TOTAL CATALOGUE 2008

ALPHA LINEAR ROBOT



ALPHA® ROBOTICS

WORLD'S FAMOUS ALPHA ROBOTICS PRODUCT














ALPHA LINEAR ROBOT

- Maximum speed 2.5m/s with acceleration of 2.5G to provide high-speed.
  최대속도 2.5m/s, 가속도 2.5G로 고속화 실현
- High repeatability positioning accuracy ±1㎛.
  높은 반복위치 결정정도 ±1㎛
- Realized a chastity driving at touchless driving system when it runs in high speed.
  비 접촉식 구동방식으로 고속 운전시 정숙운전 실현
- Individually operating Multi Slide.
  복수 슬라이드 가능
- Maximum 20m of Long Stroke.
  스트로크 최대 20m 대응가능



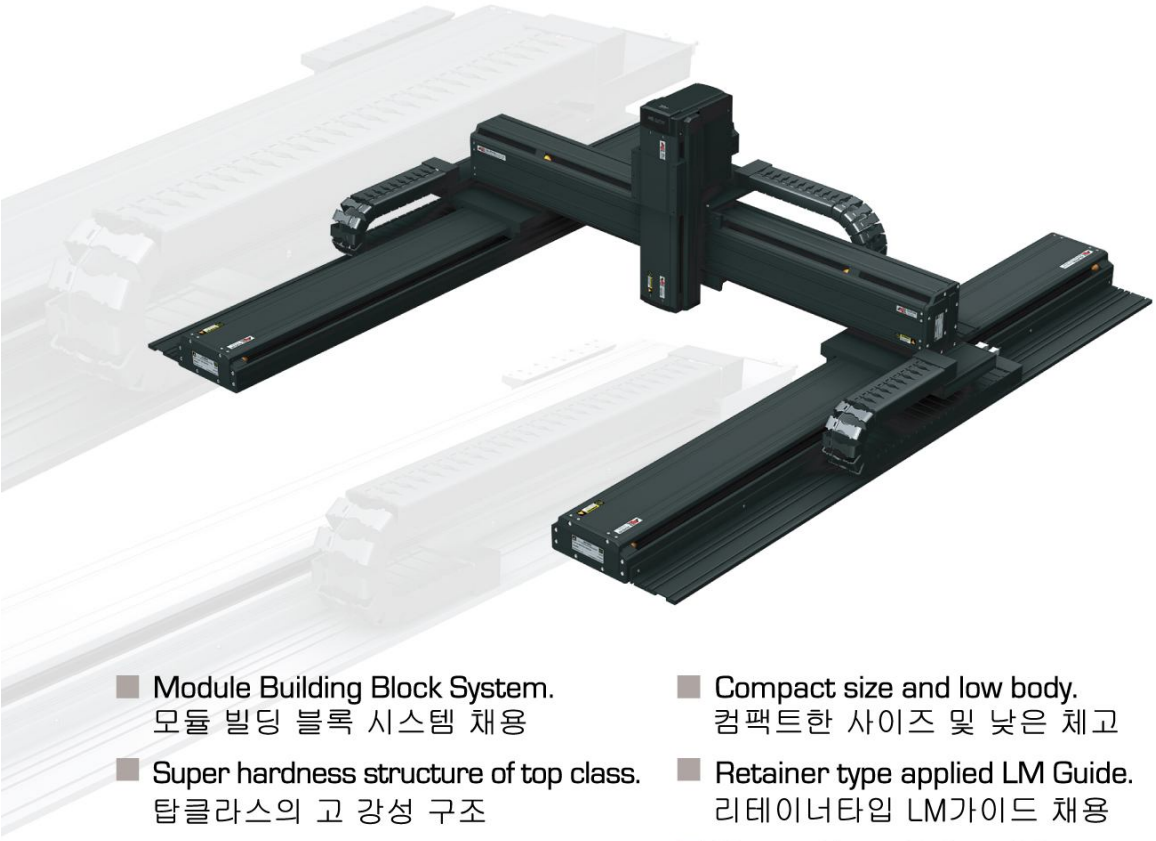




ADVANCE LINEAR PRODUCT WITH PATENT PENDING TECHNOLOGY

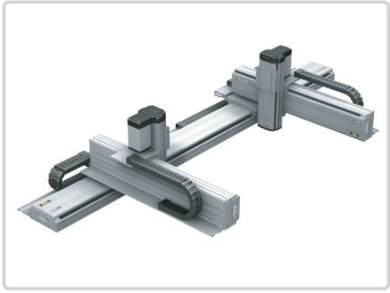
INTERNATIONAL PATENT PENDING IN 8 CATEGORIES

DOMESTIC PATENT PENDING IN 18 CATEGORIES



- Module Building Block System.
  모듈 빌딩 블록 시스템 채용
- Super hardness structure of top class.
  탑클라스의 고 강성 구조
- Compactly designed structure.
  콤팩트한 구조
- Easy Maintenance.
  메인터넌스 최적 활용구조 용이
- Compact size and low body.
  컴팩트한 사이즈 및 낮은 체고
- Retainer type applied LM Guide.
  리테이너타입 LM가이드 채용
- Line up Linear Robot of Gantry use only.
  갠트리전용 리니어로봇을 라인업
- Realized a high authoritativeness realization by error prevention structure.
  에러방지 구조로 고 신뢰성 실현









ALR SERIES

Standard Linear Robot

Wide thrust realization.
광범위 추력 실현

ALR140 - S	A20.1
ALR160 - S	A21.1
ALR180 - S	A22.1
ALR230 - S	A23.1
ALR300 - S	A24.1
ALR180 - H	A25.1
ALR230 - H	A26.1
ALR300 - H	A27.1



ALS SERIES

Super Linear Robot

Can be opposed to long stroke and by maximum 20m.
긴 스트로크 대응 타입
최대 20m 대응

ALS250 - H	A30.1
ALS280 - H	A31.1
ALS320 - H	A32.1



ALG SERIES

Gantry Linear Robot

The side fixing type.
Most suitable in installation of Gantry method.
측면고정용 타입
갠트리방식 설치에 최적

ALG180 - S	A40.1
ALG230 - S	A41.1
ALG180 - H	A42.1
ALG230 - H	A43.1



ALD SERIES

Double Linear Robot

Double Gantry Linear Type.
Slides are composed on both sides.
더블 갠트리 리니어 타입
슬라이드 양측 구성

ALD180 - S	A50.1
ALD230 - S	A51.1
ALD180 - H	A52.1
ALD230 - H	A53.1



ALX SERIES

Coreless Linear Robot

Coreless type.
Precision positioning control.
코어레스 타입
정밀 위치제어에 최적

ALXS180 - T	A60.1
ALXS230 - T	A61.1
ALXS300 - T	A62.1
ALXG180 - T	A63.1
ALXG230 - T	A64.1
ALXD180 - T	A65.1
ALXD230 - T	A66.1





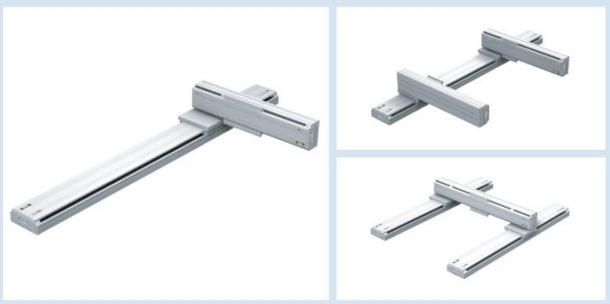
SPEC
Alpha Linear Robot

PECULIARITY OF LINAER ROBOT	A00.1
SELECTING MATERIAL OF LINEAR ROBOT	A10.1



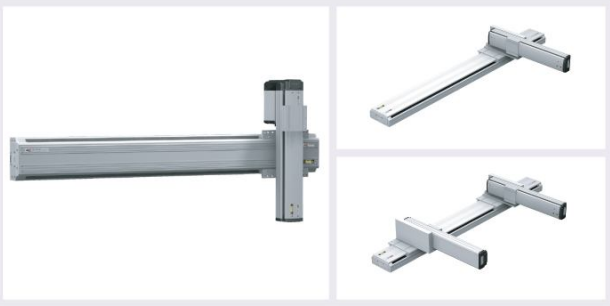
ALR ASSY
Linear + Linear Robot

"A" TYPE	ALR+ALR	A70.1
"A" TYPE	ALR+ALG	A70.3
"C" TYPE	ALR+ALR	A71.1
"K" TYPE	ALR+ALG	A72.1
"H" TYPE	ALR+ALG	A73.1



AR ASSY
Linear + Cartesian Robot

"A" TYPE	ALR+AR	A80.1
"G" TYPE	ALR+AR	A81.1
"K" TYPE	ALR+AR	A82.1



DRIVE
Robot Controller

DRIVE SPECIFICATIONS Σ II	A90.1
DRIVE SPECIFICATIONS Σ III	A91.1
DRIVE SPECIFICATIONS Σ V	A92.1







FEATURES OF ALPHA LINEAR ROBOT IN EACH SERIES

ALR SERIES



- ALPHA Linear Standard Model.
  Wide thrust realization from 86N to 3000N.
- 스탠다드 타입
  86N에서 3000N까지 광범위한 추력 실현

ALS SERIES



- Opposition of long stroke Type.
  Possible to confront up to maximum 20m by individual innards.
- 긴 스트로크 대응 타입
  독자적 내부구조로 최대 20m 대응가능

ALG SERIES



- The side fixing Type.
  Most suitable in installation of Gantry method.
- 측면고정용 타입
  갠트리방식 설치에 최적

ALD SERIES



- Double Linear Type.
  Slides are composed on both sides for Gantry series.
- 더블 리니어 타입
  갠트리시리즈 슬라이드를 양측 구성

ALX SERIES



- Coreless Type.
  Most suitable in precision positioning control.
  (Compostion by ALXS, ALXG, ALXD)
- 코어레스 타입
  정밀 위치제어에 최적 (ALXS,ALXG,ALXD로 구성)

ADVANTAGES OF ALPHA LINEAR ROBOT

1 HIGH SPEED

- Maximum speed of 2.5m/s.
  최대속도 2.5m/s
- Realization the high speedization by Max. acceleration 2.5G.
  최대가속도 2.5G로 고속화 실현

2 HIGH LEVEL

- High repeatability positioning precision ±1㎛.
  높은 반복위치 결정정도 ±1㎛

3 LOW NOISE

- Realize chastity driving at touchless driving system when it run in high speed.
  비 접촉식 구동방식으로 고속 운전시
  정숙운전 실현

