

# i-ROBO Smart Actuator



RoHS



INNOBIZ  
기술혁신형중소기업

ISO9001 품질경영시스템 인증기업  
ISO14001 환경경영시스템 인증기업

기업부설연구소

## Linear Motor Actuator PLA Series

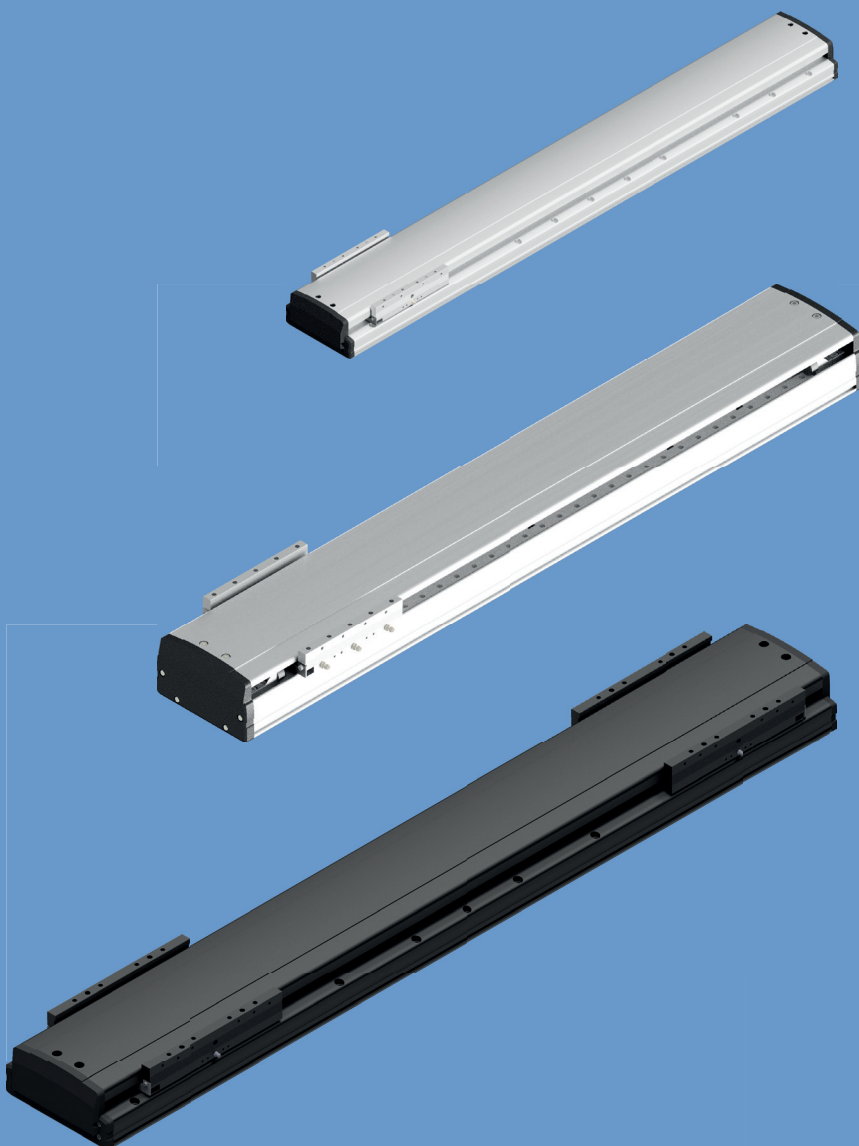


[www.i-robo.kr](http://www.i-robo.kr)

