

LINEAR ACTUATOR RD-398A



Product Specifications

LINEAR ACTUATOR RD-398A

Product characteristics

- RD-398A is a Linear actuator with quick release function,
The following models are available:
398A 0 6 4D5 24 888/888 B Zn 01 E 02 0 05 1D5
- It is characterized by small size, high accuracy and complete synchronization,
good self-locking performance, sanitary, direct motor drive.
High protection grade IP54 and low noise;
Applicable to household electric beds, medical electric
beds, beauty beds, dental chairs, or related
automated industrial machinery.



Features and options

- Maximum thrust: 1000N 2000N 4000N 6000N
- Maximum tension: 600N 1500N 3000N 5000N
- Color: White / Black
- Protection grade: IP54
- Stroke length: 100 / 150 / 200 / 250 / 300 / 350 / 400mm. Special stroke can be customized
- Installation dimension: minimum installation distance (L) $\geq 175 + \text{stroke (s)} + \text{safety distance (c)}$

$L=285 \ (40 < S \leq 110)$	$L=S+175 \ (110 < S \leq 200)$
$L=S+175+5 \ (200 < S \leq 250)$	$L=S+175+10 \ (250 < S \leq 300)$
$L=S+175+15 \ (300 < S \leq 350)$	$L=S+175+20 \ (350 < S \leq 400)$
$L=S+175+25 \ (400 < S \leq 450)$	$L=S+175+30 \ (450 < S \leq 500)$
$L=S+175+35 \ (500 < S \leq 550)$	$L=S+175+40 \ (550 < S \leq 600)$
- Noise level: $\leq 48\text{dB (a)}$ (ambient noise $\leq 40\text{dB}$)
- Quick release function: Standard
- Safety nut: optional
- Single Hall feedback: optional
- Built in electronic limit switch
- Weight: about 3 kg (different stroke/ installation distance, weight difference)
- Static bending moment: lateral load is not allowed

Use:

- Working duty ratio: 10%; Continuous use for 2 minutes, rest for 18 minutes
- Service temperature: 5-40 °C
- Storage temperature: - 5-45 °C
- Supporting controller: optional Runda conventional controller
- Relative humidity: 20% - 90% at 30 °C, non condensing
- Atmospheric pressure: 700-1060hpa

Certificate

- EN60601-1/EN60601-1-2 & ROHS2.0

Technical Parameter

Voltage (V)	Lead (mm)	Maximum load (N)	Self-locking force (N)	No load speed (mm/s)	Load speed (mm/s)	Load speed (A)
24	10	1000	600	20	13.5	5
29	10	1000	600	23	16	5
24	7.5	2000	1500	14	10	5
29	7.5	2000	1500	17.5	13	5
24	5	4000	4000	8.5	6.0	6.5
29	5	4000	4000	10.5	7.5	6.5
24	4	6000	6000	7	4	6.5
29	4	6000	6000	8.5	5.5	6.5

