

Product Data Sheet

Actuator 01US16

01US16 is an actuator suitable for solar tracker application with maximum load of 5500N. There are various positioning feedback options available, such as dual Hall sensor, POT and reed sensor.



Feature

- Main application: Industrial, Solar tracker
- Input voltage: 24V DC
- Rated load: 5,500N
- Max. static load: 13,600N
- Typical speed at no load: 3.3 mm/sec
- Typical speed at full load: 2.6 mm/sec
- Stroke: Refer to Dimensions
- IP Protection level: IP65
- ACME threaded spindle
- Preset limit switches
- Steel extension tube
- Color: Black
- Power wire length: 250 mm bare wires
- Duty cycle: 10%, max. 2 min. continuous operation in 20 min.
- Ambient operation temperature: -20°C ~ +65°C
- Certified: CE Marking, EMC Directive 2014/30/EU

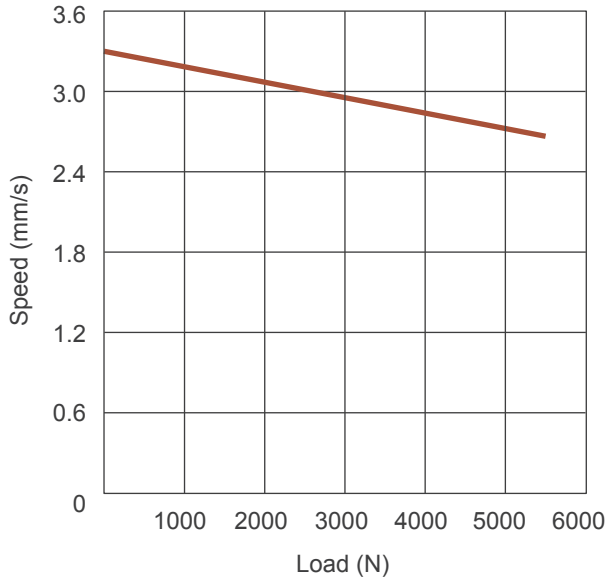
Option

- Dual Hall effect sensor for digital positioning feedback
- Reed sensor for digital positioning feedback
- Potentiometer for analog positioning feedback

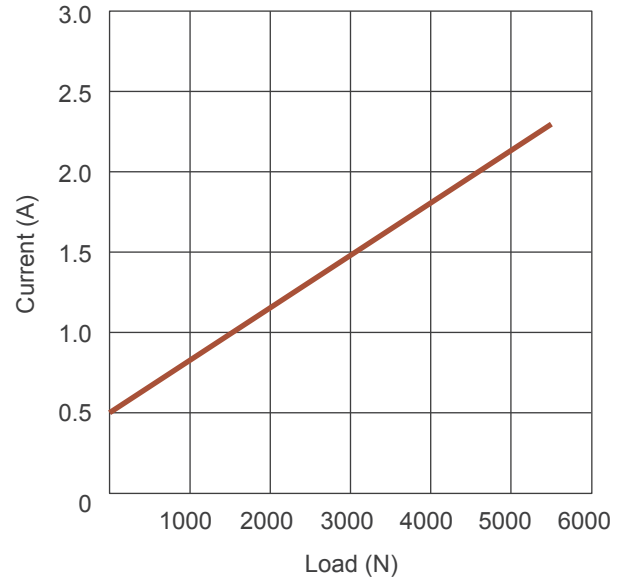
Performance Data

Model No.	Push / Pull Max. (N)	* Typical Speed (mm/s)		* Typical Current (A) @ 24V DC	
		No load	Full load	No load	Full load
01US16-24D5AXXX-XXXX0XX	5500	3.3	2.6	0.5	2.3

