



SMALLER FOR MORE
ANTUATOR

We provide the optimal value actuation solutions for the global outstanding enterprises.

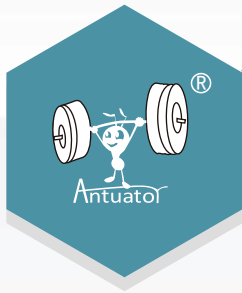


CONTENTS



防水等级 IP67M
Waterproof Grade

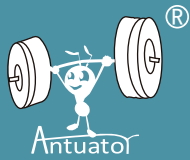




Antuator

Table of Contents

Company Profile	/1/
Ordering Key	/2/
ANT-16	/3/
ANT-26	/5/
ANT-35	/8/
ANT-38	/12/
ANT-52	/16/
Hall Sensor	/20/
Over Current Protection	/22/
Accessories	/23/



COMPANY PROFILE



Founded in 2010, **ANTUATOR** is a in-line linear actuator manufacturer specializing in R&D, design, production, sales and quality control. The marketing center is located in Jinqiao Export Processing Industrial Park of Shanghai, and the manufacturing is in Oukai industrial park of Huzhou with an area of 3000 square meters. According to ISO9001: 2015 quality management system standards the plant is divided into incoming material inspection areas : material inspections are carried out in strict accordance with the incoming material management system.; machining area: some customized parts are made; warehouse area: intelligent and efficient ERP management system is implemented; production area: With precise and efficient production, we can get annual production capacity of up to 300,000 units; finished product inspection area: the voltage, working current, stroke length, speed, noise level, waterproof level , salt spray and life span can be tested; packaging and delivery area: check and verify carefully to confirm that the all the packed goods are free of errors.

ANTUATOR adheres to the technology research and development-driven strategy. With more than 10 years experiences in the market, ANTUATOR now has a very professional and skilled R&d team which designed and developed the ANT-16, ANT-26, ANT-35, ANT-38 and ANT-52 series of in-line linear actuators with features of compact size , elegant appearance and shape, waterproof and reliable performance. ANTUATOR has accumulated 3 national invention patents, 20 utility model patents, high-tech enterprise, and won the Beauty Award of Made in China in 2020. The series of in-line linear actuators have passed CE certification, and to be the optimal solution in various automation applications. The main markets are outdoor living like yacht automation like hatches, powered wake board towers, skylight; bioclimatic pergola and skylights; RV market as the pop top roof lift, truck camper roof lift; industry and rehabilitation medical automation. ANTUATOR focuses on the realization of the value of customers' needs, which makes our products exported to all of the world and got good reputation. The linear actuators are supplied to some well-known companies such as Mercedes-Benz, Honeywell, Webasto Group, Midea, Bright Dream Robot, etc. "To provide the optimal value actuation solutions for the global outstanding enterprises" is always our mission; " ANTUATOR advocates football team culture as Unity, Collaboration, Responsibility, Enterprising, Persistence and Win-Win. (In order to achieve our vision " ANTUATOR in-line linear actuators to be the irreplaceable electric actuator systems and ANTUATOR brand to be the irreplaceable brand", all ANTUATOR people will never cease to struggle.

ANT-35AL-L-12-100-30-100/300-B-H-W-O

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ / ⑨ ⑩ ⑪ ⑫ ⑬

① Brand	ANT=ANTUATOR
② Diameter	16=16mm, 26=26mm, 35=35mm, 38=38mm, 52=52mm
③ Out tube Material	AL=Aluminum S/S=stainless steel
④ Noise Level Options	N=Normal, L=Low Noise
⑤ Voltage	X=V DC
⑥ Load	X=N
⑦ Load speed	X=mm/s
⑧ Stroke	X=mm
⑨ Retracted Length	X=mm
⑩ Color	B=Black, S=Sliver, C=Custommized
⑪ Added function	N=None, C=Over current protection, H=Hall sensor, LSN=Limit switch, LSH=Limit Switch+Hall Sensor, LSC=Limit Switch+Over Current Protection, LSS=Limit switch signal output line
⑫ Protection Class	N=IP66, W=IP67M
⑬ Front Mounting Type	O=O Type,C=Clevis,B=Ball Joint,U=Universal Joint,S=Special Design

ACTUATOR FIXTURE



O type
(Standard)



Clevis
(Standard)



Ball joint type
(Optional)



Universal joint type
(Optional)

Note:

- Only ANT35,ANT 38 is available for silent type-Low noise version.
- The ANT16、26、38、52 can built-in limit switch.
- The ANT 16 is IP65.
- The color of stainless steel product is silver.

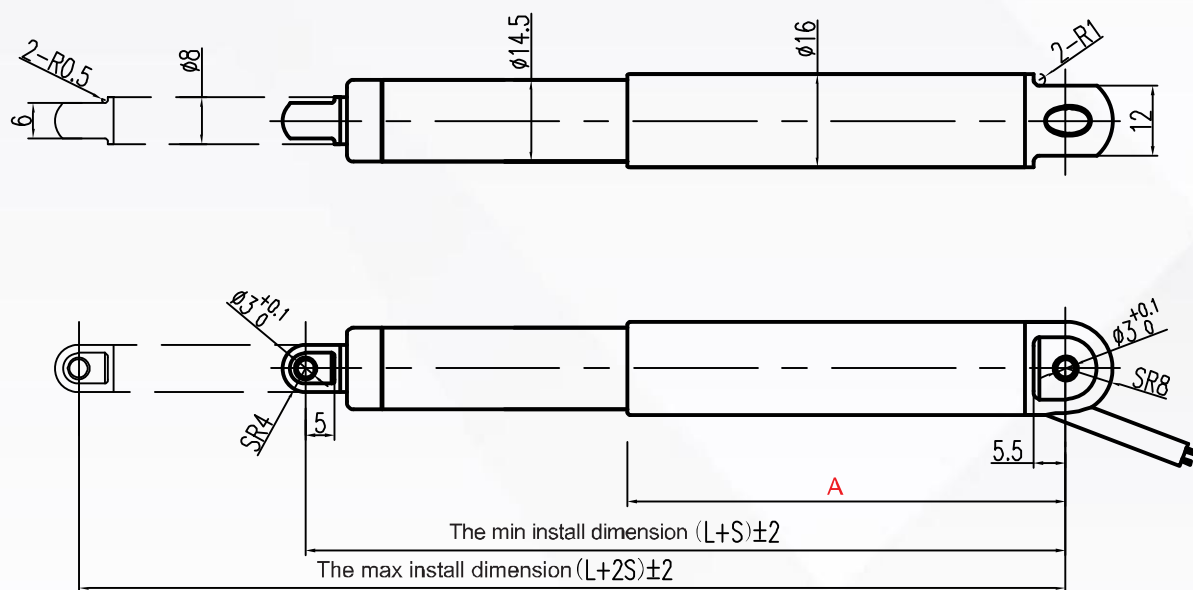
ANT-16



FEATURES AND BENEFITS

- ANT-16 is a very tiny in-line linear actuator with max diameter 16mm.
- It is well suited for the applications where space is limited, such as inspection robots, navigation light.

DIMENSION



ANT-16 Standard Dimensional Drawing (mm)

Standard means without any additional function(Over current protection,hall sensor)
The dimensional tolerance not shown in the drawing can refer to ISO2768-mk

ANT-16 Min. Install dimension	(mm)	Limit Switch	Hall sensor
	L+S	100+S	120+S
	A	75	95

STANDARD SPECIFICATIONS

Voltage(V)	12	Protection Class	IP65
No-load current(A)	≤0.07	Operating temperature(℃)	5~40
Load current(A)	≤0.25	Storage temperature(℃)	5~40
Max. Power(W)	3	Noise on load (dB)	65
Material of outer tube	6063 Aluminium	Backlash (mm)	≤0.4
Material of lead screw	Trapezoid,Steel	Colour	Black
Material of piston rod	304 stainless steel	Certification	CE
Material of the nut	Engineering plastic	Wire connection	Bare wire/4 pins connector
Working duty(S2)	Work 2 minutes and rest 18 minutes	End mounting	O type
Life time(cycles)	≥10k	Wire length(m)	0.5

TECHNICAL DATA

Max Load(N)	20	50	Stroke(mm)	50	100
Self-locking Force(N)	30	75	Weight(kg)	0.1	0.2
No-load Speed(mm/s)	15	7.5	Min Stroke(mm)	20	
Load Speed(mm/s)	11	5.8	Max Stroke(mm)	100	

