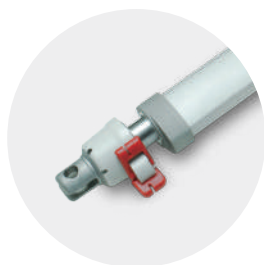


## Product Data Sheet

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# Linear Actuator 01NS80

01NS80 is a quiet and powerful actuator up to 8000N thrust, which is designed for use in a variety of medical and home care applications such as patient hoist and bed.



## Features and Options

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**Main applications:** Home care, medical

**Standard features:**

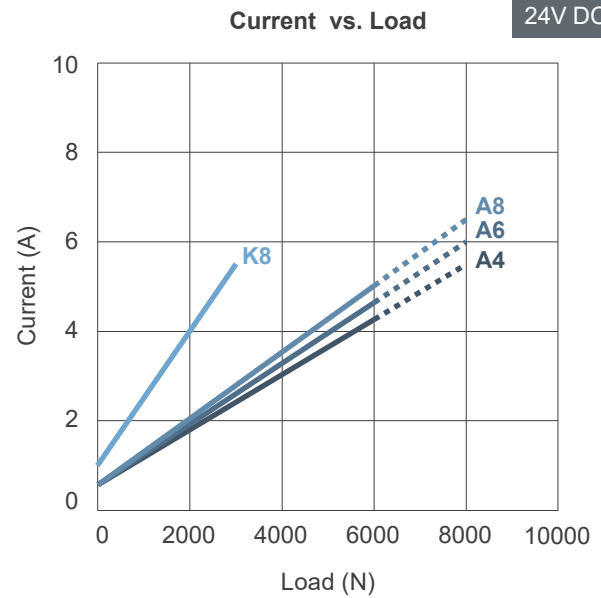
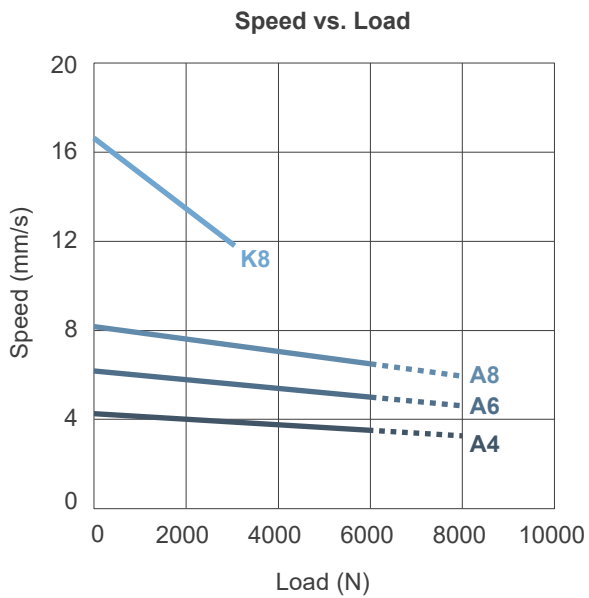
- Max. load: 8000N (push) / 6000N (pull)
- Max. speed at no load: 16.6 mm/sec (Typical value)
- Stroke: 50~400mm
- Noise level:  $\leq 53$ dB
- IP Level: IPX4, IPX5 (static, non-action)
- Rear connector's pivot orientation can be chosen in every 30 degrees.
- Preset limit switches
- Steel extension tube
- Color: Light gray RAL 7035
- Duty cycle: 10%, max. 2 min. continuous operation in 20 min.
- Ambient operation temperature:  $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- Storage ambient temperature:  $-25^{\circ}\text{C} \sim +65^{\circ}\text{C}$
- Certified:
  - CE Marking: EN IEC 60601-1, EN 60601-1-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-8
  - RoHS: Directive 2011/65/EU and commission delegated Directive (EU)2015/863, (EU)2017/2102

**Options:**

- Mechanical push only extension tube
- Safety nut (in push direction)
- QR2 quick release: To retract actuator quickly by pinching the QR2 grip while emergency.
- MR3 manual release: To retract actuator slowly and put down the patient safely by turning the MR3 knob with hand when losing power in the application of patient hoist.