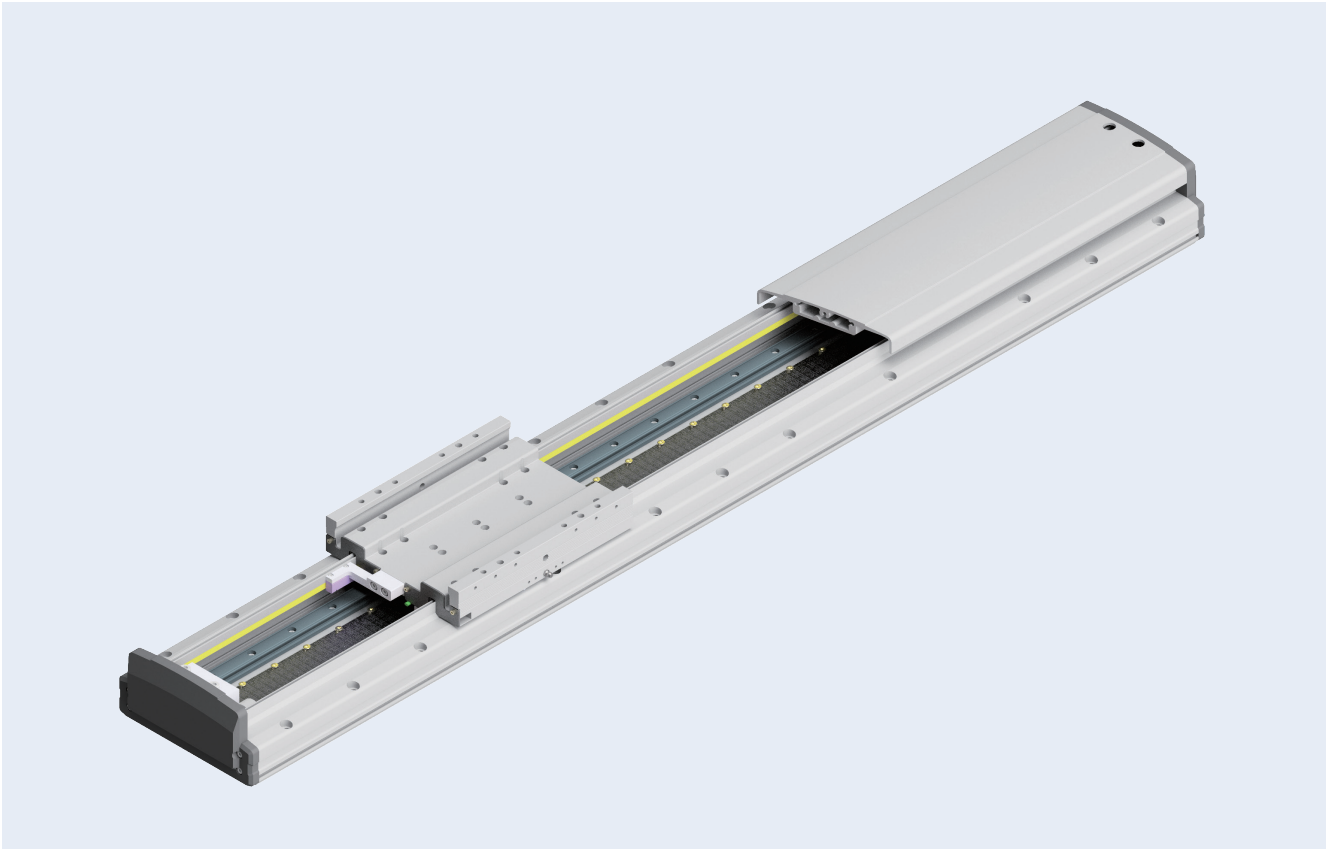


# i-ROBO Smart Actuator

## Protect Linear Motor Actuator PLA Series



## Smart Linear Motor Actuator PLA

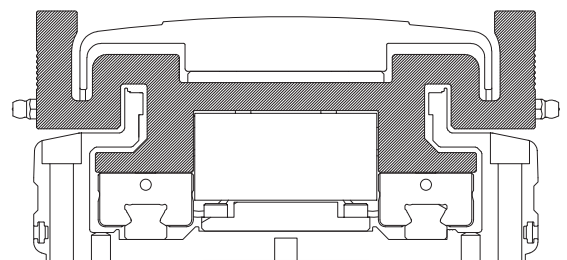


### Characteristic

- 최대 속도 2.5m/s, 가속도 2.5G로 고속화 실현  
Maximum speed 2.5m/s with acceleration of 2.5G
- 높은 반복위치정도  $\pm 2\mu\text{m}$   
High repeatability accuracy  $\pm 2\mu\text{m}$
- 독립적인 복수 슬라이드 구동 가능  
Individually multi slide drive
- 리테이너 타입 LM 가이드 적용  
Applied retainer type LM Guide
- 다양한 리니어 모터 모듈 적용 가능  
Various linear motor modules can be applied
- 콤팩트한 구조  
Compact size
- 최대 스트로크 30m  
Maximum stroke 30m

### Structure of base

- 내부 보호를 위한 차폐 형태의 고강성 컴팩트한 구조  
(차폐형 BASE 구조)  
A shielded high-rigidity compact Structure for inner protection (Shielded Base Structure)
- 상면 카운터 홀을 이용하여 커버 등 외장 부품을 떼어내지 않고 설치 가능한 구조  
The body can be installed using the upper counter hole without removing the covers and other external components
- 하부 탭을 사용하여 다양한 조합이 가능하도록 설계  
Using the lower tap allows the structure to be configured in various combination



# Smart Linear Motor Actuator PLA

## Order Information

Model			Motor		Stroke	Encoder		Sensor		Option		
Series (1)	Model (2)	Slide Q'ty (3)	Brand (4)	Peak force (5)	Stroke (6)	Type (7)	Resolution (8)	Q'ty (9)	Position (10)	Body color (11)	Surface treatment (12)	Cableveyor (13)
PLA	160	- S1	- M	175	- 2500	- IC	01	- 3S	R	- B	R□	C

### (1) Series

**PLA** : Protect Smart Linear Motor Actuator

### (2) Model

**130 / 160 / 180 / 200 / 230 / 300**

### (3) Slide Q'ty

Standard : **S1** One slide **S2** Two Slide **S□** Quantity of Slide

Heavy Duty : **H1** One slide **H2** Two Slide **H□** Quantity of Slide

### (4) Motor brand

**M** Mitsubishi **Y** Yaskawa **S** Samick

### (5) Peak force

Mitsubishi **175 / 300 / 600 / 900 / 1200 / 1800 / 2400**

Yaskawa **86 / 125 / 220 / 440 / 600 / 1200 / 2400**

Samick **100 / 210 / 275 / 280 / 375 / 480 / 575 / 600 / 900 / 1120 / 1300 / 1600 / 2000 / 2750**

### (6) Stroke

PLA 130 Standard : **50 ~1800mm**

PLA 160 Standard : **50 ~2500mm**

PLA 180 Standard : **50 ~2500mm**

PLA 200 Standard : **50 ~3000mm**

PLA 230 Standard : **50 ~3000mm**

PLA 300 Standard : **50 ~3000mm**

### (7) Encoder

**IC** : Incremental **AS** : Absolute

### (8) Resolution

**1** : 0.1 μm **2** : 0.2 μm **5** : 0.5 μm **10** : 1.0 μm **50** : 5 μm

### (9) Sensor quantity

**1S / 2S / 3S**

### (10) Sensor position

**L** Left **R** Right

### (11) Body color

**None** Standard (white) **B** black

### (12) Surface treatment

**None** without raydent **R1** Rail raydent **R2** Rail & Block Raydent

### (13) Cableveyor

**None** without cableveyor **C** with cableveyor

# Smart Linear Motor Actuator PLA

## Specification

Model	Maker	Motor Model	Continuous Force	Peak Force	Pay Load	Max. Speed	Repeatability	Servo drive	LM Guide
PLA130 S	Mitsubishi	LM-H3P2A-07P	70 N	175 N	20 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-40B-RJ	#12 2Rail 6Block
	Yaskawa	SGLFW-20A090A	25 N	86 N	6 kg			SGDV-1R6A	
	Yaskawa	SGLFW-20A120A	40 N	125 N	11 kg			SGDV-1R6A	
	Samick	CDM05-40C	40 N	100 N	7kg			MADHT1507	
	Samick	CDM05-85C	85 N	210 N	16 kg			MADHT1507	
PLA 160 S	Mitsubishi	LM-H3P2A-07P	70 N	175 N	19 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-40B-RJ	#15 2Rail 4Block
	Mitsubishi	LM-H3P3A-12P	120 N	300 N	36 kg			MR-J4-40B-RJ	
	Yaskawa	SGLFW-20A090A	25 N	86 N	5 kg			SGDV-1R6A	
	Yaskawa	SGLFW-20A120A	40 N	125 N	10 kg			SGDV-1R6A	
	Yaskawa	SGLFW-35A120A	80 N	220 N	24 kg			SGDV-1R6A	
	Samick	CDM05-85C	85 N	210 N	16 kg			MADHT1507	
	Samick	CDM05-110C	110 N	275 N	19 kg			MCDHT3520	
	Samick	CDM10-140C	140 N	280 N	21 kg			MCDHT3520	
PLA 160 H	Mitsubishi	LM-H3P3B-24P	240 N	600 N	73 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-70B-RJ	#15 2Rail 4Block
	Yaskawa	SGLFW-35A230A	160 N	440 N	50 kg			SGDV-3R8A	
	Samick	CDM09-200C	195 N	600 N	34 kg			MCDHT3520	
	Samick	CDM10-240C	240 N	480 N	36 kg			MCDHT3520	
PLA 180 S	Mitsubishi	LM-H3P2A-07P	70 N	175 N	18 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-40B-RJ	#15 2Rail 4Block
	Mitsubishi	LM-H3P3A-12P	120 N	300 N	35 kg			MR-J4-40B-RJ	
	Yaskawa	SGLFW-20A090A	25 N	86 N	4 kg			SGDV-1R6A	
	Yaskawa	SGLFW-20A120A	40 N	125 N	9 kg			SGDV-1R6A	
	Yaskawa	SGLFW-35A120A	80 N	220 N	23 kg			SGDV-1R6A	
	Samick	CDM05-85C	85 N	210 N	14 kg			MADHT1507	
	Samick	CDM10-110C	110 N	275 N	19 kg			MCDHT3520	
	Samick	CDM10-140C	140 N	280 N	19 kg			MCDHT3520	
PLA 180 H	Mitsubishi	LM-H3P3B-24P	240 N	600 N	73 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-70B-RJ	#15 2Rail 4Block
	Yaskawa	SGLFW-35A230A	160 N	440 N	49 kg			SGDV-3R8A	
	Samick	CDM09-200C	195 N	600 N	34kg			MCDHT3520	
	Samick	CDM10-240C	240 N	480 N	36kg			MCDHT3520	

