Mounting Kit for Multi-Axis System

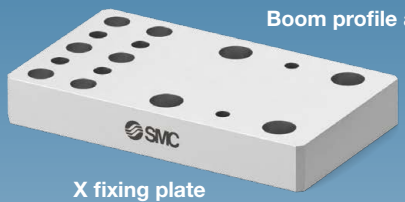
New

RoHS

Creation of an XYZ unit

Easy system construction using the model selection software

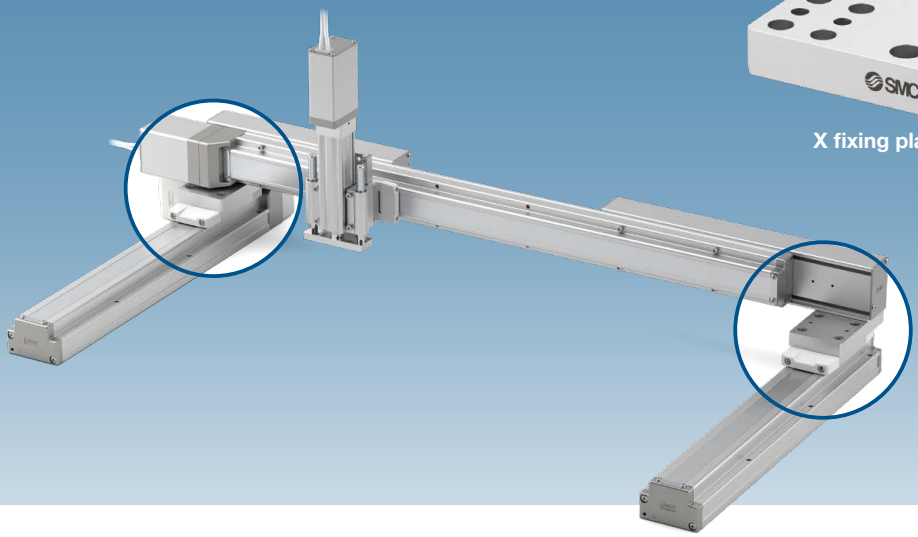
Boom profile assembly



X fixing plate

Z adapter plate

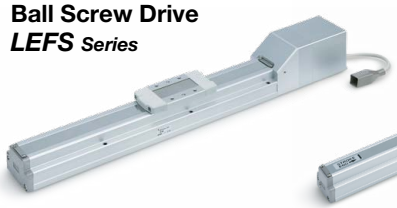
Y fixing plate



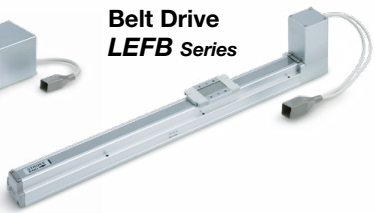
Compatible Actuators

X-Y-axis

Ball Screw Drive
***LEFS* Series**

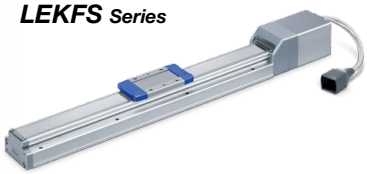


Belt Drive
***LEFB* Series**



High Rigidity and High Precision

Slider Type
***LEKFS* Series**



Z-axis

Guide Rod Type
***LEYG* Series**

Compatible Controllers/Drivers <For single axis>

***JXC51/61* Series**

***JXC91/E1/P1/D1/L1/M1* Series**

***LECS□-T/LECY□* Series**

Electric Actuator Model Selection Software

With multi-axis calculation

For details: p. 1

LEA Series

SMC

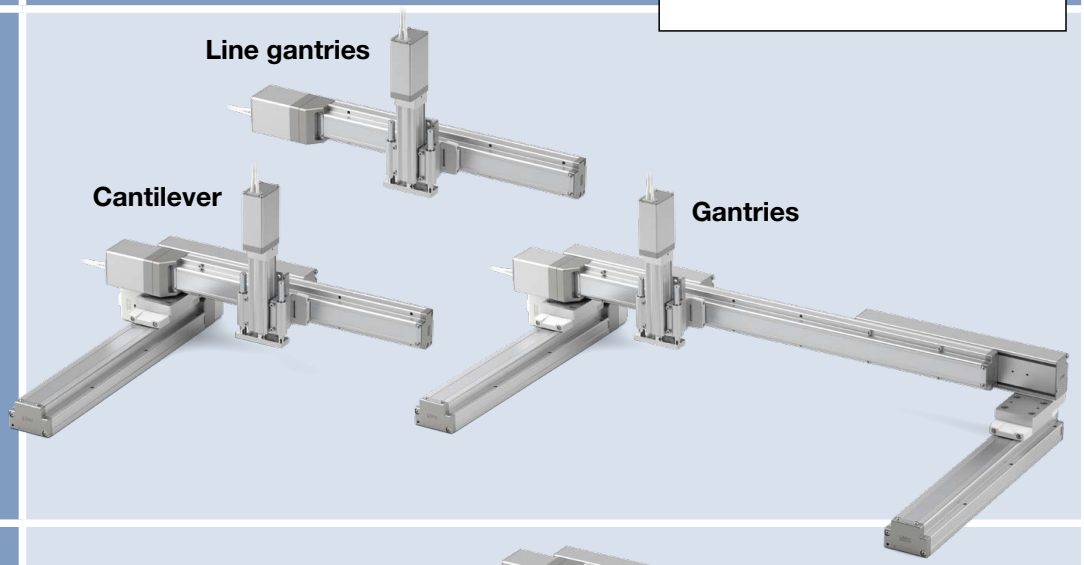
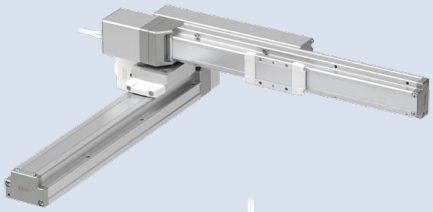
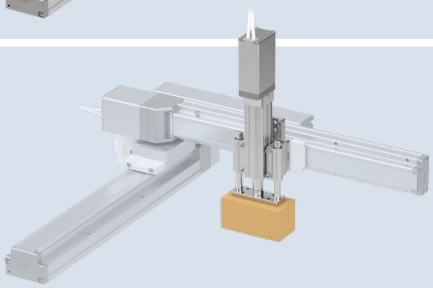
CAT.ES100-178A

Mounting Kit for Multi-Axis System *LEA Series*

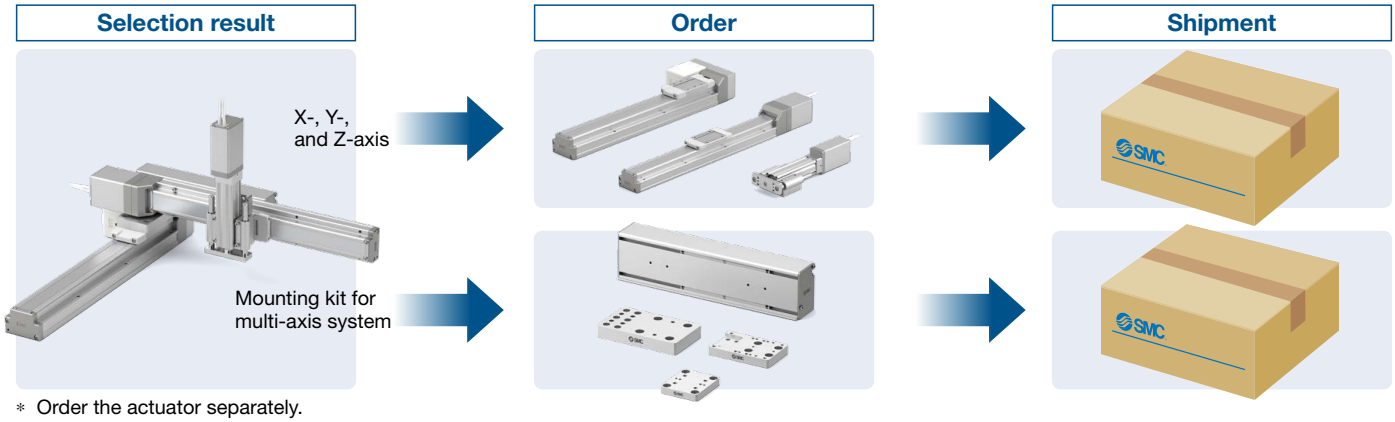
Selection Process

Electric Actuator Model Selection Software
With multi-axis calculation

For selection, use the Model Selection Software.

Selection item	Customer Information
Portal type	
X-, Y-axis	• X-axis stroke • Y-axis stroke • Cycle time 
Z-axis	• Z-axis stroke • Cycle time • Load mass 
Selection result	• Part numbers for each X-, Y-, and Z-axis • Part numbers for Mounting Kit for Multi-Axis System

From Selection to Shipment

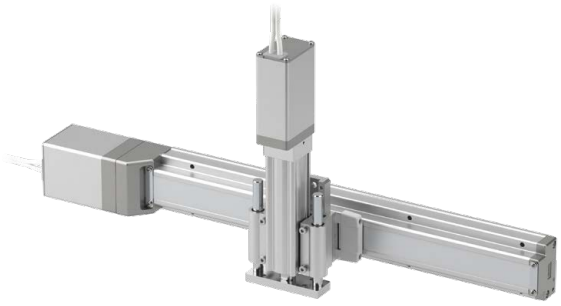


* Order the actuator separately.