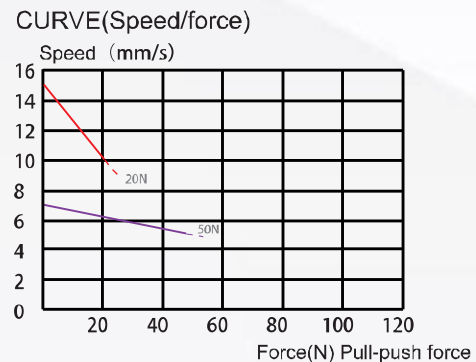
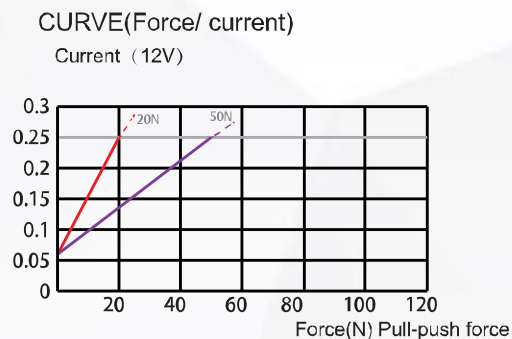
- Customized stroke lengths are available.
- The stroke's precision is ±2 mm.

ON REQUEST

■ Cable lengths ■ Other stroke lengths available ■ Customised front,rear fixture ■ Installation size ■ Available in all RAL colours

CURVE

Accuracy of speed or current : ±15%, in general, applications in the dashed are not recommended.



CONTROLLERS AVAILABLE

One actuator output controller, Two actuator output controller, Three actuator output controller.

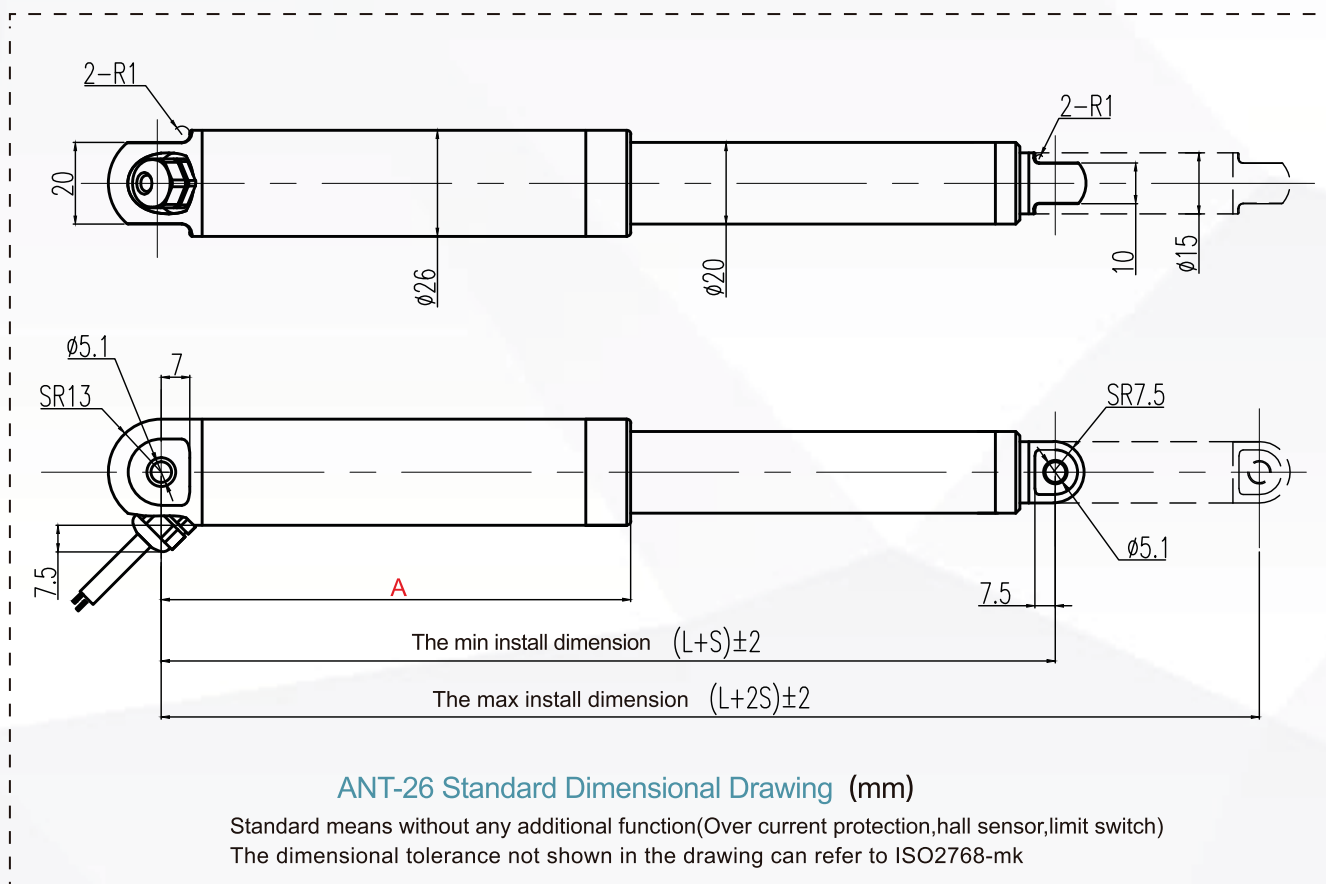
ANT-26

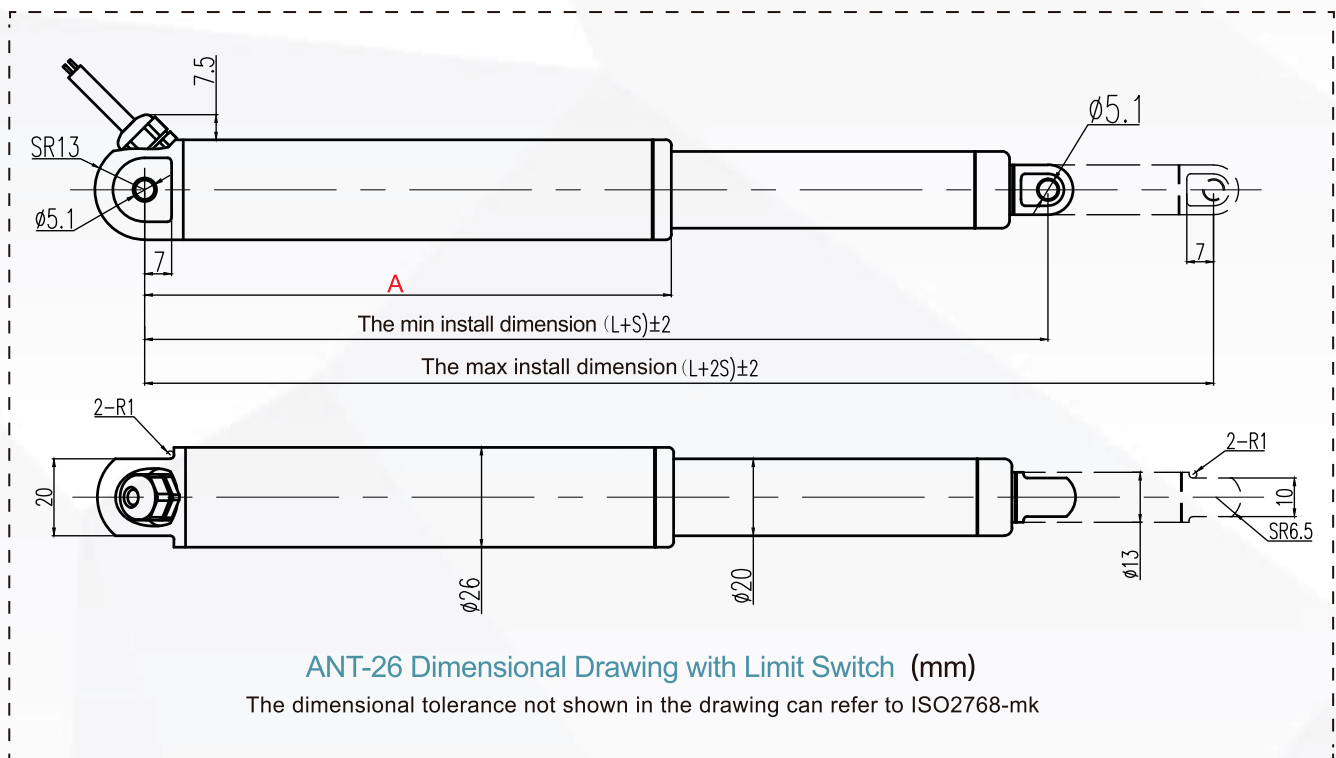


FEATURES AND BENEFITS

- Thanks to its small size and load capacity 500N force, ANT-26 can be a very good alternative to hydraulic and pneumatic systems.
- With IP66 protection grade, ANT-26 also can be used for outdoor applications.
- It is ideal for applications like louvre windows, robots, wheelchairs, small door and gate open system.