- Pay Load는 [ Speed : 2000 mm/s 가속도 : 0.5G ] 을 기준으로 이론적인 수치이며, 드라이브 사양, 최고 속도 및 사용 조건에 따라 다릅니다.

Pay Load is a theoretical value based on [Speed: 2000 mm/s Acceleration: 0.5G] and may vary depending on drive specifications, maximum speed and usage conditions.

- Pay load는 리니어 모터의 성능만 고려한 수치이며, LM 가이드의 수명은 고려하지 않은 수치입니다.

Pay load is considering only the performance of the Linei motor, and not the life of the LM Guide.

- 스트로크가 짧은 경우, 최고 속도에 도달하지 않는 경우가 있습니다.

In case of the short stroke, it may not be reached at maximum speed.

- 위치반복정도는 엔코더 분해능을 0.5 $\mu\text{m}$  이하 제품을 적용하였을 경우이며, 엔코더 성능에 따라 달라질 수 있습니다.

Position repeatability accuracy is the case of applying a product with an encoder division performance of 0.5 $\mu\text{m}$  or less, and may vary depending on the encoder performance.

# Smart Linear Motor Actuator PLA

## Specification

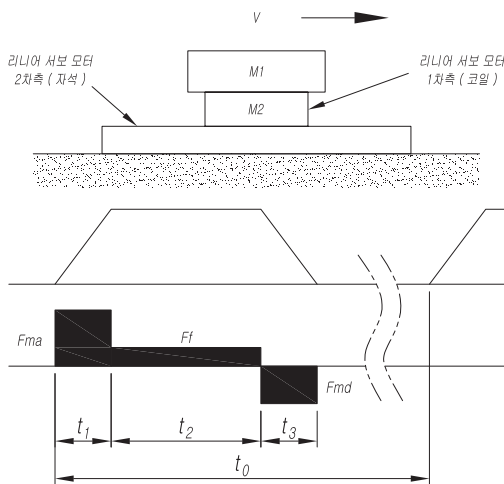
Model	Maker	Motor Model	Continuous Force	Peak Force	Pay Load	Max. Speed	Repeatability	Servo drive	LM Guide
PLA 200 S	Mitsubishi	LM-H3P2A-07P	70 N	175 N	16 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-40B-RJ	#20 2Rail 4Block
	Mitsubishi	LM-H3P3A-12P	120 N	300 N	32 kg			MR-J4-40B-RJ	
	Mitsubishi	LM-H3P3B-24P	240 N	600 N	72 kg			MR-J4-70B-RJ	
	Yaskawa	SGLFW-20A120A	40 N	125 N	8 kg			SGDV-1R6A	
	Yaskawa	SGLFW-35A120A	80 N	220 N	21 kg			SGDV-1R6A	
	Yaskawa	SGLFW-35A230A	160 N	440 N	48 kg			SGDV-3R8A	
	Samick	CDM05-110C	110 N	275 N	18 kg			MADHT1507	
	Samick	CDM09-200C	195 N	600 N	32 kg			MCDHT3520	
	Samick	CDM10-240C	240 N	480 N	34 kg			MCDHT3520	
PLA 230 S	Mitsubishi	LM-H3P3B-24P	240 N	600 N	68 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-70B-RJ	#25 2Rail 4Block
	Mitsubishi	LM-H3P3C-36P	360 N	900 N	104 kg			MR-J4-70B-RJ	
	Yaskawa	SGLFW-35A120A	80 N	220 N	18 kg			SGDV-1R6A	
	Yaskawa	SGLFW-35A230A	160 N	440 N	45 kg			SGDV-3R8A	
	Yaskawa	SGLFW-50A200B	280 N	600 N	70 kg			SGDV-5R5A	
	Samick	CDM15-150C	150 N	375 N	21 kg			MBDHT2510	
	Samick	CDM15-230C	230 N	575 N	54 kg			MCDHT3520	
PLA 230 H	Mitsubishi	LM-H3P3D-48P	480 N	1200 N	142 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-200B-RJ	#25 2Rail 6Block
	Yaskawa	SGLFW-50A380B	560 N	1200 N	149 kg			SGDV-5R5A	
	Samick	CDM16-490C	490 N	900 N	72 kg			MDDHT5540	
	Samick	CDM16-560C	560 N	1120 N	90 kg			MDDHT3530	
	Samick	CDM16-680C	680 N	1300 N	104 kg			MDDHT3530	
PLA 300 S	Mitsubishi	LM-H3P7B-48P	480 N	1200 N	142 kg	2 m/s	$\pm 2 \mu\text{m}$	MR-J4-200B-RJ	#30 2Rail 6Block
	Mitsubishi	LM-H3P7C-72P	720 N	1800 N	216 kg			MR-J4-200B-RJ	
	Mitsubishi	LM-H3P7D-96P	960 N	2400 N	297 kg			MR-J4-350B-RJ	
	Yaskawa	SGLFW-1ZA200B	560 N	1200 N	144 kg			SGDV-120A	
	Yaskawa	SGLFW-1ZA380B	1120 N	2400 N	306 kg			SGDV-120A	
	Samick	CDM30-640C	640 N	1600 N	118 kg			MDDHT5540	
	Samick	CDM30-760C	760 N	2000 N	135 kg			MDDHT5540	
	Samick	CDM30-1100C	1100 N	2750 N	207 kg			MEDHT7364	

- 정격 추력과 최대 추력의 성능은 모터 업체에 따라 차이가 있습니다.  
The performance of rated thrust and maximum thrust varies depending on the motor manufacturer.
- 외장 센서의 경우, 당사 표준은 OMRON사 674 모델이며, 센서의 원점은 상시 오픈(NO), 리미트 센서는 상시 클로즈(NC)입니다.  
For external sensors, our standard is OMRON's 674 model, the origin of the sensor is normally open (NO), and the limit sensor is always closed (NC)
- 수직 사용에 있어서는 반드시 당사와 협의하시기 바랍니다.  
Please consult with us for vertical use.
- 상기 메이커 이외의 타사 메이커도 적용이 가능하며 필요시 당사로 문의바랍니다.  
Please inquire at our R&D Center for applicable models other than the above.