4 MULTI SLIDE

- Possible at also multi slidetable.
  복수 슬라이드테이블 대응

5 LONG STROKE

- Maximum 20m Stroke.
  스트로크 최대 20m 대응가능

6 DOUBLE GANTRY

- Realization of process reduction by Gantry Type.
  더블 갠트리 타입으로 공정 축소실현

APPLICATION FIELDS

Chip Mounter	Laser Printer, Laser Marking System	Precision Dispensor
Wire Bonder, PCB Bonder, COG Bonder	Vision Inspection System	Pick & Place Equipment
LCD, PDP, Mobile Phone, Semiconductor		



ADVANTAGES OF ALPHA LINEAR ROBOT

MODULE BUILDING BLOCK SYSTEM

- Building block system, which is possible an optimum design and all models are standardized by providing Total Solution.
  - 전기종을 표준화하였으며 토탈 솔루션을 제공함으로 최적설계가 가능한 빌딩 블록 시스템

COMPACTLY DESIGNED STRUCTURE

- Huge thrust compacting.
  - 컴팩트한 대추력

SIMPLE MAINTENANCE

- Structure which is possible to install in any direction up and down when it is installing.
  - 설치시 상·하 방향에서 장착가능한 구조

ERROR PREVENTION STRUCTURE

- Error prevention structure of protection function for Grease arsenic acid and other particles by installing Linear Scale in the inside of Robot.
  - Linear Scale을 로봇 내부에 장착함으로써 그리스 비산 및 이 물질에 대한 보호기능 에러 방지구조

COMPACT SIZE AND LOW BODY

- Linear Robot, realized the high accuracy and lowest height without extra bracket when 2 axis combined by applying Wing Type Slide.
  - Wing Type Slide를 적용하여 2축 조합시 별도의 브라켓없이 고정도 조립 및 최저높이를 구현한 리니어로봇

RETAINER TYPE LM GUIDE

- A long life, a curbing heat, a low noise, a less dust, a high speed are possible by adopting LM Guide which contain the ball retainer.
  - 리테이너 LM Guide를 채용하여 긴 수명, 발열 억제, 저소음, 저 발진, 고속운전이 가능

LINEAR ROBOT FOR GANTRY USE ONLY

- Gantry Linear Robot, which is reinforced the sagging phenomenon at central part when the both legs are fixed in use.
  - 갠트리전용의 리니어로봇을 라인업

HIGH RIGIDITY STRUCTURE IN SAME GRADE

- Super hardness structure of top class.
  - 탑클라스의 고 강성 구조

COMPARING ALPHA LINEAR ROBOT WITH EXISTING LINEAR MOTION SYSTEM

	LINEAR MOTOR	BALL SCREW	BELT	RACK & PINION
SPEED	High Speed	Low Speed	High Speed	High Speed
STROKE	Long	Short	Medium	Long
PRECISION	Very high	High	Little Low	Low
NOISE	Low	Medium	High	High



INSTALLATION

1. Do not use this product in a place exposed to inflammable, ignitable or explosive substances. The product may burn, explode or ignite.
2. Be sure to securely support and affix it (including the work), when installing the product. It may cause the product to drop, tip over or malfuction, it may resulting in injury.
3. Avoid using the product in a place where the main unit or controller may come in contact with water or oil droplets.
4. Design a safety circuit or other device that will prevent equipment damage or injury, if the machine will stop in the case of system problem such as power failure or emergency stop.
5. The D-type of grounding work(former 3rd type of grounding work, less than 100Ω an grounding resistance) must with actuators, controllers. In case of an electric leak, it may cause the malfunction and electric shock. It may cause injury or electric shock due to contact with the moving parts, if supplying power to the product carelessly.
6. Wire the product correctly by referring to the operation manual. Securely connect the cables and connectors so that they will not be disconnected or come loose. It may cause the product to malfunction.
7. Do not pour water onto the product. Spraying water over the product, washing it with water or using it in water may cause the product to malfunction, resulting in injury, electric shock etc.
8. Do not use the product under direct sunlight (ultraviolet ray), in a place exposed to iron powder, dust, salt in a humid place or in an atmosphere of phosphate-ester machine oil, organic solvent etc.
9. When installing the product, provide sufficient maintenance space.
10. Exercise due caution to prevent injury, when installing or transporting the product. Securely hold the product using a lift or engage multiple operators or support to carry the product.
11. To avoid direct contact with the operators, protection covers or other guards must be provided for the moving parts of the equipment.
12. Provide an emergency-stop device in a readily accessible position so the device can be actuated immediately upon occurrence of a dangerous situation during operation.
13. Do not let watch, a magnetic card, a floppy disk, a measuring device etc approach to the product. Resulting in malfunction.
14. Please discuss with our company when it is applied the vertical use.
15. Please use in environment which satisfy with following conditions to install a actuator/controller.
    - avoid the ultravoilet ray
    - avoid the radiant heat
    - surrounding temperature is 0~40℃
    - humidity less than 85%, no vapor
    - no corrosive gas, generating heat
    - no dust
    - no oil mist, cutting fluid
    - no electromagnetic waves,
    - ultraviolet rays, radioactive rays
    - this product not consider the chemical resistance



INSTALLATION 설치

1. 발화물, 인화물, 폭발물 등의 위험물이 있는 장소에서는 사용하지 마십시오.
   발화, 인화, 폭발할 우려가 있습니다.
2. 제품을 부착할 때에는 반드시 확실한 유지, 고정(작동 포함)을 해 주십시오.
   제품의 쓰러짐, 낙하, 이상작동으로 다칠 우려가 있습니다.
3. 제품을 습기, 기름기 등이 있는 장소에서는 사용하지 마십시오.
4. 비상정지, 정전 등 시스템의 이상시에 기계가 정지할 경우, 장치의 파손, 인체사고 등이 발생하지 않도록 장치를 설계해 주십시오.
5. 액츄에이터, 컨트롤러는 반드시 D종 접지공사 (구 제3종 접지공사, 접지저항 100Ω이하)를 해 주십시오.
   (감전과 오작동의 우려가 있습니다.)
6. 제품에 전기를 공급하기 전 및 운전 전에는 반드시 기기의 작동범위의 안전확인을 해 주십시오.
7. 물이 묻을 수 있는 장소나 부식가스, 인화성 가스가 있는 장소에서는 절대로 사용하지 마십시오.
   감전이나 화재의 우려가 있습니다.
8. 직사광선(자외선)이 드는 장소, 염해의 환경, 다습한 환경, 유기용제와 린산 에스테르계 작동유가 포함되어 있는 환경에서는 사용하지 마십시오.
9. 제품을 장착할 때에는 보수작업이 가능하도록 공간을 확보해 주십시오.
10. 제품의 운반, 장착 시에는 리프트와 지지대로 확실히 지지하는 등 안전에 주의하여 주십시오.
11. 기계장치 등의 작동부는 사람이 직접 만질 수 없도록 보호커버 등을 설치해 주십시오.
12. 장치를 운전할 때에는 언제든 비상정지가 가능하도록 배려해 주십시오.
13. 제품에 시계나 자기카드, 플로피 디스크, 측정기 등을 접근시키지 마십시오.
    자기로 인해 오작동, 고장의 원인이 됩니다.
14. 제품을 수직으로 부착하여 사용할 경우, 반드시 당사에 문의하여 주십시오.
15. 액츄에이터, 컨트롤러의 설치에 있어서는 아래의 조건을 만족하는 환경을 만들어 주십시오.
    - 직사광선이 비치지 않는 곳
    - 큰 열원에서 복사열이 기계본체에 미치지 않을 것
    - 주위온도는 0~40℃
    - 습도 85%이하, 결로가 없을 것
    - 부식성 가스, 가연성 가스가 없을 것
    - 먼지, 쓰레기, 금속가루 등이 적을 것
    - 오일미스트, 절삭액이 묻지 않을 것
    - 심각한 전자파, 자외선, 방사선이 없을 것
    - 본 제품은 내약품성을 고려하지 않습니다.



⚠ SAFETY PRECAUTIONS 안전상의 주의

Peruse this safety precautions to ensure the correct use of the product before installing, operating, maintaining or inspection of this product.

The safety precautions provided below are intended to prevent clients safety and/or malfunction by making sure the product is used correctly and safely.

The product in catalogue is a general industrial equipment.

Also keep in mind that these tasks must be performed by individuals who possess sufficient knowledge of the applicable equipment and safe operation thereof.

Please decide after examine enough in selecting of product.

Alpha Robotics Co.,ltd. shall not be liable whatsoever for any loss or damage arising from a failure to observe the items specified in safety precautions and instructions.

기종선정 및 제품의 사용전에는 '안전상의 주의'를 모두 숙독하신 후 바르게 사용해 주십시오.

아래의 주의사항은 제품을 안전하고 바르게 사용하여 고객의 '위험'과 '고장'을 미연에 방지하기 위함입니다.

카달로그에 기재된 제품은 일반산업기기입니다.

기기의 선정 및 취급에 있어서는, 충분한 지식과 경험을 가진 자가 반드시 취급설명서를 완전히 숙독한 후 사용해 주십시오.

제품의 채용에 있어서는 고객께서 충분히 검토하신 후에 판단해 주십시오.

제품의 보증범위는 당사 제품 단품에 한하며, 또한 카다로그와 취급설명서에 따라 바르게 사용하지 않으므로 해서 발생되어진 사고 등에 대해서는 일체의 책임을 지지 않습니다.

*Do not use this product for the following applications;

1. Medical equipments used to maintain, control of human body and human life
2. Machinery and mechanisms designed for the purpose of transporting or moving people
3. Machinery's important safety parts

*Do not use the product outside the specifictions.
Using the product outside the specifications may cause it to fail, stop functioning or sustain.
It may also significantly reduce the service life of the product.
In particular, observe the maximum loading capacity and speed.

*Please do not hesitate to contact our sales office with any enquiry you might have.

*Electronic medical equipments can do malfunction.

*아래의 용도에 사용하지 마십시오.

1. 인명 및 신체의 유지, 관리 등에 관계된 의료기구
2. 사람의 이동,반송을 위한 기구, 기계장치
3. 기타 인명에 영향을 주는 장치

*반드시 제품의 사양범위 내에서 사용하십시오.

*제품에 관한 문의에 있어서는 당사에 문의 바랍니다.

*전자의료기기를 가진 분은 리니어 서보모터의 고정자에 접근하지 마십시오.
전자의료기기가 오작동할 우려가 있습니다.