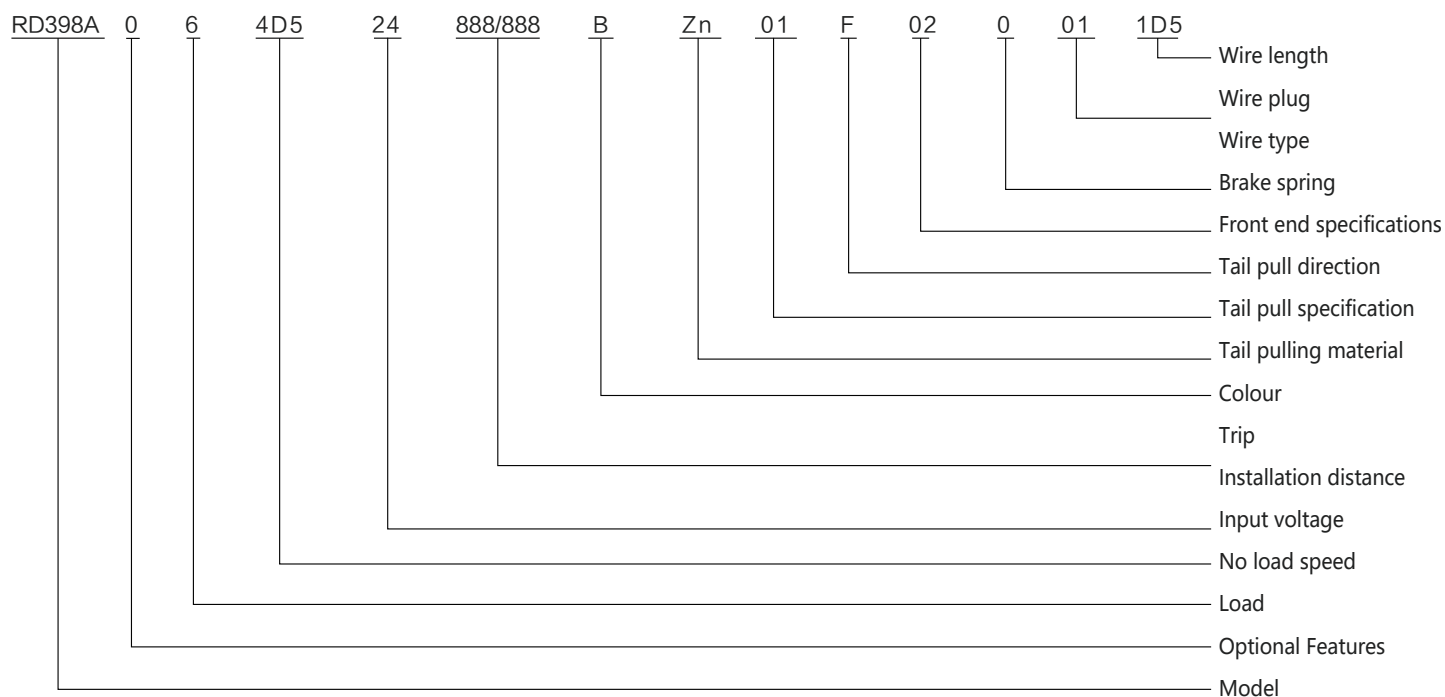
Note: the above data is the average value of test data at room temperature of 25 °C