## Performance Data

Model No.	Push Max. (N)	Pull Max. (N)	*Typical Speed (mm/s)		*Typical Current (A)	
			No load	Full load	No load	Full load
01NS80-24DA4-XXX.XXX-XXXX0XX	8000	6000	4.2	3.3	0.6	5.5
01NS80-24DA6-XXX.XXX-XXXX0XX	8000	6000	6.2	4.6	0.6	6.0
01NS80-24DA8-XXX.XXX-XXXX0XX	8000	6000	8.1	5.9	0.6	6.5
01NS80-24DK8-XXX.XXX-XXXX0XX	3000	3000	16.6	11.8	1.0	5.5



Push / Pull Load — Push Load - - -

**Remarks:**

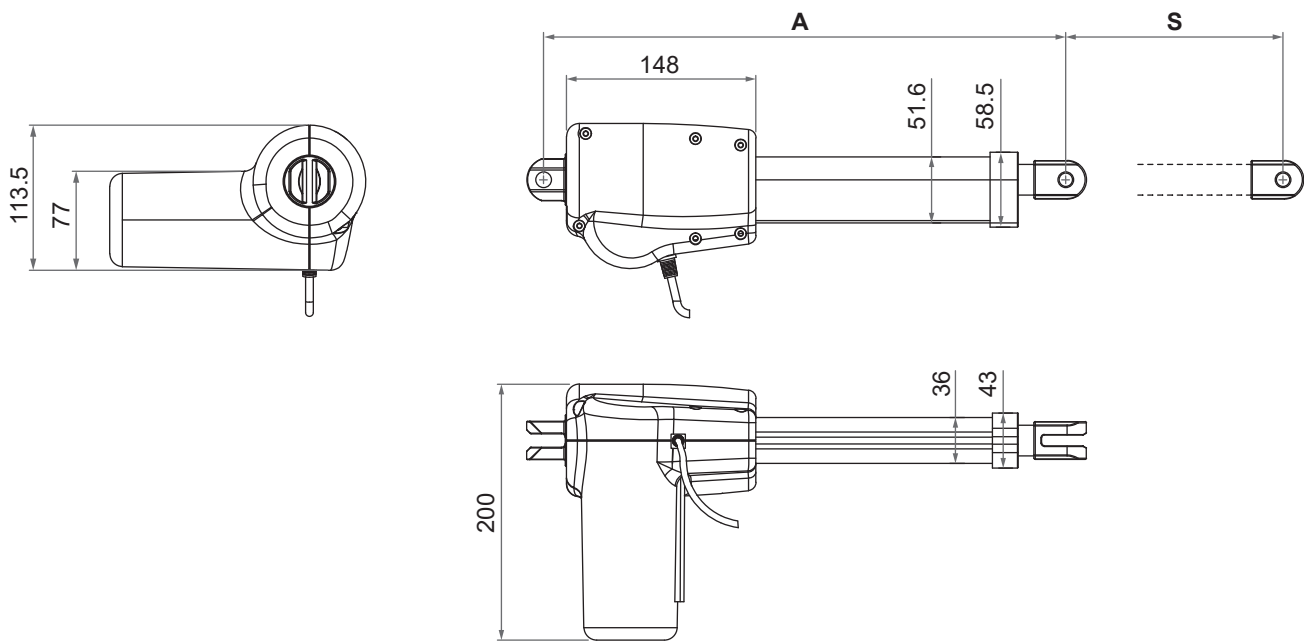
- \* The typical speed or typical current means the average value neither upper limit nor lower limit. The performance curves are made with typical values.