⚠ OPERATION 운전

*While the product is standing by or operating, do not in and out the machine's range of operation. It may resulting in injury.

*Turn off the power to the product in the event of power failure. Failure to do so may cause the product to suddenly start moving when the power is restored. Thus resulting in injury or product damage.

*Do not scratch the cables.
Pinching a cable may cause it to leak current or lose continuity or pulling, winding, scratching, crushing, forcibly bending with heavy object, it may resulting in electronic shock, fire.

*If the strange smell, noise or generation of heat, emitting smoke is detected, stop the operation immediately.

*Turn off the power immediately, if any of the internal protective devices(alarms) of the product has actuated.

*Do not step on the product and do not put the object on the product and do not put the finger or object into the product.

*Secure the safety by wearing the safety footwear, protective goggles, protective gloves when treat the product.

*장치의 운전중 또는 작동가능한 상태에서는 기계 작동범위에 접근하지 마십시오.

*정전시에는 우선 전원을 차단해 주십시오. 정전복구 시 장치가 갑자기 움직여서 부상, 제품파손의 원인이 됩니다.

*케이블에 흠집을 내거나, 무리하게 굽히거나, 당기거나, 감거나, 무거운 것을 올리거나, 끼워넣으면 누전과 전류불량으로 화재와 감전, 이상작동 등의 원인이 됩니다.

*제품에서 이상한 소리나 냄새, 발열, 발연이 있을 때에는 즉시 전원을 꺼 주십시오.

*제품의 보호장치(알람)가 작동했을 경우에는 즉시 전원을 꺼 주십시오.
(제품의 이상동작으로 부상, 제품의 파손. 손상의 가능성이 있습니다.)

*제품 위로 올라가거나, 물건을 올리거나, 제품의 입구부에 손가락이나 물건을 넣지 마십시오.

*제품을 취급할 때에는 필요에 따라 보호장갑, 보호안경, 안전화 등을 착용하여 안전을 확보하십시오.

⚠ MAINTENANCE, INSPECTION, REPAIR 보수, 점검, 수리

*Never rebuild the product.

*Completely shut down the power supply, before conducting maintenance, inspection, parts replacement or other operations on the product.

*제품은 절대 개조하지 마십시오.

*보수점검, 정비 또는 교환 등의 각종 작업은 반드시 전원을 차단한 후 진행하여 주십시오.

⚠ DISPOSAL 폐기

*Dispose of it properly as an industrial waste, when the product becomes no longer usable or necessary.

*제품을 폐기할 경우에는 산업폐기물로서 취급하여 주십시오.



ALPHA LINEAR ROBOT SPECIFICATION TABLE



LINEAR SPECIFICATIONS

	Product		Rated Force	Peak Force	Max. Load	Max. Speed
			N	N	50 100 150 200 250 kg	mm/s
ALR SERIES	140	A008	25	86	1 ~ 40	250 ~ 2500
		A012	40	125	3 ~ 65	250 ~ 2500
	160	A008	25	86	1 ~ 40	250 ~ 2500
		A012	40	125	3 ~ 65	250 ~ 2500
		A022	80	220	9 ~ 80	250 ~ 2500
		A044	160	440	20 ~ 80	250 ~ 2500
	180	A008	25	86	1 ~ 30	250 ~ 2500
		A012	40	125	1 ~ 56	250 ~ 2500
		A022	80	220	7 ~ 100	250 ~ 2500
		A044	160	440	19 ~ 100	250 ~ 2500
	230	A022	80	220	4 ~ 105	250 ~ 2500
		A044	160	440	16 ~ 150	250 ~ 2500
		A060	280	600	28 ~ 150	250 ~ 2500
		A120	560	1200	60 ~ 150	250 ~ 2500
	300	A120	560	1200	61 ~ 200	250 ~ 2500
		A240	1120	2400	129 ~ 200	250 ~ 2500



PRO GRAM | mm | mm/s | kg

Resolution	Max. Acceleration	Max. Stroke								Page No.
㎛	G	1000	1500	2000	2500	3000	3500	20000	mm	
0.1 ~ 40	2.5								1000	A20.1 ~ 3
0.1 ~ 40	2.5								1000	A20.4 ~ 6
0.1 ~ 40	2.5								1500	A21.1 ~ 3
0.1 ~ 40	2.5								1500	A21.4 ~ 6
0.1 ~ 40	2.5								1500	A21.7 ~ 9
0.1 ~ 40	2.5								1500	A21.10 ~ 12
0.1 ~ 40	2.5								2000	S : A22.1 ~ 3 H : A25.1 ~ 3
0.1 ~ 40	2.5								2000	S : A22.4 ~ 6 H : A25.4 ~ 6
0.1 ~ 40	2.5								2000	S : A22.7 ~ 9 H : A25.7 ~ 9
0.1 ~ 40	2.5								2000	S : A22.10 ~ 12 H : A25.10 ~ 12
0.1 ~ 40	2.5								2500	S : A23.1 ~ 3 H : A26.1 ~ 3
0.1 ~ 40	2.5								2500	S : A23.4 ~ 6 H : A26.4 ~ 6
0.1 ~ 40	2.5								2500	S : A23.7 ~ 9 H : A26.7 ~ 9
0.1 ~ 40	2.5								2500	S : A23.10 ~ 12 H : A26.10 ~ 12
0.1 ~ 40	2.5								3000	S : A24.1 ~ 3 H : A27.1 ~ 3
0.1 ~ 40	2.5								3000	S : A24.4 ~ 6 H : A27.4 ~ 6



ALPHA LINEAR ROBOT SPECIFICATION TABLE



LINEAR SPECIFICATIONS

Product			Rated Force N	Peak Force N	Max. Load 50 100 150 200 250 kg	Max. Speed mm/s
ALS SERIES	250	A022	80	220	2 ~115	250 ~ 2500
		A044	160	440	13 ~150	250 ~ 2500
	280	A060	280	600	23 ~200	250 ~ 2500
		A120	560	1200	50 ~200	250 ~ 2500
	320	A120	560	1200	54 ~250	250 ~ 2500
		A240	1120	2400	124 ~250	250 ~ 2500
ALG SERIES	180	A008	25	86	1 ~ 30	250 ~ 2500
		A012	40	125	2 ~ 56	250 ~ 2500
		A022	80	220	8 ~100	250 ~ 2500
		A044	160	440	20 ~100	250 ~ 2500
	230	A022	80	220	4 ~105	250 ~ 2500
		A044	160	440	16 ~150	250 ~ 2500
		A060	280	600	28 ~150	250 ~ 2500
		A044	560	1200	60 ~150	250 ~ 2500
ALD SERIES	180	A008	25	86	1 ~ 30	250 ~ 2500
		A012	40	125	2 ~ 56	250 ~ 2500
		A022	80	220	8 ~100	250 ~ 2500
		A044	160	440	20 ~100	250 ~ 2500
	230	A022	80	220	4 ~105	250 ~ 2500
		A044	160	440	16 ~150	250 ~ 2500
		A060	280	600	28 ~150	250 ~ 2500
		A044	560	1200	60 ~150	250 ~ 2500



PRO GRAM | mm | mm/s | kg

Resolution	Max. Acceleration	Max. Stroke		Page No.
μm	G	1000 1500 2000 2500 3000 3500 20000	mm	
0.1 ~ 40	2.5		20000	A30.1 ~ 3
0.1 ~ 40	2.5		20000	A30.4 ~ 6
0.1 ~ 40	2.5		20000	A31.1 ~ 3
0.1 ~ 40	2.5		20000	A31.4 ~ 6
0.1 ~ 40	2.5		20000	A32.1 ~ 3
0.1 ~ 40	2.5		20000	A32.4 ~ 6
0.1 ~ 40	2.5		2500	S : A40.1 ~ 2 H : A42.1 ~ 2
0.1 ~ 40	2.5		2500	S : A40.3 ~ 4 H : A42.3 ~ 4
0.1 ~ 40	2.5		2500	S : A40.5 ~ 6 H : A42.5 ~ 6
0.1 ~ 40	2.5		2500	S : A40.7 ~ 8 H : A42.7 ~ 8
0.1 ~ 40	2.5		3000	S : A41.1 ~ 2 H : A43.1 ~ 2
0.1 ~ 40	2.5		3000	S : A41.3 ~ 4 H : A43.3 ~ 4
0.1 ~ 40	2.5		3000	S : A41.5 ~ 6 H : A43.5 ~ 6
0.1 ~ 40	2.5		3000	S : A41.7 ~ 8 H : A43.7 ~ 8
0.1 ~ 40	2.5		2500	S : A50.1 ~ 2 H : A52.1 ~ 2
0.1 ~ 40	2.5		2500	S : A50.3 ~ 4 H : A52.3 ~ 4
0.1 ~ 40	2.5		2500	S : A50.5 ~ 6 H : A52.5 ~ 6
0.1 ~ 40	2.5		2500	S : A50.7 ~ 8 H : A52.7 ~ 8
0.1 ~ 40	2.5		3000	S : A51.1 ~ 2 H : A53.1 ~ 2
0.1 ~ 40	2.5		3000	S : A51.3 ~ 4 H : A53.3 ~ 4
0.1 ~ 40	2.5		3000	S : A51.5 ~ 6 H : A53.5 ~ 6
0.1 ~ 40	2.5		3000	S : A51.7 ~ 8 H : A53.7 ~ 8



ALPHA LINEAR ROBOT SPECIFICATION TABLE



LINEAR SPECIFICATIONS

Product			Rated Force N	Peak Force N	Max. Load 50 100 150 200 250 kg	Max. Speed mm/s
ALXS SERIES	180T	B014	47	140	2 ~ 88	250 ~ 2500
		B028	93	280	11 ~ 100	250 ~ 2500
		B042	140	420	17 ~ 100	250 ~ 2500
	230T	B022	73	220	7 ~ 140	250 ~ 2500
		B044	147	440	20 ~ 150	250 ~ 2500
		B066	220	660	30 ~ 150	250 ~ 2500
	300T	B130	325	1300	84 ~ 200	250 ~ 2500
		B220	550	2200	138 ~ 200	250 ~ 2500
		B300	750	3000	170 ~ 200	250 ~ 2500
ALXG SERIES	180T	B014	47	140	2 ~ 88	250 ~ 2500
		B028	93	280	11 ~ 100	250 ~ 2500
		B042	140	420	17 ~ 100	250 ~ 2500
	230T	B022	73	220	7 ~ 140	250 ~ 2500
		B044	147	440	20 ~ 150	250 ~ 2500
		B066	220	660	30 ~ 150	250 ~ 2500
ALXD SERIES	180T	B014	47	140	2 ~ 88	250 ~ 2500
		B028	93	280	11 ~ 100	250 ~ 2500
		B042	140	420	17 ~ 100	250 ~ 2500
	230T	B022	73	220	7 ~ 140	250 ~ 2500
		B044	147	440	20 ~ 150	250 ~ 2500
		B066	220	660	30 ~ 150	250 ~ 2500



