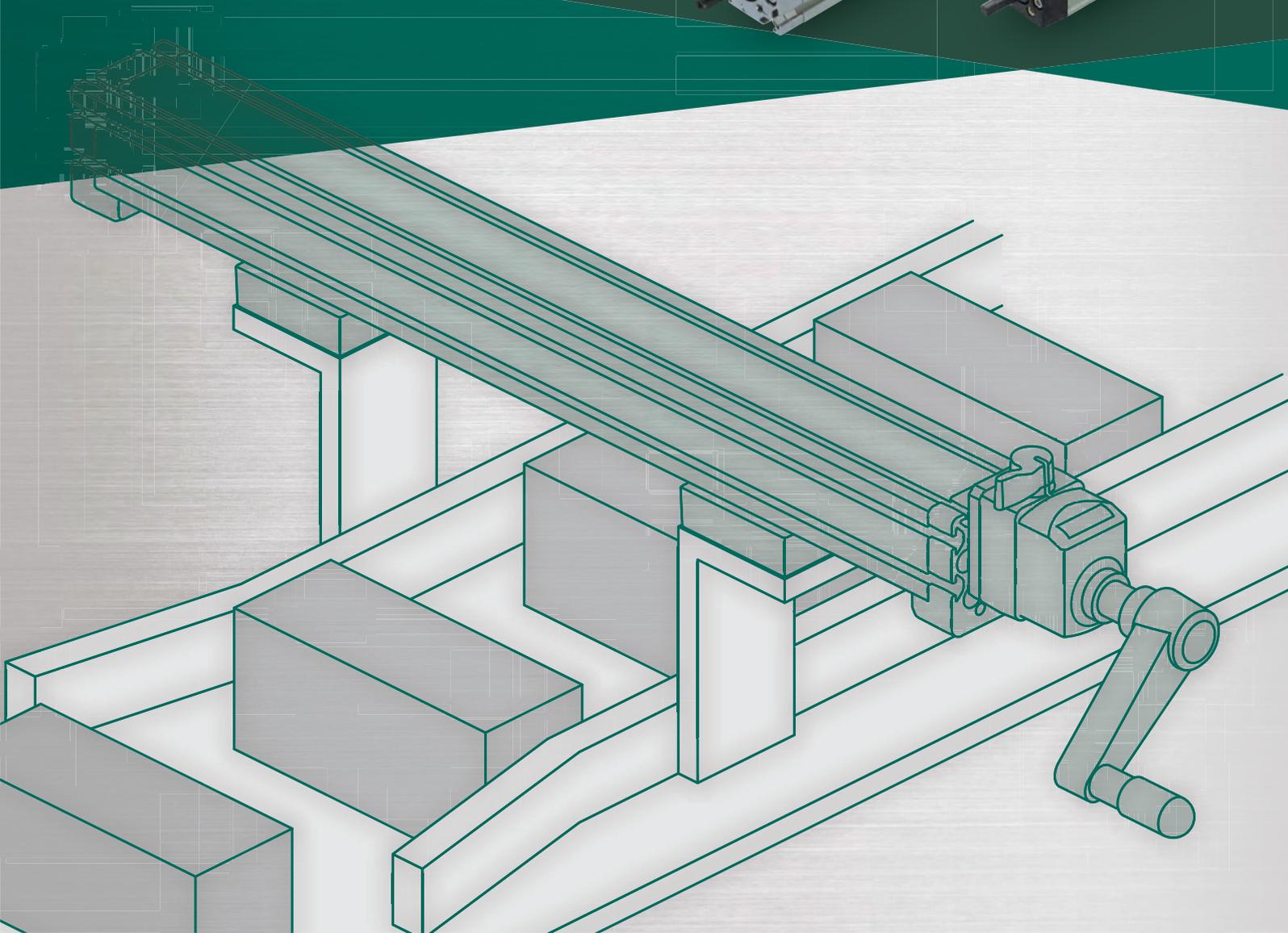


 IMAO[®] fixtureworks[®]

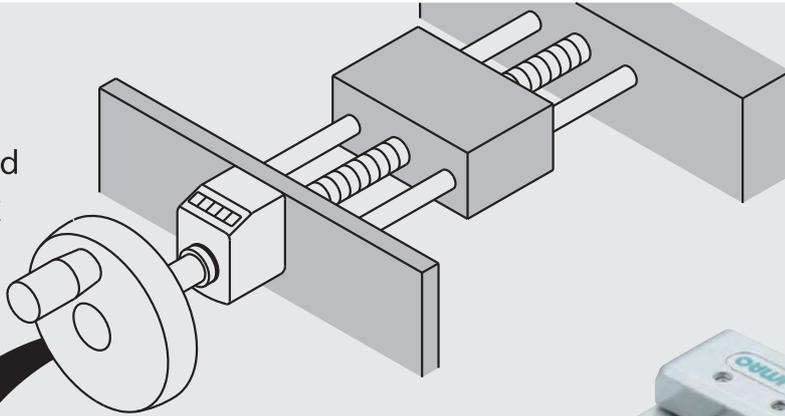
Mechanical Linear Units



MECHANICAL LINEAR ACTUATORS

Conventional

Self-made linear actuators required selecting, making and assembling many parts.



No More Selfbuild!

**Ready-to-use
linear unit**

MECHANICAL LINEAR ACTUATORS

No Parts
Selection

No
Designing

No
Assembly

IMAO's pre-assembled Linear Unit can be used with simple manual adjustments without complex processes of parts selection, design and assembly. The internal parts are protected from dust by its aluminum profile body and dustproof sheet.

Compact Type!

Compact body fits in a small area!

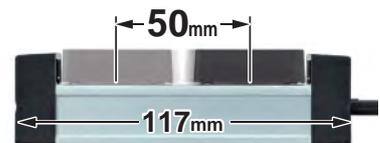
2 sizes are available.



Stroke: 50mm

Very small!

Suitable for a narrow space.



Stroke: 100mm

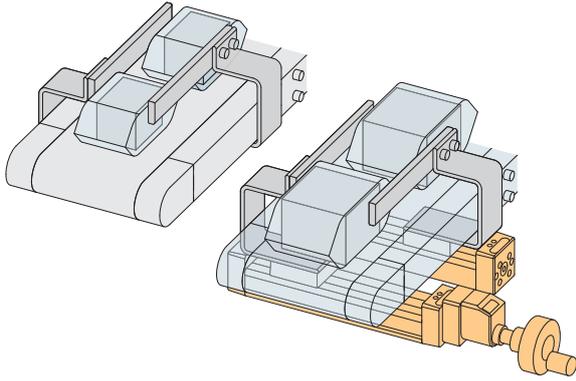
Shorter & lighter body!

Same stroke but shorter & lighter!

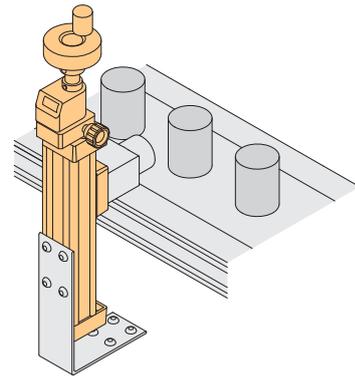


Application Example

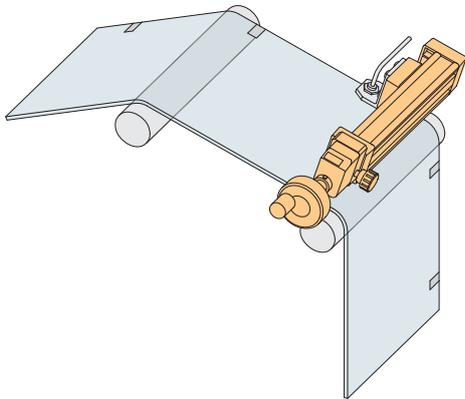
Conveyer Guide Adjustment



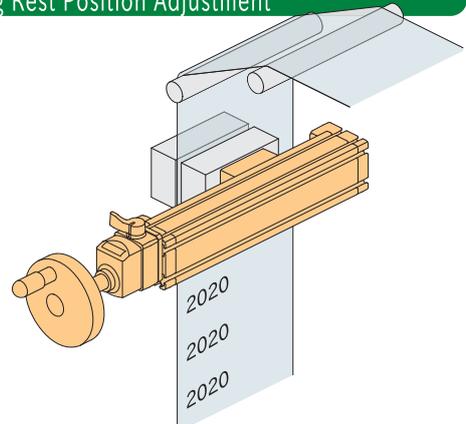
Camera Position Adjustment



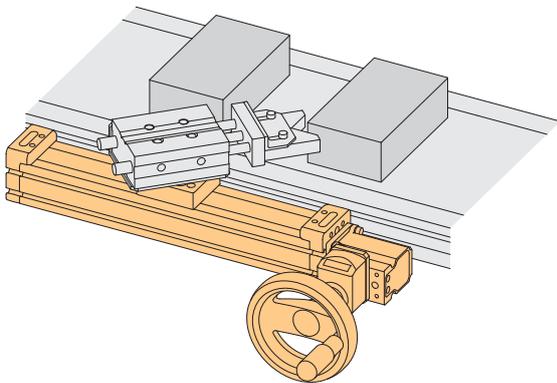
Registration Marks Sensor Position Adjustment



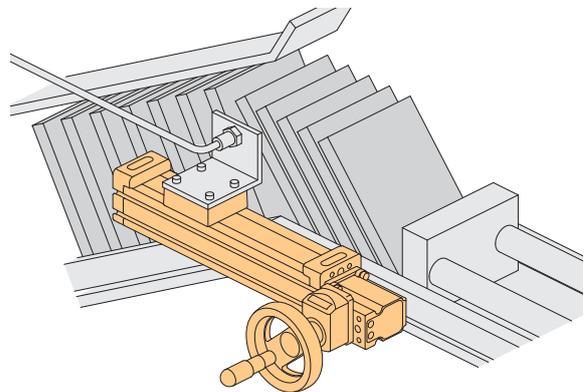
Stamping Rest Position Adjustment



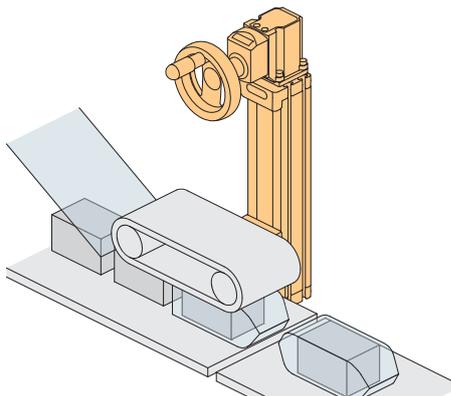
Stopper Position Adjustment



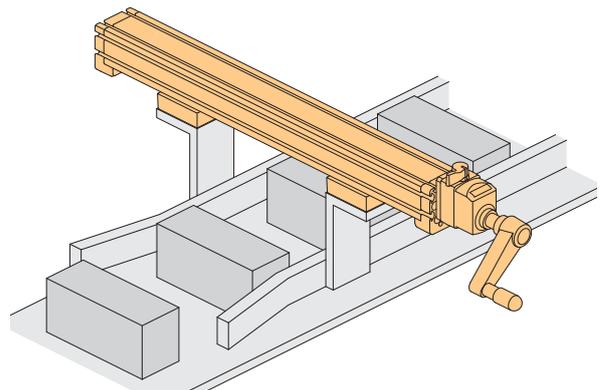
Counting Sensor Position Adjustment



Holder Belt Height Adjustment



Conveyer Guide Adjustment



Single Carriage CCW CW

Carriage moves along with rotation of the handle shaft.