Naming rules example

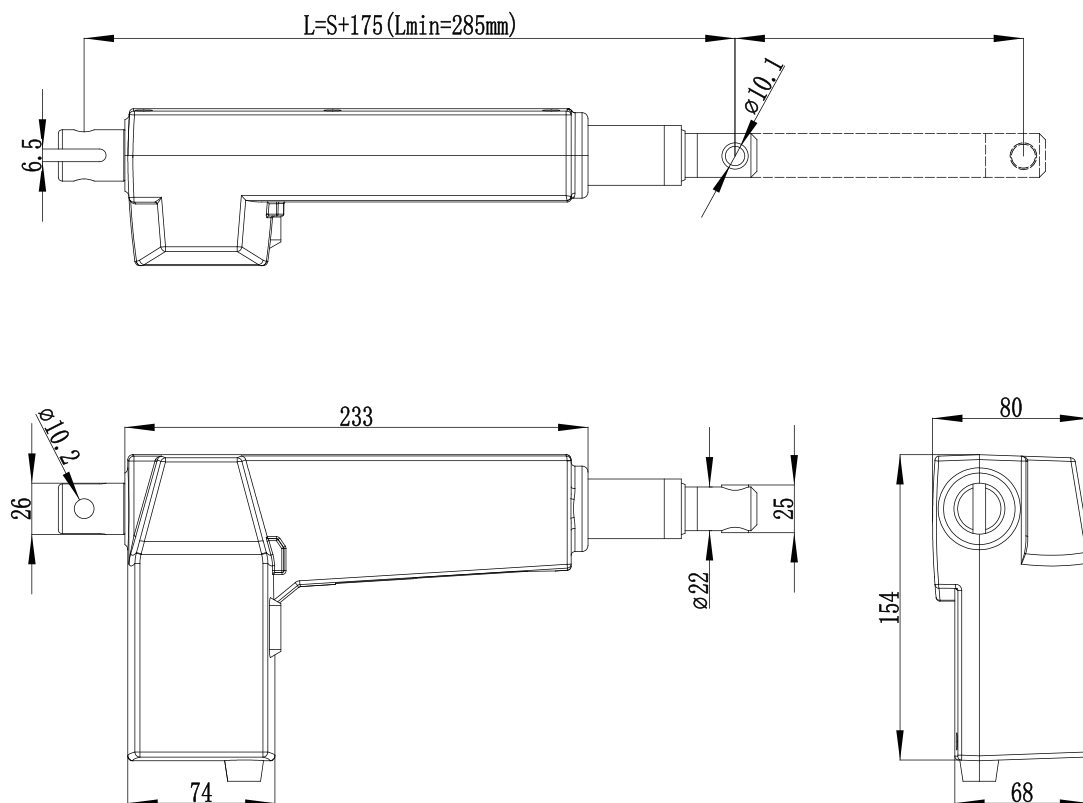
Model	RD398A	
Optional function		0=Standard G=With reed pipe
Load		1=1000N 2=2000N 4=4000N 6=6000N
No-load speed*D*		4-15mm/s (Example: 4D=4mm/s 、 4D5=4.5mm/s)
Input voltage		24=24VDC 29=29VDC
Stroke / Installation distance		Stroke=XXX / Installation distance=XXX
Color		A=White B=Black
Tail pull material		Zn=Kirsite Fe=Iron
Tail pull specification		01=Groove width6.5, groove depth24, hole diameter of cushion sleeve8.1 02=Groove width6.5, groove depth24, hole diameter of cushion sleeve10.1 03=Groove width6.5, groove depth24, hole diameter of cushion sleeve10.2
Tail pull direction		E=90° F=0°
Front end specification		01= front iron head slotted 02= front iron head not slotted
Brake spring		0=No brake function 1=Brake function
Wire plug Wire type		01=2-core 4-pin straight line insertion 02=2-core 4-pin linear bending plug 03=4-core 4-pin straight line insertion 04=4-core 4-pin linear bending plug
Wire length*D*		Example 1D5=1.5m 、 2D0=2.0m

RD398A

示例



Product dimension drawing



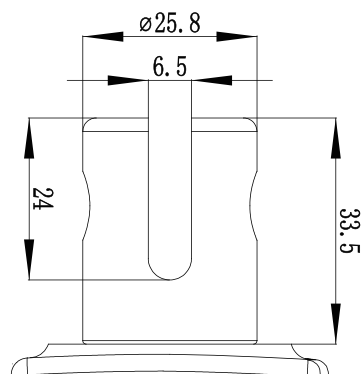
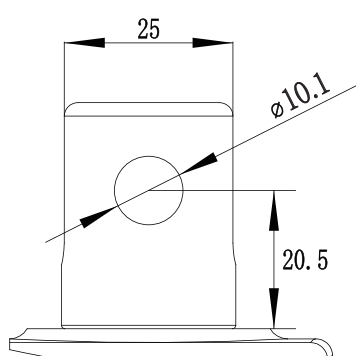
$(175\text{mm} + \text{stroke}) \geq 285\text{mm}$

- 1) When $0 < S \leq 120\text{mm}$, the minimum installation distance is $L=285\text{mm}$
- 2) When $S > 120\text{mm}$, the shortest installation distance is $L=S+C+175\text{mm}$