## Dimensions

Stroke (s)	50 ≤ S ≤ 300mm			
Retracted length (A)	Front connector	7	8	M, N, O
	Safety option			
	No safety option	$A \geq S + 180\text{mm}$	$A \geq S + 210\text{mm}$	$A \geq S + 260\text{mm}$
With Safety Nut (SN)	$A \geq S + 185\text{mm}$	$A \geq S + 215\text{mm}$	$A \geq S + 265\text{mm}$	

•  $301 \leq S \leq 400\text{mm}$ , retracted length (A) + 30mm      • Tolerance: ±3mm  
 •  $S \geq 41\text{mm}$ , Please consult sales representative for feasibility and the available retracted length.

Unit: mm



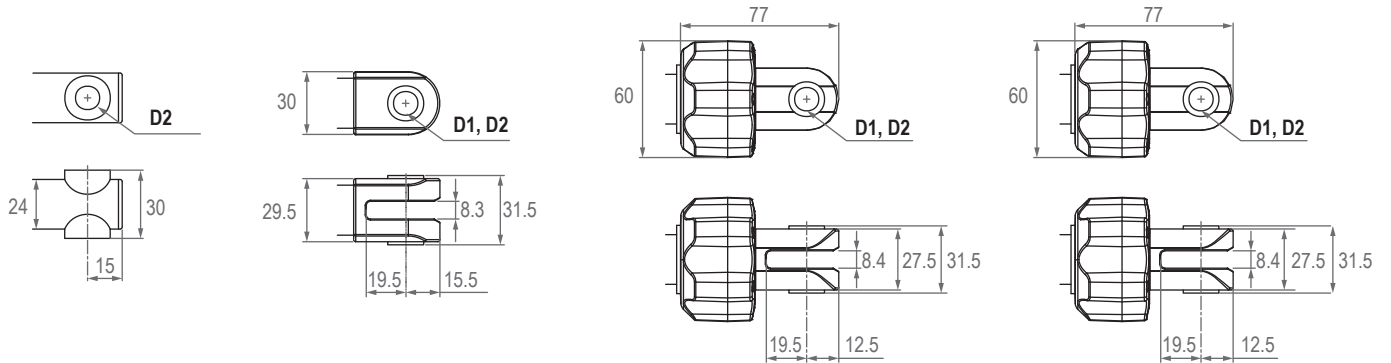
● **Front connector**

7: Plastic bushing

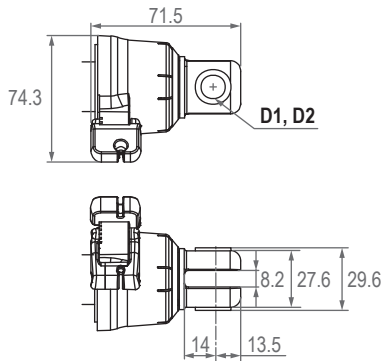
8: Aluminum alloy clevis

M: Aluminum alloy clevis with MR3 manual release

N: Zinc alloy clevis with MR3 manual release

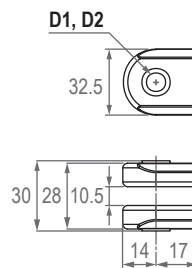


Q: Zinc alloy clevis with QR2 quick release

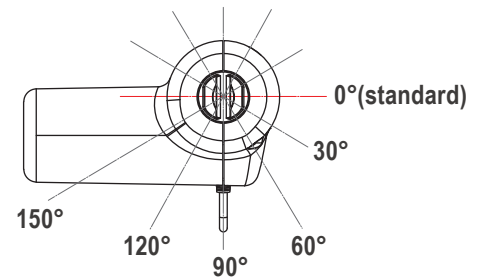


● **Rear connector**

1: Zinc alloy clevis



● **Pivot orientation of rear connectors**



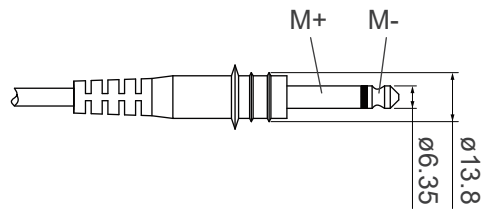
Front connector code	Diameter of pivot without bushing (D1)	Diameter of pivot with bushing (D2)
7	N/A	ø10
8	ø10, ø12	ø8, ø10
M	ø12	ø10
N	ø12	ø10
Q	ø10, ø12	ø10
Rear connector code	Diameter of pivot without bushing (D1)	Diameter of pivot with bushing (D2)
1	ø12	ø10