DIMENSION





	(mm)	Standard	Hall sensor	Over current protection	Limit switch
ANT-26 Min. Install dimension	L+S	150+S	170+S	170+S	165+S
	A	115	135	135	137

STANDARD SPECIFICATIONS

Voltage(V)	12	24	Protection Class	IP66
No-load current(A)	≤0.6	≤0.3	Operating temperature(℃)	-20~60
Load current(A)	≤1.3	≤0.7	Storage temperature(℃)	-40~70
Max. Power(W)	16		Noise on load (dB)	65
Material of outer tube	6063 Aluminium		Backlash (mm)	0.4
Material of lead screw	Trapezoid,Steel		Colour	Black
Material of piston rod	316 stainless steel		Certification	CE
Material of the nut	Engineering plastic		Wire connection	Bare wire/4 pins connector 6 pins connector
Working duty(S2)	Work 2 minutes and rest 18 minutes		End mounting	O type
Life time(cycles)	≥10k		Wire length(m)	1.5

TECHNICAL DATA

Max Load(N)	100	250	500	Stroke(mm)	50	100	150	200
Self-locking Force(N)	150	375	500	Weight(kg)	0.35	0.4	0.45	0.5
No-load Speed(mm/s)	15	10	5	Min Stroke(mm)	20			
Load Speed(mm/s)	11	7.5	3.8	Max Stroke(mm)	200			

- Customized stroke lengths are available.
- The stroke's precision is ± 2 mm.
- The ANT-26 linear actuator with limit switch, 100N is not available.
- The ANT-26 linear actuator with limit switch, speed of load 250N is 6mm/s, load 500N is 4mm/s.
- The ANT-26 with Hall sensor cannot be accompanied by a limit switch.

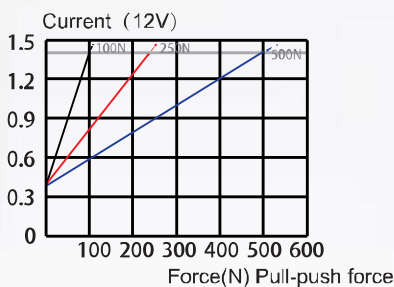
ON REQUEST

■ Cable lengths ■ Other stroke lengths available ■ Customised front, rear fixture ■ Installation size ■ Available in all RAL colours

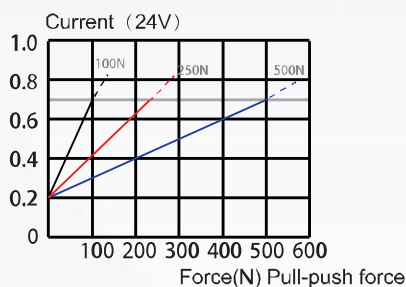
CURVE

Accuracy of speed or current : $\pm 15\%$, in general, applications in the dashed are not recommended.

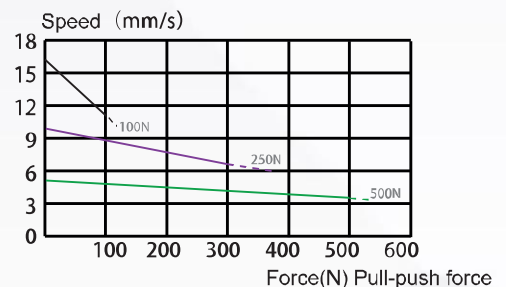
CURVE(Force/ current)



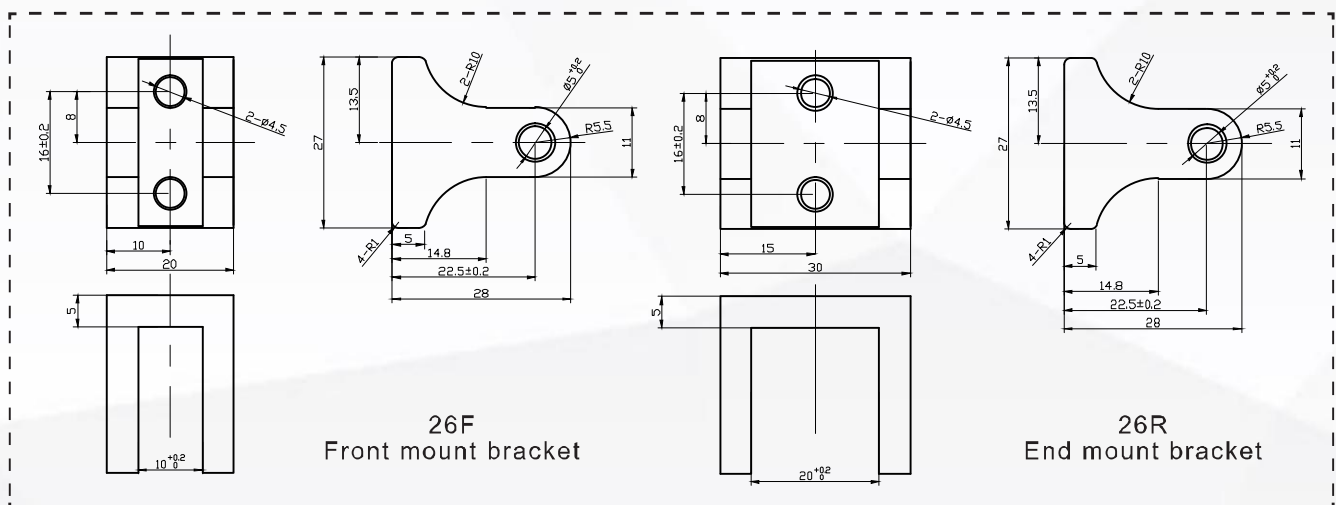
CURVE(Force/ current)



CURVE(Speed/force)



MOUNTING BRACKET



CONTROLLERS AVAILABLE

One actuator output controller, Two actuator output controller, Three actuator output controller.

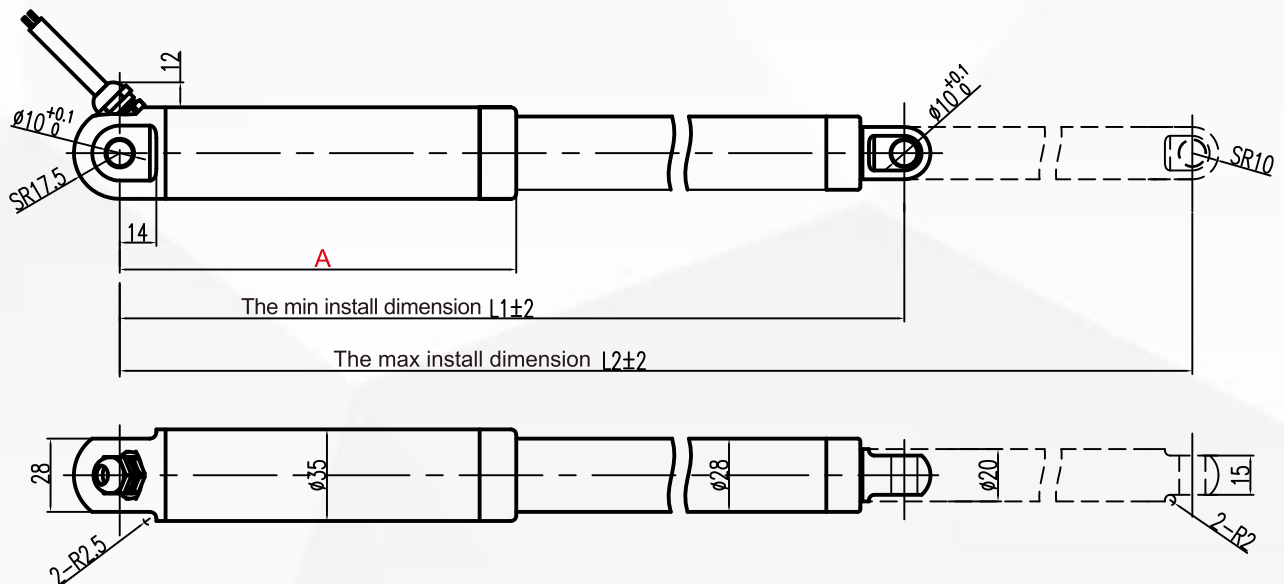
ANT-35

FEATURES AND BENEFITS



- ANT-35 is a compact in-line linear actuator.
- The combination of max load capacity 2300N with its diameter 35mm only, makes ANT-35 to be the bestseller and a perfect match for various applications.
- ANT-35 also can be in all stainless steel materials, IP67M protection, which makes it a good choice for harsh environment.
- It is approved to be perfect for applications like motorized pergola, yacht automation, special vehicles, rehabilitation equipment.

