Linear Actuator

4.LAN Series

4-1. HIWIN LAN Series (1)

LAN1

CE

cULus

RL
173.5
166
7.5
82.6
24.6
Ø10⁺⁰·²₋₀
Ø26
6.2
33
158
170
11
71
33.5
78
57.8
50.8
54.8
[25] 11
6.2
Ø21.9
24.9
28
Ø10⁺⁰·²₋₀
R2

[C]   [B]   [A]

MOTOR CABLE
MOTOR CABLE LENGTH=1000mm

- RL = S+173
  RL: Retracted length
  S: Stroke length

Table 4.3 12VDC Motor

Model	Thrust max. (N)	Pulling max. (N)	Holding max. (N)	Speed (mm / s) Load = Max. / Load = 0	Standard stroke (mm) : S				Duty cycle %	Current max. (A) 12VDC	Hall Sensor Resolution (mm/pulse)
LAN1-1	5000	5000	5000	3 / 6	100	150	200	250	10	11	0.3
LAN1-2	4000	4000	4000	4 / 8	100	150	200	250	10	11	0.4
LAN1-3	3000	3000	3000	5 / 10	100	150	200	250	10	10	0.5

**Note: The test results are obtained by using the 12VDC power supply and holding by motor short-circuited.
*Min. input power = Voltage x Current max.

LAN1-1/ -2/ -3

LAN1-1/ -2/ -3

Ordering Information

LAN1 - 1 1 - 1 - 200 - 12 G E

Model number	Force direction 1: Standard 2: Suspending install, pull	0 : Without internal limit switches 1 : Basic model complete with internal limit switches	Stroke length	Voltage 12: 12VDC Standard	Color B : Black G : Gray	Special models according to the customer's requirement (Ignore this part of the serial number if not available)

Table 4.1 Specifications

Screw type	ACME
Weight*	2.6kg
Protection	IP54
Compatible controller	Compatible with all controllers (*Notice the type of connector: Audio/DIN 4pin)
Working temp.	+5°C~40°C

* Stroke length 200mm

Table 4.2 Position feedback specifications (Hall Sensor)

Supply voltage	24VDC	12VDC	5VDC
Output	High level 24VDC Low level 0.2V / 10mA sink (NPN)	High level 12VDC Low level 0.2V / 10mA sink (NPN)	TTL

Option:

(1) IP66
(2) Position feedback
(3) Safety Nut (RL = S+185 , S ≤ 250)
(4) Mechanical Spline (push only) (RL = S+223 , S ≤ 250)

(5) Back fixture turned 90°
(6) Motor cable outlet: (A)Standard (B)Front (C)Back.
(7) UL version
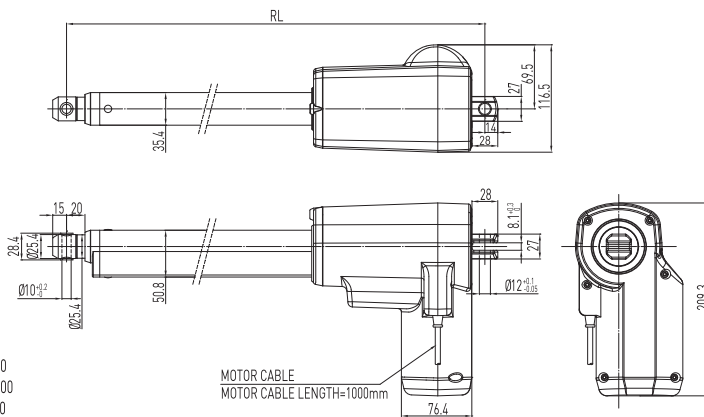(8) Plug: DIN 4PIN plug / Stereo plug / Mono plug

Linear Actuator

4-2. HIWIN LAN Series (2)

LAN3A

CE
c UL us

RL

• RL = S+220
  Stroke < 200
  RL = S+260
  Stroke: 200~500mm
  RL: Retracted length
  S: Stroke length

MOTOR CABLE
MOTOR CABLE LENGTH=1000mm

Table 4.4 Specifications

Screw type	ACME
Weight*	5.2kg
Protection	IP54
Compatible controller	LAK6B / LAK2J
Working temp.	+5℃~40℃

* Stroke length 200mm

Apply:

Large thrust with (1.2Nt)

Option:

(1) IP66
(2) Potentiometer 10K ohm (RL = S+231 , S < 200mm / RL = S+271 , S: 200~500mm)
　* The max. stroke lengths with potentiometer: LAN3A-1 Max.280mm, LAN3A-2 Max.420mm,
　　LAN3A-3 Max.560mm, LAN3A-4 Max.700mm
(3) Mechanical Spline(push only) (RL = S+262 , S < 200mm / RL = S+302, S: 200~500mm)
(4) Safety Nut (RL = S+232 , S < 200mm / RL = S+272 , S: 200~500mm);
　　Safety Nut+Mechanical Spline (RL = S+269 , S < 200mm / RL = S+309 , S = 200~500mm)
(5) Mechanical quick release
(6) Back fixture turned 90°
(7) Fast motor 24Q
(8) External reed switches (RL = S+300 , S < 200mm / RL = S+340 , S = 200~500mm)
(9) MR Sensor feedback
(10) Plug: DIN 4PIN plug / Stereo plug / Mono plug
(11) UL Version
(12) Anti-UV material

Table 4.5 LAN3A Specifications

Model	Thrust max. (N)	Pulling max. (N)	Holding max. (N)	Speed (mm / s) Load = Max. / Load = 0	Standard stroke (mm) : S									Duty cycle %	Current max. (A) 24VDC	Potentiometer Resolution (Ohm/mm)	MR Sensor Resolution (mm/pulse)
LAN3A-1	12000	6000	12000	3 / 5	100	150	200	250	300	350	-	-	-	10	8.3	33.3	0.1
LAN3A-2	10000	6000	10000	4.5 / 8	100	150	200	250	300	350	400	-	-	10	8.3	22.2	0.16
LAN3A-3	7000	6000	7000	7 / 9	100	150	200	250	300	350	400	450	-	10	8	16.7	0.22
LAN3A-4	5000	5000	5000	9.5 / 12.5	100	150	200	250	300	350	400	450	500	10	7	13.3	0.27

* Min. input power = Voltage x Current max.
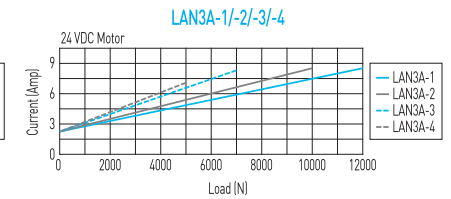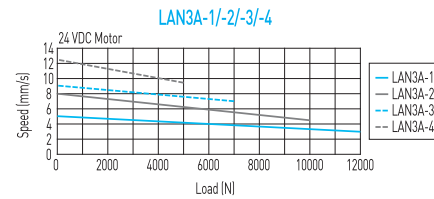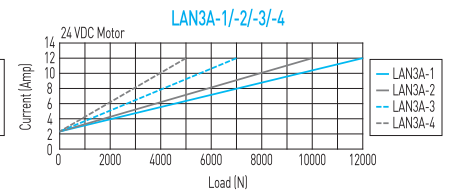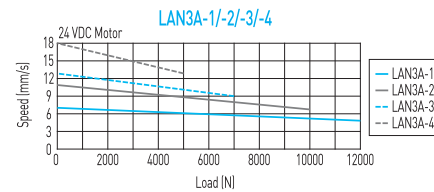
LAN3A-1/-2/-3/-4

LAN3A-1/-2/-3/-4

**Note: The test results are obtained by using the 24VDC power supply and holding by motor short-circuited.

Table 4.6 LAN3A (Fast Motor 24Q)

Model	Thrust max. (N)	Pulling max. (N)	Holding max. (N)	Speed (mm / s) Load = Max. / Load = 0	Standard stroke (mm) : S									Duty cycle %	Current max. (A) 24VDC	Potentiometer Resolution (Ohm/mm)	MR Sensor Resolution (mm/pulse)
LAN3A-1	12000	6000	12000	4.5 / 7	100	150	200	250	300	350	-	-	-	10	12	33.3	0.1
LAN3A-2	10000	6000	10000	7 / 11	100	150	200	250	300	350	400	-	-	10	12	22.2	0.16
LAN3A-3	7000	6000	7000	9 / 13	100	150	200	250	300	350	400	450	-	10	12	16.7	0.22
LAN3A-4	5000	5000	5000	13 / 18	100	150	200	250	300	350	400	450	500	10	12	13.3	0.27

* Min. input power = Voltage x Current max.