Single Carriage

- Customized Stroke
- Adjustable Gearbox
- Adjustable Gearbox & Customized Stroke

Dual Carriage CW

Carriages move towards the center or opposite directions along with the rotation of the handle shaft.



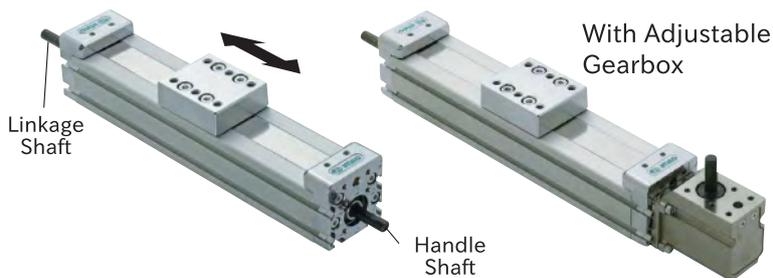
Dual Carriage

- Customized Stroke
- Adjustable Gearbox
- Adjustable Gearbox & Customized Stroke

Linkage Single Carriage

CCW CW With Handle Shaft Without Handle Shaft

The actuators can be used in pairs connected at linkage shafts.



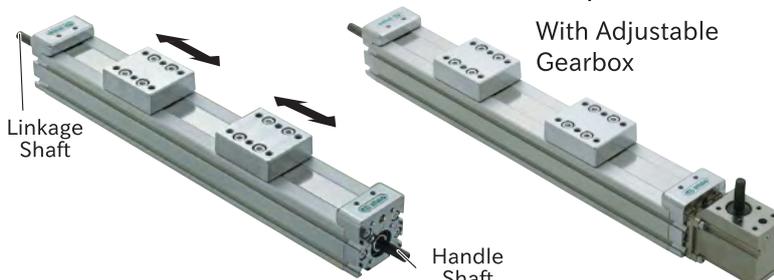
Linkage Single Carriage

- Customized Stroke
- Adjustable Gearbox
- Adjustable Gearbox & Customized Stroke

Linkage Dual Carriage

CW With Handle Shaft Without Handle Shaft

Carriages move towards the center or opposite directions along with the rotation of the shaft. The actuators can be used in pairs connected at linkage shafts.



Linkage Dual Carriage

- Customized Stroke
- Adjustable Gearbox
- Adjustable Gearbox & Customized Stroke

Lineup

Compact CCW CW

Carriage moves along with rotation of the handle shaft.

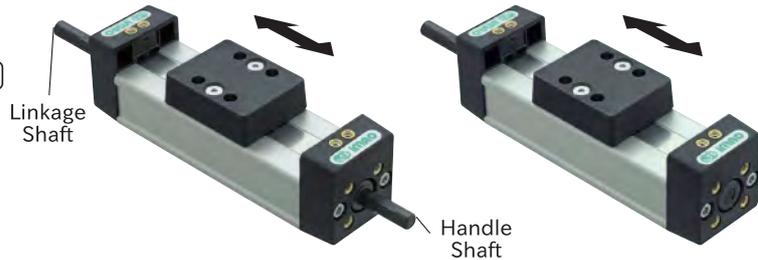


Compact Linkage

CCW CW

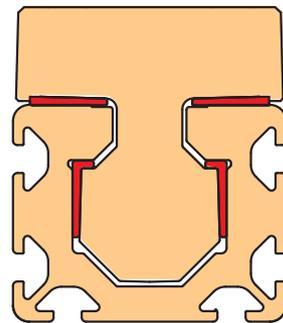
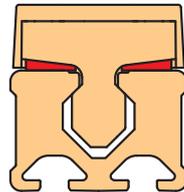
With Handle Shaft Without Handle Shaft

The actuators can be used in pairs connected at linkage shafts.



Mechanism

The abrasion resistance and self-lubricating material of sliding parts give the unit a longer lifetime against the load of up and down or sideways.



Related Product



Various accessories for actuators are available from IMAO.

SHAFT LOCKS



ONE-TOUCH SPINDLE LOCKS

Secure locking of spindles with a quarter turn!



DIGITAL POSITION INDICATORS



HANDWHEELS

Dedicated handwheels for actuators



Compact



COMPACT MECHANICAL LINEAR ACTUATORS

Part No. MAU3222SS



COMPACT MECHANICAL LINEAR ACTUATORS (Synchro-Use)

Part No. MAU3222DS

Standard



MECHANICAL LINEAR ACTUATORS

Part No. MAU5040SS



MECHANICAL LINEAR ACTUATORS (Customized Stroke)

Part No. MAUX5040SS



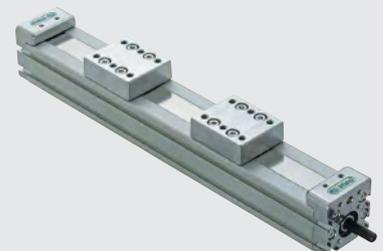
MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX

Part No. MAG5040SS



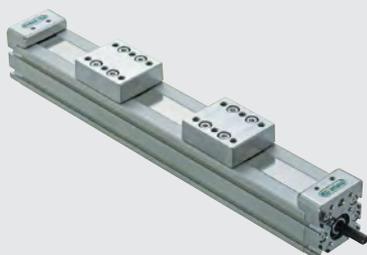
MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Customized Stroke)

Part No. MAGX5040SS



MECHANICAL LINEAR ACTUATORS (Dual Carriage)

Part No. MAU5040SW



MECHANICAL LINEAR ACTUATORS (Dual Carriage, Customized Stroke)

Part No. MAUX5040SW



MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Dual Carriage)

Part No. MAG5040SW



MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Dual Carriage, Customized Stroke)

Part No. MAGX5040SW



MECHANICAL LINEAR ACTUATORS
(Synchro-Use)

Part No. MAU5040DS



MECHANICAL LINEAR ACTUATORS
(Synchro-Use, Customized Stroke)

Part No. MAUX5040DS



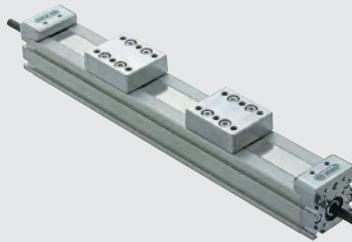
MECHANICAL LINEAR ACTUATORS
WITH ADJUSTABLE GEARBOX
(Synchro-Use)

Part No. MAG5040DS



MECHANICAL LINEAR ACTUATORS
WITH ADJUSTABLE GEARBOX
(Synchro-Use, Customized Stroke)

Part No. MAGX5040DS



MECHANICAL LINEAR ACTUATORS
(Dual Carriage, Synchro-Use)

Part No. MAU5040DW



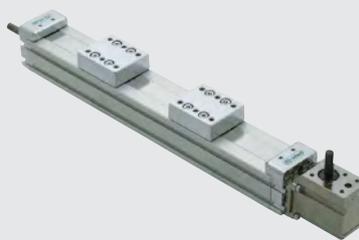
MECHANICAL LINEAR ACTUATORS
(Dual Carriage, Synchro-Use,
Customized Stroke)

Part No. MAUX5040DW



MECHANICAL LINEAR ACTUATORS
WITH ADJUSTABLE GEARBOX
(Dual Carriage, Synchro-Use)

Part No. MAG5040DW



MECHANICAL LINEAR ACTUATORS
WITH ADJUSTABLE GEARBOX
(Dual Carriage, Synchro-Use, Customized Stroke)