DIMENSION



ANT-35 Standard Dimensional Drawing (mm)

Standard means without any additional function(Over current protection,hall sensor,limit switch)

ANT-35 Min. Install dimension 6WUR&WPP	(mm)	Standard		Hall sensor		Over current protection	
		Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise
≤800N	L+S	178+S	188+S	200+S	200+S	200+S	208+S
	A	121.5	131.5	143.5	143.5	143.5	151.5
>800N	L+S	188+S	-	208+S	-	208+S	-
	A	131.5	-	151.5	-	151.5	-

ANT-35 Min. Install dimension 6WURN&WPP	(mm)	Standard		Hall sensor		Over current protection	
		Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise
≤800N	L+S	220+S	228+S	220+S	228+S	220+S	228+S
	A	143.5	151.5	143.5	151.5	143.5	151.5
>800N	L+S	228+S	-	228+S	-	228+S	-
	A	151.5	-	151.5	-	151.5	-

- Noise level 56dB for the low noise version

STANDARD SPECIFICATIONS

Voltage(V)	12	24	Protection Class	IP66/67M
No-load current(A)	≤0.7	≤0.35	Operating temperature(℃)	-20~60
Load current(A)	≤3.8	≤1.8	Storage temperature(℃)	-40~70
Max. Power(W)	22		Noise on load (dB)	60
Material of outer tube	6063 Aluminium/316 stainless steel		Backlash (mm)	0.5-1
Material of lead screw	Trapezoid,Steel		Colour	Black/Silver
Material of piston rod	316 stainless steel		Certification	CE
Material of the nut	Copper/Engineering plastic		Wire connection	Bare wire/4 pins connector 6 pins connector
Working duty(S2)	Work 2 minutes and rest 18 minutes		End mounting	O type
Life time(cycles)	≥10k		Wire length(m)	1.5

TECHNICAL DATA

Max Load(N)	100	300	400	600	800	1200	1800	2300
Self-locking Force(N)	150	600	600	1600	1600	1800	3600	3450
No-load Speed(mm/s)-Normal	35	25	18	12	12	6.8	4.5	3.5
Load Speed(mm/s)-Normal	30	17	14	9	8	5	3	2.5
No-load Speed(mm/s)-Low noise	25	25	16.5	13	8.5	-	-	-
Load Speed(mm/s)-Low noise	23	20	14	10.5	7	-	-	-

Stroke(mm)	50	100	150	200	250	300	350	400
AL Weight(kg)	0.6	0.7	0.8	0.9	1	1.1	1.2	1.4
S/S Weight(kg)	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8

- Customized stroke lengths are available.
- The min stroke:20mm ,the max stroke:500mm.
- The stroke's precision is ± 2 mm.
- Load capacity >800N: No low noise version available.

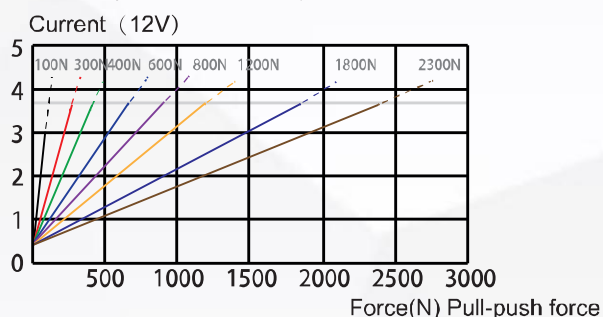
ON REQUEST

■ Cable lengths ■ Other stroke lengths available ■ Customised front,rear fixture ■ Installation size ■ Available in all RAL colours

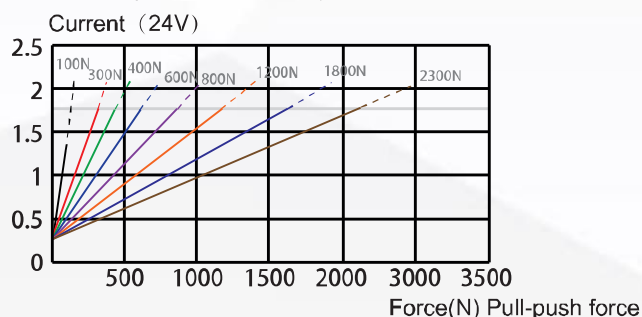
CURVE

Accuracy of speed or current : $\pm 15\%$, in general, applications in the dashed are not recommended.

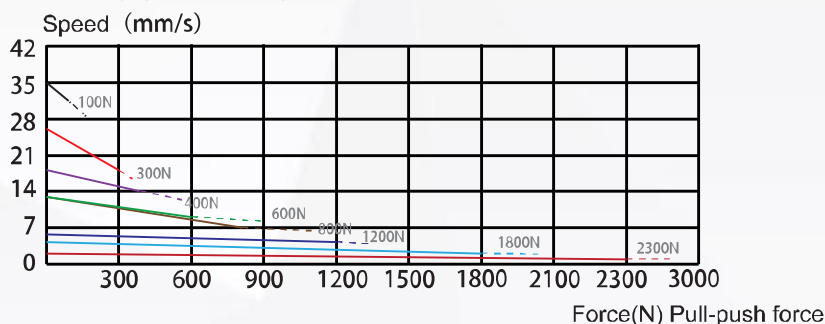
CURVE(Force/ current)



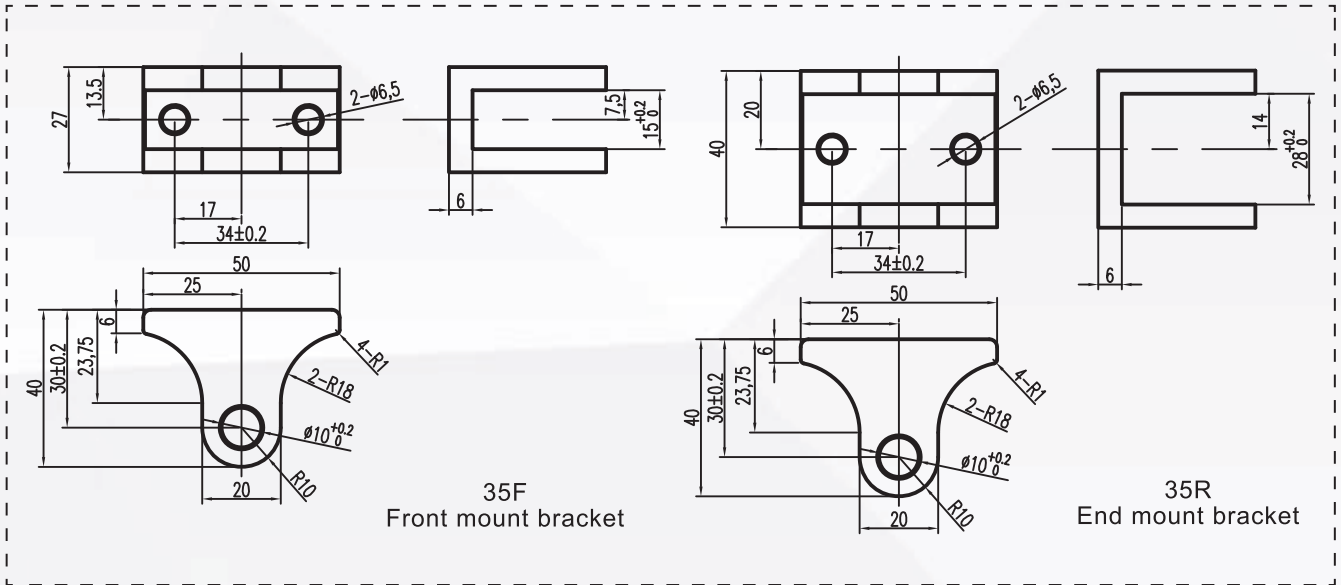
CURVE(Force/ current)



CURVE(Speed/force)



MOUNTING BRACKET



CONTROLLERS AVAILABLE

One actuator output controller, Two actuator output controller, Three actuator output controller.