SMC

LEA Series
X-Y-Z Unit Construction

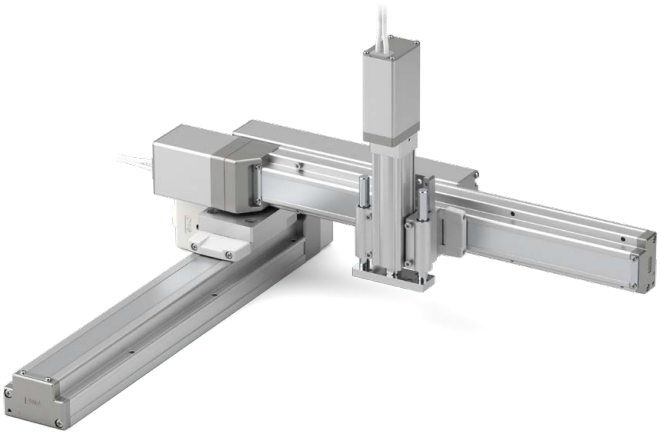
Line gantries (Y-Z)



Application Examples

			Example 1	Example 2
Actuator	Y-axis	Type	LEF16	LEF40
		Stroke [mm]	500	1000
	Z-axis	Type	LEYG16	LEYG16
		Stroke [mm]	100	200

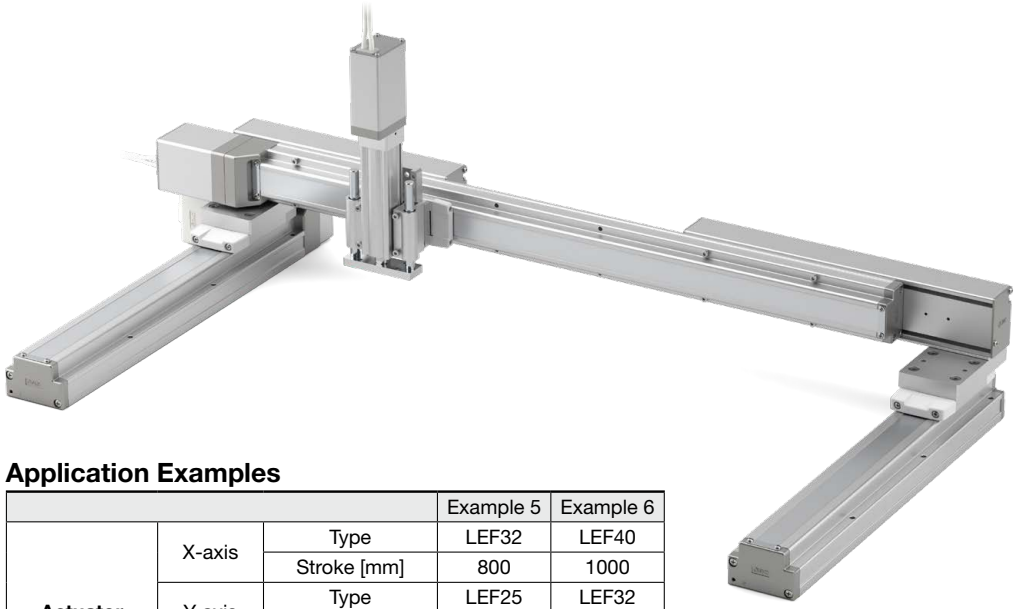
Cantilever (X-Y-Z)



Application Examples

			Example 3	Example 4
Actuator	X-axis	Type	LEF25	LEF40
		Stroke [mm]	800	1000
	Y-axis	Type	LEF16	LEF32
		Stroke [mm]	500	500
	Z-axis	Type	LEYG16	LEYG25
		Stroke [mm]	100	300

Gantries (X-Y-Z + Support guide)



Application Examples

			Example 5	Example 6
Actuator	X-axis	Type	LEF32	LEF40
		Stroke [mm]	800	1000
	Y-axis	Type	LEF25	LEF32
		Stroke [mm]	500	800
	Z-axis	Type	LEYG16	LEYG25
		Stroke [mm]	100	300

List of Combination Sizes

X-Y axis combination		Y-axis			
		LE(K)F□16	LE(K)F□25	LE(K)F□32	LE(K)FS40
X-axis	LE(K)FS16	●			
	LE(K)FS25	●	●		
	LE(K)FS32	●	●	●	
	LE(K)FS40	●	●	●	●

Y-Z axis combination		Z-axis	
		LEYG16	LEYG25
Y-axis	LE(K)F□16	●	
	LE(K)F□25	●	●
	LE(K)F□32	●	●
	LE(K)F□40	●	●

Compatible Actuators

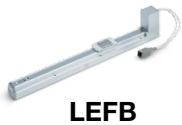
X-Y-axis

LEFS
Ball screw drive

●LEFS Series

Drive method	Motor type	Product no.	
Ball screw	Step motor (Servo 24 VDC)	LEFS16□	
		LEFS25□	
		LEFS32□	
		LEFS40□	
	Servo motor (24 VDC)	LEFS16□A	
		LEFS25□A	
	Battery-less absolute (Step motor 24 VDC)	LEFS16□E	
		LEFS25□E	
		LEFS32□E	
		LEFS40□E	
	High performance (Step motor 24 VDC)	LEFS16□F	
		LEFS25□F	
		LEFS32□F	
		LEFS40□F	
	High performance Battery-less absolute (Step motor 24 VDC) ∗1	LEFS16□G	
		LEFS25□G	
		LEFS32□G	
		LEFS40□G	
	AC servo motor (100/200 VAC)	LEFS25□ [S2/T6/V6]	
		LEFS32□ [S3/T7/V7]	
		LEFS40□ [S4/T8/V8]	

∗1 Acceleration/deceleration needs to be equal to or less than 3000 [mm/s²].



LEFB
Belt drive

●LEFB Series

Drive method	Motor type	Product no.	
Belt	Step motor (Servo 24 VDC)	LEFB16	
		LEFB25	
		LEFB32	
	Servo motor (24 VDC)	LEFB16A	
		LEFB25A	
	Battery-less absolute (Step motor 24 VDC)	LEFB16E	
		LEFB25E	
		LEFB32E	
	AC servo motor (100/200 VAC)	LEFB25 [S2/T6/V6]	
		LEFB32 [S3/T7/V7]	
		LEFB40 [S4/T8/V8]	

∗ The LEFB series cannot be used on X-axis.

LEKFS
Ball screw drive

●LEKFS Series

Drive method	Motor type	Product no.	
Ball screw	Battery-less absolute (Step motor 24 VDC)	LEKFS16□E	
		LEKFS25□E	
		LEKFS32□E	
		LEKFS40□E	
	High performance Battery-less absolute (Step motor 24 VDC)∗1	LEKFS25□G	
		LEKFS32□G	
		LEKFS40□G	
	AC servo motor (100/200 VAC)	LEKFS25□ [S2/T6/V6]	
		LEKFS32□ [S3/T7/V7]	
		LEKFS40□ [S4/T8/V8]	

∗1 Acceleration/deceleration needs to be equal to or less than 3000 [mm/s²].

∗ Scan or click the QR code.

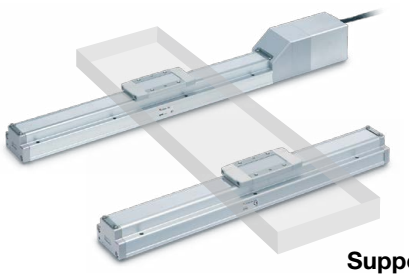
Z-axis

LEYG
Ball screw drive

●LEYG Series

Drive method	Motor type	Product no.	
Ball screw	Step motor (Servo 24 VDC)	LEYG16□	
		LEYG25□	
	Battery-less absolute (Step motor 24 VDC)	LEYG16□E	
		LEYG25□E	
	AC servo motor (100/200 VAC)	LEYG25□ [S2/T6/V6]	

[Support guide] for gantry



LEFG
Support guide for ball screw drive actuator

LEFG Series [Support guide]

Type	Series	
Support guide for ball screw drive actuator	LEFG16-S	
	LEFG25-S	
	LEFG32-S	
	LEFG40-S	

Controllers for SMC Actuators

Step Motor Controller Battery-less Absolute (Step Motor 24 VDC)

JXC51/61

JXC91
EtherNet/IP

JXCE1
EtherCAT

JXCP1
PROFINET

JXCD1
DeviceNet

JXCL1
IO-Link

JXCM1
CC-Link

- **Direct communication with the control and transfer of numerical data due to communication with a high transfer rate (10/100 Mbps)**
- **Dual-port connection (IN and OUT) makes it possible to construct linear and DLR topologies:**
  Less cabling
  Redundant communication in DLR
  Easy to identify the splitting point
- **Parametrization using software or teaching box**

AC Servo Motor Drivers AC Servo Motor

LECSA

LECSB-T

LECSC-T
CC-Link

LECSS-T
SSCNET III/H

LECYM
MECHATROLINK-II

LECYU
MECHATROLINK-III

Electric Actuator
Mounting Kit for Multi-Axis System
LEA Series

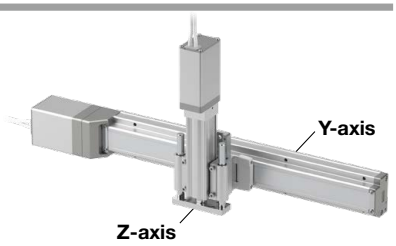
RoHS

How to Order

Line Gantries

LEA – N – FS16 N N – G16A

Mounting kit for multi-axis system ❶ ❷ ❸ ❹ ❺



❶ X-axis

Symbol	Model
N	None

❷ Y-axis

Symbol	Model and motor type
FS16	LEFS16 / LEKFS16 / LEFB16 [_/A/E]
FS25	LEFS25 / LEKFS25 / LEFB25 [_/A/E/S2/T6/V6]
FS32	LEFS32 / LEKFS32 / LEFB32 [_/E/S3/T7/V7]
FS40	LEFS40 / LEKFS40 / LEFB40 [S4/T8/V8]

❸ Y-axis mounting direction

Symbol	Operating range
N	None

❹ Y-axis bracket

Symbol	Model
N	None

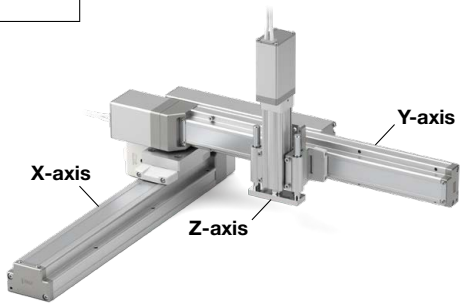
❺ Z-axis

Symbol	Model	Stroke
G16A	LEYG16	30 to 200
G25A	LEYG25	30
G25B		50 to 300

Cantilever

LEA – FS25 – FS16 F C1 – G16A

Mounting kit for multi-axis system ❶ ❷ ❸ ❹ ❺



❶ X-axis

Symbol	Model
FS16	LEFS16
KS16	LEKFS16
FS25	LEFS25 / LEKFS25
FS32	LEFS32 / LEKFS32
FS40	LEFS40 / LEKFS40

❷ Y-axis

Symbol	Model and motor type
FS16	LEFS16
FS25	LEFS25
FS32	LEFS32
FS40	LEFS40
B16T	LEFB16 [_/A/E]
B25T	LEFB25 [_/A/E]
B25S	LEFB25 [S2/T6/V6]
B32T	LEFB32 [_/E]
B32S	LEFB32 [S3/T7/V7]

∗ The LEKFS cannot be used for cantilevers.