Stroke S (mm)	Safe distance C (mm)
$40 < S \leq 110$	--
$111 < S \leq 200$	--
$200 < S \leq 250$	5
$250 < S \leq 300$	10
$300 < S \leq 350$	15
$350 < S \leq 400$	20
$400 < S \leq 450$	25
$450 < S \leq 500$	30
$500 < S \leq 550$	35
$550 < S \leq 600$	40

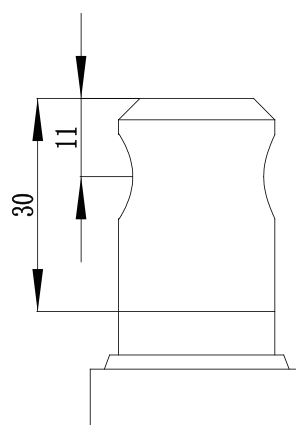
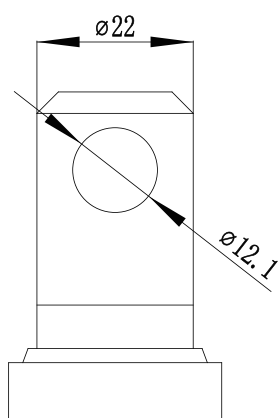
Pulling head dimension drawing(01)

Tail Pull:

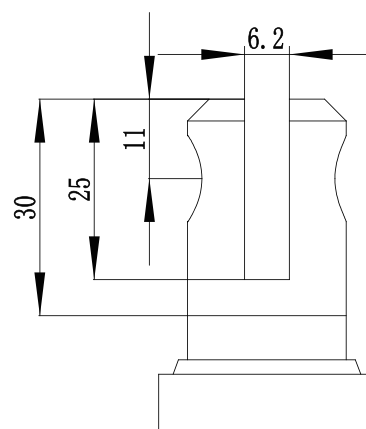
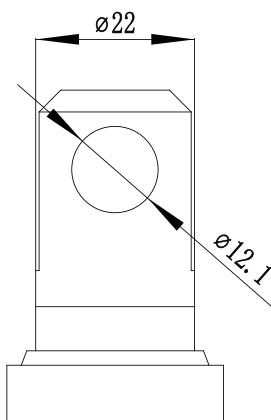


Front Pull:

front end no sloting:

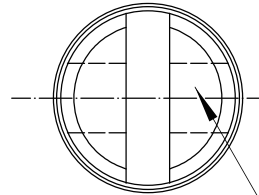
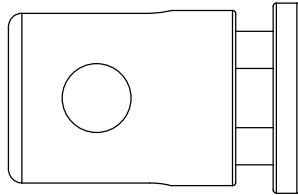


Front end sloting:



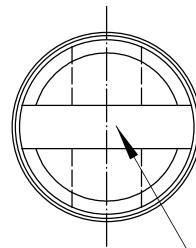
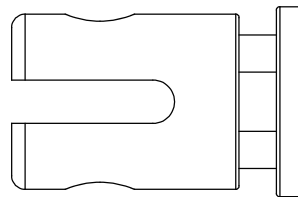
Tail pull direction