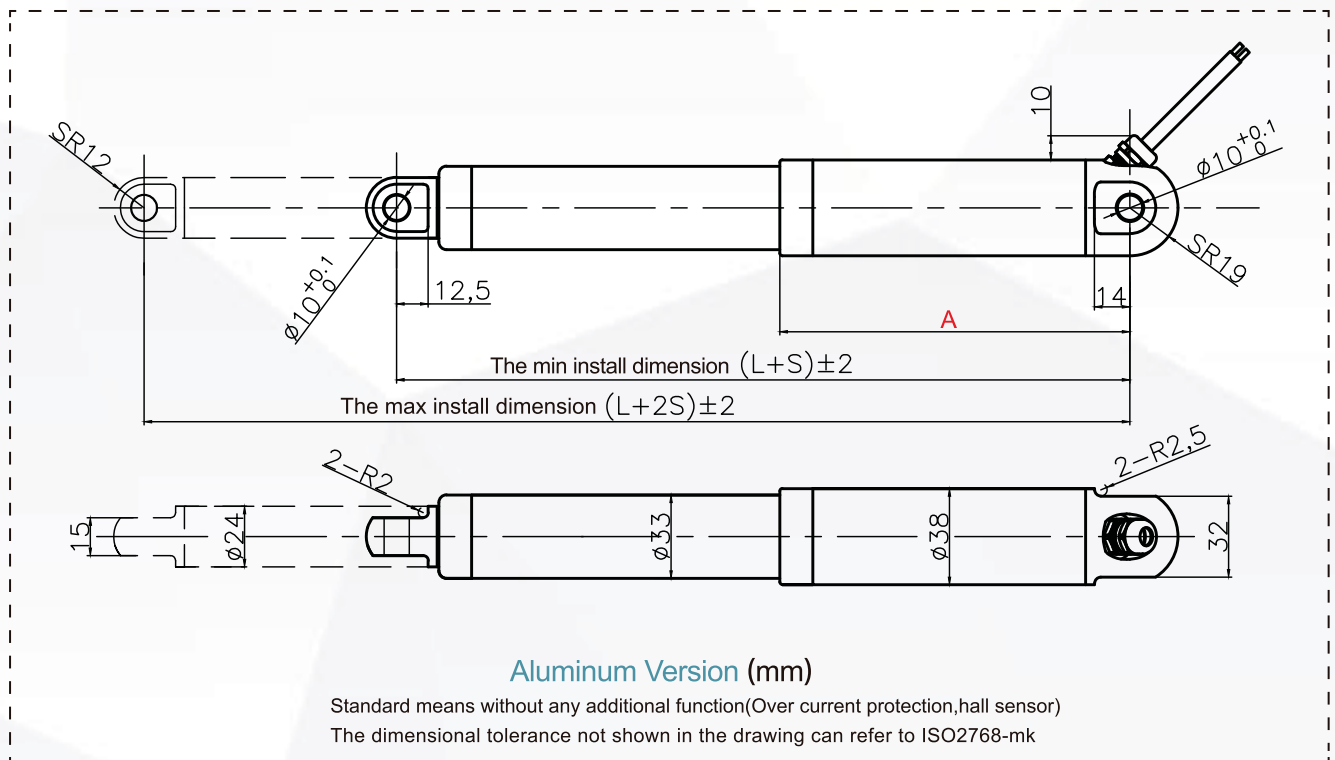
ANT-38

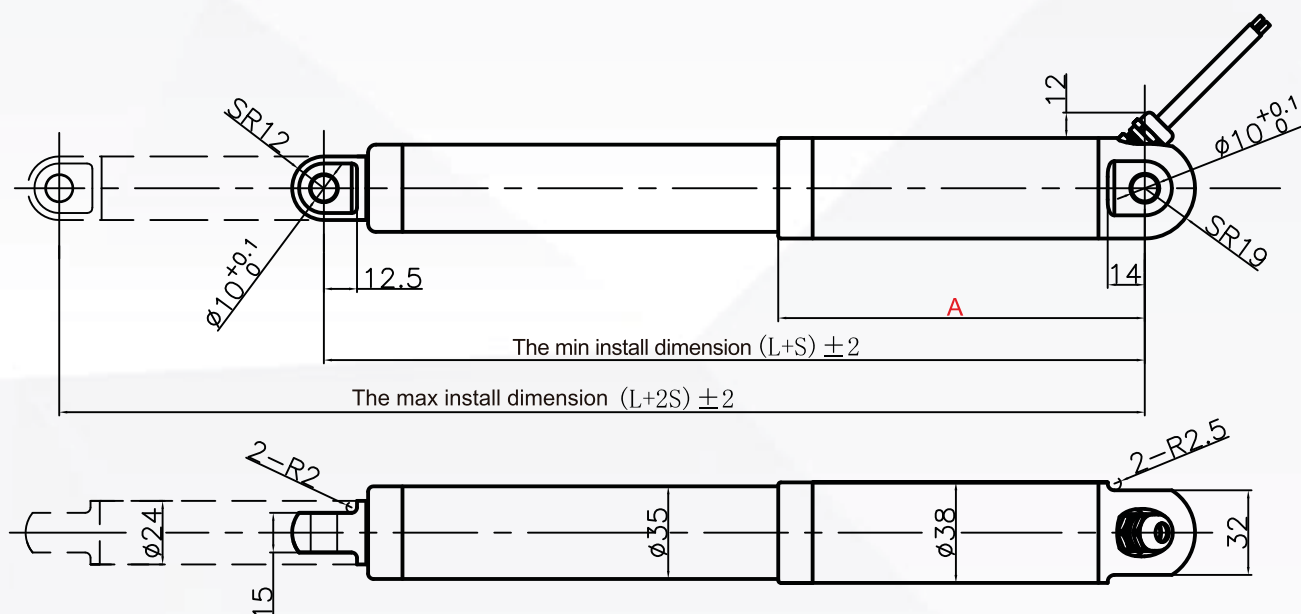
FEATURES AND BENEFITS



- ANT-38 is a upgrade version of ANT-35 but with internal limit switches for ends stop.
- Thanks to the end limits design, ANT-38 can make up the inadequacy of ANT-35 for the two ends protection also a straight moving shaft.
- ANT-38 is a slim in-line actuator with a robust design, high efficiency, hall sensor for positioning and synchronous function.
- Also stainless steel version as option for marine and harsh environments.
- It's quite suitable for sun shading system, RV, Rehabilitation equipment, industry automation.

DIMENSION





Stainless Steel Version (mm)

Standard means without any additional function(Over current protection,hall sensor)

The dimensional tolerance not shown in the drawing can refer to ISO2768-mk

ANT-38 Min. Install dimension Stroke ≤ 400 mm	(mm)	Limit Switch		Hall sensor		Over current protection	
		Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise
≤ 800 N	L+S	200+S	210+S	220+S	220+S	220+S	230+S
	A	128.5	138.5	148.5	148.5	148.5	158.5
> 800 N	L+S	210+S	220+S	230+S	230+S	230+S	240+S
	A	138.5	148.5	158.5	158.5	158.5	168.5

ANT-38 Min. Install dimension Stroke > 400 mm	(mm)	Limit Switch		Hall sensor		Over current protection	
		Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise	Normal/ Waterproof	Low noise
≤ 800 N	L+S	235+S	245+S	235+S	245+S	235+S	245+S
	A	148.5	158.5	148.5	158.5	148.5	158.5
> 800 N	L+S	245+S	255+S	245+S	255+S	245+S	255+S
	A	158.5	168.5	158.5	168.5	158.5	168.5

- Noise level 56dB for the low noise version.