Part No. MAGX5040DW

Accessories



SHAFT LOCKS

Part No. MAU-SL



ONE-TOUCH SPINDLE
LOCKS

Part No. QCSPL



POSITIONING PLATE

Part No. MAU5040-PS01



DIGITAL POSITION INDICATORS

Part No. SDP-02



DIGITAL POSITION INDICATORS

Part No. SDP-04



POINTER

Part No. ES3-A



SCALES

Part No. ES1N



ADAPTER SHAFTS

Part No. MAU-SH



PLASTIC KNURLED KNOBS

Part No. GH-N



PLASTIC SOLID DISK HANDWHEEL

Part No. EDHN-M



PLASTIC ANGLED-SPOKE HANDWHEELS

Part No. TWN-M



PAIR OF STOPS

Part No. MAU5040-ST02



T-NUTS

Part No. L5-TST



GROOVE COVER

Part No. L5-GVC2000N

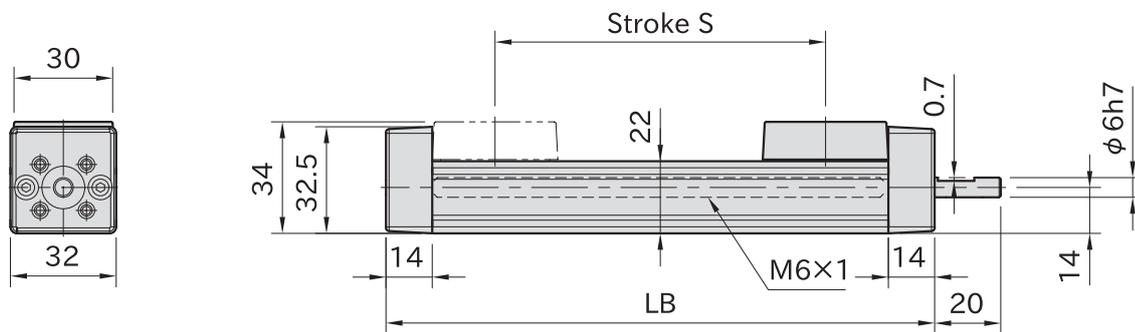
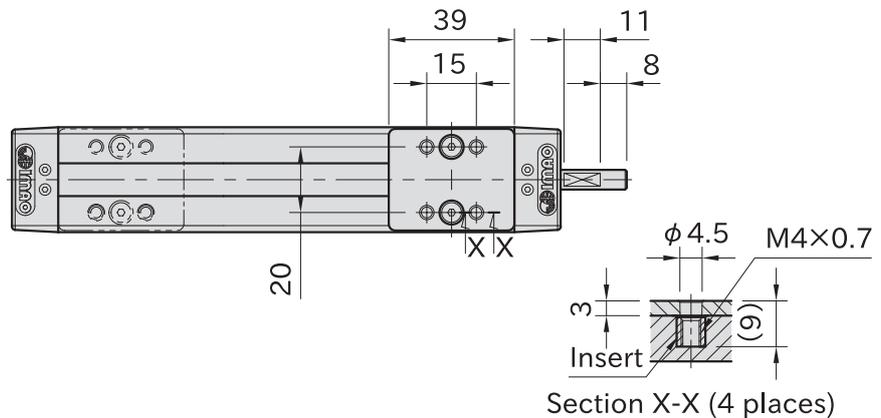


MAU3222SS

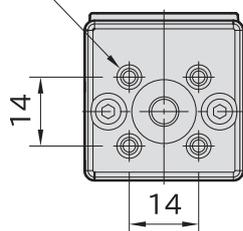
COMPACT MECHANICAL LINEAR ACTUATORS



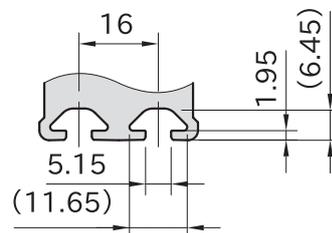
Body	Carriage End Plates	Shaft	Dustproof Sheet
A6N01 aluminum Anodized Natural	Polyamide (glass-fiber reinforced) Black	S45C steel Black oxide finish	SUS304 stainless steel



4-M3x0.5 Depth 5



Dimensions of End Plate (Both ends)



Dimensions of Slots

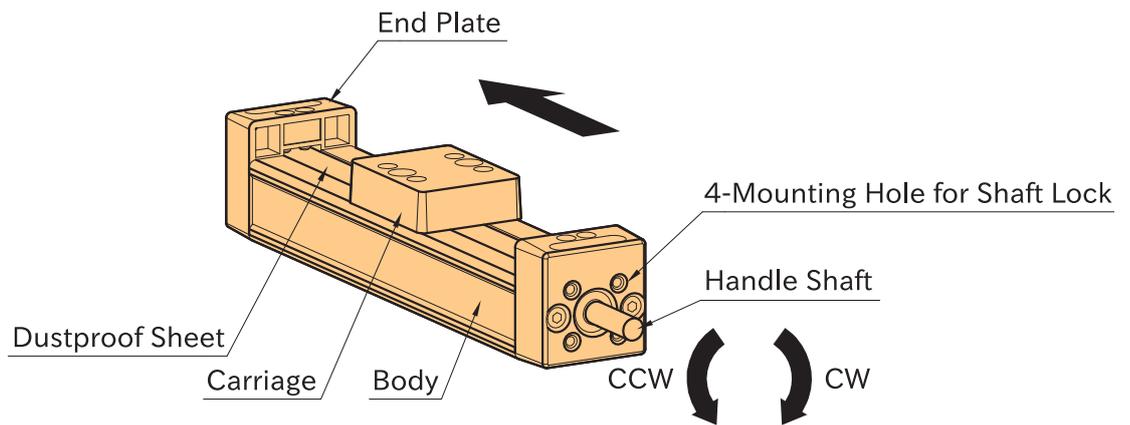
Part Number	Rotative Direction	S	LB	Weight (kg)
MAU3222SS-050R	CW	50	117	0.19
MAU3222SS-050L	CCW			
MAU3222SS-100R	CW	100	167	0.26
MAU3222SS-100L	CCW			

Related Product

Choose the optional elements for your needs.

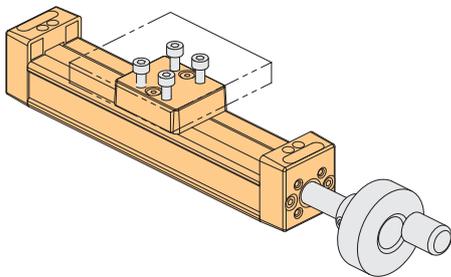
- Shaft Locks
- Digital Position Indicators
- Pointer
- Scales
- Adapter Shafts
- Handwheels
- T-Nuts

How To Use

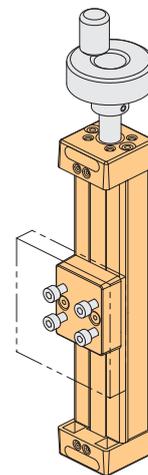


- **MAU3222SS-R** : Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
- **MAU3222SS-L** : Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
- Carriage moves 1mm per rotation of the Handle Shaft.

■ Horizontal Use



■ Vertical Use



Reference

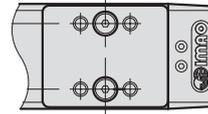
Technical Information of Mechanical Linear Actuators

MAU3222DS

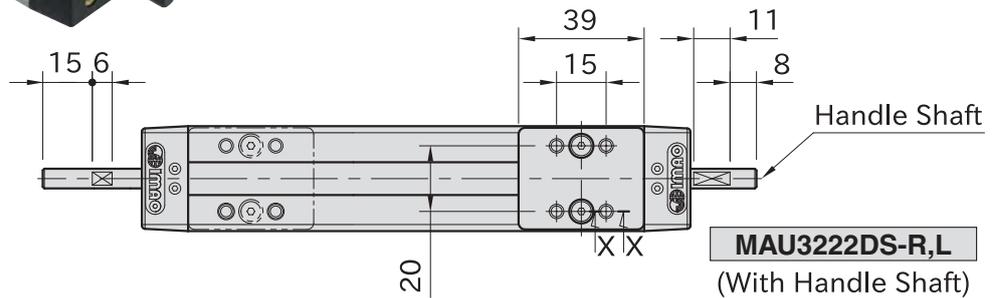
COMPACT MECHANICAL LINEAR ACTUATORS (Synchro-Use)



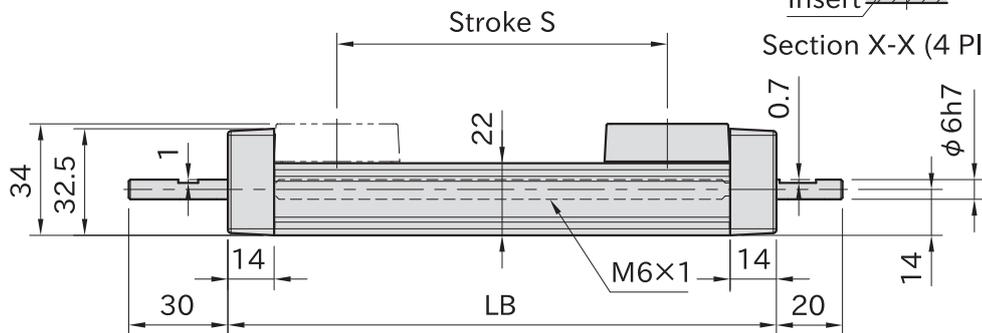
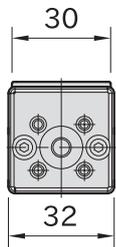
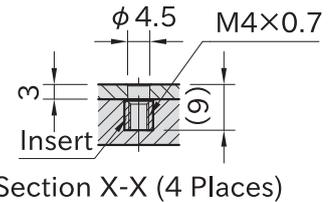
Body	Carriage End Plates	Shaft	Dustproof Sheet
A6N01 aluminum Anodized Natural	Polyamide (glass-fiber reinforced) Black	S45C steel Black oxide finish	SUS304 stainless steel



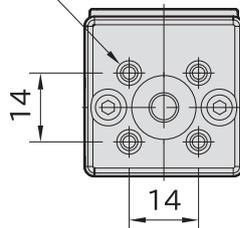
MAU3222DS-Y,Z
(Without Handle Shaft)



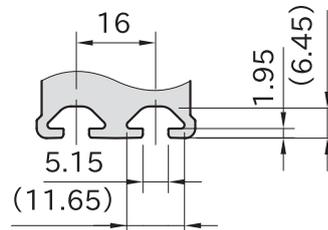
MAU3222DS-R,L
(With Handle Shaft)



4-M3x0.5 Depth 5



Dimensions of End Plates (Both ends)



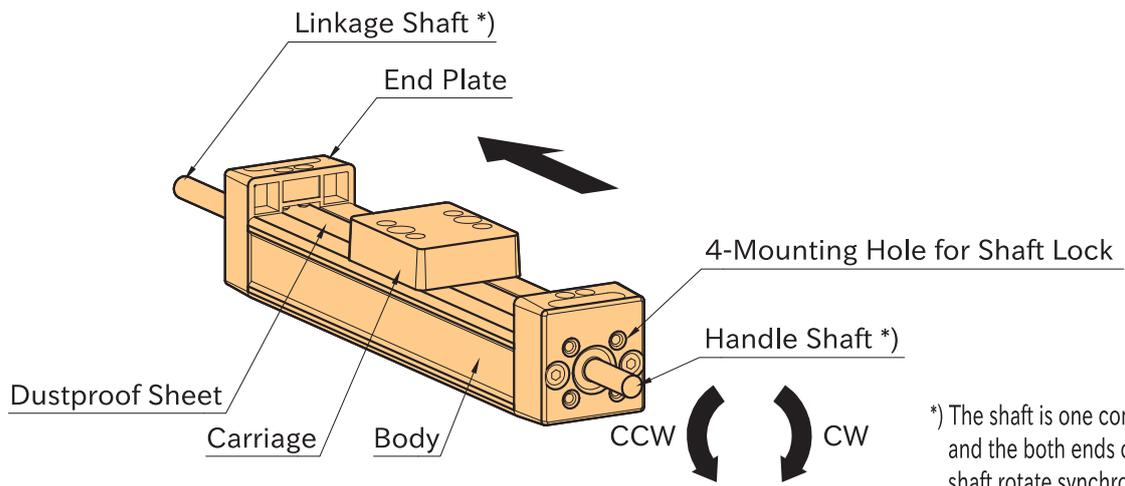
Dimensions of Slots

Part Number		Rotative Direction	S	LB	Weight (kg)
With Handle Shaft	Without Handle Shaft				
MAU3222DS-050R	MAU3222DS-050Y	CW	50	117	0.2
MAU3222DS-050L	MAU3222DS-050Z	CCW			
MAU3222DS-100R	MAU3222DS-100Y	CW	100	167	0.27
MAU3222DS-100L	MAU3222DS-100Z	CCW			

Related Product

Choose the optional elements for your needs.