LAN3A-1/-2/-3/-4

LAN3A-1/-2/-3/-4

**Note: The test results are obtained by using the 24VDC power supply and holding by motor short-circuited.
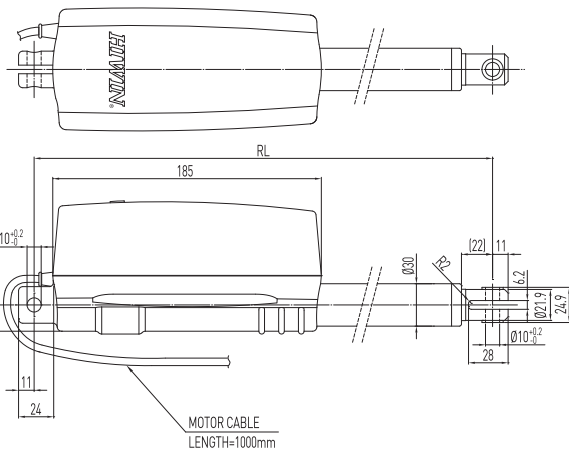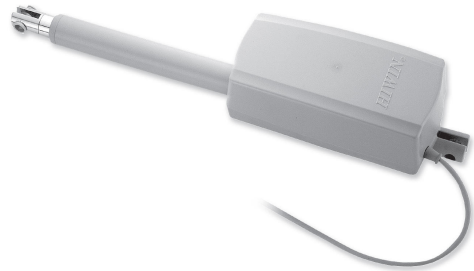

Ordering Information

LAN3A - 1 1 - 1 - 200 - 24 G E

Model number	Force direction 1: Standard 2: Suspending install, pull	1: Basic model complete with internal limit switches	Stroke length	Voltage 24: Standard motor 24Q: Fast motor	Color B : Black G : Gray	Special models according to the customer's requirement (Ignore this part of the serial number if not available)

Linear Actuator

4-3. HIWIN LAN Series (3)

LAN4

CE

c $\mathcal{R}$ us

• RL = S+160
  Stroke ≤ 400
  RL: Retracted length
  S: Stroke length

RL

185

Ø10 $^{+0.2}_{-0}$

Ø30

R2

[22] 11

6.2

Ø21.9

24.9

Ø10 $^{+0.2}_{-0}$

28

18.6

11

24

94

22

Ø25.9 $^{+0}_{-0.2}$

6.1 $^{+0.2}_{-0}$

87

MOTOR CABLE
LENGTH=1000mm

Table 4.8 LAN4 Specifications

Model	Thrust max. (N)	Pulling max. (N)	Holding max. (N)	Speed (mm / s) Load = Max. / Load = 0	Standard stroke (mm) : S							Duty cycle %	Current max. (A)	
													24VDC	12VDC
LAN4-1	3500	3500	3500	3.5 / 7	100	150	200	250	300	350	400	10	6	12
LAN4-2	3000	3000	3000	4.2 / 9	100	150	200	250	300	350	400	10	6	12
LAN4-3	2000	2000	2000	6 / 13	100	150	200	250	300	350	400	10	5	12
LAN4-4	1500	1500	1500	8.5 / 20	100	150	200	250	300	350	400	10	5	12

* Min. input power = Voltage x Current max.

LAN4-1/ -2 / -3 / -4
24(12) VDC Motor

Speed (mm/s) vs Load (N)

- LAN4-1
- LAN4-2
- LAN4-3
- LAN4-4

LAN4-1/ -2 / -3 / -4
24 VDC Motor

Current(Amp) vs Load (N)
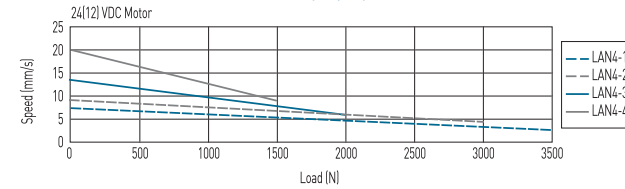
- LAN4-1
- LAN4-2
- LAN4-3
- LAN4-4
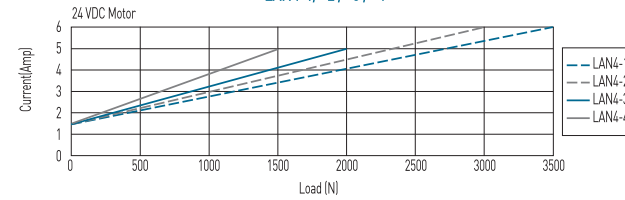
**Note: The test results are obtained by using the 24VDC power supply.