STANDARD SPECIFICATIONS

Voltage(V)	12	24	Protection Class	IP66/67M
No-load current(A)	≤0.7	≤0.35	Operating temperature(℃)	-20~60
Load current(A)	≤3.8	≤1.8	Storage temperature(℃)	-40~70
Max. Power(W)	22		Noise on load (dB)	60
Material of outer tube	6063 Aluminium/304 stainless steel		Backlash (mm)	0.5-1
Material of lead screw	Trapezoid,Steel		Colour	Black
Material of piston rod	316stainless steel		Certification	CE
Material of the nut	Engineering plastic		Wire connection	Bare wire/4 pins connector 6 pins connector
Working duty(S2)	Work 2 minutes and rest 18 minutes		End mounting	O type
Life time(cycles)	≥10k		Wire length(m)	1.5

TECHNICAL DATA

Max Load(N)	100	300	400	600	800	1200	1800	2300
Self-locking Force(N)	150	600	600	1600	1600	1800	3600	3450
No-load Speed(mm/s)-Normal	35	25	18	12	12	6.8	4.5	3.5
Load Speed(mm/s)-Normal	30	17	14	9	8	5	3	2.5
No-load Speed(mm/s)-Low noise	25	25	16.5	13	8.5	5	3.3	3.3
Load Speed(mm/s)-Low noise	23	20	14	10.5	7	4.5	3	2.5

Stroke(mm)	50	100	150	200	250	300	350	400
Weight(kg)	0.85	0.95	1.05	1.15	1.25	1.35	1.45	1.65

- Push only function is optional.
- Output limit switches wires is optional.
- Customized stroke lengths are available.
- The min stroke:20mm ,the max stroke:500mm.
- The stroke's precision is ±2 mm.

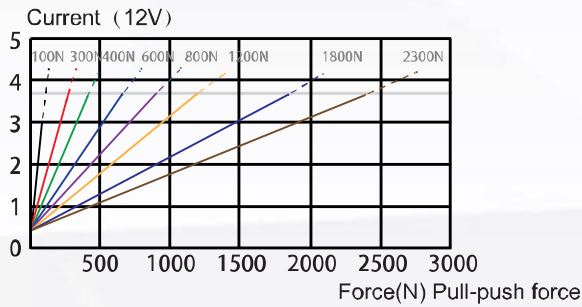
ON REQUEST

■ Cable lengths ■ Other stroke lengths available ■ Customised front,rear fixture ■ Installation size ■ Available in all RAL colours

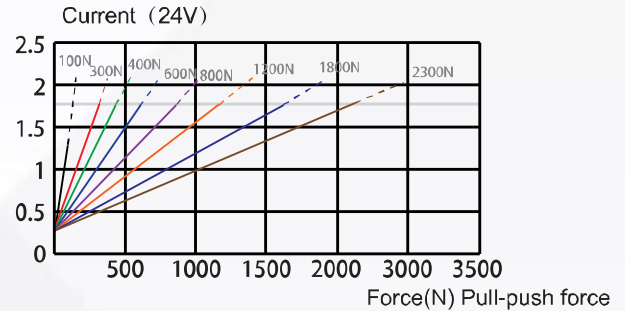
CURVE

Accuracy of speed or current : $\pm 15\%$, in general, applications in the dashed are not recommended.

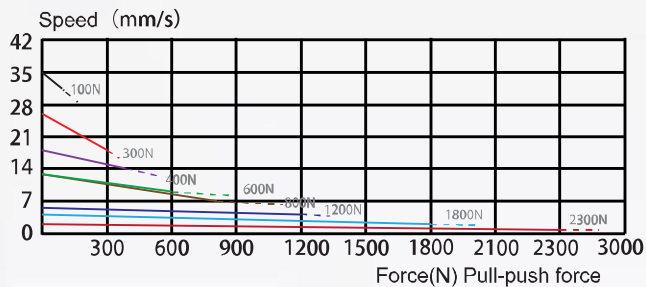
CURVE(Force/ current)



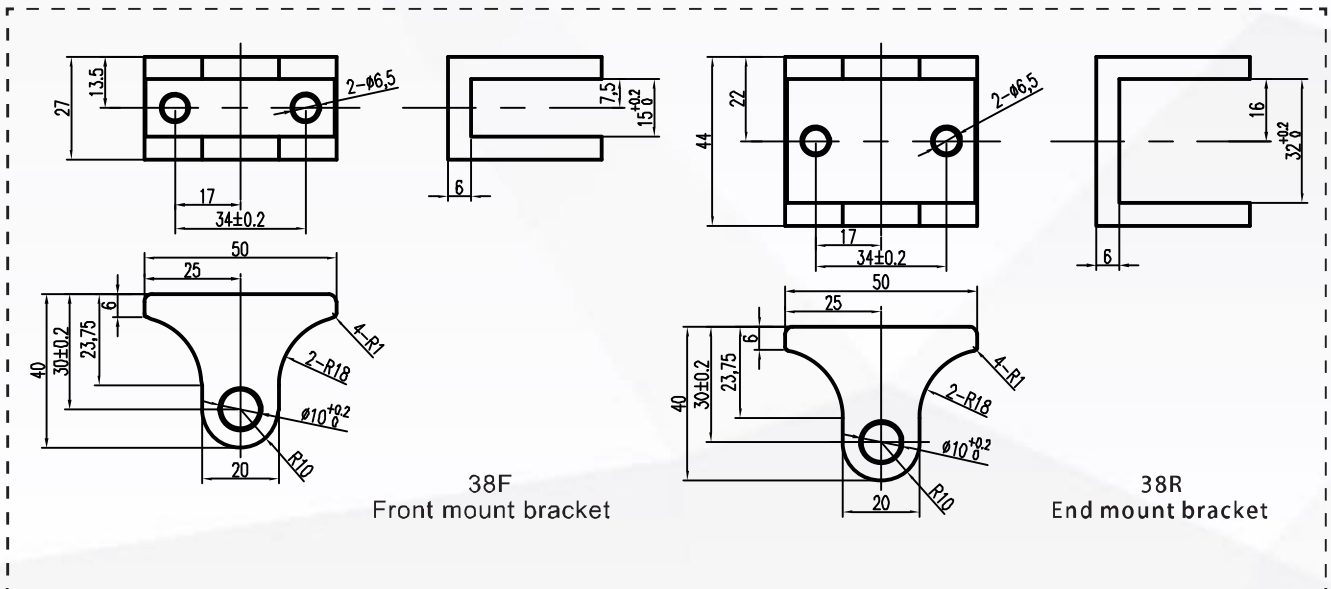
CURVE(Force/ current)



CURVE(Speed/force)



MOUNTING BRACKET



CONTROLLERS AVAILABLE

One actuator output controller, Two actuator output controller, Three actuator output controller.

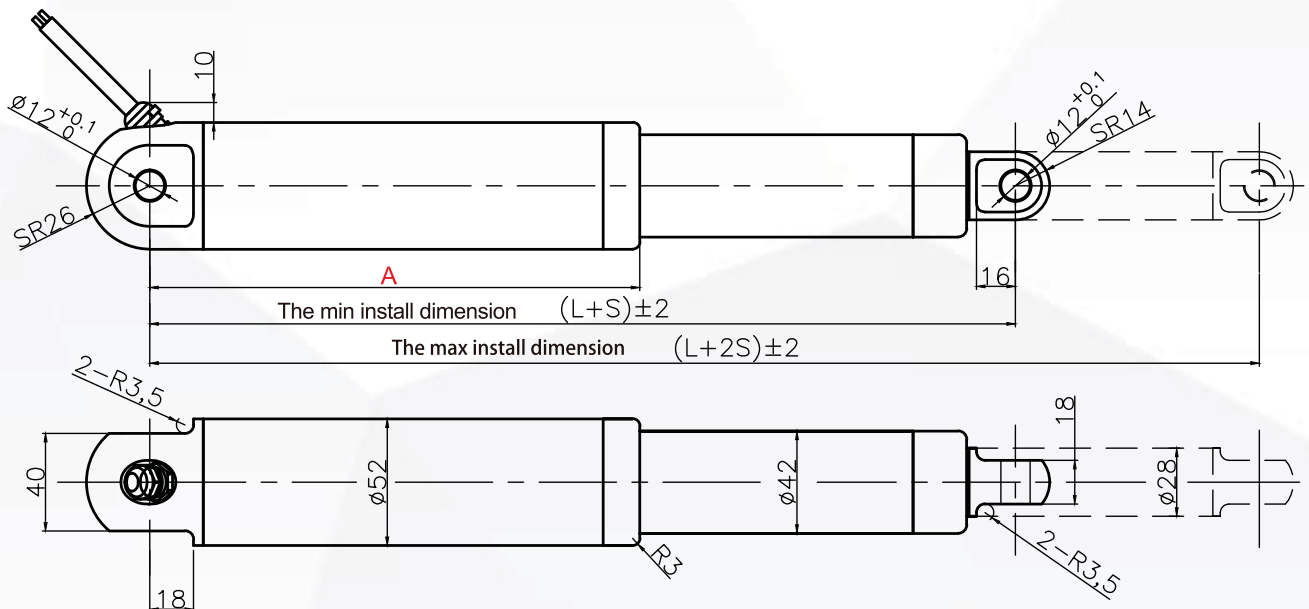
ANT-52

FEATURES AND BENEFITS



- ANT-52 is a powerful in-line linear actuator with max load capacity 6000N.
- Thanks to its clean design, high load capacity, IP67M protection, synchronous working, ANT-52 is ideal for outdoor applications where the actuators will be visible, such as skylight, smoke vent system, yacht automation, agricultural machine.

