Product Data Sheet

Actuator
01NS82

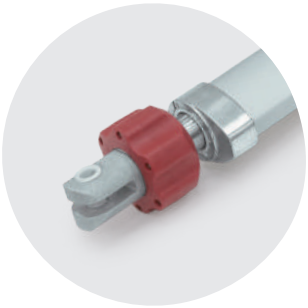
01NS82 is a quiet and powerful actuator up to 8000N thrust, which is designed for use in a variety of medical and home care applications such as patient hoist and bed.

Features and Options

- Main applications: Medical, Home care
- Input voltage: 24V DC
- Max. load: 8000N (push) / 6000N (pull)
- Typical speed at no load: 8.2 mm/sec
- Typical speed at full load: 4.8 mm/sec (8000N load)
- Stroke: 50 ~ 400 mm
- Noise level: ≦50dB
- IP Level: IPX4, IPX6 (static, non-action)
- Rear connector's pivot oritention 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°C ~ +40°C
- Storage ambient temperature: -25°C ~ +65°C
- Certified:
  - CE Marking, EN 60601-1-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-8
  - Directive 2011/65/EU (RoHS) and commission delegated Directive (EU)2015/863 、(EU)2017/2102

Options

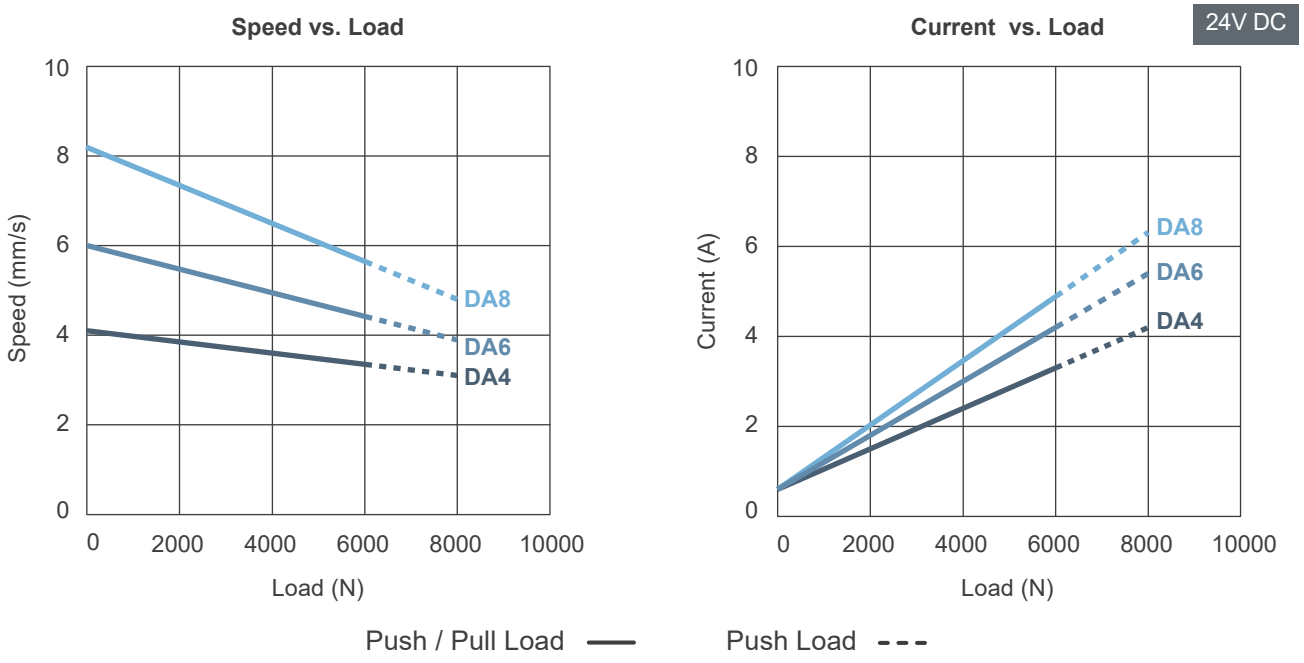
- Positioning signal feedback with Hall effect sensor x 2
- Mechanical push only extension tube
- Safety nut (in push direction)
- MR3 manual release (Fig.1): To retract actuator slowly and put down the patient safely by turning the MR3 knob with hand when losing power in the application of patient hoist.