LAN4-1/ -2 / -3 / -4
12 VDC Motor

Current(Amp) vs Load (N)

- LAN4-1
- LAN4-2
- LAN4-3
- LAN4-4

**Note: The test results are obtained by using the 12VDC power supply.

Table 4.7 Specifications

Screw type	ACME
Weight*	2.33kg
Protection	IP54
Compatible controller	LAK2 / LAK2LR / LAK2D / LAK2BN / LAK2J / LAK6B
Working temp.	+5℃~40℃

* Stroke length 200mm

Option:

(1) IP66
(2) Safety Nut RL = S+174, S ≤ 400
(3) Mechanical spline (push only) RL = S+200, S ≤ 400
(4) Plug: DIN 4PIN plug / Stereo plug / Mono plug
(5) UL Version

Ordering Information

LAN4 - 1 - 0 - 300 - 24 G E

| Model number | 0: Basic model *1: Over-Current protection | Stroke length | Voltage 24:Standard motor 12:12VDC Standard | Color B : Black G : Gray | Special models according to the customer's requirement (Ignore this part of the serial number if not available) |

* Remark: The over-current protection is for over load protection, do not use for limit stop.
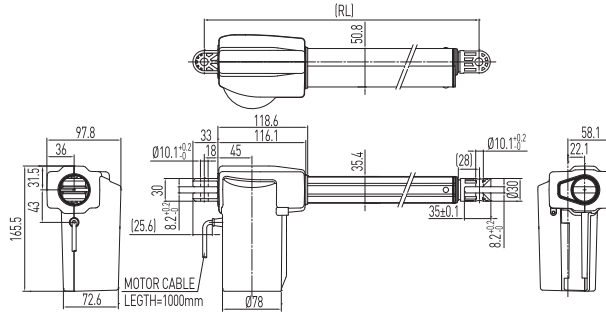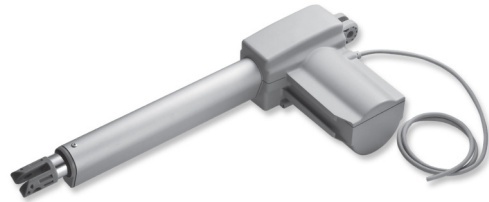 Suggestion:To add exterual limit switch as limit positions stop.
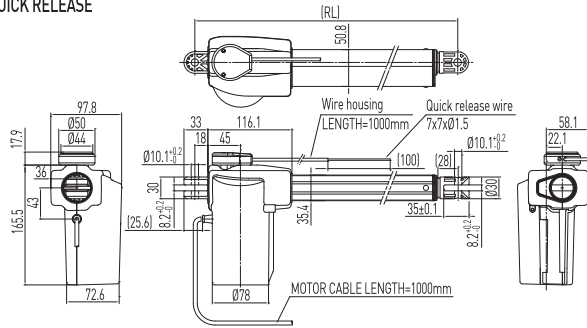
Linear Actuator

4-4. HIWIN LAN Series (4)

LAN5

CE

c UL us

- LAN5-1
  RL = S+163
  Stroke ≤ 200
  RL: Retracted length
  S: Stroke length

- Other spec.
  RL = S+163
  Stroke ≤ 250
  RL = S+213
  Stroke = 300
  RL: Retracted length
  S: Stroke length

QUICK RELEASE

Quick release function:
(1) The quick release cable can be pulled while the load on actuator under 100N.
(2) When the quick release is activated, the actuator must have a load over 700N to ensure the actuator runs inwards.
(3) After quick release actived, it may be necessary to run the actuator inwards.