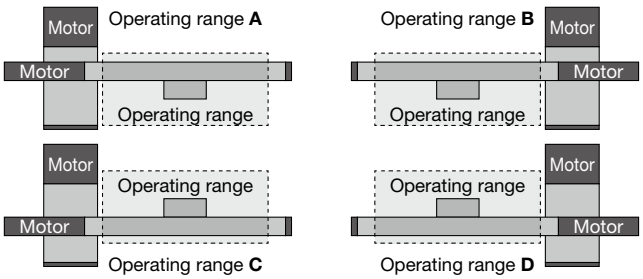
❺ Z-axis

Symbol	Model	Stroke
N	None	
G16A	LEYG16	30 to 200
G25A	LEYG25	30
G25B		50 to 300

❸ Y-axis mounting direction

Symbol	Operating range
F	A, D
R	B, C

∗ Refer to the figures on the right for the operating range.



❹ Y-axis bracket

❷ Y-axis		❸ Y-axis mounting direction: F				❸ Y-axis mounting direction: R			
Symbol	Stroke	❶ X-axis: FS16 KS16	❶ X-axis: FS25	❶ X-axis: FS32	❶ X-axis: FS40	❶ X-axis: FS16 KS16	❶ X-axis: FS25	❶ X-axis: FS32	❶ X-axis: FS40
FS16	50	**C1**		**C3**		**C5**		**C7**	
	100 to 500	**C2**		**C4**		**C6**		**C8**	
FS25	50		**C1**	**C3**			**C5**	**C7**	
	100 to 800		**C2**	**C4**			**C6**	**C8**	
FS32	50 to 1000			**C1**				**C2**	
FS40	150 to 1200				**C1**				**C2**
B16T	300 to 1000	**C1**		**C2**		**C3**		**C4**	
B25T	300 to 2000		**C1**	**C2**			**C3**	**C4**	
B25S	300 to 2000		**C5**	**C6**			**C7**	**C8**	
B32T	300 to 2000			**C1**				**C2**	
B32S	300 to 2500			**C3**				**C4**	

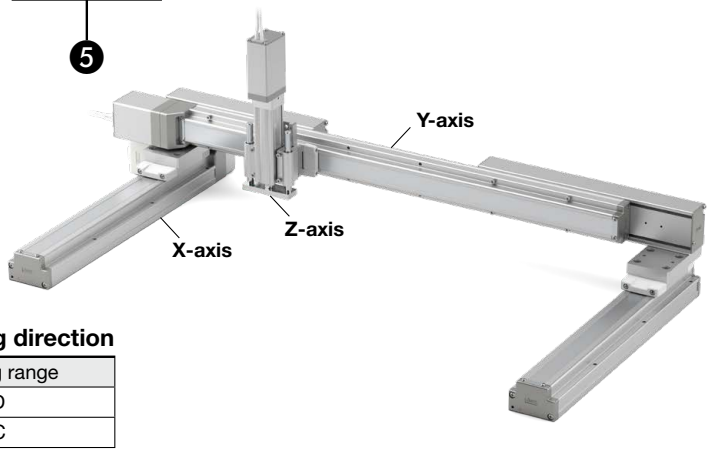
How to Order

Gantries

LEA – FS25 – FS16 F G1 – G16A

Mounting kit for multi-axis system

❶ ❷ ❸ ❹ ❺



❶ X-axis

Symbol	Model
FS16	LEFS16*1
FS25	LEFS25 / LEKFS25
FS32	LEFS32 / LEKFS32
FS40	LEFS40 / LEKFS40

*1 Not compatible with LEKFS16

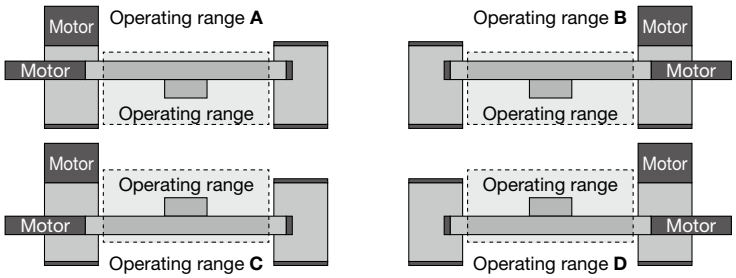
❷ Y-axis

Symbol	Model and motor type
FS16	LEFS16
KS16	LEKFS16
FS25	LEFS25 / LEKFS25
FS32	LEFS32 / LEKFS32
FS40	LEFS40 / LEKFS40
B16T	LEFB16 [_/A/E]
B25T	LEFB25 [_/A/E]
B25S	LEFB25 [S2/T6/V6]
B32T	LEFB32 [_/E]
B32S	LEFB32 [S3/T7/V7]

❸ Y-axis mounting direction

Symbol	Operating range
F	A, D
R	B, C

* Refer to the figures below for the operating range.



❺ Z-axis

Symbol	Model	Stroke
N	None	
G16A	LEYG16	30 to 200
G25A	LEYG25	30
G25B		50 to 300

❹ Y-axis bracket

❷ Y-axis		❸ Y-axis mounting direction: F				❸ Y-axis mounting direction: R			
Symbol	*1 Stroke	❶ X-axis: FS16	❶ X-axis: FS25	❶ X-axis: FS32	❶ X-axis: FS40	❶ X-axis: FS16	❶ X-axis: FS25	❶ X-axis: FS32	❶ X-axis: FS40
FS16 KS16	300	G1				G3			
	350	G2				G4			
	400	G1				G3			
	450	G2				G4			
	500	G1				G3			
FS25	300		G1	G1			G3	G3	
	350			G2				G4	
	400		G2				G4		
	450		G1	G1			G3	G3	
	500		G2	G2			G4	G4	
	550*2		G1	G1			G3	G3	
	600			G2				G4	
	650*2		G2				G4		
	700		G1				G3		
	750*2		G2				G4		
	800		G1	G1			G3	G3	
FS32	350			G1				G3	
	400								
	450			G2				G4	
	500			G1				G3	
	550*2								
	600			G2				G4	
	650*2			G1				G3	
	700								
	750*2			G2				G4	
	800			G1				G3	
	850*2								
	900			G2				G4	
	950*2			G1				G3	
	1000								
FS40	350				G1				G3
	400								
	450				G2				G4
	500				G1				G3
	550*2								
	600				G2				G4
	650*2				G1				G3
	700								
	750*2				G2				G4
	800				G1				G3
	850*2								
	900				G2				G4
	950*2				G1				G3
	1000								
	1100								
	1200				G2				G4

*1 Actuators with strokes less than those listed cannot be used with the gantry.

*2 Strokes available only for the LEFS series (LEKFS is a non-standard stroke)

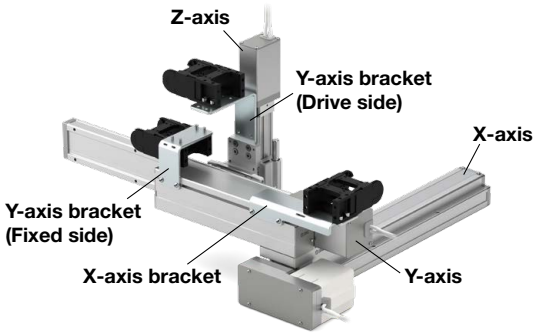
❷ Y-axis		❸ Y-axis mounting direction: F				❸ Y-axis mounting direction: R			
Symbol	*1 Stroke	❶ X-axis: FS16	❶ X-axis: FS25	❶ X-axis: FS32	❶ X-axis: FS40	❶ X-axis: FS16	❶ X-axis: FS25	❶ X-axis: FS32	❶ X-axis: FS40
B16T	500	G1		G1		G3		G3	
	600	G2				G4			
	700	G1		G2		G3		G4	
	800			G1				G3	
	900	G2				G4			
	1000	G1		G2		G3		G4	
B25T	500		G2	G2			G4	G4	
	600		G1				G3		
	700		G2				G4		
	800			G2				G4	
	900		G1	G1			G3	G3	
	1000		G2	G2			G4	G4	
	1100			G1				G3	
	1200		G2				G4		
	1300			G2				G4	
	1400		G1	G1			G3	G3	
	1500		G2	G2			G4	G4	
	1600			G1				G3	
	1700		G2				G4		
	1800			G2				G4	
	1900		G1				G3		
	2000		G2	G2			G4	G4	
B25S	400		G1	G1			G3	G3	
	500		G2	G2			G4	G4	
	600		G1				G3		
	700		G2				G4		
	800			G2				G4	
	900		G1	G1			G3	G3	
	1000		G2	G2			G4	G4	
	1100		G1	G1			G3	G3	
	1200		G2				G4		
	1300			G2				G4	
	1400		G1	G1			G3	G3	
	1500		G2	G2			G4	G4	
	1600		G1	G1			G3	G3	
	1700		G2				G4		
	1800			G2				G4	
	1900		G1				G3		
	2000		G2	G2			G4	G4	
B32T	500			G1				G3	
	600			G2				G4	
	700			G1				G3	
	800			G2				G4	
	900			G1				G3	
	1000			G2				G4	
	1200								
	1500			G1				G3	
	1800			G2				G4	
	2000								
B32S	500			G1				G3	
	600			G2				G4	
	700			G1				G3	
	800			G2				G4	
	900			G1				G3	
	1000			G2				G4	
	1100			G1				G3	
	1200			G2				G4	
	1300			G1				G3	
	1400			G2				G4	
	1500			G1				G3	
	1600			G2				G4	
	1700			G1				G3	
	1800			G2				G4	
	1900			G1				G3	
	2000			G2				G4	
	2500			G1				G3	

