Product Data Sheet

Actuator
01NJ51

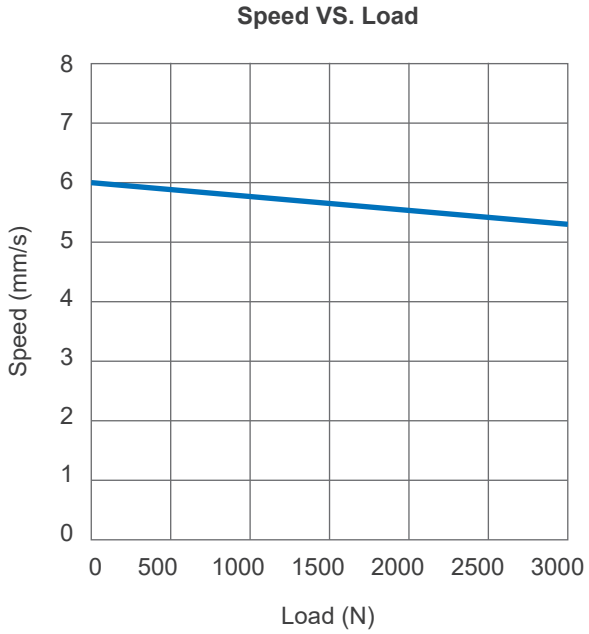
01NJ51 is a linear actuator with an AC motor, providing push-pull force up to 3000N. It features high degree of ingress protection and UV resistance. The positions of the upper and lower limit switches are externally adjustable, which helps to accurately install the stroke of the actuator. It is suitable for outdoor unsheltered applications such as opening and closing windows on terrace roofs.
This model is available in versions with two limit switch mechanisms: the power switch or the signal switch.

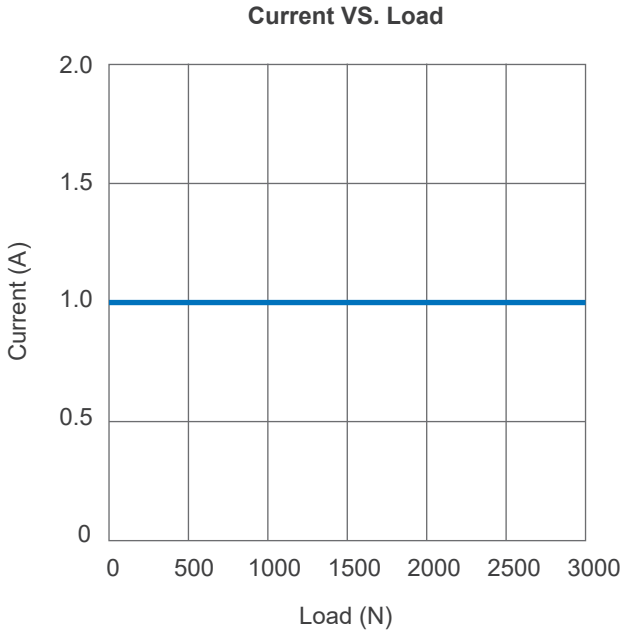
Features and Options

- Main applications: For outdoors, terrace roofs.
- Input voltage: 230V AC/ 50Hz
- Max. load: 3,000N (Push/Pull)
- Max. static load: 3,600N (Push/Pull)
- Max. speed at no load: 6.0mm/sec (Typical value)
- Speed at full load: 5.3mm/sec (Typical value)
- Stroke: 400mm
- Spindle type: ACME screw
- Adjustable limit switches of stroke ends: Power switches / signal switches
- Inner tube material: Stainless steel
- Motor & Outer tube material: Black coating steel case
- IP level: IP66 (Static; non-action), UV resistance (for outdoors).
- Duty cycle: 15%, max. 3 min. continuous operation in 17 min.
- Operating ambient temperature: -25°C～+65°C
- Storage ambient temperature: -55°C～+105°C
- Cable: Wire end with DIN 46228/4 ferrules

Performance Data

Model	Push / Pull load Max. (N)	* Typical speed (mm/s)		* Typical current (A) @230V AC	
		No load	Full load	No load	Full load
01NJ51	3,000	6.0	5.3	1.0	1.0