(Fig.1)

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
01NS82-24**DA4**-XXX.XXX-XXXXX0XX	8000	6000	4.1	3.1	0.6	4.2
01NS82-24**DA6**-XXX.XXX-XXXXX0XX	8000	6000	6.0	3.9	0.6	5.4
01NS82-24**DA8**-XXX.XXX-XXXXX0XX	8000	6000	8.2	4.8	0.6	6.3



Remarks:

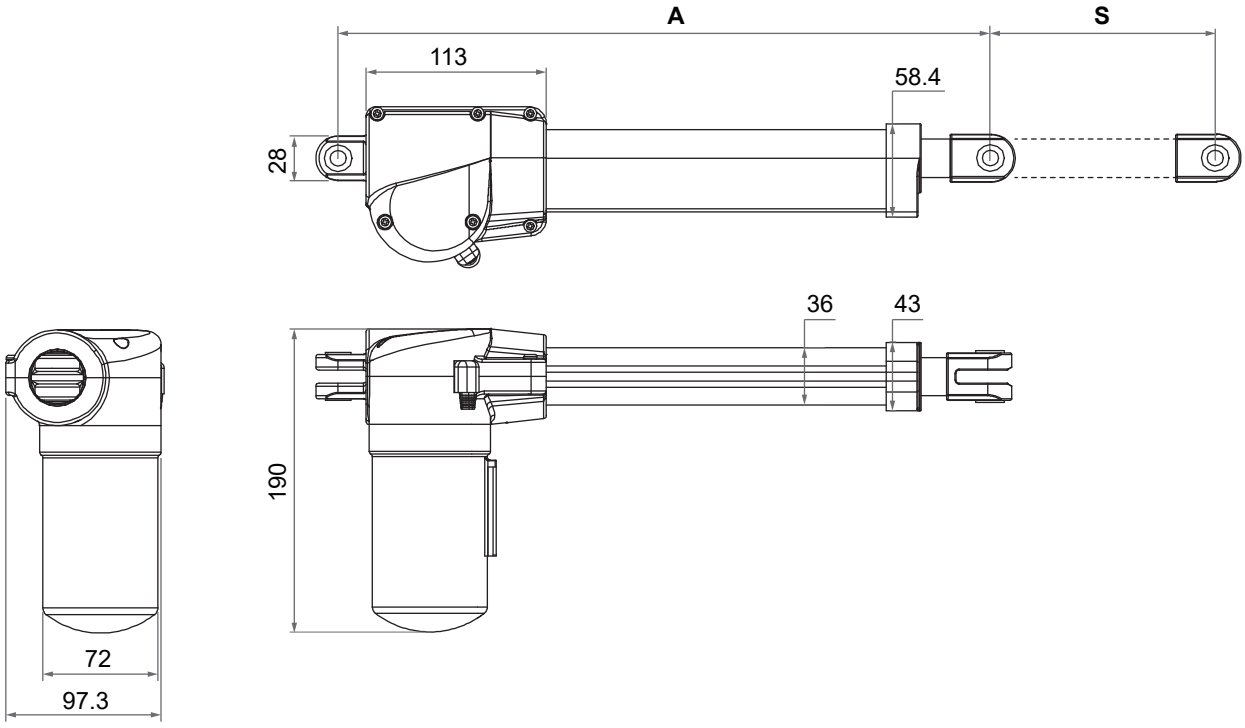
* The typical speed or typical current means the average value neither upper limit nor lower limit. The performance curves are made with typical values.

Dimensions

● **Retracted length (A)** Unit: mm

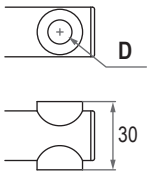
50≦Stroke (s)≦300mm			
Front connector / Safety option	7	8	M, N (With MR3 manual release)
No safety option	A≧S+177mm	A≧S+195mm	N/A
With Safety Nut (SN)	A≧S+182mm	A≧S+200mm	A≧S+250mm

• 301≦S≦400mm, retracted length (A) + 30mm • Tolerance: ±3mm
• S≧401mm, Please consult sales representative for feasibility and the available retracted length.

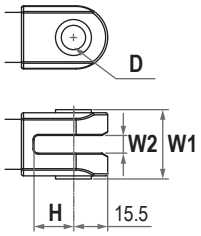


• Front connector

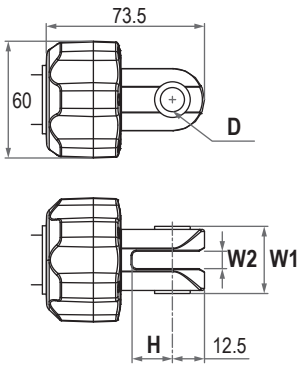
7: Plastic bushing



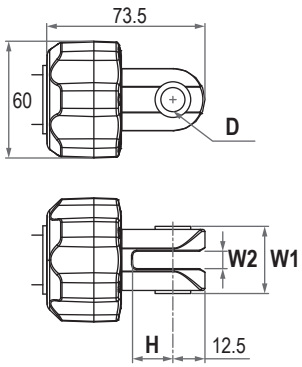
8: Aluminum alloy clevis



M: Aluminum alloy clevis with MR3 manual release



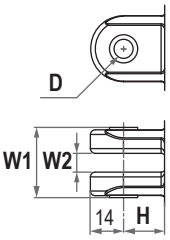
N: Zinc alloy clevis with MR3 manual release