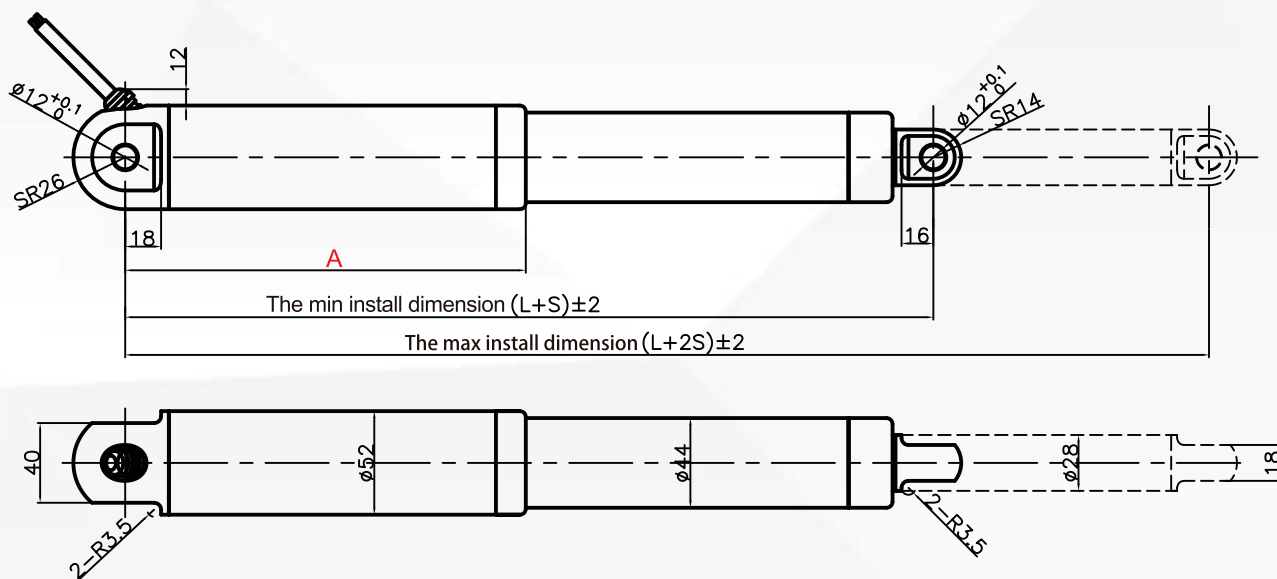
DIMENSION



Aluminum Version (mm)

Standard means without any additional function(Over current protection,hall sensor)

The dimensional tolerance not shown in the drawing can refer to ISO2768-mk



Stainless Steel Version (mm)

Standard means without any additional function(Over current protection,hall sensor)
The dimensional tolerance not shown in the drawing can refer to ISO2768-mk

	(mm)	Limit Switch	Hall Sensor	Over Current Protection
ANT-52 Min. Install dimension	L+S	305+S	325+S	325+S
	A	201	221	221

STANDARD SPECIFICATIONS

Voltage(V)	12	24	Protection Class	IP66/67M
No-load current(A)	≤1.6	≤0.8	Operating temperature(℃)	-20~60
Load current(A)	≤10	≤5	Storage temperature(℃)	-40~70
Max. Power(W)	29		Noise on load (dB)	75
Material of outer tube	6063 Aluminium/304 stainless steel		Backlash (mm)	0.5-1
Material of lead screw	Trapezoid,Steel		Colour	Black/Sliver
Material of piston rod	316 stainless steel		Certification	CE
Material of the nut	Engineering plastic		Wire connection	Bare wire/4 pins connector 6 pins connector
Working duty(S2)	Work 2 minutes and rest 18 minutes		End mounting	O type
Life time(cycles)	≥10k		Wire length(m)	1.5

TECHNICAL DATA

Max Load(N)	300	1200	1800	3000	4500	5000	6000
Self-locking Force(N)	600	2400	3600	6000	8000	7500	8000
No-load Speed(mm/s)	88	24	16	9.6	6.4	4.8	4.8
Load Speed(mm/s)	55	15	10	6	4.5	3.3	3

Stroke(mm)	50	100	150	200	250	300	350	400
Weight(kg)	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5

- Push only function is optional.
- Output limit switches wires is optional.
- The max load of ANT-52 12V is 5000N.
- Customized stroke lengths are available.
- The min stroke:20mm ,the max stroke:500mm.
- The stroke's precision is ±2 mm.

ON REQUEST

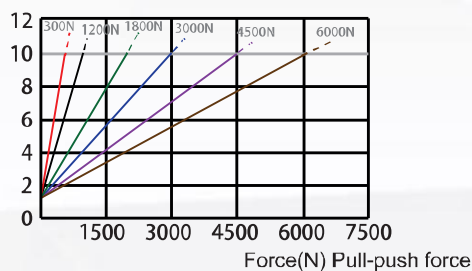
■ Cable lengths
■ Other stroke lengths available
■ Customised front,rear fixture
■ Installation size
■ Available in all RAL colours

CURVE

Accuracy of speed or current : $\pm 15\%$, in general, applications in the dashed are not recommended.

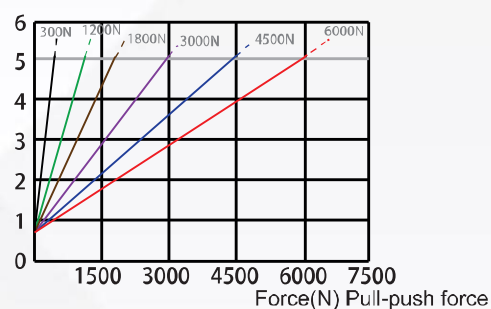
CURVE(Force/ current)

Current (12V)



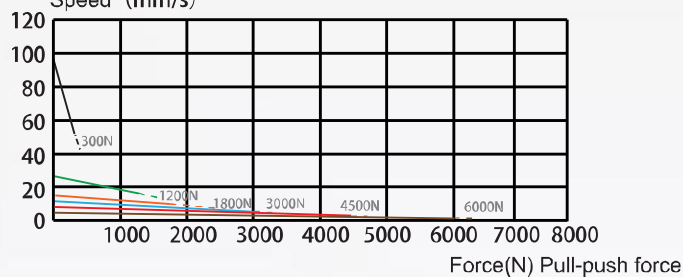
CURVE(Force/ current)

Current (24V)