## Smart Linear Motor Actuator PLA

### Linear Motor Selection

#### [ Configuration ]



• 질량	Mass	$M_1 = 20\text{kg}$
• 이동자 및 테이블 질량	Moving coil & table mass	$M_2 = 2.3\text{kg}$
• 가속도	Acceleration	$a = 14.4\text{m/s}^2$
• 감속도	Deceleration	$d = 14.4\text{m/s}^2$
• 외부 하중	External force	$F_E = 20\text{N}$
• 이송 속도	Maximum velocity	$V = 1.8\text{m/s}$
• 운전 주기	1 cycle time	$t^0 = 2\text{s}$
• 가속 시간	Acceleration time	$t^1 = 0.125\text{s}$
• 등속 시간	Constant velocity time	$t^2 = 0.75\text{s}$
• 감속 시간	Deceleration time	$t^3 = 0.125\text{s}$
• 기계 효율	Mechanical efficiency	$\eta = 1.0$
• 마찰 계수	Coefficient of friction	$\mu = 0.03$

#### [ Selecting procedures ]

##### 1. 리니어 모터 추력 계산 / Calculation Thrust

(1) 등속시 추력 계산 / Resistive force at constant velocity

$$F_c = \mu \times (M_1 + M_2) \times g + F_E = 0.03 \times (20 + 2.3) \times 9.8 + 20 = 56.5 \text{ (N)}$$

(2) 가속시 추력 계산 / Resistive force at acceleration

$$F_a = (M_1 + M_2) \times a + F_c = (20 + 2.3) \times 14.4 + 56.5 = 347.6 \text{ (N)}$$

##### 2. 리니어모터 가선택 / Tentatively Selection

(1) 선정 조건 / Selecting condition

$$F_c \leq \text{최대 추력 (Maximum Thrust)} \times 0.9 \sim 0.7$$

$$F_a \leq \text{정격 추력 (Rated Thrust)} \times 0.9 \sim 0.7$$

(2) 모터 가선택 / Tentatively Selection

Mitsubishi LM-H3P3B-24P-CSS0 [ Cont. 240N / Max. 600N / magnetic attraction force 1100N ]

##### 3. 흡입력을 고려한 추력 검토 / Calculation thrust with magnetic attraction force

(1) 등속시 추력 계산 / Resistive force at constant velocity

$$F_c = \mu \times \{ (M_1 + M_2) \times g + \text{Magnetic attraction force} \} + F_E = 0.03 \times \{ (20 + 2.3) \times 9.8 + 1100 \} + 20 = 60 \text{ (N)}$$

(2) 가속시 추력 계산 / Resistive force at acceleration

$$F_A = (M_1 + M_2) \times a + F_c = (20 + 2.3) \times 14.4 + 60 = 381 \text{ (N)}$$

(3) 감속시 추력 계산 / Resistive force at deceleration

$$F_D = -(M_1 + M_2) \times d + F_c = -(20 + 2.3) \times 14.4 + 60 = -261 \text{ (N)}$$

(4) 실효 추력 계산 / Continuous effective load thrust

$$F_{rma} = \sqrt{\frac{F_A^2 \times t_1 + F_c^2 \times t_2 + F_D^2 \times t_3}{t_0}} = \sqrt{\frac{381^2 \times 0.125 + 60^2 \times 0.75 + (-261)^2 \times 0.125}{2}} = 121 \text{ (N)}$$

##### 4. 흡입력을 고려한 추력 검토 / Qualify thrust with magnetic attraction force

$$F_A \leq \text{최대 추력 (Maximum Thrust)} \times 0.9 \sim 0.7$$

$$F_{rms} \leq \text{정격 추력 (Rated Thrust)} \times 0.9 \sim 0.7$$

위의 식을 만족하지 않는 경우에는 리니어 서보 모터의 용량을 한단계 올려서 다시 계산합니다.

If the above conditions are not satisfied, select one rank larger servo motor and calculate.







Option

Technical drawing of the BASE Detail showing a side view and a top view.

**Side View Dimensions:**

- Top flange thickness: 11
- Flange width: 5
- Flange height: 1.5
- Base thickness: 5.1
- Base width: 3.6
- Base height: 5.1

**Top View Dimensions:**

- Overall width: 160
- Overall height: 132
- Inner width: 88
- Inner height: 70

**Labels:**

- M6 C/B BOLT
- M6 C/B
- M6 TAP DP 10
- BASE Detail

Unit	□300	□400	□500	□600	□700	□800	□900	□1000	□1100	□1200	□1300	□1400	□1500	□1600	□1700	□1800	□1900	□2000	□2100	□2200	□2300	□2400	□2500
L	740	840	940	1040	1140	1240	1340	1440	1540	1640	1740	1840	1940	2040	2140	2240	2340	2440	2540	2640	2740	2840	2940
Weight	17.9	19.6	21.3	23.0	24.7	26.5	28.2	29.9	31.6	33.3	35.0	36.7	38.4	40.1	41.8	43.6	45.3	47.0	48.7	50.4	52.1	53.8	55.5