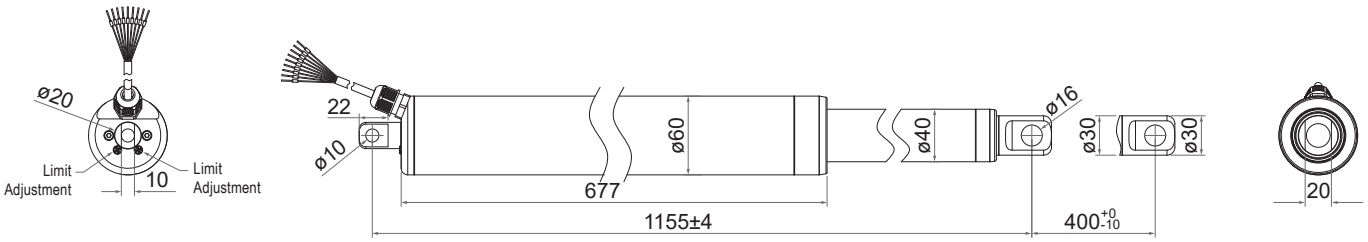




Note:

* The typical speed or typical current means the average value neither upper limit nor lower limit, which measured under room temperature and stable power. The performance curves are made with typical values.

Dimensions

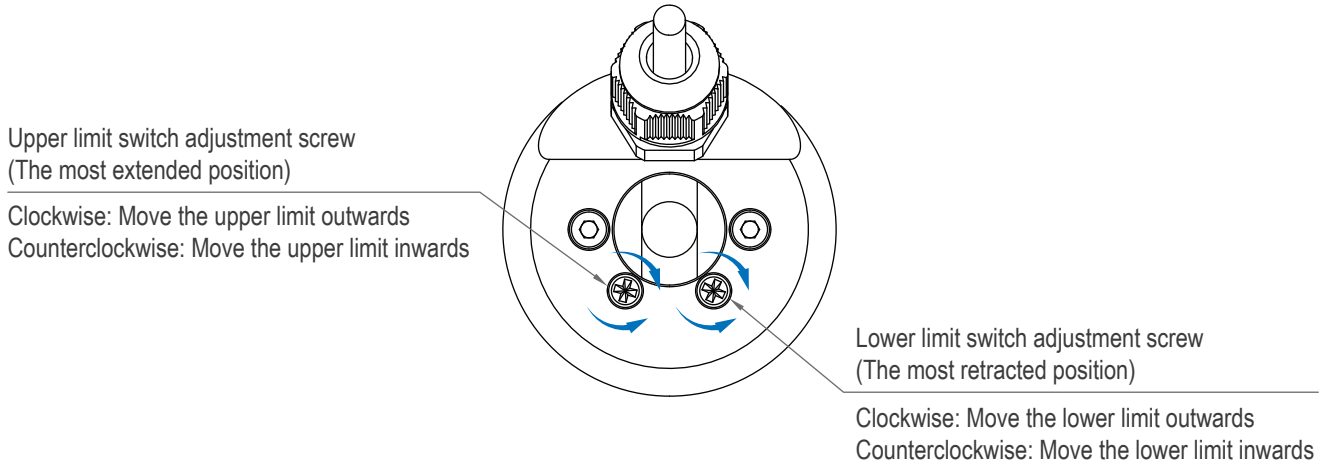


Unit: mm

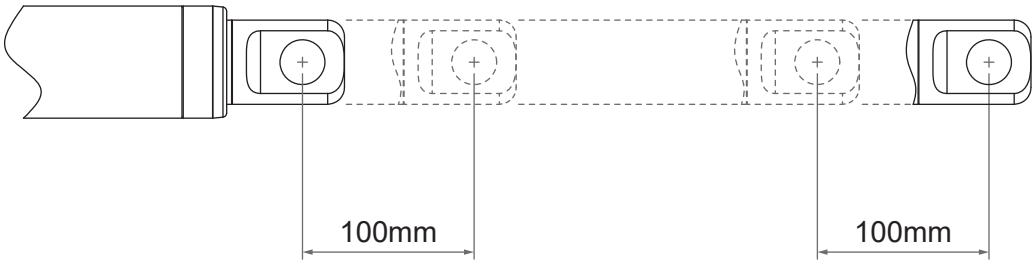
Adjustment of The Stroke Limit

The most extended position is limited by the “Upper Limit Switch”, and the most retracted position is limited by the “Lower Limit Switch” as well.
Please adjust the limit positions according to following steps if necessary:

1. First, determine which end of the limit switches (upper or lower) needs to be adjusted, then control the actuator in the normal way to move the inner tube to the end, until it stops automatically by the limit switch.
2. Control in the reverse direction to move the inner tube a few centimeters away from the target limit switch position.
3. Use a Phillips screwdriver to manually turn the adjustment screw to change the stroke limit position. The direction of the adjusting screw is shown in the diagram below.
4. Control in the normal way to move the inner tube toward to the limit switch and check the automatic stop position.
5. Repeat steps (2) ~ (4) until the desired limit position is obtained.

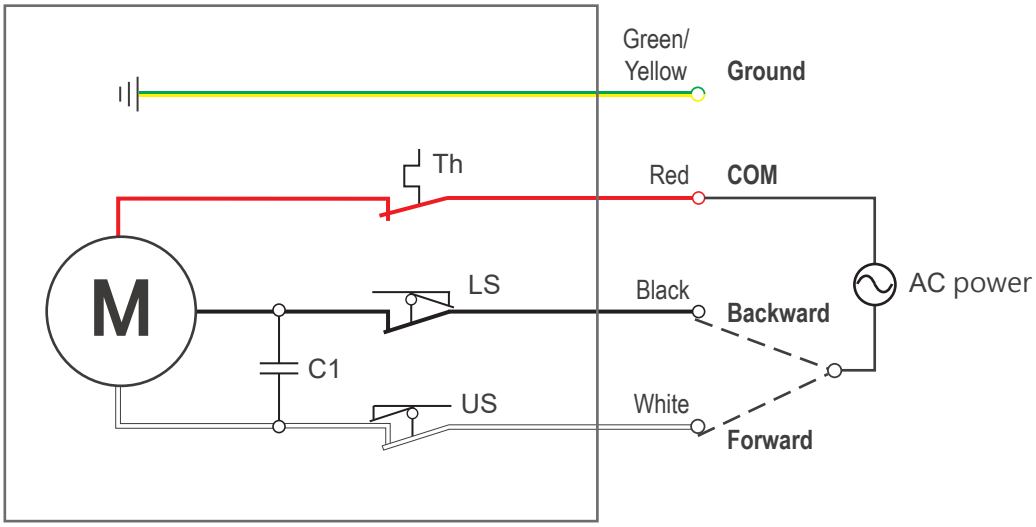


6. Adjustable range: These two switches can only be moved inwards according to the factory preset position. The maximum range is 100mm stroke at each end.