PRO GRAM | mm | mm/s | kg

Resolution	Max. Acceleration	Max. Stroke		Page No.
㎛	G	1000 1500 2000 2500 3000 3500 20000	mm	
0.1 ~ 40	2.5		20000	A60.1 ~ 3
0.1 ~ 40	2.5		20000	A60.4 ~ 6
0.1 ~ 40	2.5		20000	A60.7 ~ 9
0.1 ~ 40	2.5		20000	A61.1 ~ 3
0.1 ~ 40	2.5		20000	A61.4 ~ 6
0.1 ~ 40	2.5		20000	A61.7 ~ 9
0.1 ~ 40	2.5		20000	A62.1 ~ 3
0.1 ~ 40	2.5		20000	A62.4 ~ 6
0.1 ~ 40	2.5		20000	A62.7 ~ 9
0.1 ~ 40	2.5		2500	A63.1 ~ 2
0.1 ~ 40	2.5		2500	A63.3 ~ 4
0.1 ~ 40	2.5		2500	A63.5 ~ 6
0.1 ~ 40	2.5		3000	A64.1 ~ 2
0.1 ~ 40	2.5		3000	A64.3 ~ 4
0.1 ~ 40	2.5		3000	A64.5 ~ 6
0.1 ~ 40	2.5		2000	A65.1 ~ 2
0.1 ~ 40	2.5		2000	A65.3 ~ 4
0.1 ~ 40	2.5		2000	A65.5 ~ 6
0.1 ~ 40	2.5		2500	A66.1 ~ 2
0.1 ~ 40	2.5		2500	A66.3 ~ 4
0.1 ~ 40	2.5		2500	A66.5 ~ 6



ALPHA LINEAR ROBOT SPECIFICATION TABLE



MOTOR SELECTION

MOTOR SELECTION

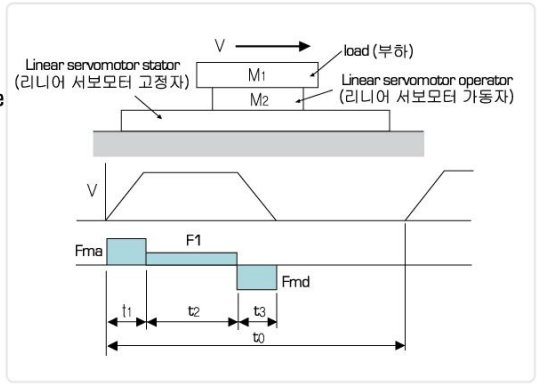
Effective thrust and acceleration, need maximum thrust at deceleration are calculated by using conditions of unit, driving pattern.

장치의 사용조건, 운전패턴으로 유효추력 및 가속, 감속시의 필요최대추력을 산출합니다.

COMPONENTS



- M_1 : Load weight 부하질량(kg)
- M_2 : Linear servomotor operator weight
  리니어 서보모터 가동자 질량(kg)
- a : Acceleration during accelerate and decelerate
  가·감속시의 가속도(m/s^2)
- Ff : Load(friction, unbalance, including cable bear)
  부하력(N)(마찰, 불균형, 케이블베어 포함)
- V : Speed (이송속도(m/s))
- t_0 : 1 cycle time (1사이클시간(s))
- t_1 : Acceleration time (가속시간(s))
- t_2 : Uniform Velocity time (등속시간(s))
- t_3 : Deceleration time (감속시간(s))
- η : Efficiency of mechanical system (기계의 효율)
- μ : Friction coefficient (마찰계수)



SELECTION METHOD



TEMPORARY SELECTION OF SERVOMOTOR

Temporary select Linear servomotor operator and Linear servomotor within 15 times in load weight from Linear servomotor series according to usage and machine.

사용용도, 기계에 맞는 리니어 서보모터의 시리즈부터, 리니어 서보모터 가동자와 부하 질량비가 15배 이내가 되는 서보모터를 가선정합니다.

15배 $\geqq M_1/M_2$

CALCULATING REQUIRED THRUST

① Load (부하)

$M = M_1 + M_2$[kg]

Ff = μ·(M·9.8+self-suction force) [N] (considering friction only)
(자기흡인력) (마찰만 고려한 경우)

② Accelerated thrust, decelerated thrust (가속시추력, 감속시추력)

$Fma = M \cdot a + Ff$ [N]

$Fmd = -M \cdot a + Ff$ [N]

③ Sequential efficiency, effective thrust (실효추력)

$$Frms = \sqrt{(Fma^2 \cdot t_1 + Ff^2 \cdot t_2 + Fmd^2 \cdot t_3)/t_0}$$

JUDGEMENT OF SELECTED MOTOR

For Frms/η ≦, use 60% of motor rated thrust.
For Frms/η ≧, use 80% of motor Max. thrust.

If the judgement result does not satisfy above formula, increase capacity of servomotor and recalculate.

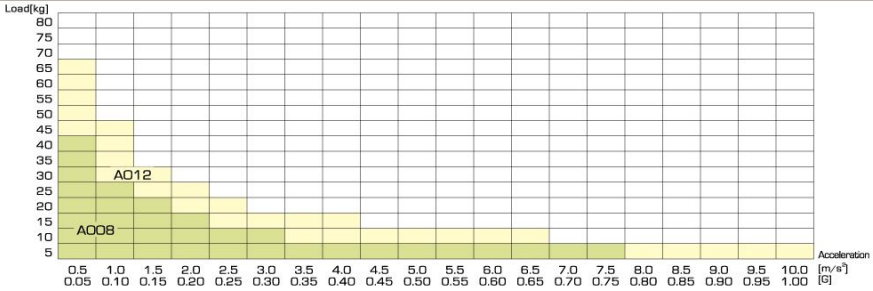
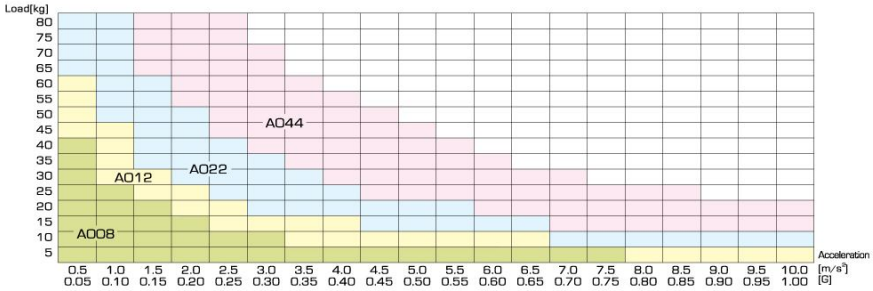
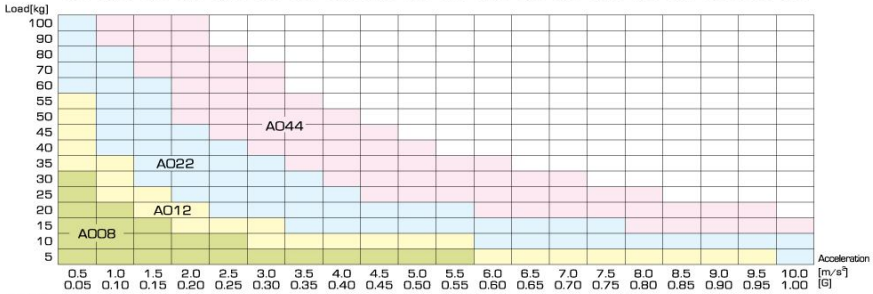
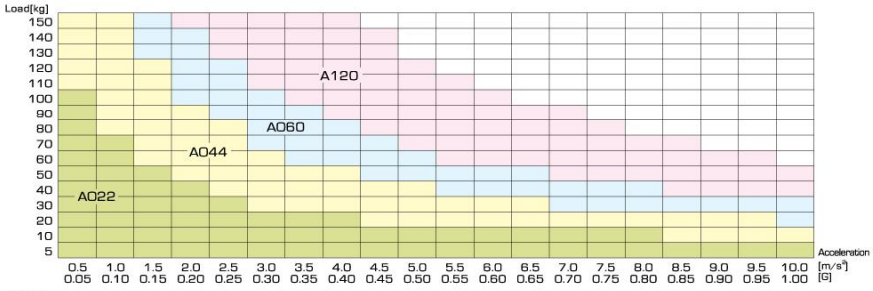
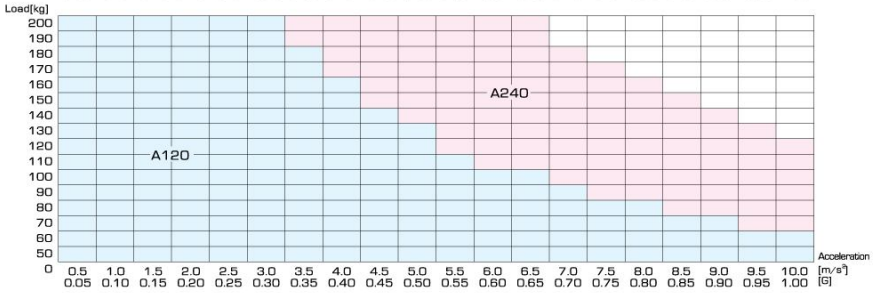
Frms/N≤경우는 선정 모터의 정격추력(N)의 60%
Frms/N≥경우는 모터의 최대추력(N)의 80%

판정결과, 위 식을 충족하지 못할 경우에는 리니어 서보모터 용량을 한단계 올려서 재계산합니다.