How to Order

Cable Carrier Mounting Bracket

LEA–D 1 – A – B1 – C1

Cable carrier mounting bracket ❶ ❷ ❸ ❹



❶ Compatible manufacturer and series

Symbol	Manufacturer	Series
1	igus	E4.28

❷ X-axis bracket

Symbol	Yes/No
N	No
A	Yes

❸ Y-axis bracket (Fixed side)

Symbol	Y-axis			
	FS16/KS16/B16T	FS25/B25T/B25S	FS32/B32T/B32S	FS40
N	–	–	–	–
B1	●	–	–	–
B2	–	●	●	●

❹ Y-axis bracket (Drive side)

Symbol	Y-axis			
	FS16/KS16/B16T	FS25/B25T/B25S	FS32/B32T/B32S	FS40
N	–	–	–	–
C1	●	●	–	–
C2	–	–	●	●

Cable Carrier Design Support

The cable carrier mounting bracket does not include a cable carrier, so please prepare it yourself.
Please use the igus E4.28 series energy chains for the cable carrier.
https://www.igus.co.jp
For X-axis: E4.28.040.R or E4.28.050.R
For Y-axis: E4.28.040.R

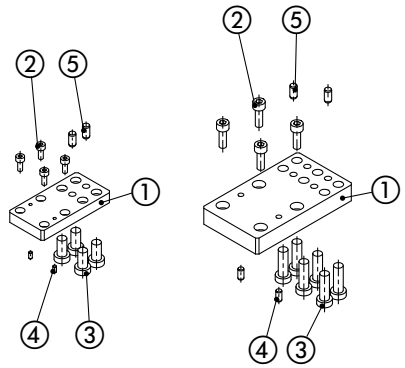
For the length and number of links of the cable carrier, please check the igus website.
For the offset amount required for selection, please refer to the following.

●About the offset amount of the fixed end
The offset amount of the X-axis depends on the device to be installed, so please select it yourself.
Calculate the offset amount of the Y-axis using the table on the right.

X-axis size	Y-axis size	F	G
16	16	142.5	$38.5 + \frac{(\text{Stroke} + 80)}{2}$
25			
32		118.5	$38.5 + \frac{(\text{Stroke} + 80)}{2}$
40			
25	25	167.5	$38.5 + \frac{(\text{Stroke} + 110)}{2}$
32		143.5	$38.5 + \frac{(\text{Stroke} + 110)}{2}$
40			
32	32	200.5	$38.5 + \frac{(\text{Stroke} + 130)}{2}$
40			
40	40	194.5	$38.5 + \frac{(\text{Stroke} + 178)}{2}$

Component Parts

1) X fixing plate



Size 16/25 Size 32/40

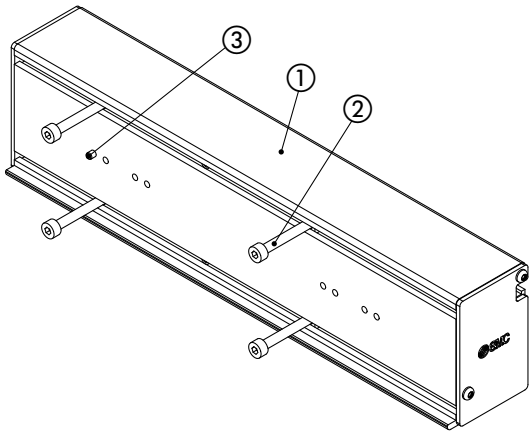
∗ Refer to the operation manual for assembly procedures.

Parts List

No.	Description	Qty.	X-axis∗1
1	X fixing plate	1	
2	Hexagon socket head cap screw	4	
3	Hexagon socket thin head cap screw	4	FS16/KS16 FS25
		6	FS32/FS40
4	Parallel pin	2	
5	Parallel pin	2	

∗1 Refer to the “How to Order” section.

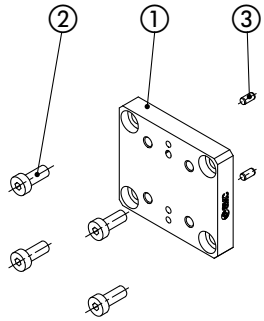
2) Boom profile



Parts List

No.	Description	Qty.
1	Boom profile	1
2	Hexagon socket head cap screw	4
3	Parallel pin	1

3) Y fixing plate

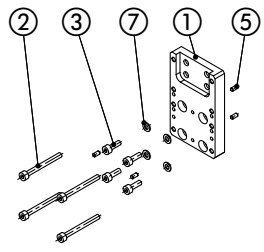


Parts List

No.	Description	Qty.	Y-axis∗1
1	Y fixing plate	1	FS25/FS32/FS40/B25T/ B25S/B32T/B32S/B40S
2	Hexagon socket thin head cap screw	4	
3	Parallel pin	2	

∗1 Refer to the “How to Order” section.

4) Z adapter plate

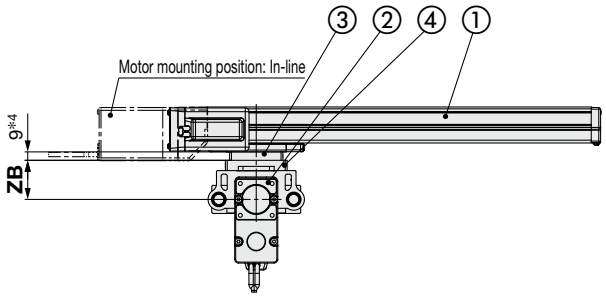


Parts List

No.	Description	Qty.	Y-axis∗1
1	Z adapter plate	1	
2	Hexagon socket head cap screw	4	
3	Hexagon socket head cap screw	4	FS16/KS16/B16T
	Hexagon socket thin head cap screw	4	FS25/FS32/FS40/B25T/ B25S/B32T/B32S
5	Parallel pin	4	FS16/KS16/B16T
		2	FS25/FS32/FS40/B25T/ B25S/B32T/B32S/B40S
6	Parallel pin	—	FS16/KS16/B16T
		2	FS25/FS32/FS40/B25T/ B25S/B32T/B32S/B40S
7	Flat washer	4	FS16/KS16/B16T
		—	FS25/FS32/FS40/B25T/ B25S/B32T/B32S/B40S

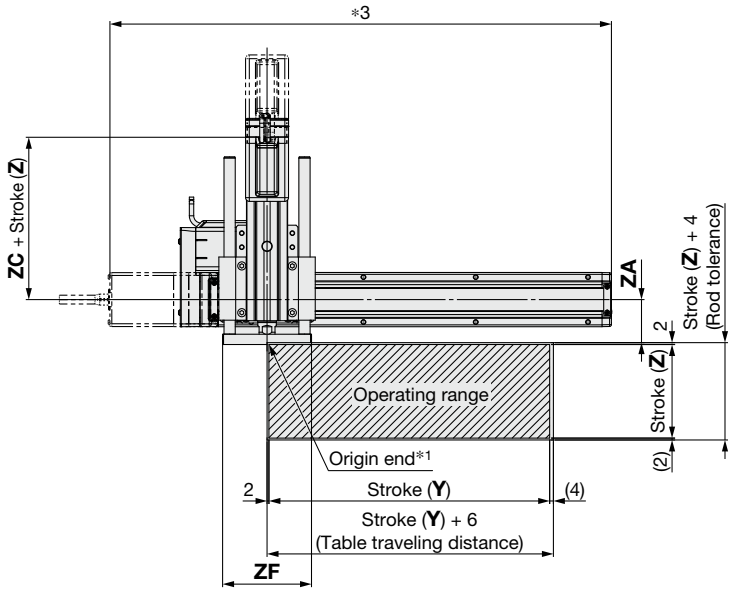
∗1 Refer to the “How to Order” section.