Wiring

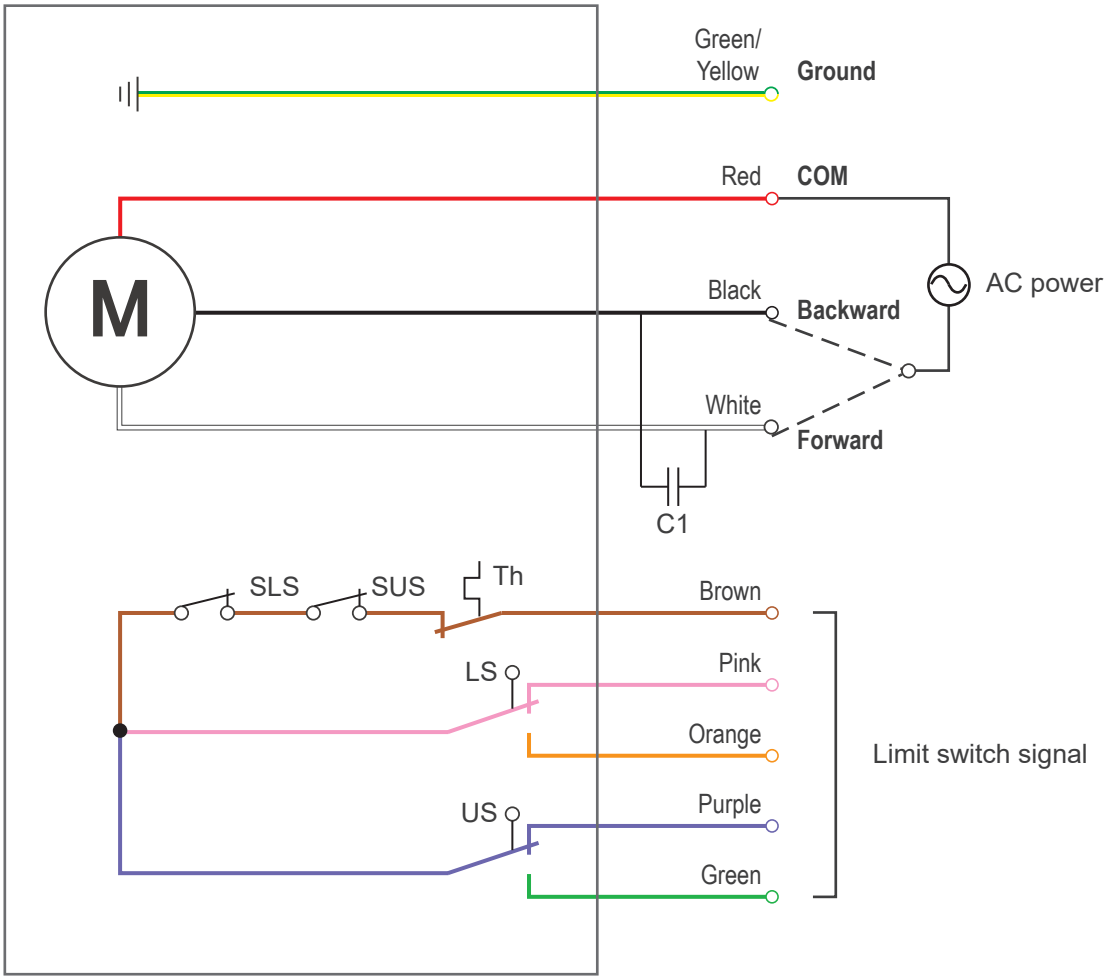
● **MK51-PS (Power type limit switches)**



Parts	Descriptions
Th	Thermal protection
US	Upper limit switch (Forward direction)
LS	Lower limit switch (Backward direction)
C1	External capacitor

Notes:
1. The wiring work outside the square frame will be installed by the customer.
2. The above diagram shows the current stroke position is between "US" and "LS", neither one is reached.

● **01NJ51-SS (Signal type limit switches)**



Parts	Descriptions
Th	Thermal protection
US	Upper limit switch (Forward direction)
LS	Lower limit switch (Backward direction)
SUS	Safety upper limit switch (Forward direction)
SLS	Safety lower limit switch (Backward direction)
C1	External capacitor

Notes:

1. The wiring work outside the square frame will be installed by the customer.
2. The above diagram shows the current stroke position is between "US" and "LS", neither one is reached.
3. In addition to the normal upper and lower limit switches, a spared limit switch is added to each side for safety function. All these switches are independent of the motor power supply; instead, they provide their status through five signal wires to the controller, which then controls the motor power supply to determine the action.

Ordering Key

01NJ51- PS - 230 - 755 . 1155 - B 3 3 0 0 0

Version	**PS**: Power type limit switches **SS**: Signal type limit switches
Input voltage	230V AC/ 50Hz
Retracted length (Refer to p.3)	**755 mm**
Extended length (Refer to p.3)	**1155 mm**
Exterior	**B**: Black coating steel case
Front connector (Refer to p.3)	**3**: Aluminum alloy solid
Rear connector (Refer to p.3)	**3**: Aluminum alloy solid
Reserved	**0**
Reserved	**0**
Cable length	**3**: 1000mm straight **5**: 1500mm straight **6**: 2000mm straight