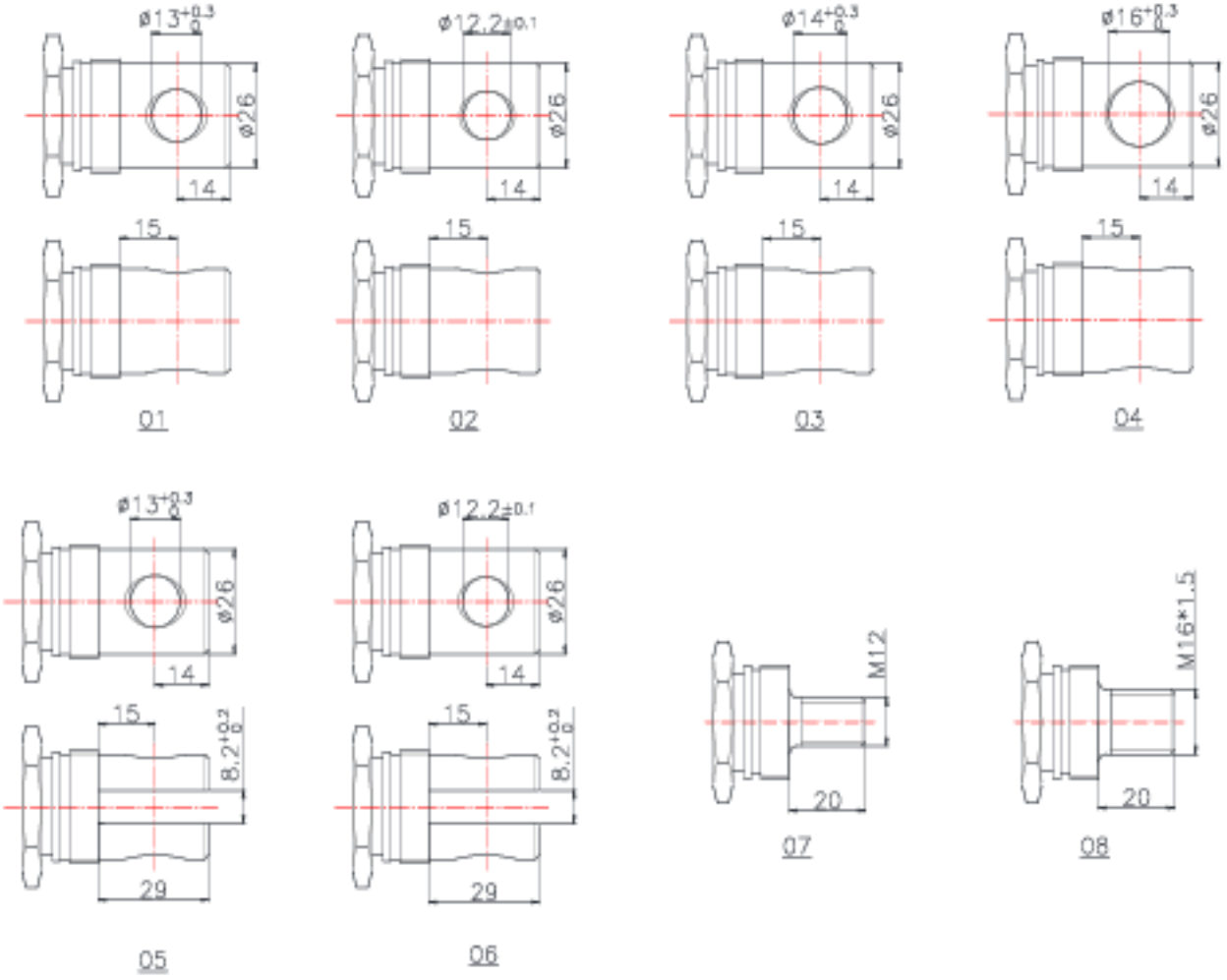
**Front**



## Rear


ø13+0.3 0
ø12.2±0.1
ø14+0.3 0
ø16+0.3 0
ø26
14
15
01
02
03
04
8.2+0.2 0
29
05
06
M12
20
07
M16*1.5
08

# 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 |