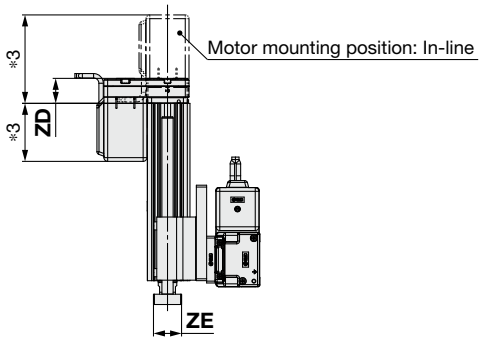
Dimensions: Line Gantries

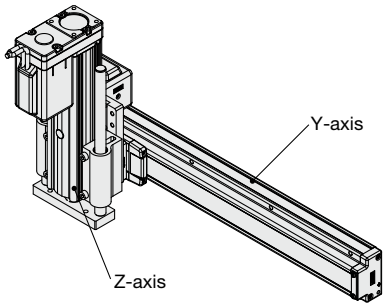


Parts Description

No.	Part no.	Description	Qty.	Note
1	**LE(K)FS, LEFB series**	**Y-axis actuator**	1	Order separately.*2 *3
2	**LEYG series**	**Z-axis actuator**	1	Order separately.*2 *3
3		**Y fixing plate**	(1)	Size 25, 32, 40*4
4		**Z adapter plate**	1	







*1 This diagram shows the position of the "origin end" (0 mm) at the time of shipment from the factory. When the direction for return to origin needs to be changed to opposite side, refer to the catalog for the selected model.
*2 This product does not include an actuator. Order it separately.
*3 For the actuator dimensions, refer to the catalog for the selected model.
*4 For Y-axis size 16, ③ Y fixing plate is not used.
* For LE(K)FS25□G (motor mounting position: parallel) and LE(K)FS32 (motor mounting position: parallel), a "table spacer" is attached to the table mounting surface. It must be removed when assembling.
* Select each axis using the Model Selection Software.

Y-Z Axis Combinations

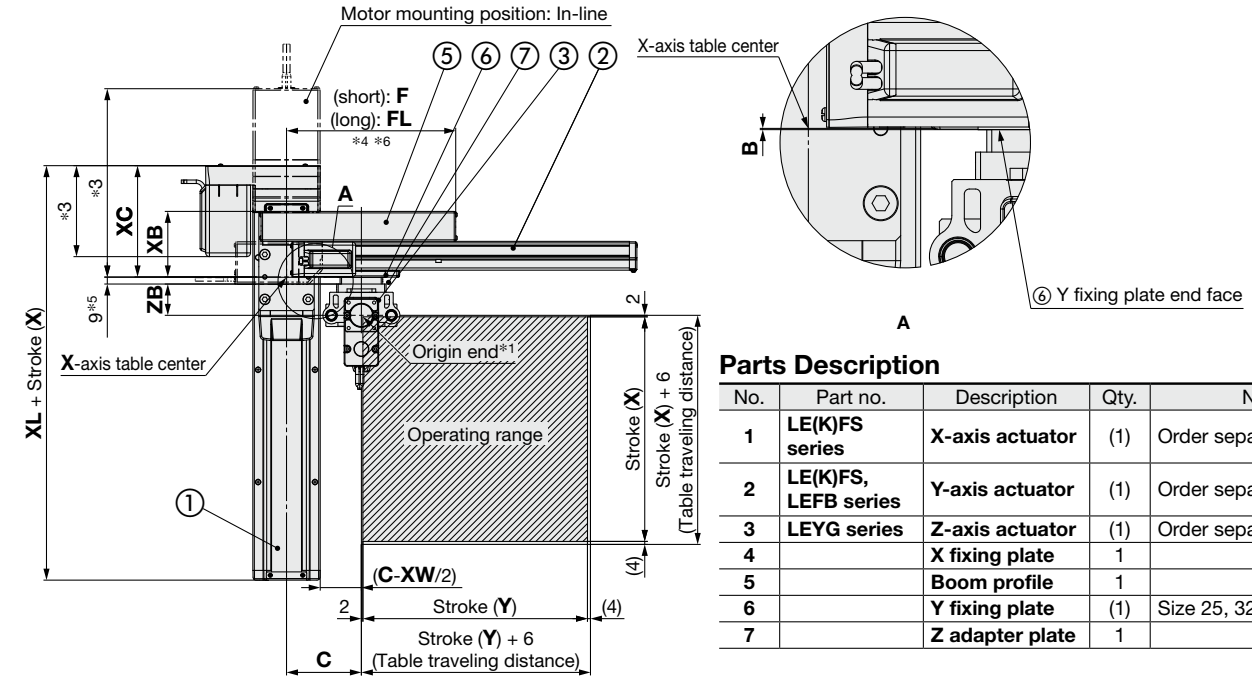
Y-axis size	Z-axis size	
	16	**25**
16	○	–
25	○	○
32	○	○
40	○	○

Z-Axis Dimensions

Z-axis size	**ZA**	**ZB**	**ZC**		**ZD**	**ZE**	**ZF**
			Z-axis stroke				
			100 or less	105 or more			
16	37	35.8	47.5	67.5	22.5	25	79
25	46	41.8	67	92	26.5	30	95

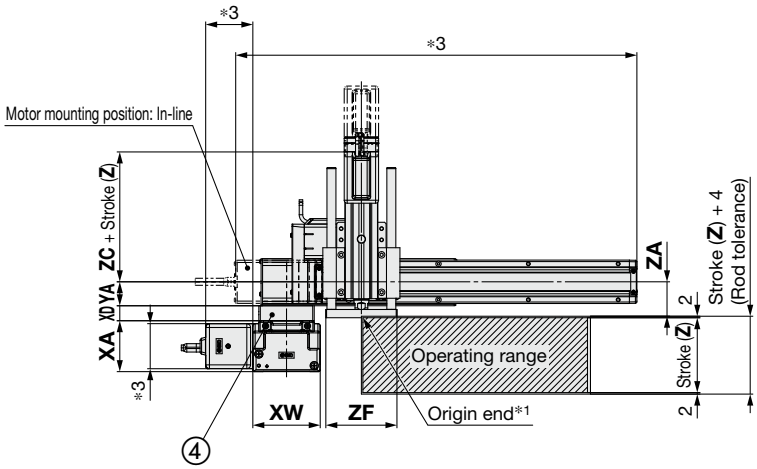
Dimensions: Cantilever (Operating range A)

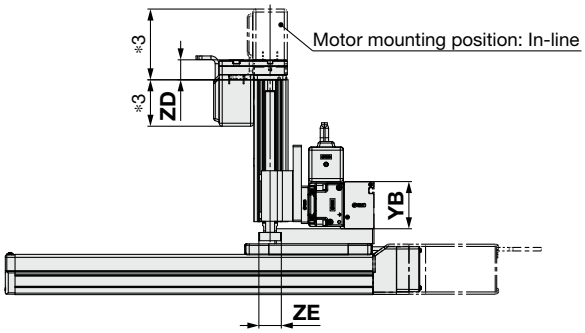
When using operating range B, please reverse the orientation of the Y-axis actuator.



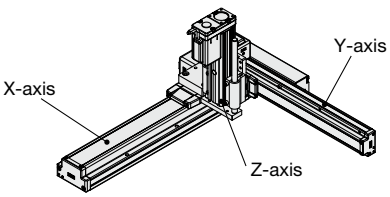
Parts Description

No.	Part no.	Description	Qty.	Note
1	**LE(K)FS series**	**X-axis actuator**	(1)	Order separately.*2 *3
2	**LE(K)FS, LEFB series**	**Y-axis actuator**	(1)	Order separately.*2 *3
3	**LEYG series**	**Z-axis actuator**	(1)	Order separately.*2 *3
4		**X fixing plate**	1	
5		**Boom profile**	1	
6		**Y fixing plate**	(1)	Size 25, 32, 40*5
7		**Z adapter plate**	1	





*1 This diagram shows the position of the "origin end" (0 mm) at the time of shipment from the factory. When the direction for return to origin needs to be changed to opposite side, refer to the catalog for the selected model.
*2 This product does not include an actuator. Order it separately.
*3 For the actuator dimensions, refer to the catalog for the selected model.
*4 When the Y-axis stroke is 50, please note that ⑤ the boom profile will be longer than the Y-axis actuator.
*5 For shaft size 16, ⑥ the Y fixing plate is not used.
*6 F (short) and FL (long) vary depending on the selected model.
* For LE(K)FS25□G (motor mounting position: parallel) and LE(K)FS32 (motor mounting position: parallel), a "table spacer" is attached to the table mounting surface. It must be removed when assembling.
* Select each axis using the Model Selection Software.



X-Y Axis Combination Dimensions

X-axis size	Y-axis size	B	C	F	FL
16	**16**	18.5	76	216	—
25	**16**	5	76	216	—
	25	15	88	238	—
32	**16**	2	88	204	248*2
	25	12	100	226	306*2
	32	27	114	286	—
40	**16**	–9.5*1	88	204	248*2
	25	0.5	100	226	306*2
	32	15.5	114	286	—
	40	24.5	114	257	—

*1 Represents the opposite direction
*2 For Y-axis LEFB

X-Axis Dimensions

X-axis size	XA	XB	XC	XD	XL	XW
16	40	59.5	66.5	10	116.5	40
	(43.5)*3					
25	48	73	92.5	12	160.5	58
32	60	76	117	16	195	70
40	68	87.5	148.4	20	253.4	90