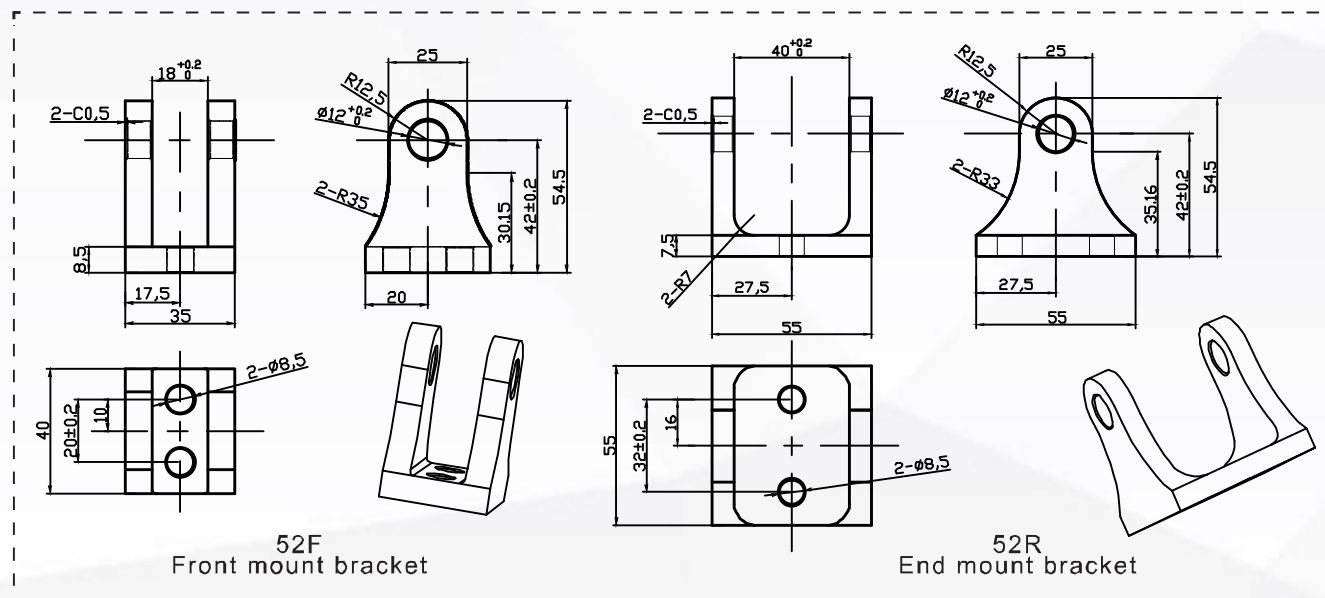


CURVE(Speed/force)

Speed (mm/s)



MOUNTING BRACKET



CONTROLLERS AVAILABLE

One actuator output controller, Two actuator output controller, Three actuator output controller.

HALL SENSOR



WIRE DIAGRAM

White	Hall sensor B Vout
Green	Hall sensor A Vout
Red	Hall sensor VCC +
Black	Hall sensor GND -
Blue	Motor-
Brown	Motor+

Hall sensor can be added to the actuator and the function of hall sensor is to provide a signal feedback to the receiver to judge the motor speed.

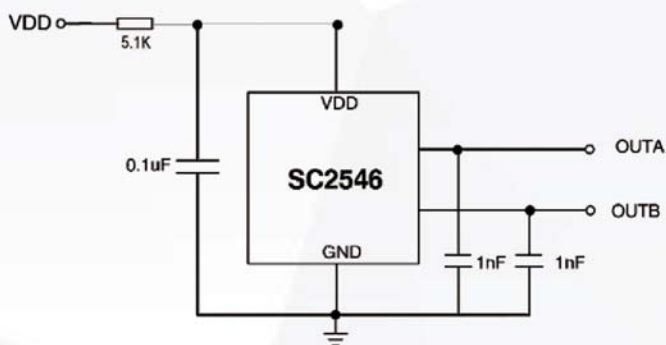
If we know how many signals hall sensor can produce in one circle, we will know how many signals the hall sensor can provide to the receiver when the motor runs one circle and then we can control the actuator speed and stroke precisely.

CALCULATION

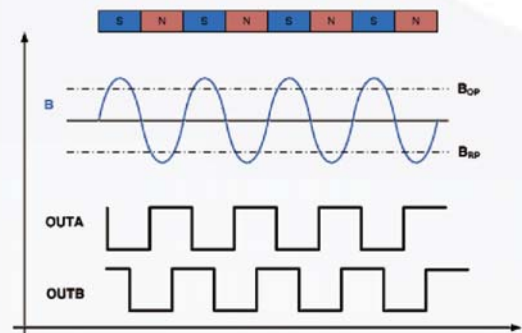
Hall sensor resolution = Lead screw pitch / gear ratio / pulses per revolution

CIRCUIT DIAGRAM

Output circuit



Output wave



HALL SENSOR SPECIFICATIONS

Electrical Characteristics

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
V _{DD}	Operating voltage	T _J < T _{J(Max.)}	2.5	--	12	V
I _{DD}	Operating supply current	V _{DD} =2.5 to 12 V	1.5	2.5	3.5	mA
t _{on}	Power-on time		--	35	50	μS
I _{QL}	Off-state leakage current	Output Hi-Z	--	--	1	μA
R _{UP}	Internal pull-up resistor		5.0	10	15	KΩ
R _{DS(on)}	FET on-resistance	V _{DD} =5V, I _b =10mA, T _A =25°C	--	20	--	Ω
t _d	Output delay time	B=B _{RP} to B _{OP}	--	13	25	μS
t _r	Output rise time	R1=1Kohm Co=50pF	--	--	0.5	μS
t _f	Output fall time	R1=1Kohm Co=50pF	--	--	0.2	μS

Magnetic Characteristics

f _{BW}	Bandwidth		40	--	--	kHz
B _{OP}	Operated point		1.0	2.0	3.0	mT
B _{RP}	Release point	VB Package	-3.0	-2.0	-1.0	mT
B _{HYS}	Hysteresis		--	4.0	--	mT
B _O	Magnetic offset	B _O =(B _{OP} +B _{RP})/2	--	0	--	mT

Thermal Characteristics

Symbol	Parameter	Test Conditions	Rating	Units
R _{θJA}	VB Package thermal resistance	Single-layer PCB, with copper limited to solder pads	177	°C/W

OVER CURRENT PROTECTION



FUNCTION

Over current protection can be added to the actuator, when the actuator extends to full stroke or overloaded, it will protect the actuator by limiting motor's current. The function of over current protection is to protect the actuator from damage.

SPECIFICATIONS

(Circuit breaking current A)

Voltage/Model	ANT-26	ANT-35/ANT-38	ANT-52
DC12V	1.4	4.5	11.5
DC24V	0.7-0.8	2.5	6.5

Notes

- The anode(+) and cathode(-) for input and output circuit can be interchangeable, input voltage is DC12V or DC24V.
- The circuit breaking response time is 0.1-0.5s.
- The ambient temperature range must be -20°C to 60°C and storage temperature is -40°C to +70°C.
- Max duty cycle is 10% or 2 minutes in use followed by 18 minutes rest.

LEAD WIRE CONNECTOR



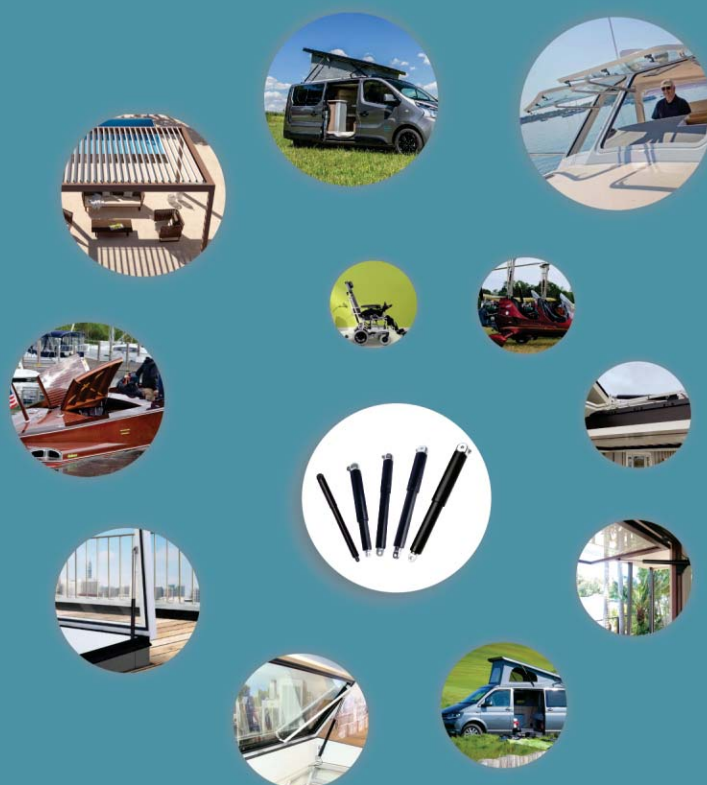
Din 4 pins
(standard/over current protection)



Din 6 pins
(hall sensor)

LIMIT SWITCH

Limit switch can be added to the actuator to test whether the actuator moves to the limit position. The principle is that when the object touches the limit switch, the normally open point of the switch closes and the normally closed point turns off to control circuit or receive signals.



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