SELECTION TABLE

PRO GRAM | mm | mm/s | kg

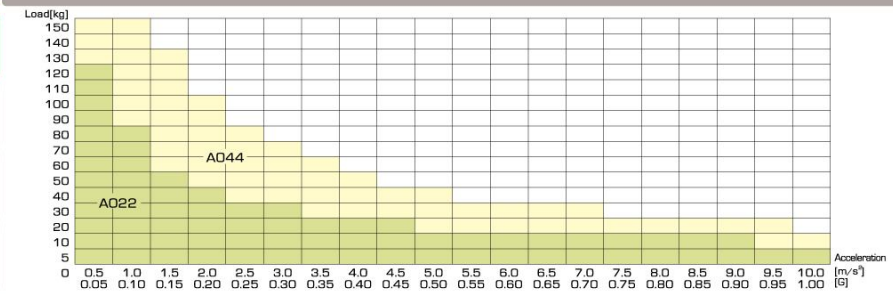
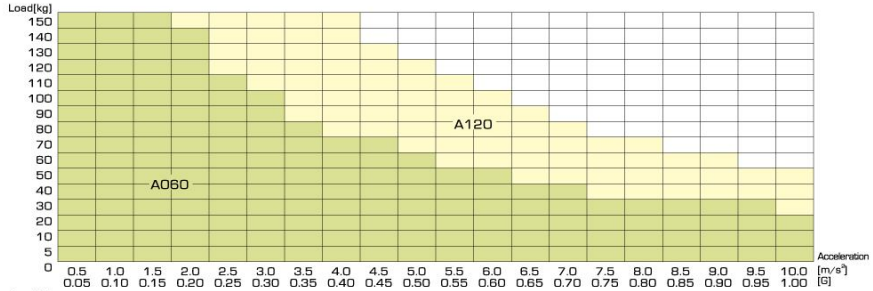
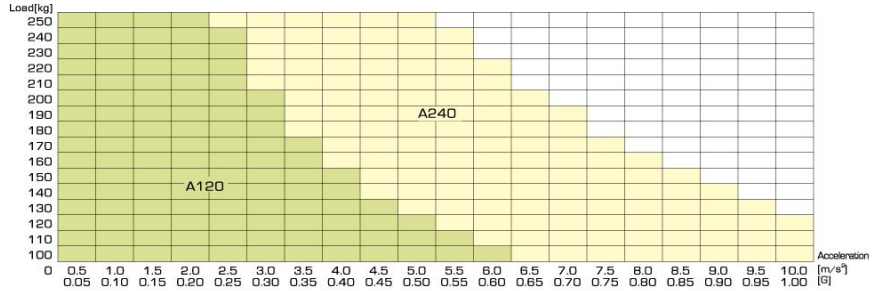
Product		Max. Load & Acceleration(G)	Page No.
140	ALR140-S		A20.1
160	ALR160-S		A21.1
180	ALR180-S,H		A22.1, 25.1
	ALG180-S,H		A40.1, 42.1
	ALD180-S,H		A50.1, 52.1
230	ALR230-S,H		A23.1, 26.1
	ALG230-S,H		A41.1, 43.1
	ALD230-S,H		A51.1, 53.1
300	ALR300-S,H		A24.1, 27.1



ALPHA LINEAR ROBOT SELECTION TABLE



SELECTION TABLE

Product		Max. Load & Acceleration(G)	Page No.
250	ALS250-H		A30.1
280	ALS280-H		A31.1
320	ALS320-H		A32.1





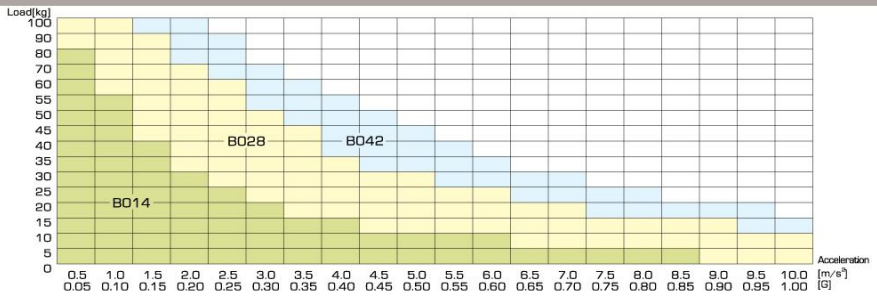
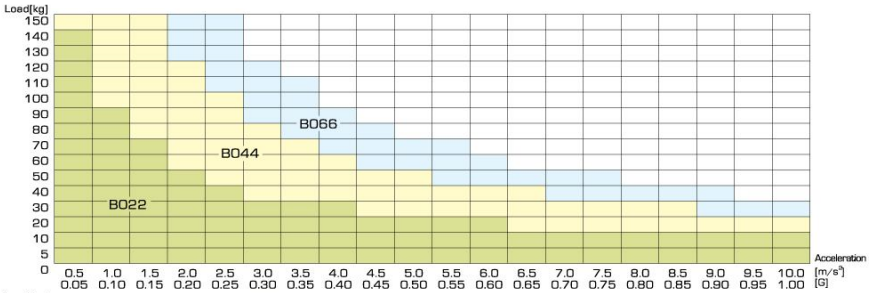
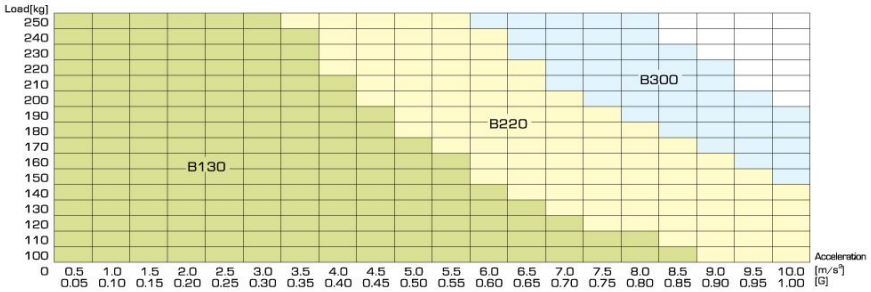








PRO GRAM | mm | mm/s | kg

Product		Max. Load & Acceleration(G)	Page No.
180T	ALXS180-T		A60.1
	ALXG180-T		A63.1
	ALXD180-T		A65.1
230T	ALXS230-T		A61.1
	ALXG230-T		A64.1
	ALXD230-T		A66.1
300T	ALXS300-T		A62.1

ALS SERIES H 3



ALG SERIES S-H 1



ALG SERIES S-H 2



ALD SERIES S-H 1



ALD SERIES S-H 2



ORDER INFORMATION

A Standard

ALR140	-	1	S1	-	STROKE	-	A008	-	C	-	A001
1		2	3		4		5		6		7



B Options

I	-	H	L	A	55	-	W	-	N	-	F00
1		2	3	4	5		6		7		8









1 SERIES
2 SLIDE TABLE
3 SLIDE TABLE TYPE
4 STROKE (mm)
5 PEAK FORCE
6 ENCODER
7 ENCODER RESOLUTION
1 SENSOR
2 3 4 5 CABLEVEYOR
6 COLOR OF ROBOT
7 SURFACE TREATMENT
8 CABLE LENGTH

ALR SERIES — ALPHA Standard Linear Robot



ALS SERIES — ALPHA Super Linear Robot



ALG SERIES — ALPHA Gantry Linear Robot



ALD SERIES — ALPHA Double Linear Robot



ALXS SERIES — ALPHA Coreless Linear Robot - Super



ALXG SERIES — ALPHA Coreless Linear Robot - Gantry



ALXD SERIES — ALPHA Coreless Linear Robot - Double



1 One Slide Table (Standard) **2** Two Slide Table (Standard) **3** Three Slide Table **4** Four Slide Table

* Custom made available(5, 6, 7 Slide Table)

S1 Standard Normal Type
H1 Parting Normal Type
T1 Coreless Normal Type



S2 Standard Plane Type
H2 Parting Plane Type
T2 Coreless Plane Type



S3 Standard Baffle Type
H3 Parting Baffle Type
T3 Coreless Baffle Type





A008 86N **A012** 125N **A022** 220N **A044** 440N **A060** 600N **A120** 1200N **A240** 2400N
B014 140N **B022** 220N **B028** 280N **B042** 420N **B044** 440N **B066** 660N **B130** 1300N
B220 2200N **B300** 3000N

C Incremental (Standard) **A** Absolute

(Analog output 1 Vpp differential)

* Please see the catalogue A10.15 for more information of resolution.
* Please consult our head office and agents when super precision-grade is used for stage.

Analog	A001 0.1㎛	A005 0.5㎛	A200 0.078 (20㎛/256)	A400 0.156 (40㎛/256)
Digital	D001 0.1㎛	D005 0.5㎛	D010 1.0㎛	D050 5.0㎛

I Internal Sensor (Standard) **E** External Sensor

* Please see the catalogue A10.15 for more information of sensor.

2 Attaching Type
N None **H** Horizontal **W** Wall Hanging **R** Rear **D** Double

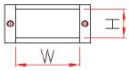





3 Cableveyor direction
L Left (Standard) **R** Right

5 The radius of curvature (mm)
55 R55 **75** R75 **95** R95 **100** R100

4 Cableveyor selection (Hmm × Wmm)



IGUS : **A** 29×40 **B** 29×60 **C** 29×80 **D** 29×100
TSUBAKI : **E** 28×40 **F** 28×60 **G** 28×80 **H** 28×100

* Please see the catalogue A10.16 for more information of cableveyor.

W White (Standard) **B** Black Anodizing

N Surface Treatment (Standard) **R** Raydent Surface Treatment (LM Rail)

Flexible Cable
F00 None **F03** 3m **F05** 5m **F07** 7m **F10** 10m

* Please do not hesitate to contact us when the cable is applied more than 10m.