*3 For LEKFS16

Y-Axis Dimensions

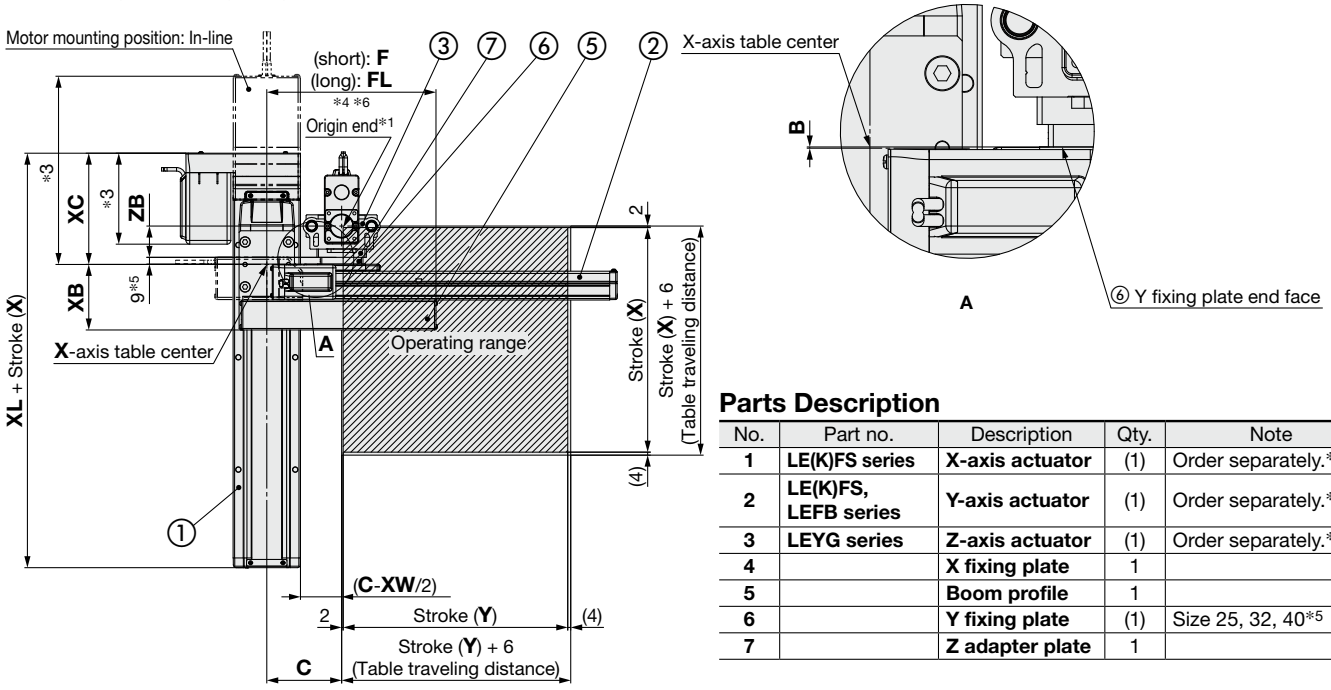
Y-axis size	YA	YB
16	22	44
25	32	63
32	38	75
40	48	95

Z-Axis Dimensions

Z-axis size	ZA	ZB	ZC		ZD	ZE	ZF
			Z-axis stroke				
			100 or less	105 or more			
16	37	35.8	47.5	67.5	22.5	25	79
25	46	41.8	67	92	26.5	30	95

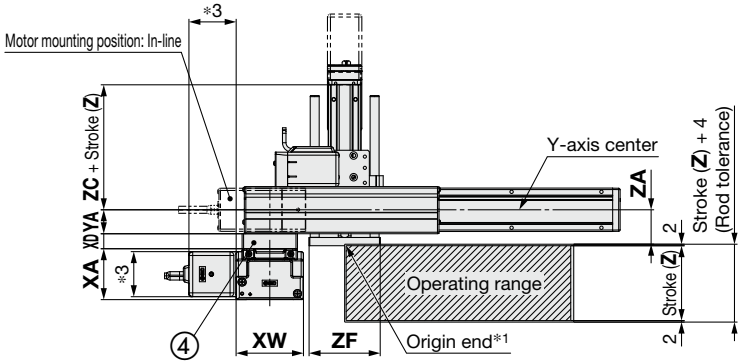
Dimensions: Cantilever (Operating range C)

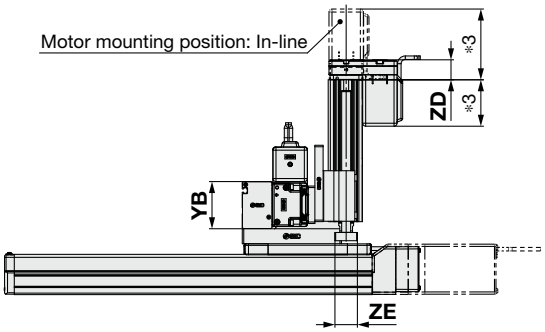
When using operating range D, please reverse the orientation of the Y-axis actuator.



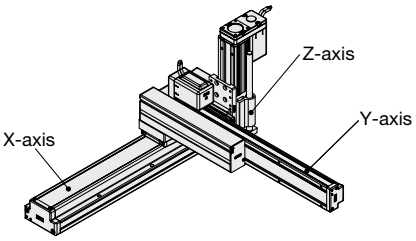
Parts Description

No.	Part no.	Description	Qty.	Note
1	**LE(K)FS series**	**X-axis actuator**	(1)	Order separately.*2 *3
2	**LE(K)FS, LEFB series**	**Y-axis actuator**	(1)	Order separately.*2 *3
3	**LEYG series**	**Z-axis actuator**	(1)	Order separately.*2 *3
4		**X fixing plate**	1	
5		**Boom profile**	1	
6		**Y fixing plate**	(1)	Size 25, 32, 40*5
7		**Z adapter plate**	1	





*1 This diagram shows the position of the "origin end" (0 mm) at the time of shipment from the factory. When the direction for return to origin needs to be changed to opposite side, refer to the catalog for the selected model.
*2 This product does not include an actuator. Order it separately.
*3 For the actuator dimensions, refer to the catalog for the selected model.
*4 When the Y-axis stroke is 50, please note that ⑤ the boom profile will be longer than the Y-axis actuator.
*5 For shaft size 16, ⑥ the Y fixing plate is not used.
*6 F (short) and FL (long) vary depending on the selected model.
* For LE(K)FS25□G (motor mounting position: parallel) and LE(K)FS32 (motor mounting position: parallel), a "table spacer" is attached to the table mounting surface. It must be removed when assembling.
* Select each axis using the Model Selection Software.



X-Y Axis Combination Dimensions

X-axis size	Y-axis size	B	C	F	FL
16	**16**	18.5	76	216	—
25	**16**	5	76	216	—
	25	15	88	238	—
32	**16**	2	88	204	248*2
	25	12	100	226	306*2
	32	27	114	286	—
40	**16**	–9.5*1	88	204	248*2
	25	0.5	100	226	306*2
	32	15.5	114	286	—
	40	24.5	114	257	—

*1 Represents the opposite direction
*2 For Y-axis LEFB

X-Axis Dimensions

X-axis size	XA	XB	XC	XD	XL	XW
16	40	59.5	66.5	10	116.5	40
	(43.5)*3					
25	48	73	92.5	12	160.5	58
32	60	76	117	16	195	70
40	68	87.5	148.4	20	253.4	90

*3 For LEKFS16

Y-Axis Dimensions

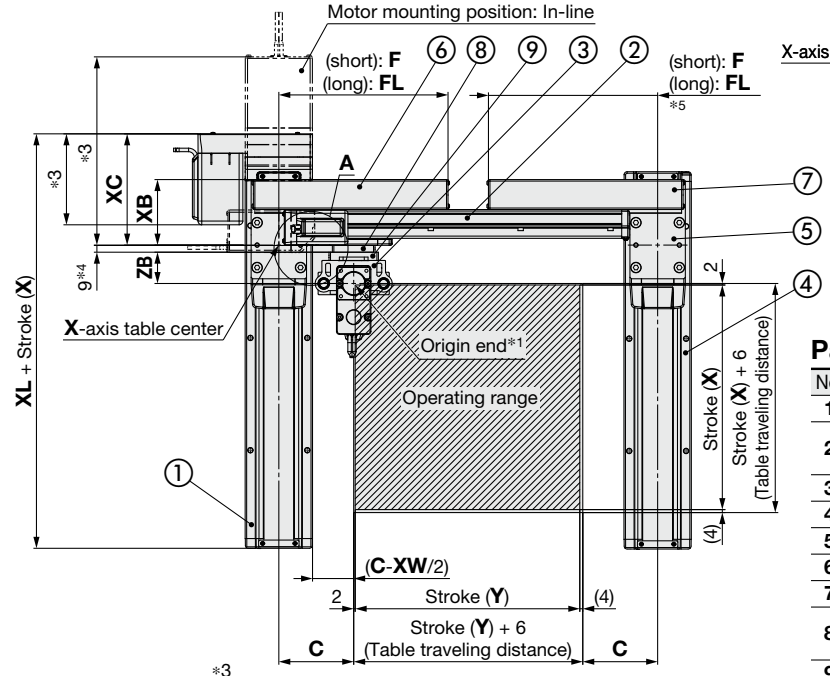
Y-axis size	YA	YB
16	22	44
25	32	63
32	38	75
40	48	95

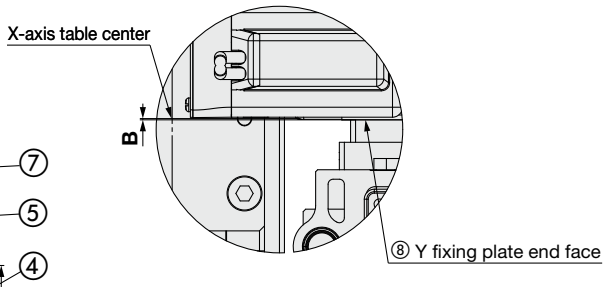
Z-Axis Dimensions

Z-axis size	ZA	ZB	ZC		ZD	ZE	ZF
			Z-axis stroke				
			100 or less	105 or more			
16	37	35.8	47.5	67.5	22.5	25	79
25	46	41.8	67	92	26.5	30	95

Dimensions: Gantries (Operating range A)

When using operating range B, please reverse the orientation of the Y-axis actuator.