## Compatibility

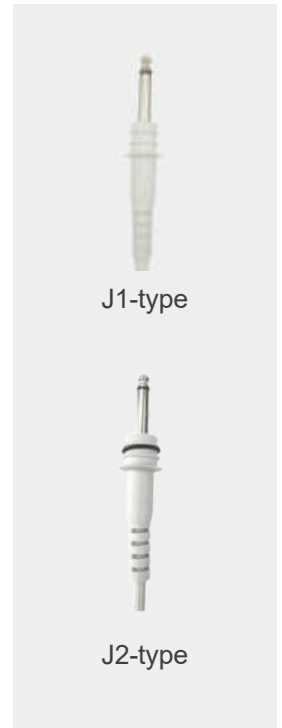
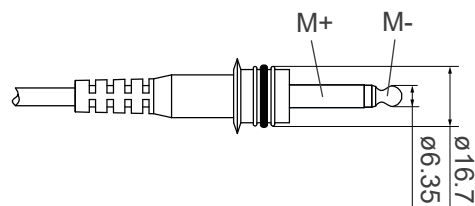
Product	Model	01NS80 spec
Control box	01XN42, 01XVO2, 01XVO3	- Without positioning feedback sensors - With J1-type $\varnothing 6.35$ phone jack
	01XN43, 01XV4O-HP	- Without positioning feedback sensors - With J2-type $\varnothing 6.35$ phone jack
	01XN41-M, 01XV5O-M	- With dual Hall effect sensors for positioning - With LR-type minifit 6-pin plug

## Cable Plug

### J1-type phone jack



### J2-type phone jack



**Note:** Connect (M+) to '+' & (M-) to '-' of DC power, the actuator will extend.

## Ordering Key

01NS80 - 24 D A8 - 300 . 400 - 8 1 0 P 0 4 A	
<b>Input voltage</b>	<b>24:</b> 24V DC
<b>Motor</b>	<b>D:</b> Standard power and speed
<b>Motor and Spindle type</b>	<b>A4:</b> 2500rpm / 4mm pitch <b>A6:</b> 2500rpm / 6mm pitch <b>A8:</b> 2500rpm / 8mm pitch <b>K8:</b> 2500rpm / 8mm pitch
<b>Retracted length</b>	<b>XXX</b> (Refer to Page 3)
<b>Extended length</b>	<b>XXX</b> (Refer to Page 3)
<b>Front connector</b>	<b>7:</b> Plastic bushing <b>8:</b> Zinc alloy clevis <b>M:</b> Aluminum alloy clevis with MR3 manual release <i>(must with options of Push only and Safety nut, A8 or K8 spindle)</i> <b>N:</b> Zinc alloy clevis with MR3 manual release <i>(must with options of Push only and Safety nut, A8 or K8 spindle)</i> <b>Q:</b> Zinc alloy clevis with QR2 quick release <i>(must with options of Push only and Safety nut, A8 or K8 spindle)</i> (Refer to Page 3)
<b>Rear connector</b>	<b>1:</b> Zinc alloy clevis (Refer to Page 3)
<b>Pivot orientation of rear connector</b>	<b>0:</b> 0° (Standard) <b>3:</b> 30° <b>6:</b> 60° <b>9:</b> 90° <b>C:</b> 120° <b>F:</b> 150°
<b>Option</b>	<b>0:</b> None <b>S:</b> Safety nut <b>P:</b> Push only + Safety nut
<b>Reserved</b>	<b>0:</b> No meaning
<b>IP Level</b> <i>(static, non-action)</i>	<b>4:</b> IPX4 (Standard) <b>5:</b> IPX5
<b>Cable length</b>	<b>0:</b> 300mm straight <b>1:</b> 1000mm straight <b>A:</b> 400mm with 200mm coiled