NO	항목	R1	R2
⑨	Ravdent	-	Rail & Block

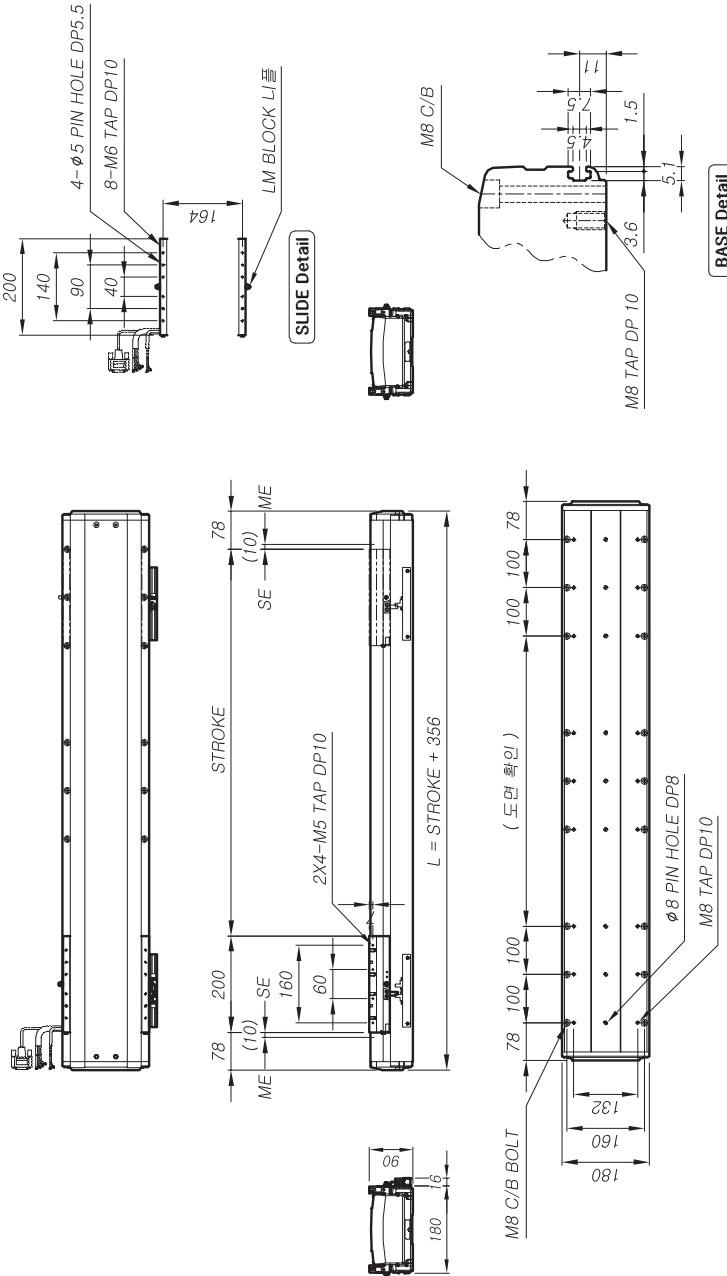
# PLA 180-S Model

## Ordering method

PLA 180 - S ① - ② - ③ - ④ - ⑤ - ⑥ - ⑦ - ⑧ - ⑨

Model	Slide Qty	Motor Maker	Peak Force	Stroke	Encoder	Encoder Resolution	Sensor 수량 및 방향	Option
S1: One Slide	175/300	M: Mitsubishi	86/125/220	50: 50 mm	IC : Incremental	01: 0.0001 mm	<input type="checkbox"/> L: Sensor Left	
S2: Two Slide	86/125/220	Y: Yaskawa	210/275/280	2500: 2500 mm	AS: Absolute	02: 0.0002 mm	<input type="checkbox"/> R: Sensor Right	
S3: Three Slide		S: Samick				05: 0.0005 mm		
S4: Four Slide						10: 0.001 mm		
SD: Qty of Slide						50: 0.005 mm		

## Dimension (치수)



## Mitsubishi Linear Motor Basic Specification

Model	LM-H3P2A-07P	LM-H3P3A-12P
Continuous Force	70 N	120 N
Peak Force	175 N	300 N
Max Load(0.5G)	18 kg	35 kg

## Yaskawa Linear Motor Basic Specification

Model	SGJFW-20A090A	SGJFW-20A120A	SGJFW-35A120A
Continuous Force	25 N	40 N	80 N
Peak Force	86 N	125 N	220 N
Max Load(0.5G)	4 kg	9 kg	23 kg

## Samick Linear Motor Basic Specification

Model	CDM05-95C	CDM10-110C	CDM10-140C
Continuous Force	85 N	110 N	140 N
Peak Force	210 N	275 N	280 N
Max Load(0.5G)	14 kg	19 kg	19 kg

## Common Specification

Max Speed	2000mm/s
Repeatability	±0.002mm
LM Guide	SSR15XW 2Rail 4Block [THK]
Sensor	EE-SX674 [OMRON]

## Body Color Option 사양

NO	항목	Body Color	None	White	Black
⑧					

## LM Guide Option 사양

NO	항목	None	R1	R2
⑨	Raydent	-	Rail	Rail & Block

## 스토크에 따른 무게 및 길이(센서 포함)

Unit	□300	□400	□500	□600	□700	□800	□900	□1000	□1100	□1200	□1300	□1400	□1500	□1600	□1700	□1800	□1900	□2000	□2100	□2200	□2300	□2400	□2500
L mm	656	756	856	956	1056	1156	1256	1356	1456	1556	1656	1756	1856	1956	2056	2156	2256	2356	2456	2556	2656	2756	2856
Weight kg	18.3	20.3	22.2	24.2	26.2	28.2	30.1	32.1	34.1	36.0	38.0	40.0	41.9	43.9	45.9	47.9	49.8	51.8	53.8	55.7	57.7	59.7	61.6

H	①
Slide Q'ty	
H1 : One Slide	
H2 : Two Slide	
H3 : Three Slide	
H4 : Four Slide	
H□ : Q'ty of Slide	