Table 4.9 Specifications

Screw type	ACME
Weight*	1.96kg
Protection	IP54
Compatible controller	Compatible with all kinds of controller (*Notice the type of connector: Audio/DIN 4PIN)
Working temp.	+5℃~40℃

* Stroke length 200mm

Table 4.10 Position feedback specifications (Hall Sensor)

Supply voltage	24VDC	12VDC	5VDC
Output	High level 24VDC Low level 0.2V / 10mA sink (NPN)	High level 12VDC Low level 0.2V / 10mA sink (NPN)	TTL

Option:

(1) Hall Sensor
(2) Safety nut
(3) Mechanical Spline (push only)
(4) Back fixture turned 0°, 45°, 90°, 135°
(5) IP65; IP66
(6) Quick release (For LAN5-3, LAN5-4 only)
(7) UL version(Only 24VDC Motor)
(8) Plug: DIN 4PIN plug / Stereo plug / Mono plug

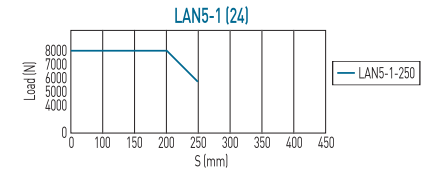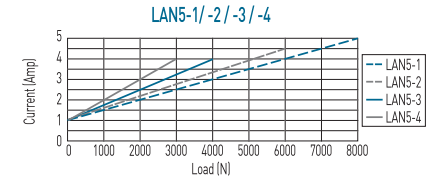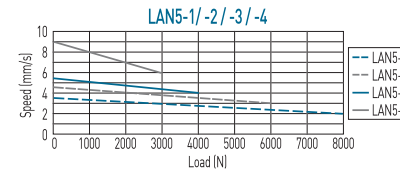### Table 4.11 LAN5 Specifications

Model	Thrust max. (N)	Pulling max. (N)	Holding max. (N)	Speed (mm / s) Load = Max. / Load = 0	Standard stroke (mm) : S					Duty cycle %	Current max. (A) 24VDC	Hall Sensor Resolution (mm/pulse)
LAN5-1	8000	4000	6000	2 / 3.5	100	150	200			10	5	0.08
LAN5-2	6000	4000	5000	3 / 4.5	100	150	200	250		10	4.5	0.10
LAN5-3	4000	3000	4000	4 / 5.5	100	150	200	250	300	10	4	0.14
LAN5-4	3000	2000	1500	6 / 9	100	150	200	250	300	10	4	0.22

* When the stroke of LAN5-1 is between 250mm and 300mm, refer to the diagram on the right for max. load.
* LAN5-4 24V Quick release Holding max. 1000N
* LAN5-3 24V Quick release Holding max. 3000N
* Min. input power = Voltage x Current max.

**Note: The test results are obtained by using the 24VDC power supply.
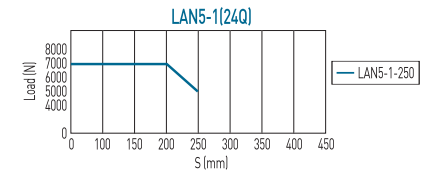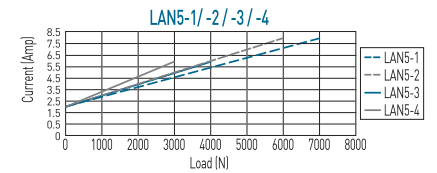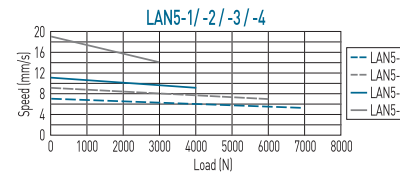
Table 4.12 LAN5(24Q) Specifications

Model	Thrust max. (N)	Pulling max. (N)	Holding max. (N)	Speed (mm / s) Load = Max. / Load = 0	Standard stroke (mm) : S					Duty cycle %	Current max. (A) 24VDC	Hall Sensor Resolution (mm/pulse)
LAN5-1	7000	4000	6000	5 / 7	100	150	200			10	8	0.08
LAN5-2	6000	4000	5000	7 / 9	100	150	200	250		10	8	0.10
LAN5-3	4000	3000	4000	9 / 11	100	150	200	250	300	10	6	0.14
LAN5-4	3000	2000	1500	14 / 19	100	150	200	250	300	10	6	0.22

* When the stroke of LAN5-1 is between 250mm and 300mm, refer to the diagram on the right for max. load.
* LAN5-4 24Q Quick release Holding max. 1000N
* LAN5-3 24Q Quick release Holding max. 3000N
* Min. input power = Voltage x Current max.

Ordering Information

LAN5 - 1 1 - 1 - 200 - 24 G E

| Model number | Force direction 1: Standard 2: Suspending install, pull | 1: Basic model complete with internal limit switches | Stroke length | Voltage 24: Standard motor 24Q: Fast motor | Color B : Black G : Gray | Special models according to the customer's requirement (Ignore this part of the serial number if not available) |