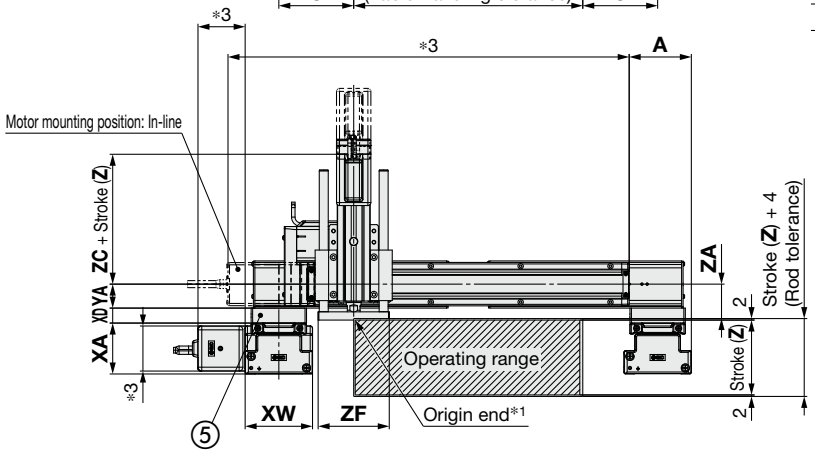


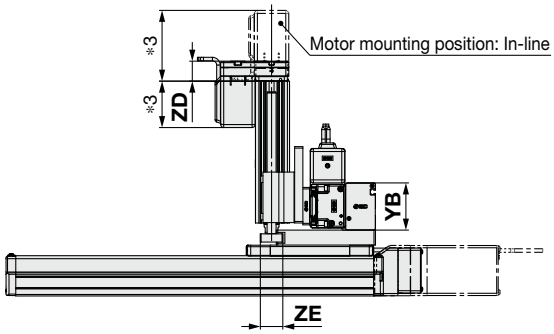


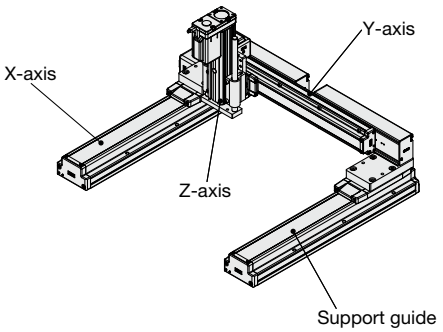
A (2 : 3)

Parts Description

No.	Part no.	Description	Qty.	Note
1	LE(K)FS series	X-axis actuator	(1)	Order separately.*2 *3
2	LE(K)FS, LEFB series	Y-axis actuator	(1)	Order separately.*2 *3
3	LEYG series	Z-axis actuator	(1)	Order separately.*2 *3
4	LEFG series	X-axis support guide	(1)	Order separately.*2 *3
5		X fixing plate	2	
6		Boom profile	1	
7		Boom profile	1	
8		Y fixing plate	(1)	Size 25, 32, 40*4
9		Z adapter plate	1	







*1 This diagram shows the position of the "origin end" (0 mm) at the time of shipment from the factory. When the direction for return to origin needs to be changed to opposite side, refer to the catalog for the selected model.
*2 This product does not include an actuator. Order it separately.
*3 For the actuator dimensions, refer to the catalog for the selected model.
*4 For Y-axis size 16, ⑧ Y fixing plate is not used.
*5 F (short) and FL (long) vary depending on the selected model.
* For LE(K)FS25□G (motor mounting position: parallel) and LE(K)FS32 (motor mounting position: parallel), a "table spacer" is attached to the table mounting surface. It must be removed when assembling.
* Select each axis using the Model Selection Software.

X-Y Axis Combination Dimensions

X-axis size	Y-axis size	A			B	C	F	FL
		Y-axis actuator						
		LE(K)FS	LEFB	LEFB (AC servo)				
16	16	52	–3*1	—	18.5	76	216	260
25	16	61	6	—	5	76	216	260
	25	55	–2*1	–2*1	15	88	238	318
32	16	79	24	—	2	88	204	248
	25	73	16	16	12	100	226	306
	32	77	18	23	27	114	286	376
40	16	89	34	—	–9.5*1	88	204	248
	25	83	26	26	0.5	100	226	306
	32	87	28	33	15.5	114	286	376
	40	60	—	—	24.5	114	257	307

*1 Represents the opposite direction

X-Axis Dimensions

X-axis size	XA	XB	XC	XD	XL	XW
16	40	59.5	66.5	10	116.5	40
25	48	73	92.5	12	160.5	58
32	60	76	117	16	195	70
40	68	87.5	148.4	20	253.4	90

Y-Axis Dimensions

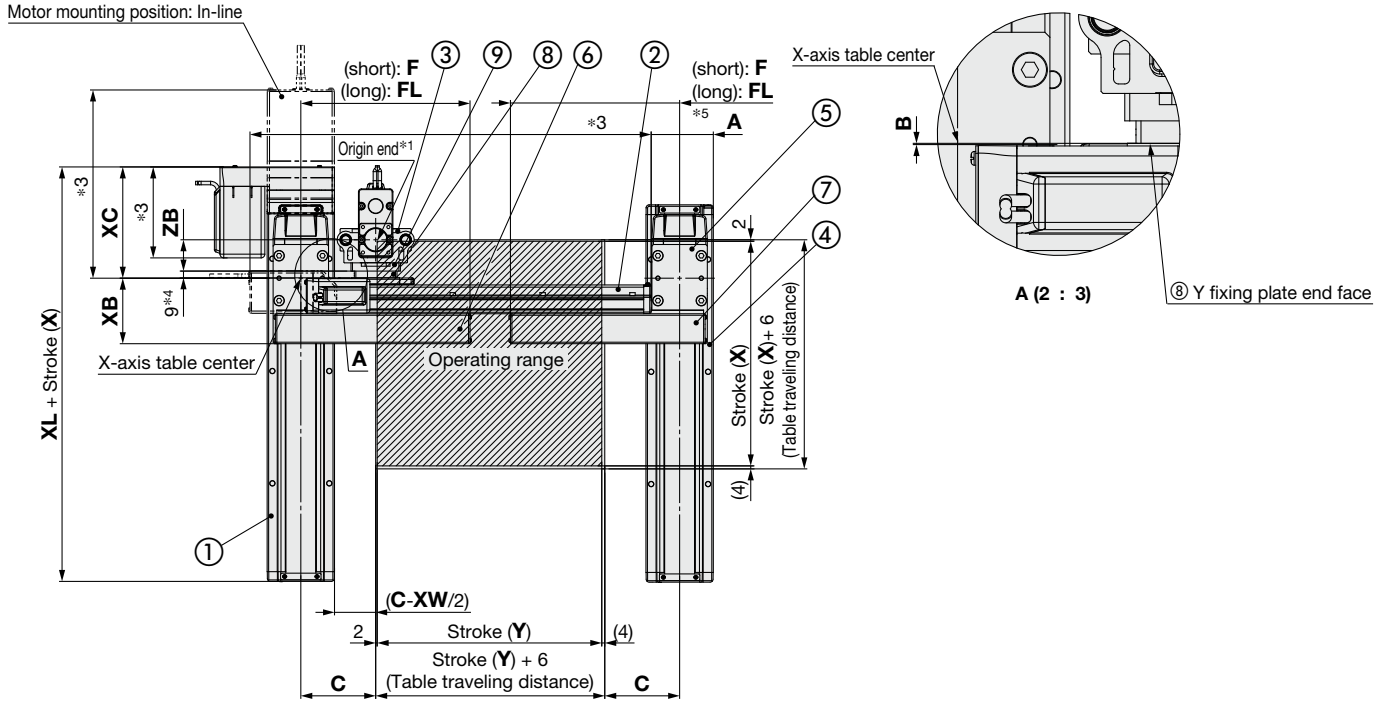
Y-axis size	YA	YB
16	22	44
25	32	63
32	38	75
40	48	95

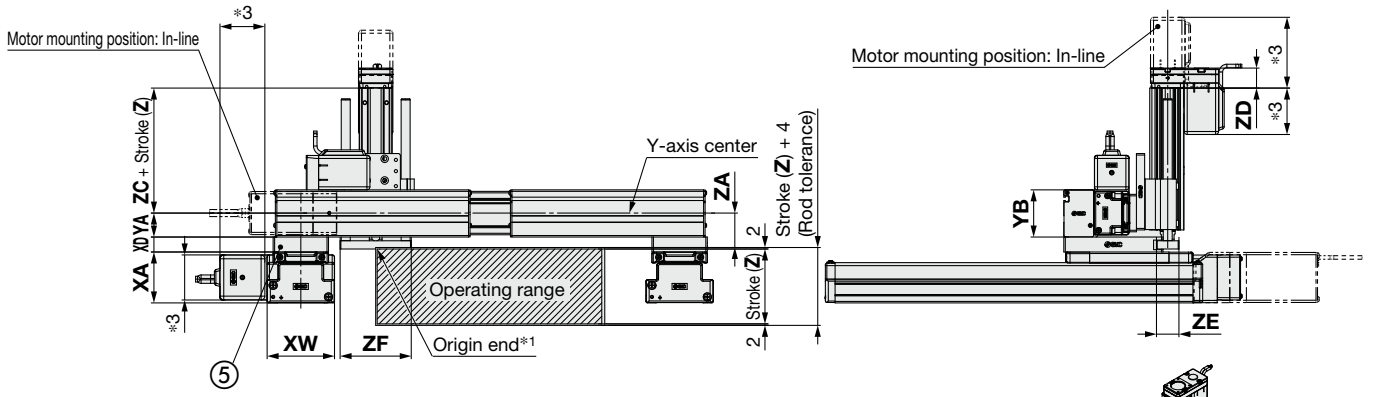
Z-Axis Dimensions

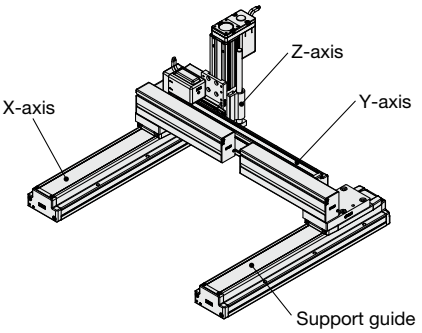
Z-axis size	ZA	ZB	ZC		ZD	ZE	ZF
			Z-axis stroke				
			100 or less	105 or more			
16	37	35.8	47.5	67.5	22.5	25	79
25	46	41.8	67	92	26.5	30	95

Dimensions: Gantries (Operating range C)

When using operating range D, please reverse the orientation of the Y-axis actuator.