- Shaft Locks
- Digital Position Indicators
- Pointer
- Scales
- Adapter Shafts
- Handwheels
- T-Nuts

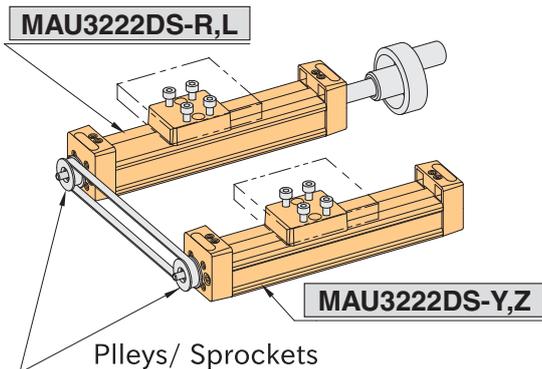


*) The shaft is one component and the both ends of the shaft rotate synchronously.

- **MAU3222DS-R,Y** : Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
- **MAU3222DS-L,Z** : Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
- Carriage moves 1mm per rotation of the Handle Shaft.

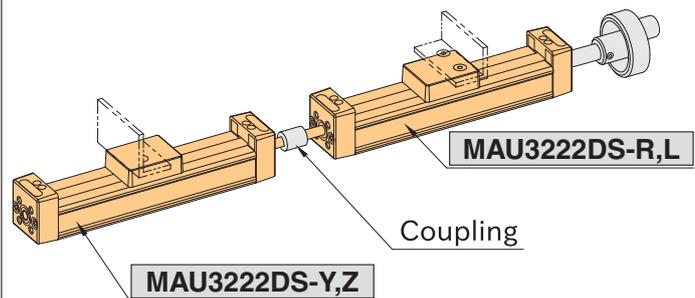
■ Parallel Use

Attach pulleys or sprockets to Linkage Shafts and align the carriages for movement in synchronization.



■ Serial Use

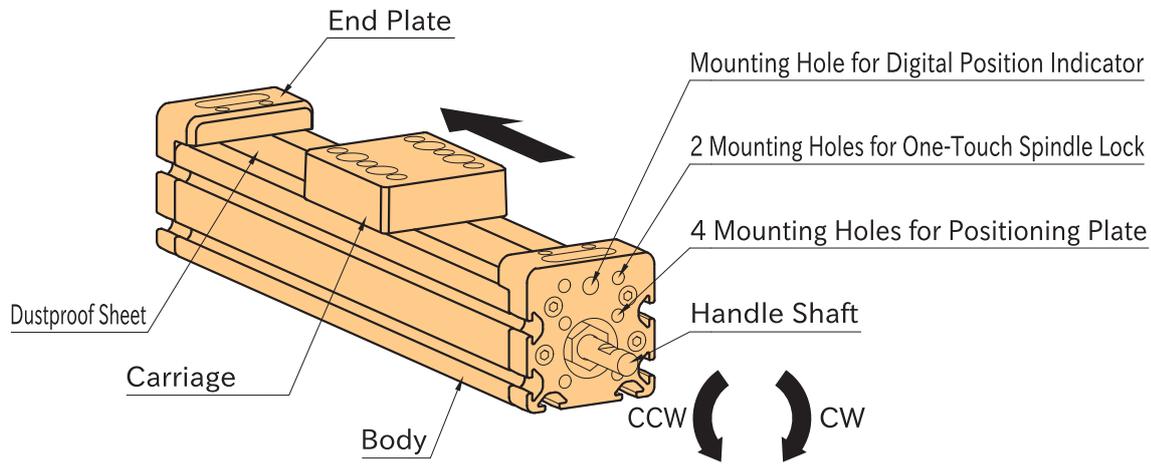
Connect two linkage Shafts using a coupling.



Reference

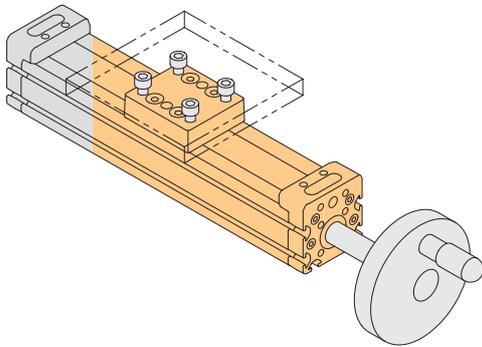
Technical Information of Mechanical Linear Actuators

How To Use

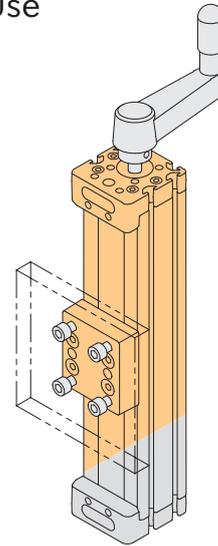


- **MAUX5040SS-R**: Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
- **MAUX5040SS-L**: Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
- Carriage moves 3mm per rotation of the Handle Shaft.

■ Horizontal Use



■ Vertical Use



Reference

Technical Information of Mechanical Linear Actuators

MAUX5040SS

MECHANICAL LINEAR ACTUATORS (Customized Stroke)

On Request



IMAO

Ordering Example

MAUX5040SS-AL 170
Part Number Stroke S

Feature

- The stroke of **MAUX5040SS** is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S + 101mm

Reference

Technical Information of Mechanical Linear Actuators

Part Number		S (by 10mm)	Delivery Time
MAUX5040SS-A	R(CW) L(CCW)	160~290	15 Working Days
MAUX5040SS-B		310~500	
MAUX5040SS-C		510~700	

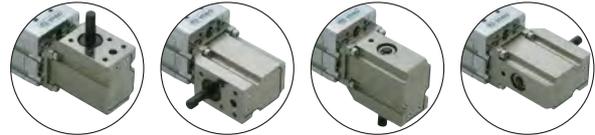
MAG5040SS

MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX

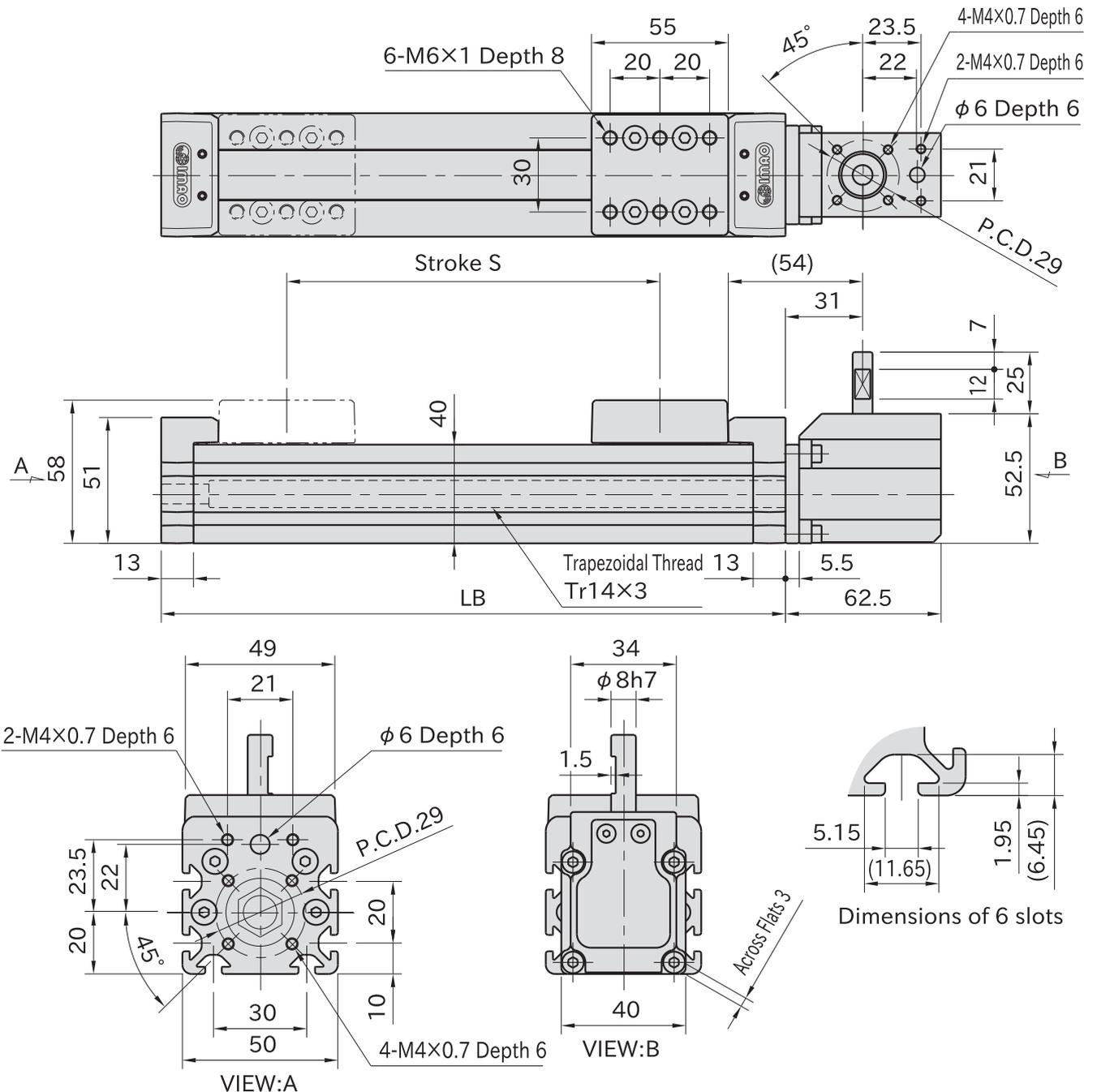
On Request



Body	Carriage/End Plates	Shaft	Trapezoidal Nut
A6N01 aluminum Anodized Natural	ZDC2 die-cast zinc Chrome plated	S45C steel Black oxide finish	CAC902 copper alloy
Screw	Dustproof Sheet	Gearbox	
SCM435 steel Trivalent chromate	SUS304H stainless steel	S45C steel Electroless nickel plated	



Gearbox can be positioned at every 90 degree.