Motor Maker

M : Mitsubishi
Y : Yaskawa
S : Samick

Peak F<sub>0</sub>

500  
440  
500/480

force

## Stroke

50 : 50 mm  
~  
500 : 2500 mm

## Encoder

IC : Increment

## Encoder Resolution

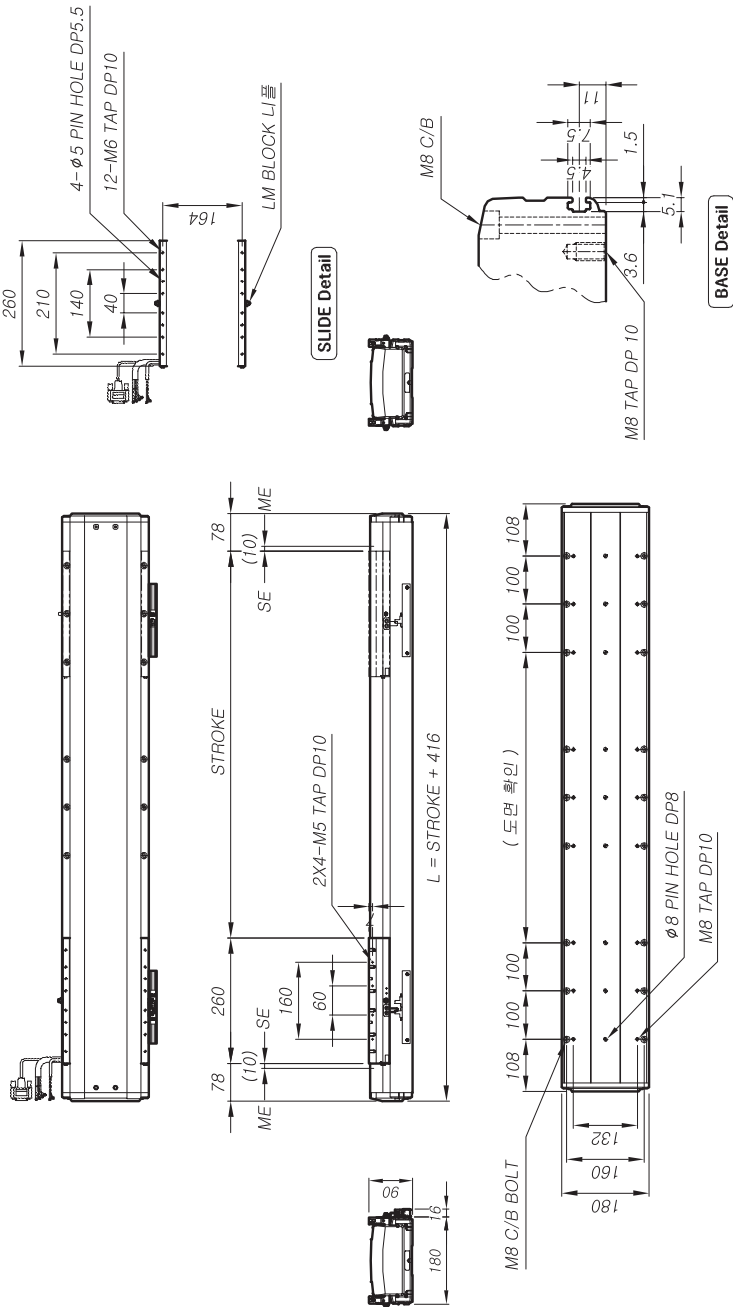
01 : 0,0001 mm
02 : 0,0002 mm
05 : 0,0005 mm
10 : 0,001 mm
50 : 0,005 mm

## 수요량 방향

tor Left

## Option

## Mitsubishi Linear Motor Basic Specification



Unit	□300	□400	□500	□600	□700	□800	□900	□1000	□1100	□1200	□1300	□1400	□1500	□1600	□1700	□1800	□1900	□2000	□2100	□2200	□2300	□2400	□2500	
L	mm	716	816	916	1016	1116	1216	1316	1416	1516	1616	1716	1816	1916	2016	2116	2216	2316	2416	2516	2616	2716	2816	2916
Weight	kg	20.2	22.2	24.1	26.1	28.1	30.1	32.0	34.0	36.0	37.9	39.9	41.9	43.8	45.8	47.8	49.8	51.7	53.7	55.7	57.6	59.6	61.6	63.5

## Mitsubishi Linear Motor Basic Specification

Model	LM-H3P3B-24P
Continuous Force	240 N
Peak Force	600 N
Max Load(0.5G)	73 kg

## Yaskawa Linear Motor Basic Specification

Model	SGLFW-35A230A
Continuous Force	160 N
Peak Force	440 N
Max Load(0.5g)	49 kg

## Samick Linear Motor Basic Specification

Model	CDM09-200C	CDM10-240C
Continuous Force	195 N	240 N
Peak Force	600 N	480 N
Max Load(0.5g)	34 kg	36 kg

## Common Specification

Max Speed	2000mm/s
Repeat ability	±0.002mm
LM Guide	SSR15XW 2Rail 4Block [ THK ]
Sensor	EE-SX674 [OMRON]