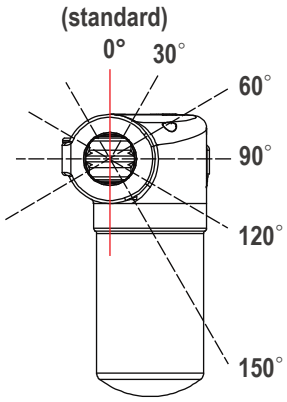
Front connector code	Diameter of pivot with bushing (D)	Width with bushing (W1)	Slot width (W2)	Slot depth (H)
7	Ø10	N/A	N/A	N/A
8	Ø10	31.5	8.3	19.5
M	Ø10	29.5	8.4	19.5
N	Ø10	29.5	8.4	19.5

• Rear connector

1: Zinc alloy clevis



• Pivot orientation of rear connectors



Rear connector code	Diameter of pivot with bushing (D)	Width with bushing (W1)	Slot width (W2)	Slot depth (H)
1	Ø8, Ø10	30	8	18

Compatibility

Product	Model	01NS82 spec
Control box	01XVO2, 01XVO3	- Without positioning feedback sensors - With J1-type or J2-type phone jack
	01XN42	- Without positioning feedback sensors - With J1-type phone jack
	01XN43	- Without positioning feedback sensors - With J2-type phone jack
	01XN45	- Without positioning feedback sensors - With H-type DIN 4-pin plug
	01XN41-M, 01XV5O-M	- With dual Hall effect sensors for positioning - With LR-type minifit 6-pin plug

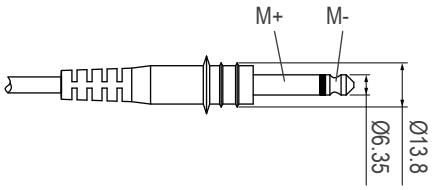
Remarks:

* If the current limit of the selected control box is lower than the typical current of the actuator model under full load, the actuator could not be operated in full performance.

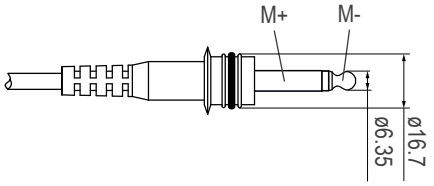
Cable Plug

Without positioning feedback sensors

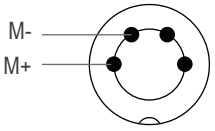
● **J1-type phone jack**



● **J1-type phone jack**



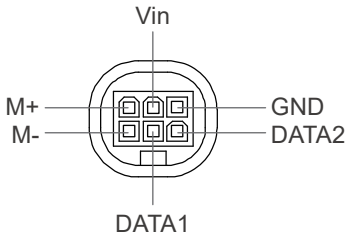
● **H-type DIN plug**



4-pin DIN plug

With dual Hall effect sensors for positioning

● **LR-type minifit plug**



minifit 6-pin plug

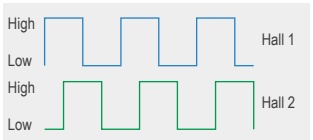
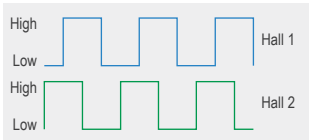
J1-type

J2-type

H-type

LR-type

Note:

	Definition	Comments
Power	M+	Connect M+ to “+” & M- to “-“ of DC power, the actuator will extend.
	M-	
Signal	Vin	Voltage input range (Vin): 5 ~ 20V
	Hall 1 output	High = Input - 1.2V (±0.6V) Low = GND Hall signal data:  Actuator extends  Actuator retracts Hall effect sensor resolution:
	Hall 2 output	
	GND	

Model No.	Resolution (pulses/mm)
01NS82-24**DA4**-XXX.XXX-XXXHX0XX	10.25
01NS82-24**DA6**-XXX.XXX-XXXHX0XX	6.83
01NS82-24**DA8**-XXX.XXX-XXXHX0XX	5.13

Ordering Key

01NS82 - 24 D A 8 - 300 . 400 - 8 1 0 H P 0 4 A

Input voltage	**24**: 24V DC
Power	**D**: Standard power
Motor	**A**: 2500rpm
Spindle	**4**: 4mm pitch **6**: 6mm pitch **8**: 8mm pitch
Retracted length *(Refer to Page 3)*	**XXX**
Extended length *(Refer to Page 3)*	**XXX**
Front connector *(Refer to Page 3)*	**7**: Plastic bushing **8**: Zinc alloy clevis **M**: Aluminum alloy clevis with MR3 manual release *(must with options of Push only and Safety nut, A8 spindle)* **N**: Zinc alloy clevis with MR3 manual release *(must with options of Push only and Safety nut, A8 spindle)*
Rear connector *(Refer to Page 3)*	**1**: Zinc alloy clevis
Pivot orientation of rear connector *(Refer to Page 3)*	**0**: 0° *(Standard)* **3**: 30° **6**: 60° **9**: 90° **C**: 120° **F**: 150°
Positioning feedback	**0**: None **H**: Hall effect sensor x 2
Option	**0**: None **S**: Safety nut **P**: Push only + Safety nut
Reserved	**0**: No meaning
IP Level *(static (non-action))*	**4**: IPX4 *(Standard)* **6**: IPX6
Cable length	**0**: 300mm straight **3**: 1000mm straight **A**: 400mm with 200mm coiled