Part Number	Rotative Direction	S	LB	Weight(kg)	Delivery Time
MAG5040SS-100R	CW	100	201	2.0	10 Working Days
MAG5040SS-100L	CCW				
MAG5040SS-150R	CW	150	251	2.2	
MAG5040SS-150L	CCW				
MAG5040SS-200R	CW	200	301	2.4	
MAG5040SS-200L	CCW				
MAG5040SS-250R	CW	250	351	2.6	
MAG5040SS-250L	CCW				
MAG5040SS-300R	CW	300	401	2.8	
MAG5040SS-300L	CCW				

Related Product

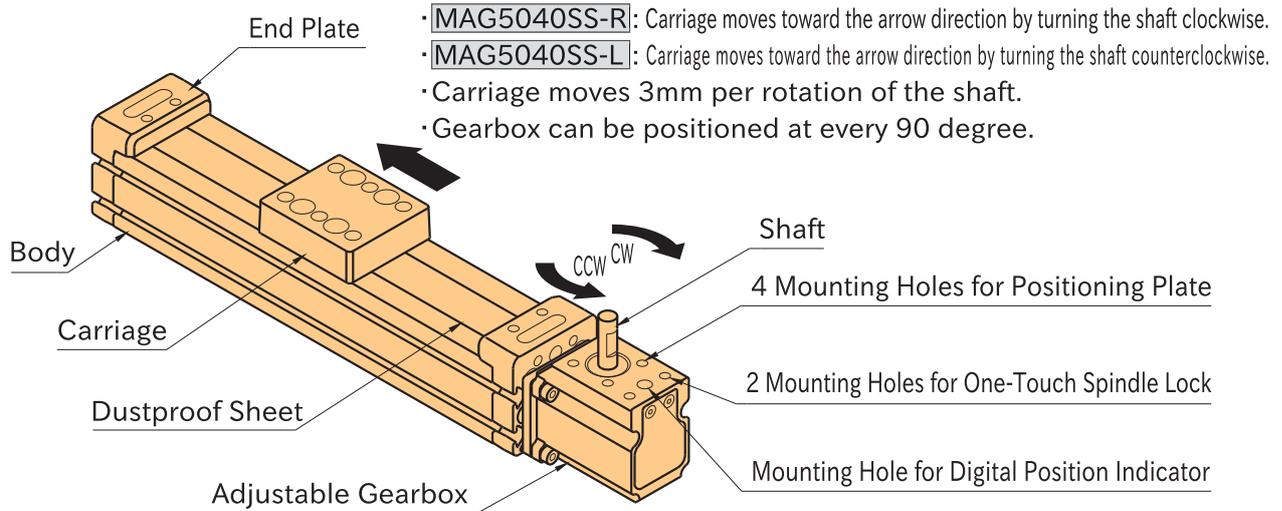
- Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAGX5040SS](#).
 - One-Touch Spindle Locks
 - Positioning Plate
 - Digital Position Indicators
 - Adapter Shafts
 - Handwheels
 - Pair of Stops
 - T-Nuts
 - Groove Cover

Compact

Standard

Accessories

How To Use



Note

The gearbox will be delivered with mounted to Mechanical Linear Actuators in the orientation as in the figure above.

Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

MAGX5040SS MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Customized Stroke)

On Request

Ordering Example

MAGX5040SS-AL 170
 Part Number Stroke S

Feature

- The stroke length of [MAG5040SS](#) is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S+101mm

Part Number	S Desired Length (by 10mm)	Delivery Time
MAGX5040SS-A	160~290	15 Working Days
MAGX5040SS-B	310~500	
MAGX5040SS-C	510~700	

Reference

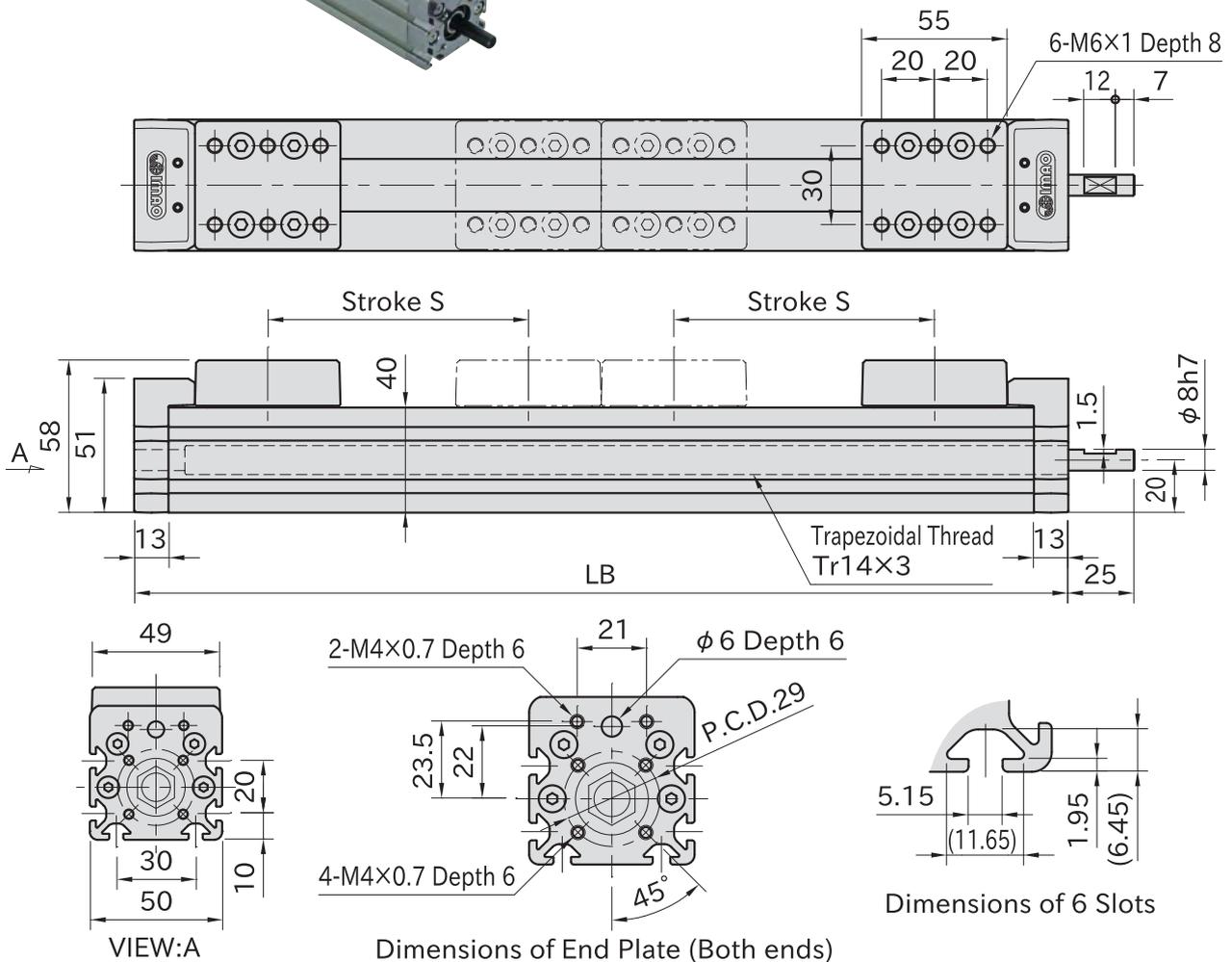
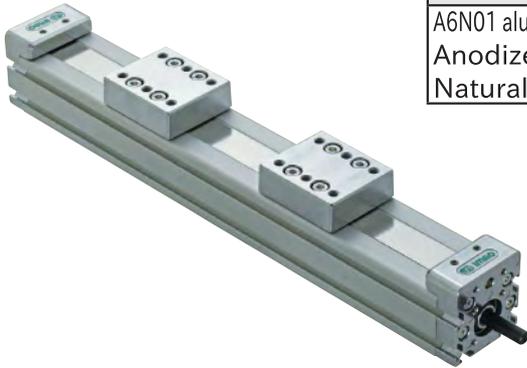
- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

MAU5040SW

MECHANICAL LINEAR ACTUATORS (Dual Carriage)



Body	Carriage End Plates	Shaft	Trapezoidal Nut	Screw	Dustproof Sheet
A6N01 aluminum Anodized Natural	ZDC2 die-cast zinc Chrome plated	S45C steel Black oxide finish	CAC902 copper alloy	SCM435 steel Trivalent chromate	SUS304H stainless steel