## Body Color Option 사양

NO	형식	None	B
⑧	Body Color	White	Black

## LM Guide Option 사양

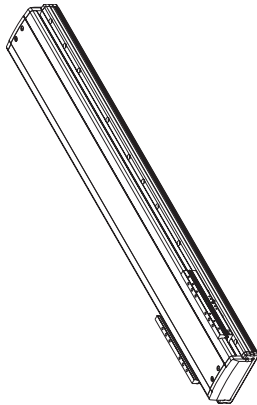
NO	항목	R1	R2
⑨	Raydent	-	Rail & Block

# PLA 200-S Model

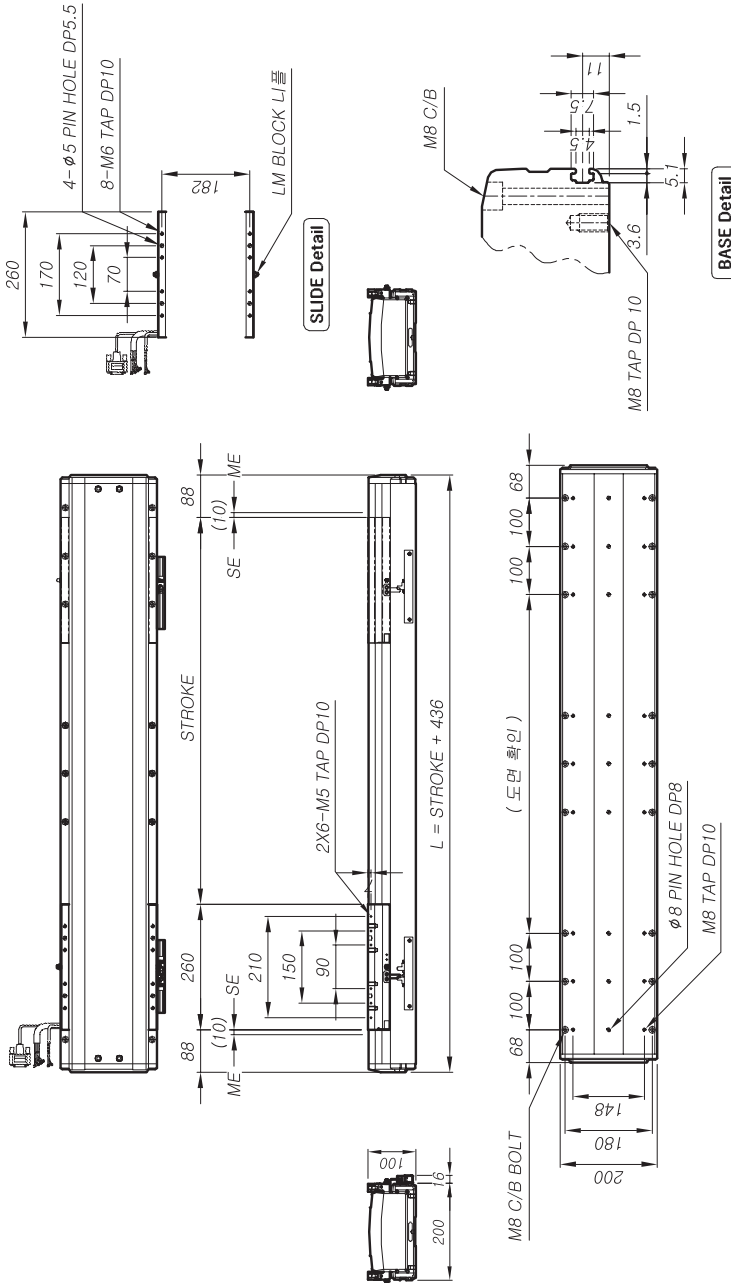
## Ordering method

PLA 200 - S ① - ② - ③ - ④ - ⑤ - ⑥ - ⑦ - ⑧ - ⑨

Model	Slide Qty	Motor Maker	Peak Force	Stroke	Encoder	Encoder Resolution	Sensor 수량 및 방향	Option
S1 : One Slide	M : Mitsubishi	175/300/600	50 : 50 mm	IC : Incremental	01 : 0.0001 mm	□ □ L : Sensor Left		
S2 : Two Slide	Y : Yaskawa	125/220/440	3000 : 3000 mm	AS : Absolute	02 : 0.0002 mm	□ □ R : Sensor Right		
S3 : Three Slide	S : Samick	275/480/600			05 : 0.0005 mm			
S4 : Four Slide					10 : 0.001 mm			
SD : Qty of Slide					50 : 0.005 mm			



## Dimension (치수)



## Mitsubishi Linear Motor Basic Specification

Model	LM-HBP2A-07P	LM-HBP3B-24P
Continuous Force	70 N	120 N
Peak Force	175 N	300 N
Max Load(0.5g)	16 kg	32 kg
		72 kg

## Yaskawa Linear Motor Basic Specification

Model	SGLFW-20A120A	SGLFW-35A120A	SGLFW-35A230A
Continuous Force	40 N	80 N	160 N
Peak Force	125 N	220 N	440 N
Max Load(0.5g)	8 kg	21 kg	48 kg

## Samick Linear Motor Basic Specification

Model	CDM05-110C	CDM09-200C	CDM10-240C
Continuous Force	110 N	195 N	240 N
Peak Force	275 N	600 N	480 N
Max Load(0.5g)	18 kg	32 kg	34 kg

## Common Specification

Max Speed	2000mm/s
Repeatability	±0.002mm
LM Guide	SSR20XW 2Rail 4Block [ THK ]
Sensor	EE-SX674 [ OMRON ]

## Body Color Option 사양

NO	항목	Body Color	None	White	Black
⑧					

## LM Guide Option 사양

NO	항목	None	Rail	R2
⑨	Raydent	-		

## 스토크에 따른 무게 및 길이(센서 포함)

Unit	□300	□400	□500	□600	□700	□800	□900	□1000	□1100	□1200	□1300	□1400	□1500	□1600	□1700	□1800	□1900	□2000	□2100	□2200	□2300	□2400	□2500	□2600	□2700	□2800	□2900	□3000
L	736	836	936	1036	1136	1236	1336	1436	1536	1636	1736	1836	1936	2036	2136	2236	2336	2436	2536	2636	2736	2836	2936	3036	3136	3236	3336	3436
Weight	25.8	28.2	30.6	32.9	35.3	37.7	40.1	42.5	44.8	47.2	49.6	52.0	54.4	56.7	59.1	61.5	63.9	66.3	68.6	71.0	73.4	75.8	78.2	80.5	82.9	85.3	87.7	90.1

## Ordering method



# PLA 230-H Model

## Ordering method

PLA 230 - H

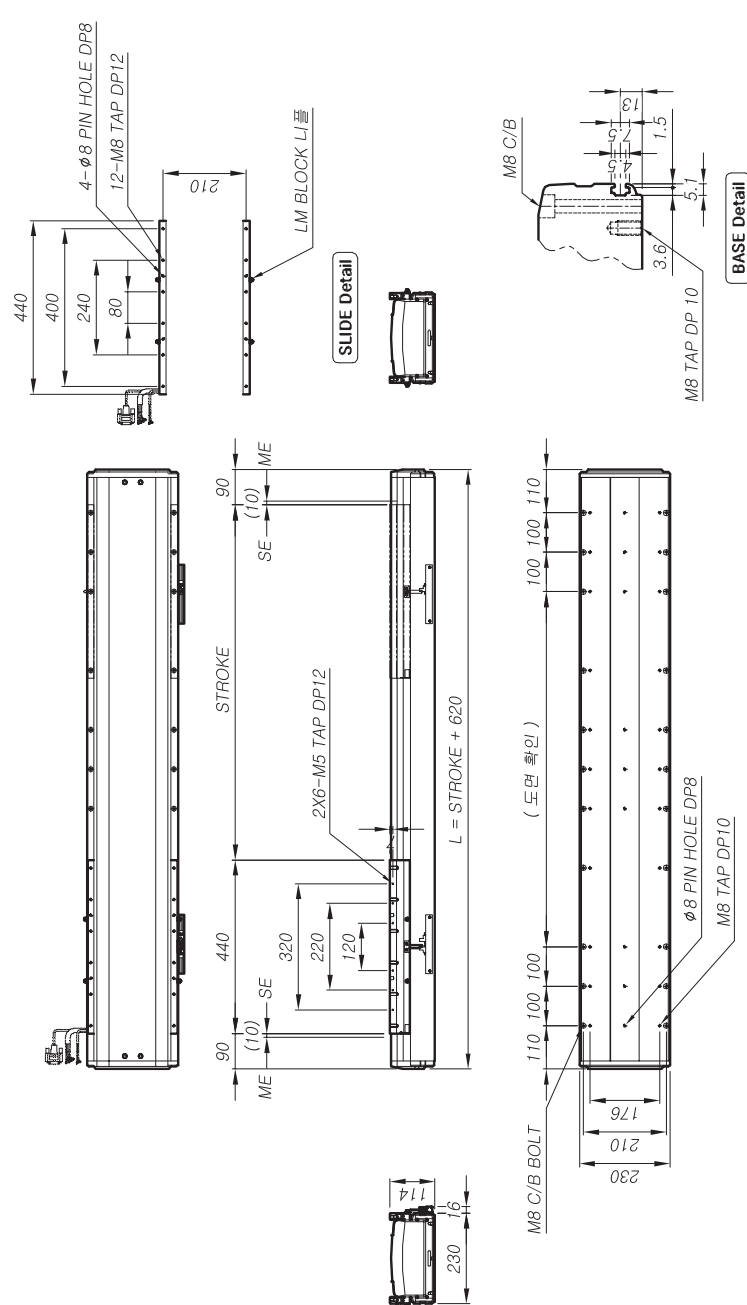
Model	Slide Qty	Motor Maker	Peak Force	Stroke	Encoder	Encoder Resolution	Sensor 수량 및 방향	Option
	H1 : One Side	M : Mitsubishi	1200	50 : 50 mm	IC : Incremental	01 : 0.0001 mm	<input type="checkbox"/> L : Sensor Left	
	H2 : Two Side	Y : Yaskawa	1200	3000 : 3000 mm	AS : Absolute	02 : 0.0002 mm	<input type="checkbox"/> R : Sensor Right	
	H3 : Three Side	S : Samick	900/1120/1300			05 : 0.0005 mm		
	H4 : Four Side					10 : 0.001 mm		
	HD : Qty of Side					50 : 0.005 mm		