A ORDER INFORMATION - STANDARD

4 Stroke (mm)

Below data value is one slide standard

SERIES			STANDARD STROKE														
ALR	140	A008	480	690	800	910											
		A012	480	690	800	910											
	160	A008	460	560	670	780	890	1000	1100	1210	1320	1430					
		A012	460	560	670	780	890	1000	1100	1210	1320	1430					
		A022	450	670	780	890	990	1100	1210	1320	1430						
		A044	350	570	680	790	890	1000	1110	1220	1330	1430					
	180	A008	450	660	770	880	990	1090	1200	1310	1420	1530	1630	1740	1850	1960	
		A012	450	660	770	880	990	1090	1200	1310	1420	1530	1630	1740	1850	1960	
		A022	430	650	760	870	970	1080	1190	1300	1410	1510	1620	1730	1840	1950	
		A044	350	570	680	790	890	1000	1110	1220	1330	1430	1540	1650	1760	1870	1970
	230	A022	410	630	740	850	950	1060	1170	1280	1390	1490	1600	1710	1820	1930	2030
		A044	350	570	680	790	890	1000	1110	1220	1330	1430	1540	1650	1760	1870	1970
		A060	550	820	960	1090	1230	1360	1500	1630	1770	1900	2040	2170	2310	2440	
		A120	370	640	780	910	1050	1180	1320	1450	1590	1720	1860	1990	2130	2260	2400
	300	A120	510	780	910	1050	1180	1320	1450	1590	1720	1860	1990	2130	2260	2400	2530
		A240	370	640	770	910	1040	1180	1310	1450	1580	1720	1850	1990	2120	2260	2390
ALS	250	A022	410	630	740	850	950	1060	1170	1280	1390	1490	1600	1710	1820	1930	2030
		A044	350	570	680	790	890	1000	1110	1220	1330	1430	1540	1650	1760	1870	1970
	280	A060	550	820	960	1090	1230	1360	1500	1630	1770	1900	2040	2170	2310	2440	2580
		A120	640	780	910	1050	1180	1320	1450	1590	1720	1860	1990	2130	2260	2400	2530
	320	A120	510	780	910	1050	1180	1320	1450	1590	1720	1860	1990	2130	2260	2400	2530
		A240	640	770	910	1040	1180	1310	1450	1580	1720	1850	1990	2120	2260	2390	2530
ALG	180	A008	450	660	770	880	990	1090	1200	1310	1420	1530	1630	1740	1850	1960	2070
		A012	450	660	770	880	990	1090	1200	1310	1420	1530	1630	1740	1850	1960	2070
		A022	430	650	760	870	970	1080	1190	1300	1410	1510	1620	1730	1840	1950	2050
		A044	350	570	680	790	890	1000	1110	1220	1330	1430	1540	1650	1760	1870	1970
	230	A022	410	630	740	850	950	1060	1170	1280	1390	1490	1600	1710	1820	1930	2030
		A044	350	570	680	790	890	1000	1110	1220	1330	1430	1540	1650	1760	1870	1970
		A060	550	820	960	1090	1230	1360	1500	1630	1770	1900	2040	2170	2310	2440	2580
		A120	370	640	780	910	1050	1180	1320	1450	1590	1720	1860	1990	2130	2260	2400
ALD	180	A008	450	660	770	880	990	1090	1200	1310	1420	1530	1630	1740	1850	1960	2070
		A012	450	660	770	880	990	1090	1200	1310	1420	1530	1630	1740	1850	1960	2070
		A022	430	650	760	870	970	1080	1190	1300	1410	1510	1620	1730	1840	1950	2050
		A044	350	570	680	790	890	1000	1110	1220	1330	1430	1540	1650	1760	1870	1970
	230	A022	410	630	740	850	950	1060	1170	1280	1390	1490	1600	1710	1820	1930	2030
		A044	350	570	680	790	890	1000	1110	1220	1330	1430	1540	1650	1760	1870	1970
		A060	550	820	960	1090	1230	1360	1500	1630	1770	1900	2040	2170	2310	2440	2580
		A120	370	640	780	910	1050	1180	1320	1450	1590	1720	1860	1990	2130	2260	2400
ALXS	180	B014	140	230	320	410	500	590	680	770	860	950	1040	1130	1220	1310	1400
		B028	150	240	330	420	510	600	690	780	870	960	1050	1140	1230	1320	1410
		B028	120	210	300	390	480	570	660	750	840	930	1020	1110	1200	1290	1380
	230	B022	140	230	320	410	500	590	680	770	860	950	1040	1130	1220	1310	1400
		B044	150	240	330	420	510	600	690	780	870	960	1050	1140	1230	1320	1410
		B066	120	210	300	390	480	570	660	750	840	930	1020	1110	1200	1290	1380
	300	B130	470	720	980	1230	1480	1730	1980	2240	2490	2740	2990	3240	3500	3750	4000
		B220	330	580	840	1090	1340	1590	1840	2100	2350	2600	2850	3100	3360	3610	3860
		B300	190	440	700	950	1200	1450	1700	1960	2210	2460	2710	2960	3220	3470	3720
ALXG	180	B014	140	230	320	410	500	590	680	770	860	950	1040	1130	1220	1310	1400
		B028	150	240	330	420	510	600	690	780	870	960	1050	1140	1230	1320	1410
		B028	120	210	300	390	480	570	660	750	840	930	1020	1110	1200	1290	1380
	230	B022	140	230	320	410	500	590	680	770	860	950	1040	1130	1220	1310	1400
		B044	150	240	330	420	510	600	690	780	870	960	1050	1140	1230	1320	1410
		B066	120	210	300	390	480	570	660	750	840	930	1020	1110	1200	1290	1380
ALXD	180	B014	140	230	320	410	500	590	680	770	860	950	1040	1130	1220	1310	1400
		B028	150	240	330	420	510	600	690	780	870	960	1050	1140	1230	1320	1410
		B028	120	210	300	390	480	570	660	750	840	930	1020	1110	1200	1290	1380
	230	B022	140	230	320	410	500	590	680	770	860	950	1040	1130	1220	1310	1400
		B044	150	240	330	420	510	600	690	780	870	960	1050	1140	1230	1320	1410
		B066	120	210	300	390	480	570	660	750	840	930	1020	1110	1200	1290	1380

4 Stroke (mm)

* 아래의 데이타값은 원슬라이드 기준입니다.

STANDARD STROKE																	
2140	2250	2360	2470														
2080	2190	2300	2410														
2670	2800	2940															
2530	2660	2800	2930														
2140	2250	2360	2470	2570	2680	2790	2900	3010	3110	3220	3330	3440	3550	3650	3760	3870	3980
2080	2190	2300	2410	2510	2620	2730	2840	2950	3050	3160	3270	3380	3490	3590	3700	3810	3920
2710	2850	2980	3120	3250	3390	3520	3660	3790	3930								
2670	2800	2940	3070	3210	3340	3480	3610	3750	3880								
2670	2800	2940	3070	3210	3340	3480	3610	3750	3880								
2660	2800	2930	3070	3200	3340	3470	3610	3740	3880								
2170	2280	2390	2500														
2170	2280	2390	2500														
2160	2270	2380	2490														
2080	2190	2300	2410														
2140	2250	2360	2470	2570	2680	2790	2900										
2080	2190	2300	2410	2510	2620	2730	2840	2950									
2710	2850	2980															
2530	2670	2800	2940														
2170	2280	2390	2500														
2170	2280	2390	2500														
2160	2270	2380	2490														
2080	2190	2300	2410														
2140	2250	2360	2470	2570	2680	2790	2900										
2080	2190	2300	2410	2510	2620	2730	2840	2950									
2710	2850	2980															
2530	2670	2800	2940														
1490	1580	1670	1760	1850	1940	2030	2120	2210	2300	2390	2480	2570	2660	2750	2840	2930	3020
1500	1590	1680	1770	1860	1950	2040	2130	2220	2310	2400	2490	2580	2670	2760	2850	2940	3030
1470	1560	1650	1740	1830	1920	2010	2100	2190	2280	2370	2460	2550	2640	2730	2820	2910	3000
1490	1580	1670	1760	1850	1940	2030	2120	2210	2300	2390	2480	2570	2660	2750	2840	2930	3020
1500	1590	1680	1770	1860	1950	2040	2130	2220	2310	2400	2490	2580	2670	2760	2850	2940	3030
1470	1560	1650	1740	1830	1920	2010	2100	2190	2280	2370	2460	2550	2640	2730	2820	2910	3000
3240	3500	3750	4000														
3100	3360	3610	3860														
3970	3220	3470	3720	3970													
1490	1580	1670	1760	1850	1940	2030	2120	2210	2300	2390	2480						
1500	1590	1680	1770	1860	1950	2040	2130	2220	2310	2400	2490						
1470	1560	1650	1740	1830	1920	2010	2100	2190	2280	2370	2460						
1490	1580	1670	1760	1850	1940	2030	2120	2210	2300	2390	2480	2570	2660	2750	2840	2930	
1500	1590	1680	1770	1860	1950	2040	2130	2220	2310	2400	2490	2580	2670	2760	2850	2940	
1470	1560	1650	1740	1830	1920	2010	2100	2190	2280	2370	2460	2550	2640	2730	2820	2910	3000
1490	1580	1670	1760	1850	1940	2030	2120	2210	2300	2390	2480						
1500	1590	1680	1770	1860	1950	2040	2130	2220	2310	2400	2490						
1470	1560	1650	1740	1830	1920	2010	2100	2190	2280	2370	2460						
1490	1580	1670	1760	1850	1940	2030	2120	2210	2300	2390	2480	2570	2660	2750	2840	2930	
1500	1590	1680	1770	1860	1950	2040	2130	2220	2310	2400	2490	2580	2670	2760	2850	2940	
1470	1560	1650	1740	1830	1920	2010	2100	2190	2280	2370	2460	2550	2640	2730	2820	2910	3000

A ORDER INFORMATION - STANDARD

7 Encoder Resolution

Max. Speed of servo drive by position detectable resolution — Max. Speed (mm/sec)

Selecting Item	Resolution	SERVO DRIVE (YASKAWA) Σ II-SGDH	Σ II-SGDH+ Highspeed Counter	Σ III-SGDS	Σ V-SGDV
A400	40㎛	2500	2500	2500	2500
A200	20㎛	2500	2500	2500	2500
A005	0.5㎛	200	2000	500	2000
A001	0.1㎛	40	400	100	400

Encoder Output Signal	Control Type	Encoder Resolution	Positioning* Repeatability	Max. Stroke	Remarks	
Analog	Incremental	0.156(40㎛/256)	Less than ±5.0㎛	3000mm	Precision	Standard
		0.078(20㎛/256)				
	Absolute	0.5㎛	Less than ±1.0㎛	300mm	Micro stage	Customizing
		0.1㎛				
Digital	Incremental	5㎛	Less than ±5.0㎛	3000mm	Precision	
		1㎛				
	Absolute	0.5㎛	Less than ±1.0㎛	300mm	Micro stage	
		0.1㎛				

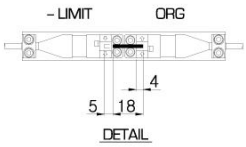
*The value can be changed by ambient temperature.
*The accuracy value can be changed by interpolation.
- Please consult with our head office with special specification product but standard.