Part Number	S	LB	Weight (kg)
MAU5040SW-100	100	356	2.4
MAU5040SW-150	150	456	2.8

Reference

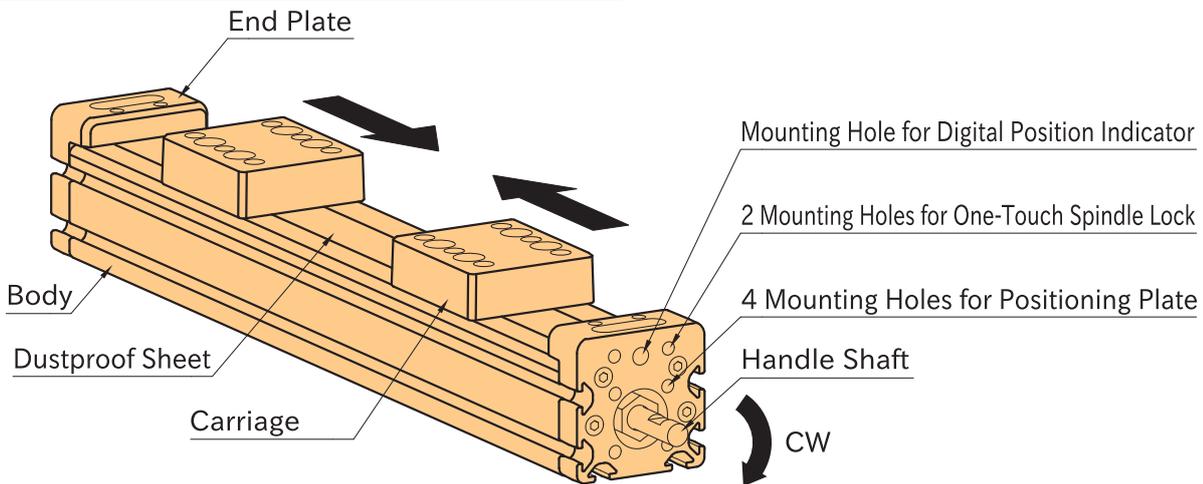
Technical Information of Mechanical Linear Actuators

Related Product

Choose the optional elements for your needs.

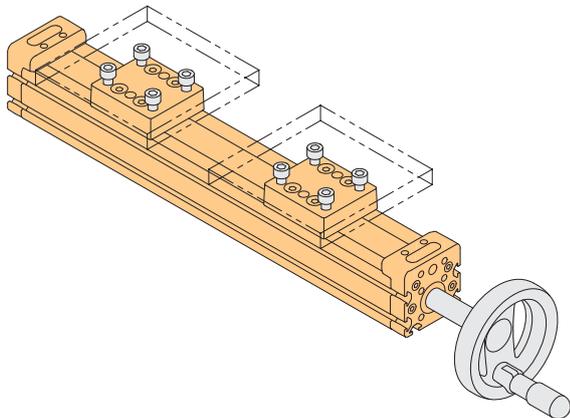
- For actuators with customized stroke, see [MAUX5040SW](#).
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

How To Use

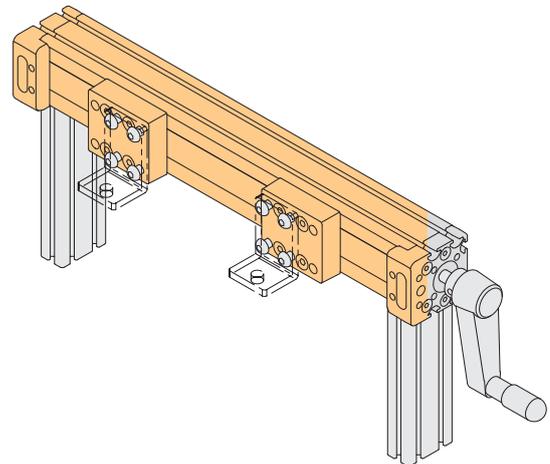


- Two carriages move toward the arrow directions by turning the Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning the Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the Handle Shaft.

■ Horizontal Use 1



■ Horizontal Use 2



MAUX5040SW

MECHANICAL LINEAR ACTUATORS (Dual Carriage, Customized Stroke)

On Request



IMAO

Ordering Example

MAUX5040SW-B 240
Part Number Stroke S

Feature

- The stroke of [MAUX5040SW] is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S × 2 + 156mm

Reference

Technical Information of Mechanical Linear Actuators

Part Number	S (by 10mm)	Delivery Time
MAUX5040SW-A	160~220	15 Working Days
MAUX5040SW-B	230~280	
MAUX5040SW-C	290~340	

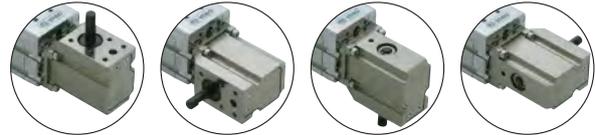
MAG5040SW

MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Dual Carriage)

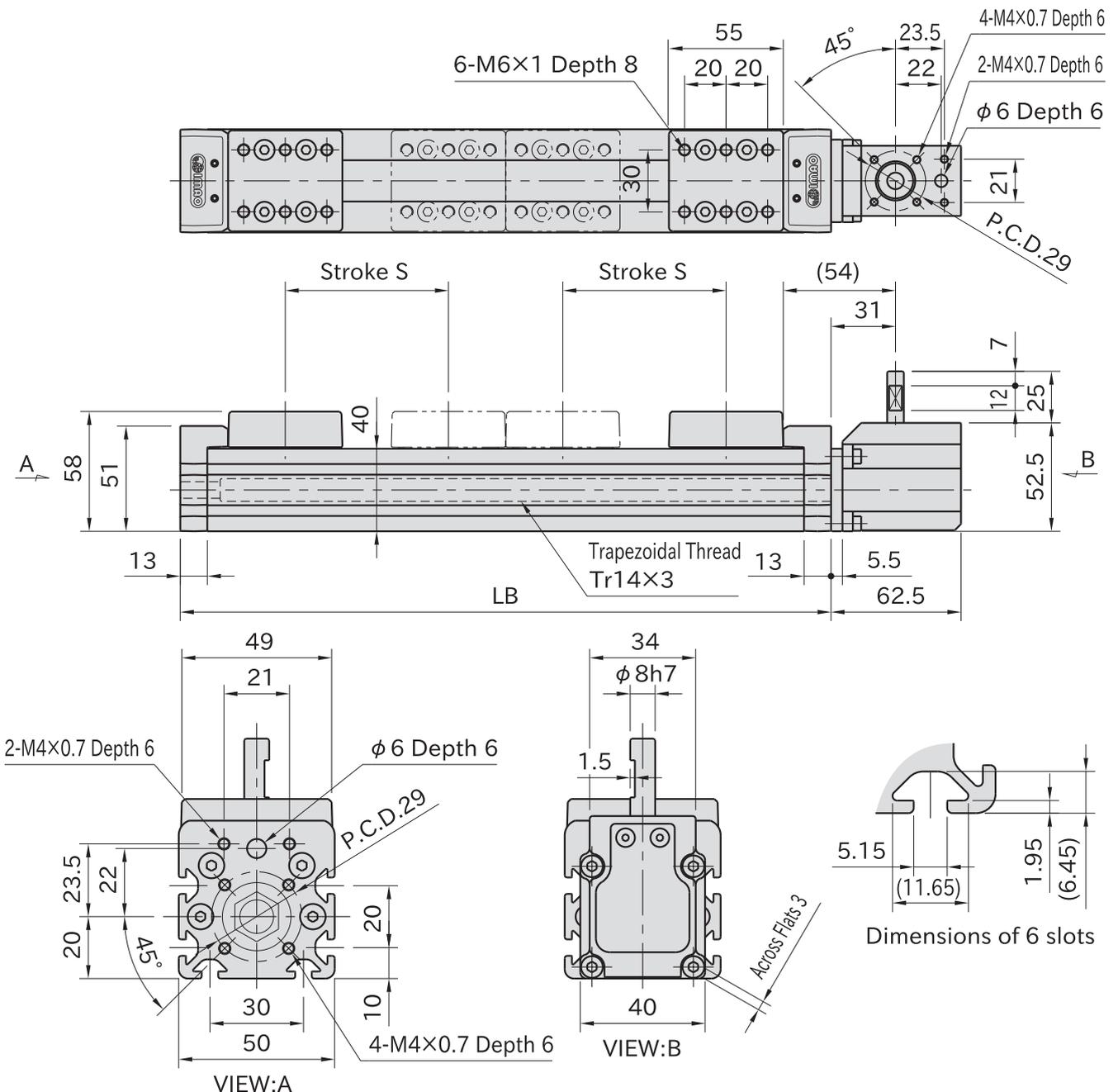
On Request



Body	Carriage/End Plates	Shaft	Trapezoidal Nut
A6N01 aluminum Anodized Natural	ZDC2 die-cast zinc Chrome plated	S45C steel Black oxide finish	CAC902 copper alloy
Screw	Dustproof Sheet	Gearbox	
SCM435 steel Trivalent chromate	SUS304H stainless steel	S45C steel Electroless nickel plated	



Gearbox can be positioned at every 90 degree.



Part Number	S	LB	Weight(kg)	Delivery Time
MAG5040SW-100	100	356	2.9	10 Working Days
MAG5040SW-150	150	456	3.3	