$F=0^\circ$



The through hole
centerline is parallel
to the ground

$E=90^\circ$

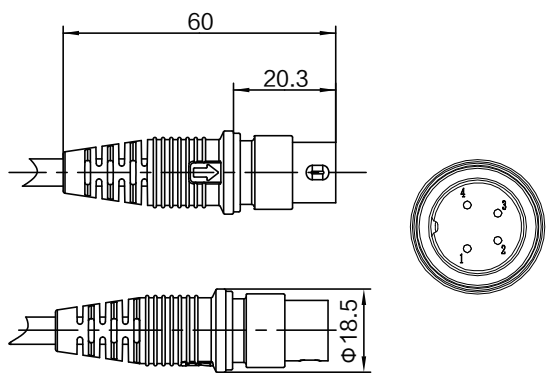


The through hole
centerline is perpendicular
to the ground

Motor line

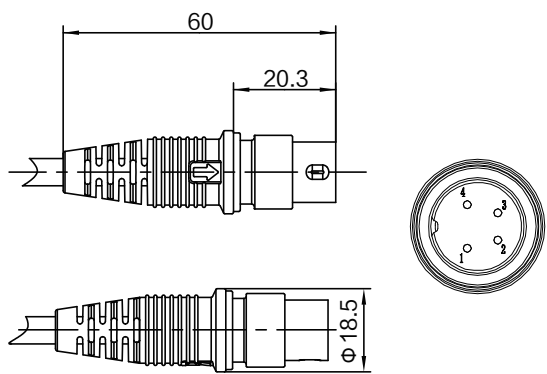
Motor line: 2P4Z 4P4W 2P4Z 4P4W

2-core 4-pin straight line insertion



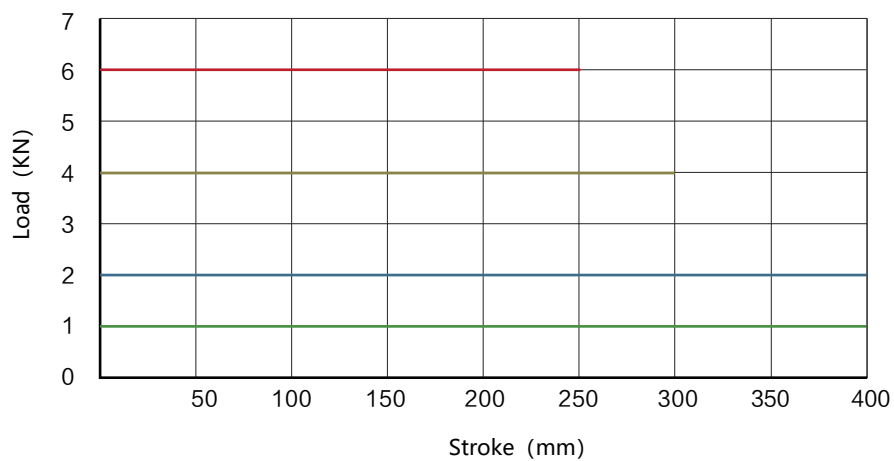
2-core 4-pin straight line insertion		
PINS	Color	Function
1	NG	Not connected
2	Brown	Motor positive stage
3	Blue	Motor negative stage
4	NG	Not connected
Outer ring	NG	Not connected

4-core 4-pin straight line insertion



4-core 4-pin straight line insertion		
PINS	Color	Function
1	Yellow	Signal reception
2	Brown	Motor positive stage
3	Blue	Motor negative stage
4	White	Signal output
Outer ring	NG	Not connected

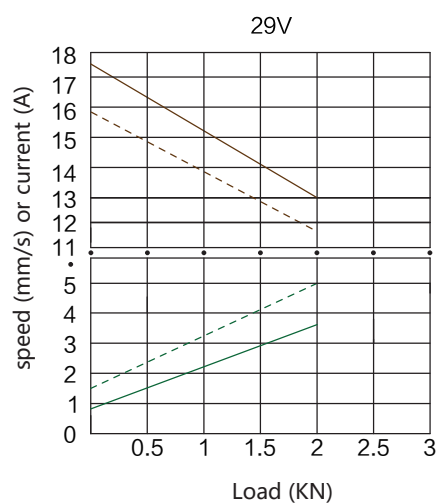
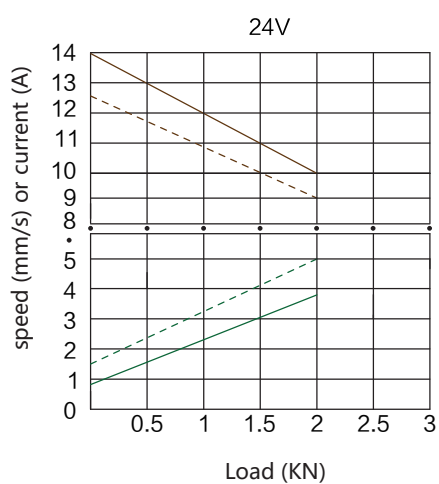
Relationship between stroke and load