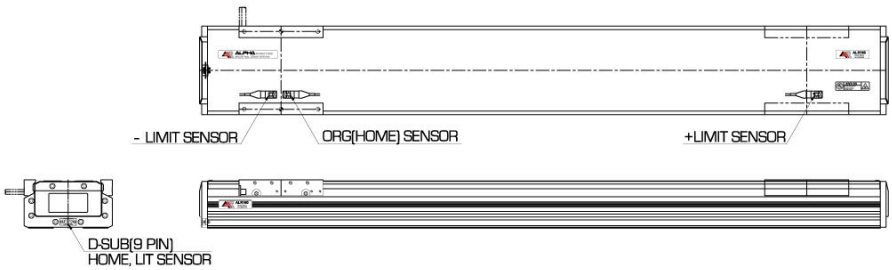
*대기온도에 따라 수치가 바뀝니다.
*체배에 따라 정도수치가 바뀝니다.
-표준 이외의 특수사양은 당사에 문의바랍니다.

B ORDER INFORMATION - OPTIONS

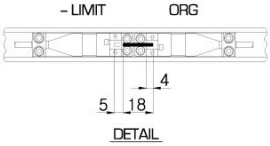
1 Sensor

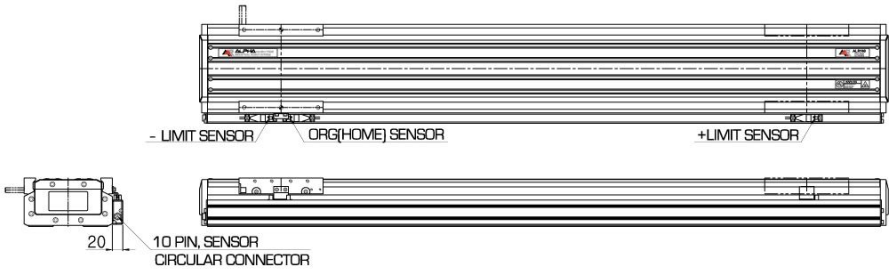
I Internal Sensor (Standard)





E External Sensor





CAUTION

*Standard uses OMRON EE-SX674, please advice to head office or agent when other products are used.
*In case of External Sensor, only DOG and SENSOR(EE-SX674) are attached at our company, and sensor cable is connected at user's side.
*Origin point of sensor is A-point(NO), and LIMIT is B-point(NC)
*ALXS or ALS must with External Sensor type. Internal Sensor type is impossible with reason of the long stroke in case of the robot body is detached.

주의

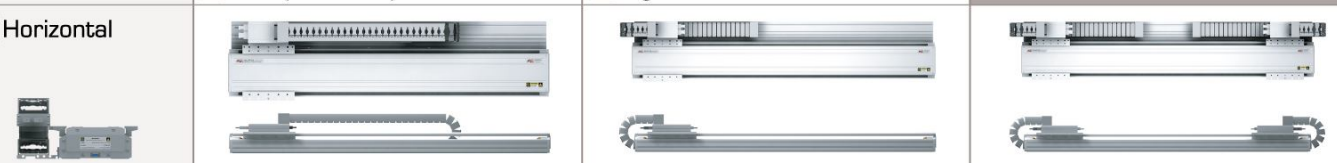
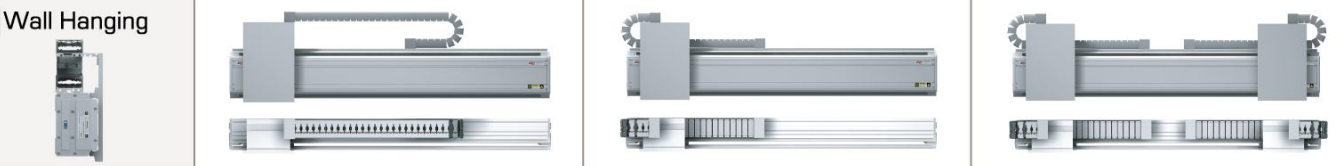
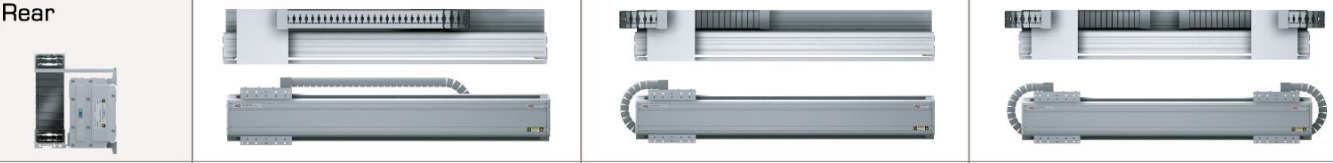
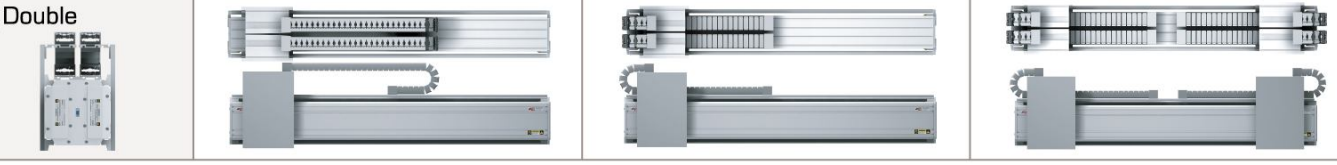
*표준은 OMRON EE-SX674를 사용하므로 타제품을 사용할 경우에는 대리점이나 당사영업부에 문의바랍니다.
*외장센서의 경우는 도그 및 센서(EE-SX674)만 당사에서 부착하므로 센서케이블은 사용자측에서 준비하여 연결합니다.
*센서의 원점(Orgin or Home)은 접점(NO)으로 리미트는 B접점(NC)입니다.
*ALXS 혹은 ALS모델은 긴 스트로크이므로 로봇 바디를 분리할 때에는 내장형센서가 불가능하므로 외장형센서로 해야 합니다.

B ORDER INFORMATION - OPTIONS

2 3 4 5 Cableveyor Selecting Options

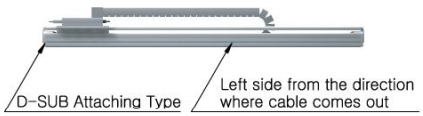
Applicable type	LINEAR ROBOT SERIES						
	ALR	ALS	ALG	ALD	ALXS	ALXG	ALXD
H: Horizontal	●	●	●		●	●	
W: Wall Hanging			●			●	
R: Rear			●			●	
D: Double				●			●

2 | 3

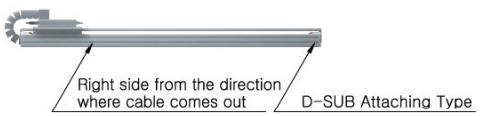
N None NOTE1	One Slide Table		Two Slides Table
	L Left (Standard)	R Right	
H Horizontal			
W Wall Hanging			
R Rear			
D Double			

* D-SUB location subject to Cableveyor direction and where cable comes out.

L Left (Standard)

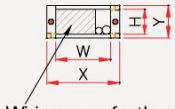


R Right



4 5 * Cableveyor Selecting

Unit: mm



Wiring space for the user (Pic 10-1)

Selecting Item	Internal dimentions H	Internal dimentions W	External dimentions Y	External dimentions X	Radius R	Capacity (mm²) Origin	Capacity (mm²) USER NOTE2	MAKER
A	29	40	35	59.5	55	1160	720	IGUS
B		60		79.5	75	1740	1300	
C		80		99.5	100	2320	1740	
D		100		119.5		2900	2320	

Selecting Item	Internal dimentions H	Internal dimentions W	External dimentions Y	External dimentions X	Radius R	Capacity (mm²) Origin	Capacity (mm²) USER NOTE2	MAKER
E	28	40	35	60	55	1120	700	TSUBAKI
F		60		80	75	1680	1260	
G		80		100	95	2240	1680	
H		100		120		2800	2240	

CAUTION

- *Be sure to install in the direction as specified individually.
- *Installation in any other way will cause a failure.
- *For requirement of installation in any way other than the above standard installation, please consult Head Office and Agent.

NOTE1 In case that cableveyor is not affixed, it does not need to mark cableveyor specification and instead, just mark 'N'(none).

NOTE2 Please examine the floor area ratio from user's capacity.
Please select the floor area ratio by user's using environment, using condition at below 60%

주의

- *반드시 개별적으로 지정한 방향으로 설치해 주십시오.
- *상기 표준 이외의 방법으로 설치하는 것은 고장의 원인이 됩니다.
- *상기 표준 이외의 방법으로 설치할 경우에는 대리점 및 당사에 문의바랍니다.

NOTE1 케이블베어를 장착하지 않을 경우에는 "N"(None)만 표기하고 다른 케이블베어 사양은 표기하지 않습니다.

NOTE2 용적률은 사용자의 용적으로 검토해 주십시오.
용적률은 사용자의 사용환경, 사용조건에 따라 60%이하로 적절히 선정하십시오.

B ORDER INFORMATION - OPTIONS

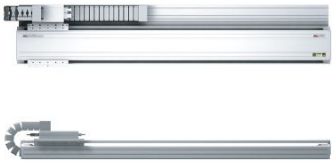
2 H Horizontal Type



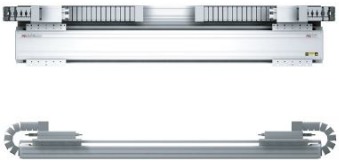
L One Slide Left Type



R One Slide Right Type



Two Slides Type



SERIES	BASE SIZE	CABLEVEYOR		S1		S2		S3		H1		H2		H3	
		Bending radius R	Internal dimentions	A	B	A	B	A	B	A	B	A	B	A	B
ALR	140	R055	60	168	98	168	118	168	138	-	-	-	-	-	-
			80	168	118	168	138	168	158	-	-	-	-	-	-
	160	R055	60	168	98	168	118	168	138	-	-	-	-	-	-
			80	168	118	168	138	168	158	-	-	-	-	-	-
	180	R055	60	172	98	172	118	172	138	180	98	180	118	196	138
			80	172	118	172	138	172	158	180	118	180	138	172	158
	230	R055	60	182	98	182	118	182	138	198	98	198	118	220	138
			80	182	118	182	138	182	158	198	118	198	138	220	158
	300	R075	60	218	98	218	118	218	138	226	98	226	118	236	138
			80	218	118	218	138	218	158	226	118	226	138	236	158
			100	218	138	218	158	218	178	226	138	226	158	236	178
ALS	250	R055	60	-	-	-	-	-	-	198	98	198	118	202	138
			80	-	-	-	-	-	-	198	118	198	138	202	158
	280	R075	60	-	-	-	-	-	-	212	98	212	118	218	138
			80	-	-	-	-	-	-	212	118	212	138	218	158
			100	-	-	-	-	-	-	212	138	212	158	218	178
	320	R075	60	-	-	-	-	-	-	228	98	228	118	236	138
			80	-	-	-	-	-	-	228	118	228	138	236	158
			100	-	-	-	-	-	-	228	138	228	158	236	178
ALG	180	R075	60	218	98	218	118	-	-	226	98	226	118	-	-
			80	218	118	218	138	-	-	226	118	226	138	-	-
	230	R075	60	236	98	236	118	-	-	252	98	252	118	-	-
			80	236	118	236	138	-	-	252	118	252	138	-	-
ALXS	180	R055	60	180	98	180	118	190	138	-	-	-	-	-	-
			80	180	118	180	138	190	158	-	-	-	-	-	-
	230	R055	60	192	98	192	118	200	138	-	-	-	-	-	-
			80	192	118	192	138	200	158	-	-	-	-	-	-
	300	R075	60	218	98	218	118	224	148	-	-	-	-	-	-
			80	218	118	218	138	224	168	-	-	-	-	-	-
			100	218	138	218	158	224	188	-	-	-	-	-	-
ALXG	180	R075	60	226	98	226	118	-	-	-	-	-	-	-	-
			80	226	118	226	138	-	-	-	-	-	-	-	-
	230	R075	60	246	98	246	118	-	-	-	-	-	-	-	-
			80	246	118	246	138	-	-	-	-	-	-	-	-