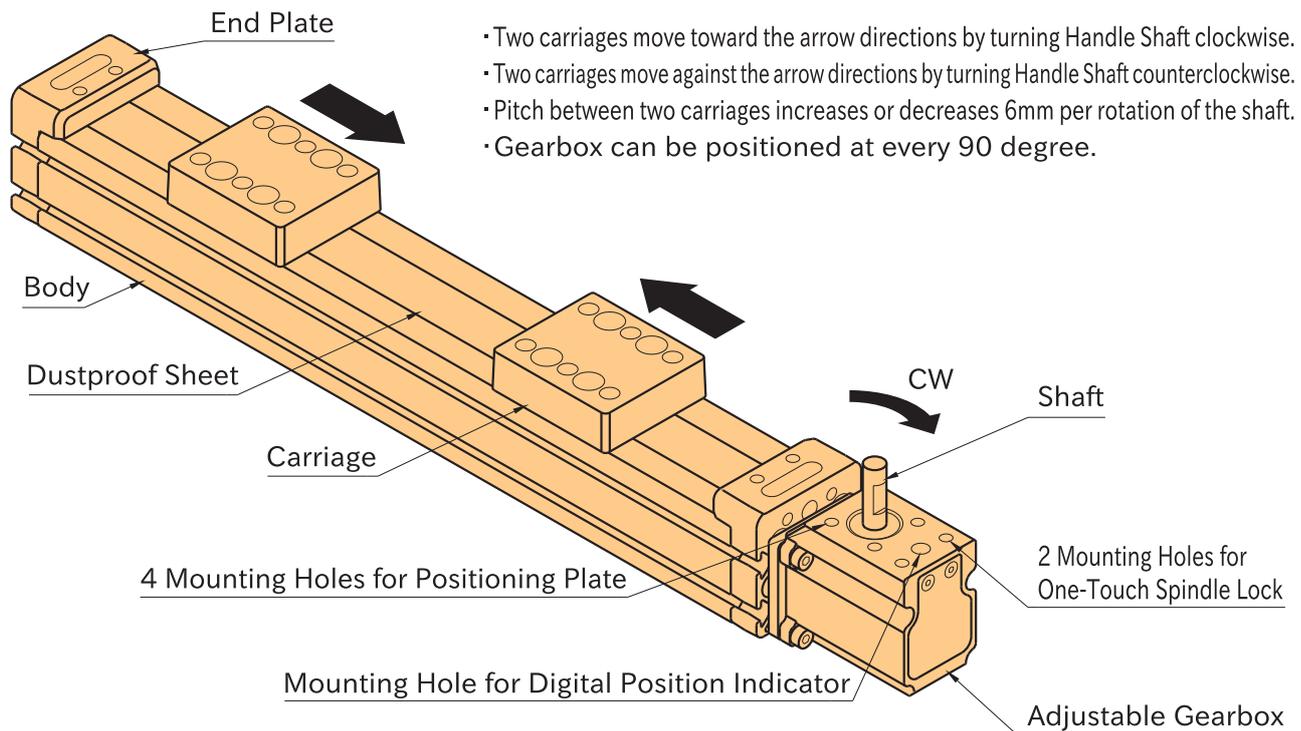
Note

The gearbox will be delivered with mounted to Mechanical Linear Actuators in the orientation as in the figure below.

Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

How To Use



- Two carriages move toward the arrow directions by turning Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the shaft.
- Gearbox can be positioned at every 90 degree.

Related Product

- Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAGX5040SW](#).
 - One-Touch Spindle Locks
 - Positioning Plate
 - Digital Position Indicators
 - Adapter Shafts
 - Handwheels
 - Pair of Stops
 - T-Nuts
 - Groove Cover

Compact

Standard

Accessories

MAGX5040SW MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Dual Carriage, Customized Stroke)

On Request

IMAO

Ordering Example

MAGX5040SW-B 240
Part Number Stroke S

Feature

- The stroke length of [MAG5040SW](#) is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S×2+156mm

Part Number	S Desired Stroke (by 10mm)	Delivery Time
MAGX5040SW-A	160~220	15 Working Days
MAGX5040SW-B	230~280	
MAGX5040SW-C	290~340	

Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

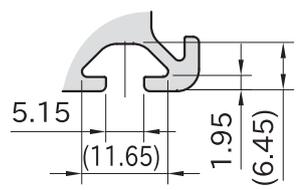
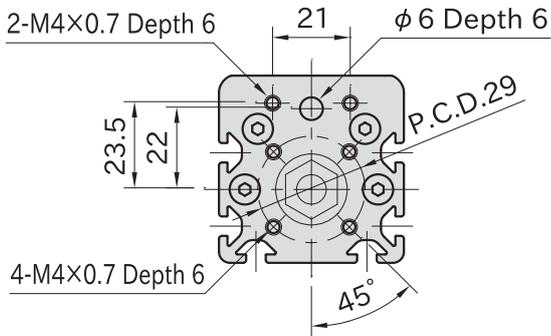
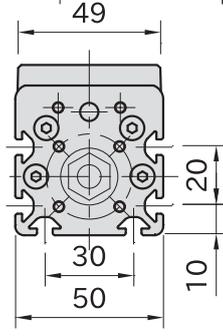
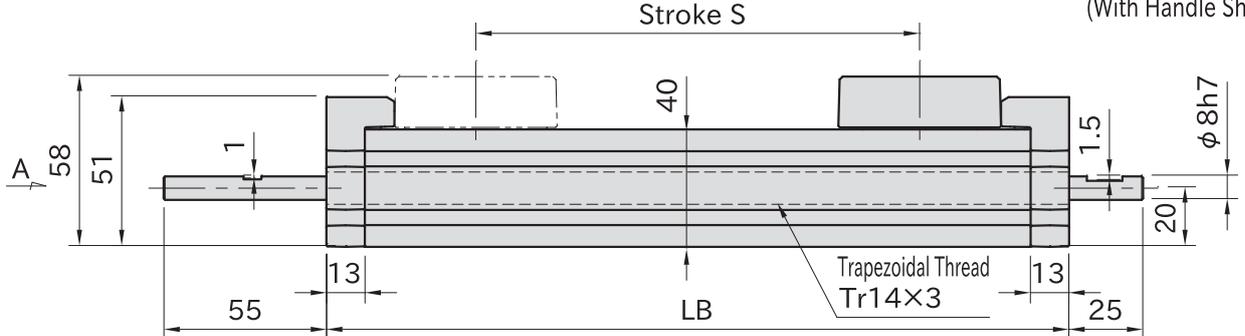
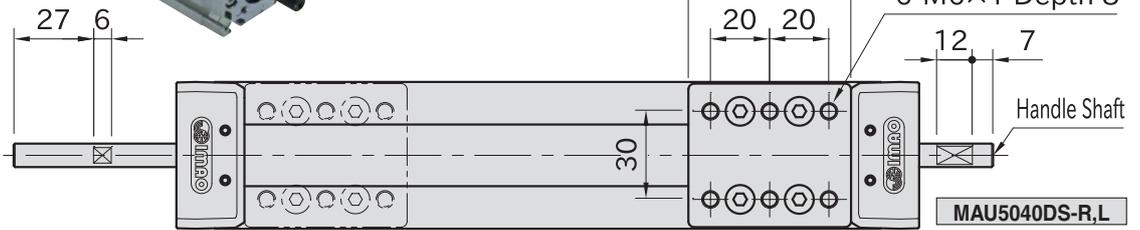
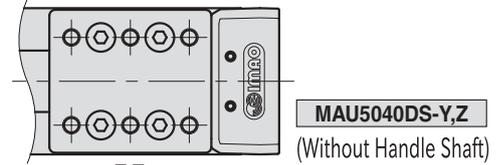
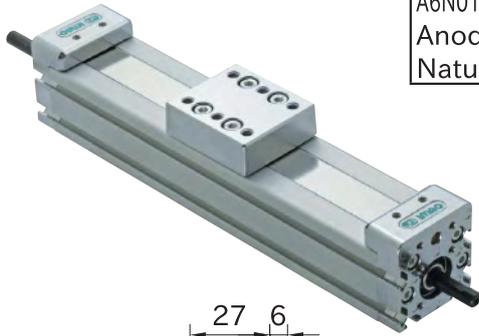
MAU5040DS

MECHANICAL LINEAR ACTUATORS (Synchro-Use)

On Request



Body	Carriage End Plates	Shaft	Trapezoidal Nut	Screw	Dustproof Sheet
A6N01 aluminum Anodized Natural	ZDC2 die-cast zinc Chrome plated	S45C steel Black oxide finish	CAC902 copper alloy	SCM435 steel Trivalent chromate	SUS304H stainless steel



Dimensions of 6 Slots

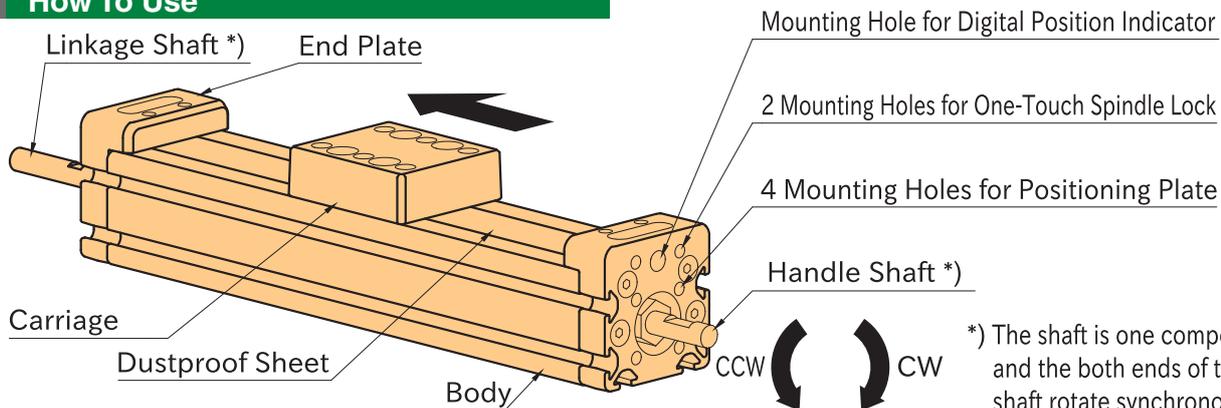
Dimensions of End Plate (Both ends)

Part Number		Rotative Direction	S	LB	Weight (kg)	Delivery Time
With Handle Shaft	Without Handle Shaft					
MAU5040DS-100R	MAU5040DS-100Y	CW	100	201	1.5	10 Working Days
MAU5040DS-100L	MAU5040DS-100Z	CCW				
MAU5040DS-150R	MAU5040DS-150Y	CW	150	251	1.7	
MAU5040DS-150L	MAU5040DS-150Z	CCW				
MAU5040DS-200R	MAU5040DS-200Y	CW	200	301	1.9	
MAU5040DS-200L	MAU5040DS-200Z	CCW				
MAU5040DS-250R	MAU5040DS-250Y	CW	250	351	2.1	
MAU5040DS-250L	MAU5040DS-250Z	CCW				
MAU5040DS-300R	MAU5040DS-300Y	CW	300	401	2.3	
MAU5040DS-300L	MAU5040DS-300Z	CCW				

Reference

Technical Information of Mechanical Linear Actuators

How To Use

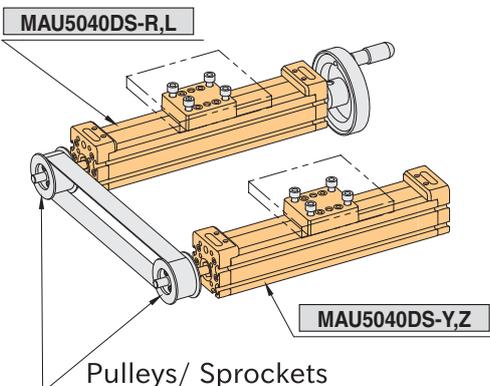


*) The shaft is one component and the both ends of the shaft rotate synchronously.