Characteristic curve

RD-398A 1000N current, speed and load relationship diagram

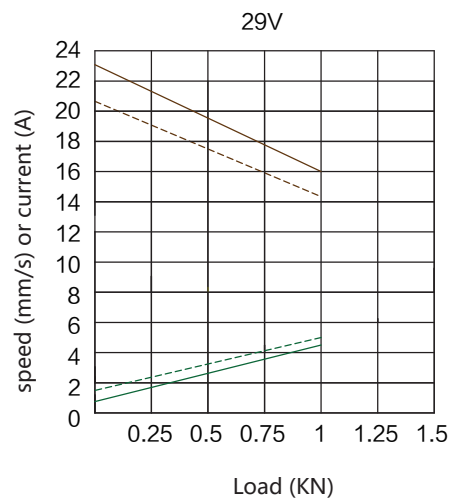
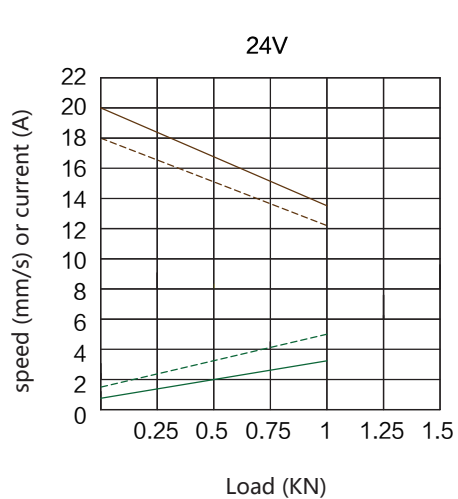
Typical speed — Minimum speed - - - Typical current — Maximum current - - -



Characteristic curve

RD-398A 2000N current, speed and load relationship diagram

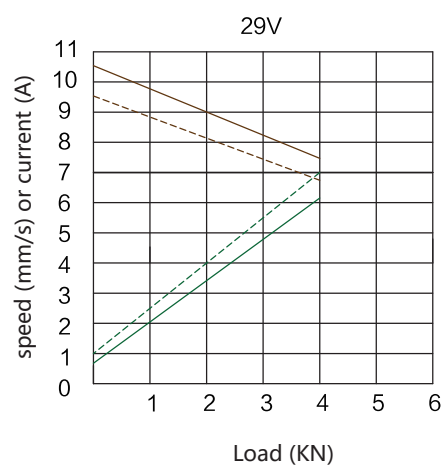
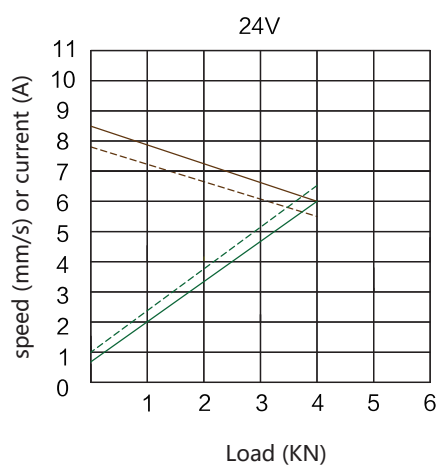
Typical speed ——— Minimum speed - - - - - Typical current ——— Maximum current - - - - -



Characteristic curve

RD-398A 4000N current, speed and load relationship diagram

Typical speed ——— Minimum speed - - - - - Typical current ——— Maximum current - - - - -



Characteristic curve

RD-398A 6000N current, speed and load relationship diagram

Typical speed ——— Minimum speed - - - - - Typical current ——— Maximum current - - - - -