Speed vs. Load



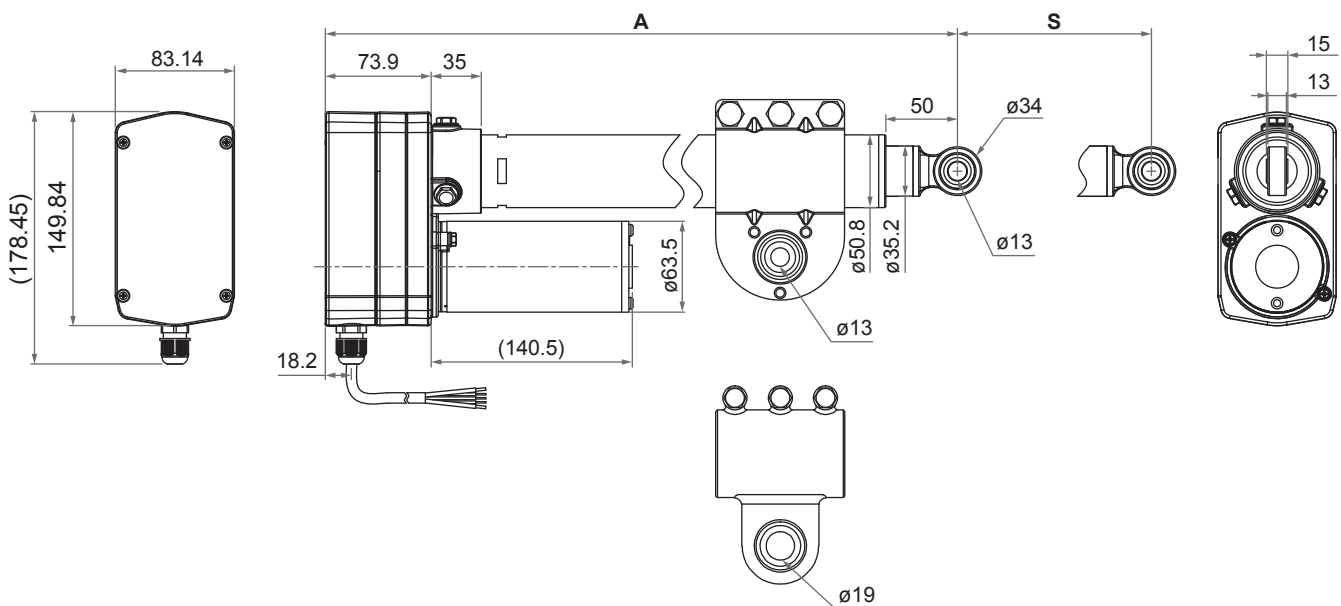
Current vs. Load



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



Installation dimension

Stroke (S)	450mm (18")	600mm (24")	900mm (36")
Retracted Length (A)	813mm (±5mm)	963mm (±5mm)	1263mm (±5mm)

Remarks:

- * As dimension "A" indicated in the figures above.

Wiring

Wire definitions:

- Without positioning sensor feedback

Power	
Red	Black
M+	M-



- With dual Hall effect sensors

Resolution, 11.42 pulses/mm (290PPI)

Power		Signal			
Red	Black	White	Orange	Blue	Brown
M+	M-	GND	VCC	Data 1	Data 2



- With reed sensor

Resolution, 1.18 pulses/mm (30PPI)

Power		Signal	
Red	Black	White	Yellow
M+	M-	GND	Data



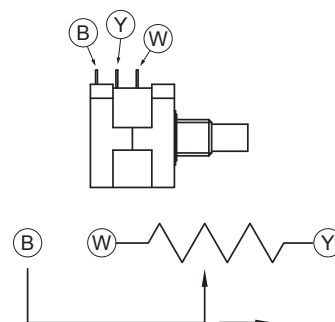
- With Potentiometer (POT)

The resistance between blue and white wires increases when the actuator extends, and decreases when it retracts.

Power		Signal		
Red	Black	White	Yellow	Blue
M+	M-	GND	VCC	Data

Spindle type	Stroke	Resistance
ACME	450 mm	0.3 ~ 7.9K
ACME	600 mm	0.3 ~ 8.3K
ACME	900 mm	0.3 ~ 7.4K
Ball Screw	610 mm	0.3 ~ 8.6K
Ball Screw	914 mm	0.3 ~ 7.7K
Ball Screw	1219 mm	0.3 ~ 8.4K

Tolerance: $\pm 0.3K\Omega$



Actuator extends



Note:

Connect Red (M+) to '+' & Black (M-) to '-' of DC power, the actuator will extend.

Ordering Key

01US16 - 24 D 5A 450 - 0 0 H 1 0 5 1	
Input voltage	24: 24V DC
Motor code	D
Spindle type	5A: ACME / 5TPI
Stroke	450: 450 mm (18") 600: 600 mm (24") 900: 900 mm (36")
Front connector	Spherical rod eye 0: ø13 mm 1: ø12 mm 2: ø16 mm
Rear connector	Clamp with spherical rod eye 0: ø13 mm 1: ø12 mm 2: ø16 mm
Positioning feedback	H: Hall effect sensor x 2 R: Reed sensor P: Potentiometer 0: None
Cable	1: Bare wires / 250 mm / Black
Reserved	0: No meaning
IP Protection level	5: IP65
Others	1: Cable outlet at body side with steel inner tube 2: Cable outlet at body side with stainless steel inner tube