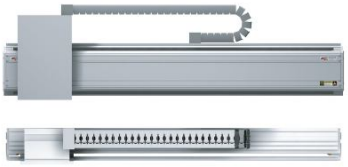
NOTE1 This is a minimum space allowance between Cableveyor and external interference when robot drives.

NOTE1 로봇을 구동할 때에 케이블베어와 외부 간섭과의 최소여유치수입니다.

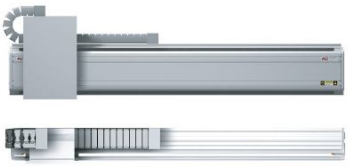
2 W Wall Hanging Type



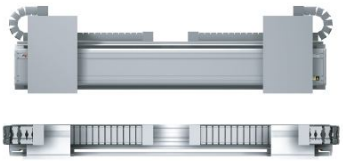
L One Slide Left Type



R One Slide Right Type



Two Slides Type



SERIES	BASE SIZE	CABLEVEYOR		S1		S2		S3		H1		H2		H3	
		Bending radius R	Internal dimentions	A	B	A	B	A	B	A	B	A	B	A	B
ALG	180	R055	60	183	138	183	138	-	-	183	148	184	148	-	-
			80	183	138	183	138	-	-	183	148	184	148	-	-
	230	R055	60	184	158	184	158	-	-	184	158	184	158	-	-
			80	184	158	184	158	-	-	184	158	184	158	-	-
ALXG	180	R055	60	183	138	183	138	-	-	-	-	-	-	-	-
			80	183	148	183	148	-	-	-	-	-	-	-	-
	230	R055	60	184	158	184	158	-	-	-	-	-	-	-	-
			80	184	158	184	158	-	-	-	-	-	-	-	-

2 R Rear Type



L One Slide Left Type



R One Slide Right Type



Two Slides Type



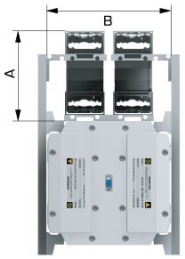
SERIES	BASE SIZE	CABLEVEYOR		S1		S2		S3		H1		H2		H3	
		Bending radius R	Internal dimentions	A	B	A	B	A	B	A	B	A	B	A	B
ALG	180	R100	60	254	98	254	98	-	-	254	98	254	98	-	-
			80	254	118	254	118	-	-	254	118	254	118	-	-
	230	R100	60	304	98	304	98	-	-	304	98	304	98	-	-
			80	304	118	304	118	-	-	304	118	304	118	-	-
ALXG	180	R100	60	254	98	254	98	-	-	-	-	-	-	-	-
			80	254	118	254	118	-	-	-	-	-	-	-	-
	230	R100	60	304	98	304	98	-	-	-	-	-	-	-	-
			80	304	118	304	118	-	-	-	-	-	-	-	-

NOTE1 This is a minimum space allowance between Cableveyor and external interference when robot drives.

NOTE1 로봇을 구동할 때에 케이블베어와 외부 간섭과의 최소여유치수입니다.

B ORDER INFORMATION - OPTIONS

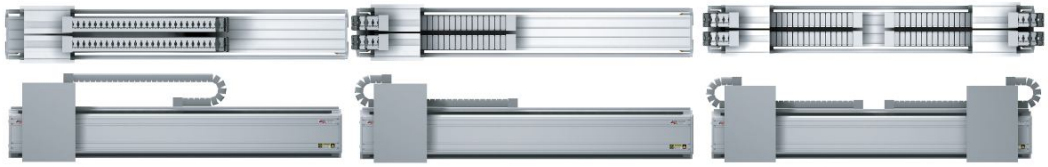
2 D Double Type



L One Slide Left Type

R One Slide Right Type

Two Slides Type



SERIES	BASE SIZE	CABLEVEYOR		S1		S2		S3		H1		H2		H3	
		Bending radius R	Internal dimentions	A	B	A	B	A	B	A	B	A	B	A	B
ALD	180	R055	40	183	200	183	200	-	-	183	216	183	216	-	-
	230	R055	60	183	240	183	240	-	-	183	272	183	272	-	-
ALXD	180	R055	40	183	216	183	216	-	-	-	-	-	-	-	-
	230	R055	60	183	260	183	260	-	-	-	-	-	-	-	-







NOTE1 This is a minimum space allowance between Cableveyor and external interference when robot drives.

NOTE1 로봇을 구동할 때에 케이블베어와 외부 간섭과의 최소여유치수입니다.

INFORMATION

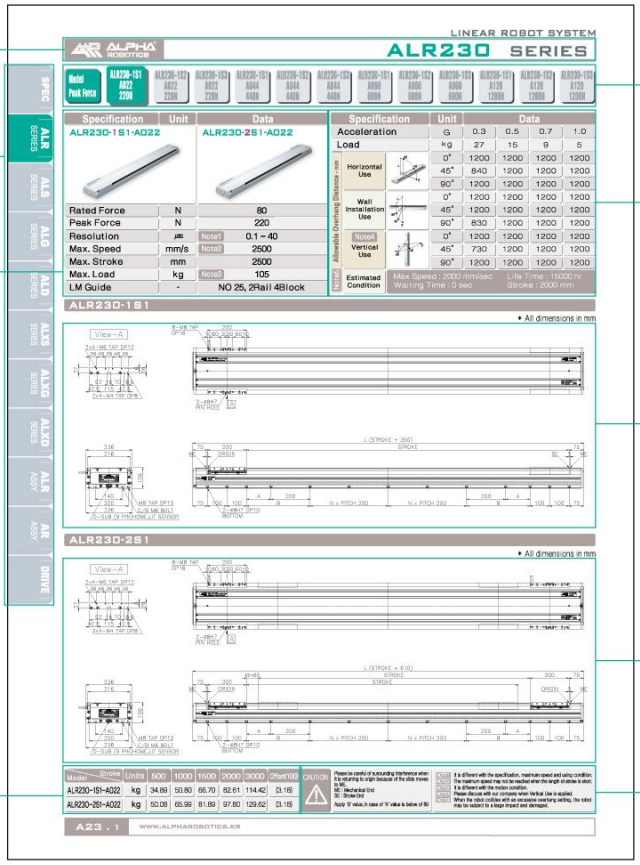
Explanation about the composition of this page 본문페이지 구성에 관한 설명

① Model by Series
시리즈별 모델

⑦ Series Index
시리즈별 인덱스

③ Specification
사양

⑥ Robot Weight
로봇질량



② Model and Max. Thrust
모델 및 최대추력

④ Allowable Overhang Distance
허용 오버행 거리

⑤ Dimensions
치수도

⑧ Caution 주의
⑨ NOTE

① Model by Series
It displays the name of series.
시리즈명을 나타냅니다.

② Model and Max. Thrust
It displays the name of model and type, maximum output.
모델명과 타입, 최대추력을 나타냅니다.

③ Specification
Rated Thrust, Peak Thrust, Resolution, Max.Speed,Max.Stroke, Max. Load, LM Guide specification etc.. were marked.
정격추력, 최대추력, 분해능, 최대속도, 최대스트로크, 최대 가반질량, LM Guide 사양 등을 나타냅니다.

④ Allowable Overhang Distance
It displays an allowable distance value for load position.
가반질량 위치에 대한 허용 거리값을 나타냅니다.

⑤ Dimensions
It is an external dimensions.
외형치수도 입니다.

⑥ Robot Weight
It displays a whole weight of Robot
(Excluding the cableveyor, the cableveyor bracket, the cable)
로봇 전체 질량을 나타냅니다.
(케이블베어, 케이블베어 브라켓, 케이블 제외)

⑦ Series Index
It displays the index in series classification.
시리즈별 인덱스를 나타냅니다.

⑧ Caution
Please be careful of surrounding interference when it is returning to origin because of the slide moves to ME.
원점복귀시에는 슬라이드가 ME까지 이동하므로 주위물과의 간섭에 주의하십시오.

ME : Mechanical End
ME:메카니컬 엔드

SE : Stroke End
SE:스트로크 엔드

Apply 'B' value, in case of 'A' value is below of 80
A값이 80이하(80≥A)의 경우에는 B값을 적용.

⑨ NOTE
NOTE1 : It is differed by the drive specification, the maximum speed and using conditions.
드라이브 사양, 최대속도 및 사용조건에 따라 다릅니다.

NOTE2 : In case of the short stroke, it may not be reached at maximum speed.
스트로크가 짧은 경우, 최고 속도에 도달하지 않는 경우가 있습니다.

NOTE3 : It is differed by an operating conditions.
동작조건에 따라 다릅니다.

NOTE4 : Please discuss with our company when Vertical Use is applied.
수직적용시에는 반드시 당사와 협의바랍니다.

NOTE5 : When the robot collides with an excessive overhang setting, the robot may be subject to a large impact and damaged.
허용 오버행을 넘어서 제품을 사용할 경우, 고장의 원인이 되며, 제품에 손상을 입힐 수 있습니다.

* The performance of thrust can be differed ±5% by motor maker.
추력성능은 모터업체에 따라 ±5%정도의 차이가 있습니다

* In case of use in maximum value of product specification, please consult out head office.
제품사양의 최대치로 사용할 경우에는 당사에 문의 바랍니다