Encoder	Encoder Resolution	Sensor 수량 및 방향	Option
IC : Incremental	01 : 0.0001 mm	<input type="checkbox"/> L : Sensor Left	
AS : Absolute	02 : 0.0002 mm	<input type="checkbox"/> R : Sensor Right	
	05 : 0.0005 mm		
	10 : 0.001 mm		
	50 : 0.005 mm		

PLA 230 - H

Motor Maker	Peak Force	Stroke	Encoder	Encoder Resolution	Sensor 수량 및 방향	Option
M : Mitsubishi	1200	50 : 50 mm	IC : Incremental	01 : 0.0001 mm	<input type="checkbox"/> L : Sensor Left	
Y : Yaskawa	1200	3000 : 3000 mm	AS : Absolute	02 : 0.0002 mm	<input type="checkbox"/> R : Sensor Right	
S : Samick	900/1120/1300			05 : 0.0005 mm		
				10 : 0.001 mm		
				50 : 0.005 mm		

## Dimension (치수)



## Mitsubishi Linear Motor Basic Specification

Model	LM-H3P3D-48P
Continuous Force	480 N
Peak Force	1200 N
Max Load(0.5G)	142 kg

## Yaskawa Linear Motor Basic Specification

Model	SGLFW-50A380B
Continuous Force	560 N
Peak Force	1200 N
Max Load(0.5G)	149 kg

## Samick Linear Motor Basic Specification

Model	CDM16-490C	CDM16-560C	CDM16-680C
Continuous Force	490 N	560 N	680 N
Peak Force	900 N	1120 N	1300 N
Max Load(0.5G)	72 kg	90 kg	104 kg

## Common Specification

Max Speed	2000mm/s
Repeatability	±0.002mm
LM Guide	SSR25XW 2Rail 6Block [ THK ]
Sensor	EE-SX674 [ OMRON ]

## Body Color Option 사양

NO	항목	Body Color	None	B	Black
⑧					

## LM Guide Option 사양

NO	항목	None	R1	R2
⑨		Raydent	Rail	Rail & Block

## 스토크에 따른 무게 및 길이(센서 포함)

Unit	□300	□400	□500	□600	□700	□800	□900	□1000	□1100	□1200	□1300	□1400	□1500	□1600	□1700	□1800	□1900	□2000	□2100	□2200	□2300	□2400	□2500	□2600	□2700	□2800	□2900	□3000	
L	mm	920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120	2220	2320	2420	2520	2620	2720	2820	2920	3020	3120	3220	3320	3420	3520	3620
Weight	kg	44.8	47.7	50.7	53.6	56.6	59.5	62.4	65.4	68.3	71.3	74.2	77.1	80.1	83.0	86.0	88.9	91.8	94.8	97.7	100.7	103.6	106.5	109.5	112.4	115.4	118.3	121.2	124.2

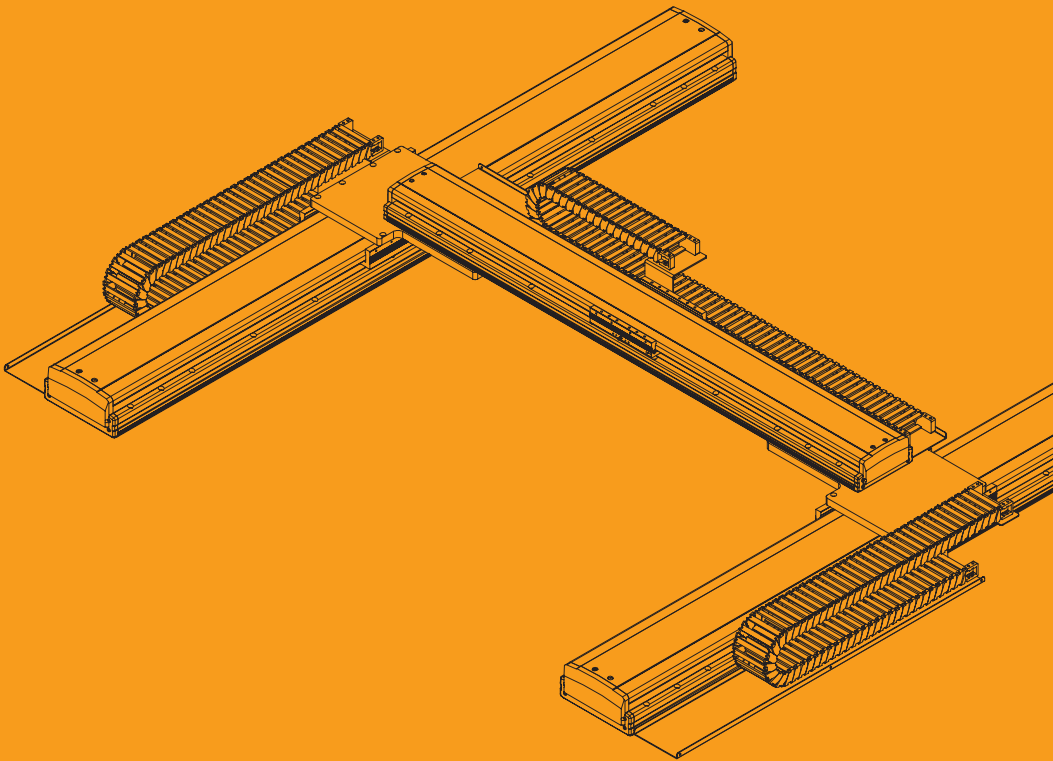








# i-ROBO Smart Actuator



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본 내용은 제품의 개선을 위하여 예고 없이 변경 될 수 있습니다. - 2020.10 (Ver. 1.0)

Specifications in this catalog are subject to change for improvement without notice. - 2020.10 (Ver 1.0)