*1 This diagram shows the position of the "origin end" (0 mm) at the time of shipment from the factory. When the direction for return to origin needs to be changed to opposite side, refer to the catalog for the selected model.
*2 This product does not include an actuator. Order it separately.
*3 For the actuator dimensions, refer to the catalog for the selected model.
*4 For Y-axis size 16, ⑧ Y fixing plate is not used.
*5 F (short) and FL (long) vary depending on the selected model.
* For LE(K)FS25□G (motor mounting position: parallel) and LE(K)FS32 (motor mounting position: parallel), a "table spacer" is attached to the table mounting surface. It must be removed when assembling.
* Select each axis using the Model Selection Software.

X-Y Axis Combination Dimensions

X-axis size	Y-axis size	A			B	C	F	FL
		Y-axis actuator						
		LE(K)FS	LEFB	LEFB (AC servo)				
16	16	52	–3*1	—	18.5	76	216	260
25	16	61	6	—	5	76	216	260
	25	55	–2*1	–2*1	15	88	238	318
32	16	79	24	—	2	88	204	248
	25	73	16	16	12	100	226	306
	32	77	18	23	27	114	286	376
40	16	89	34	—	–9.5*1	88	204	248
	25	83	26	26	0.5	100	226	306
	32	87	28	33	15.5	114	286	376
	40	60	—	—	24.5	114	257	307

*1 Represents the opposite direction

X-Axis Dimensions

X-axis size	XA	XB	XC	XD	XL	XW
16	40	59.5	66.5	10	116.5	40
25	48	73	92.5	12	160.5	58
32	60	76	117	16	195	70
40	68	87.5	148.4	20	253.4	90

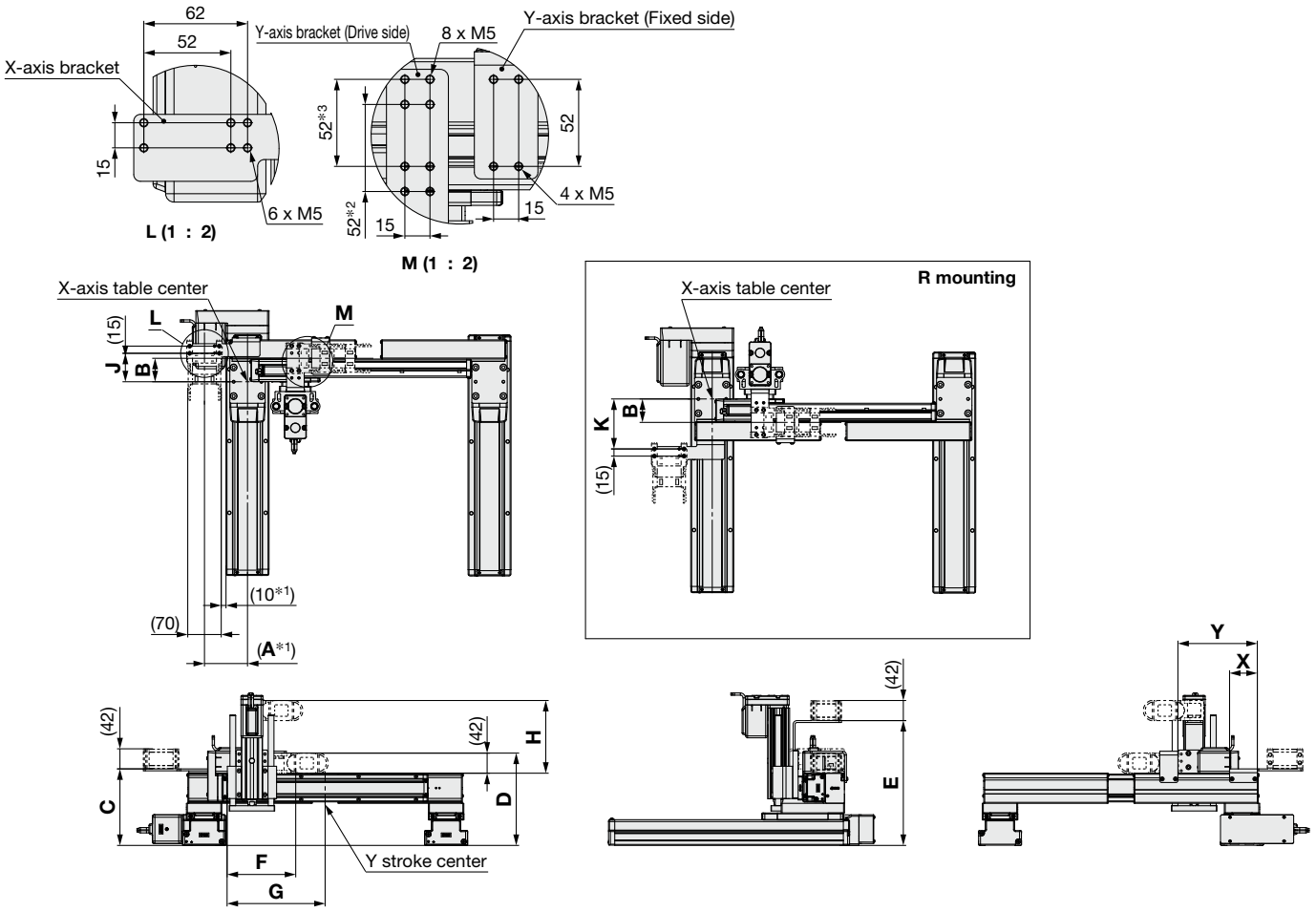
Y-Axis Dimensions

Y-axis size	YA	YB
16	22	44
25	32	63
32	38	75
40	48	95

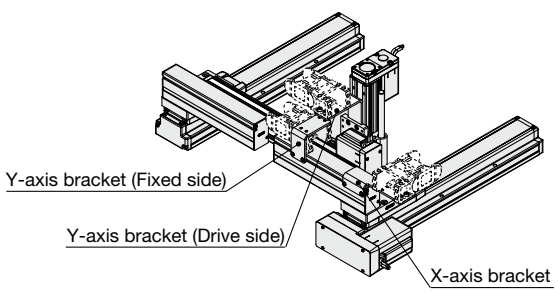
Z-Axis Dimensions

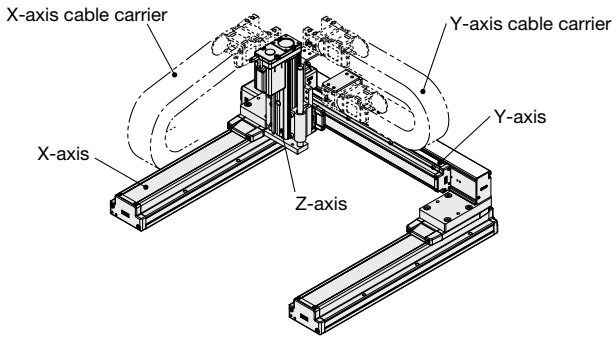
Z-axis size	ZA	ZB	ZC		ZD	ZE	ZF
			Z-axis stroke				
			100 or less	105 or more			
16	37	35.8	47.5	67.5	22.5	25	79
25	46	41.8	67	92	26.5	30	95

Dimensions: Cable Carrier Mounting Bracket



*1 This mounting dimension is the recommended value when using the energy chain (igus GmbH) E4.28.050.R.0 for the X-axis and E4.28.040.055.0 for the Y-axis.
*2 Y-axis size: The mounting position for 16 and 32.
*3 Y-axis size: The mounting position for 25 and 40.
* This product does not include an actuator, mounting kit for multi-axis system, and cable carrier. Order them separately.
* For the Y-axis size 16, a spacer should be used for mounting the Y-axis bracket (fixed side).
* The bending radius of the X-axis cable carrier: R should be selected by the customer.
* For the calculation of the number of links of the cable carrier, refer to page 9.





X-Y Axis Mounting Dimensions

Manufacturer	Series	X-axis size	Y-axis size	A*1	B	C	D	E	X*1	Y*1	H
igus	E4.28	16	16	65	25	103	140	213	71	144	161
		25	16	74	38.5	113	150	223	62	144	161
			25		34.5	132	169	233		166	152
		32	16	80	41.5	129	166	239	68	144	161
			25		37.5	148	185	249		166	152
			32		37.5	160	197	271		227	162
		40	16	90	53	141	178	251	58	144	161
			25		49	160	197	261	58	166	152
			32		49	172	209	283	58	227	162
			40		49	192	229	293	63	202	152

⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of **"Caution," "Warning"** or **"Danger."** They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

⚠ Danger : **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

⚠ Warning: **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠ Caution: **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

*1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components
ISO 4413: Hydraulic fluid power - General rules and safety requirements for systems and their components
IEC 60204-1: Safety of machinery - Electrical equipment of machines - Part 1: General requirements
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1:Robots
etc.

⚠ Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. SMC products cannot be used beyond their specifications. They are not developed, designed, and manufactured to be used under the following conditions or environments. Use under such conditions or environments is not allowed.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, combustion equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogs and operation manuals.
3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

⚠ Caution

SMC develops, designs, and manufactures products to be used for automatic control equipment, and provides them for peaceful use in manufacturing industries.
Use in non-manufacturing industries is not allowed.
Products SMC manufactures and sells cannot be used for the purpose of transactions or certification specified in the Measurement Act of each country. The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".
Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2)
   Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.
   This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

*2) **Suction cups (Vacuum pads) are excluded from this 1 year warranty.**
A suction cup (vacuum pad) is a consumable part, so it is warranted for a year after it is delivered.
Also, even within the warranty period, the wear of a product due to the use of the suction cup (vacuum pad) or failure due to the deterioration of rubber material are not allowed by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

⚠ Safety Instructions	Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.

SMC Corporation