- **MAU5040DS-R,Y**: Carriage moves toward the arrow direction by turning the Handle Shaft clockwise.
- **MAU5040DS-L,Z**: Carriage moves toward the arrow direction by turning the Handle Shaft counterclockwise.
- Carriage moves 3mm per rotation of the Handle Shaft.

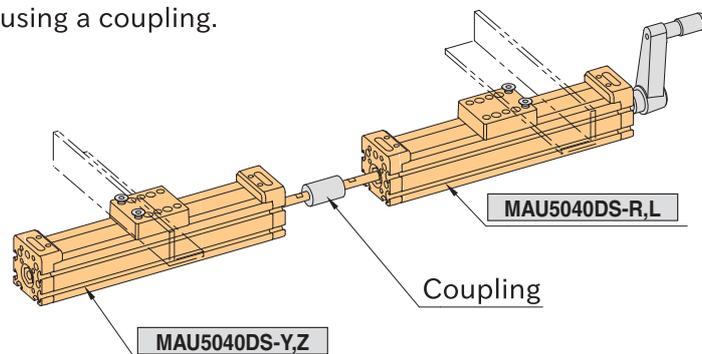
Parallel Use

Attach pulleys or sprockets to Linkage Shafts and align the carriages for movement in synchronization.



Serial Use

Connect two Linkage Shafts using a coupling.



Related Product

Choose the optional elements for your needs.

- For actuators with customized stroke, see **MAUX5040DS**.
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

MAUX5040DS

MECHANICAL LINEAR ACTUATORS (Synchro-Use, Customized Stroke)

On Request



Ordering Example

MAUX5040DS-BR 450
Part Number Stroke S

Feature

- The stroke of **MAUX5040DS** is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S + 101mm

Part Number	S(by 10mm)	Delivery Time
MAUX5040DS-A	160~290	15 Working Days
MAUX5040DS-B	310~500	
MAUX5040DS-C	510~700	

Reference

Technical Information of Mechanical Linear Actuators

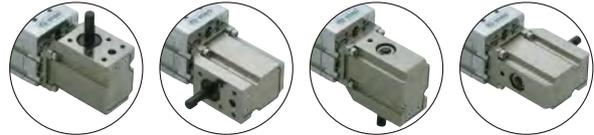
MAG5040DS

MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Synchro-Use)

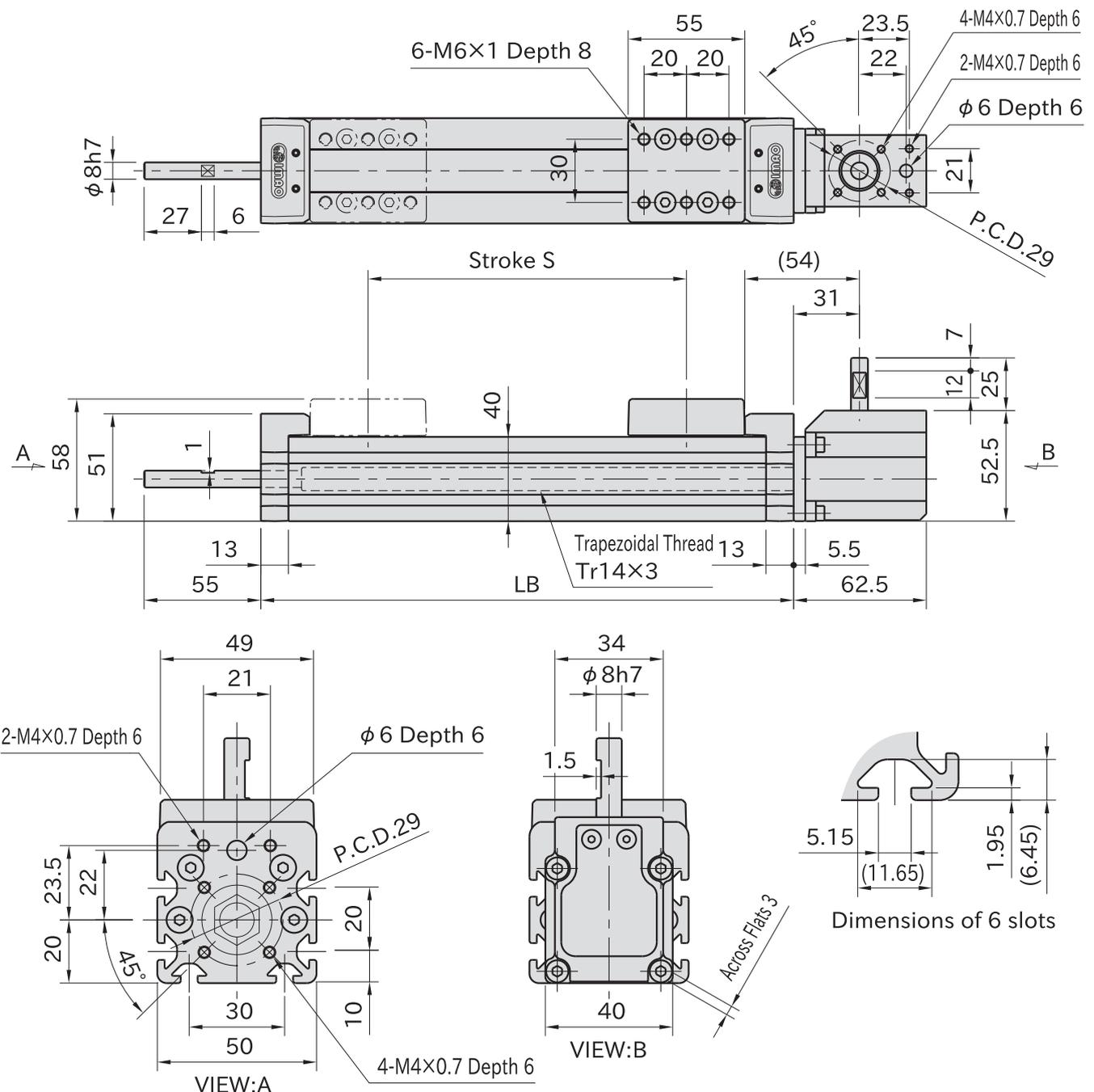
On Request



Body	Carriage/End Plates	Shaft	Trapezoidal Nut
A6N01 aluminum Anodized Natural	ZDC2 die-cast zinc Chrome plated	S45C steel Black oxide finish	CAC902 copper alloy
Screw	Dustproof Sheet	Gearbox	
SCM435 steel Trivalent chromate	SUS304H stainless steel	S45C steel Electroless nickel plated	



Gearbox can be positioned at every 90 degree.



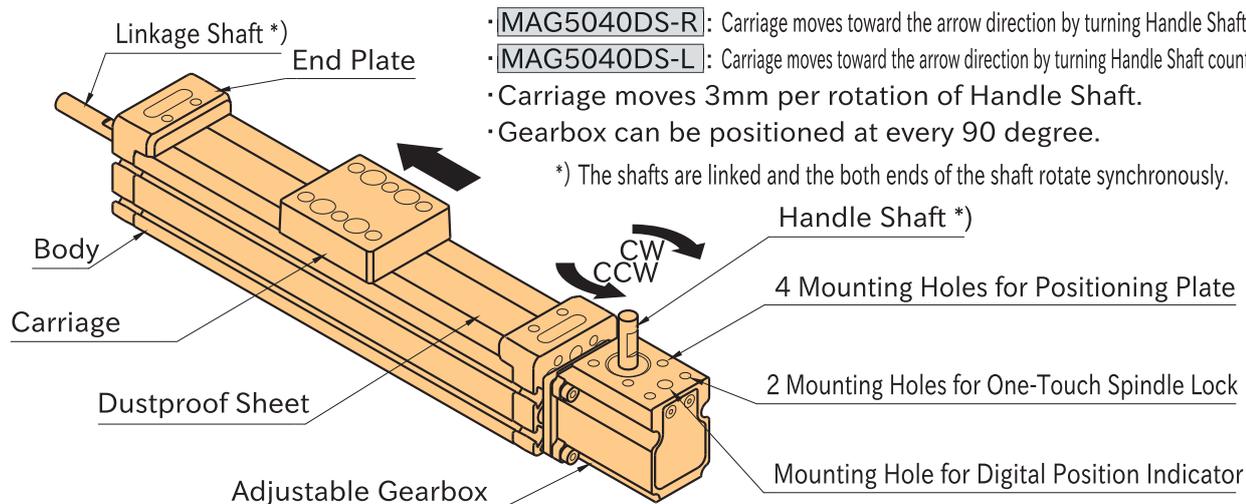
Part Number	Rotative Direction	S	LB	Weight (kg)	Delivery Time
MAG5040DS-100R	CW	100	201	2.0	10 Working Days
MAG5040DS-100L	CCW				
MAG5040DS-150R	CW	150	251	2.2	
MAG5040DS-150L	CCW				
MAG5040DS-200R	CW	200	301	2.4	
MAG5040DS-200L	CCW				
MAG5040DS-250R	CW	250	351	2.6	
MAG5040DS-250L	CCW				
MAG5040DS-300R	CW	300	401	2.8	
MAG5040DS-300L	CCW				

Related Product

Choose the optional elements for your needs.

- For actuators with customized stroke, see [MAGX5040DS](#).
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

How To Use



Note

The gearbox will be delivered with mounted to Mechanical Linear Actuators in the orientation as in the figure above.

Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

MAGX5040DS

MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX
(Synchro-Use, Customized Stroke)

On Request



IMAO

Ordering Example

MAGX5040DS-BR 450

Part Number

Stroke S

Feature

- The stroke length of [MAG5040DS](#) is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S+101mm

Part Number		S Desired Stroke (by 10mm)	Delivery Time
MAGX5040DS-A	R(CW) L(CCW)	160~290	15 Working Days
MAGX5040DS-B		310~500	
MAGX5040DS-C		510~700	

Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

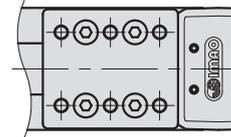
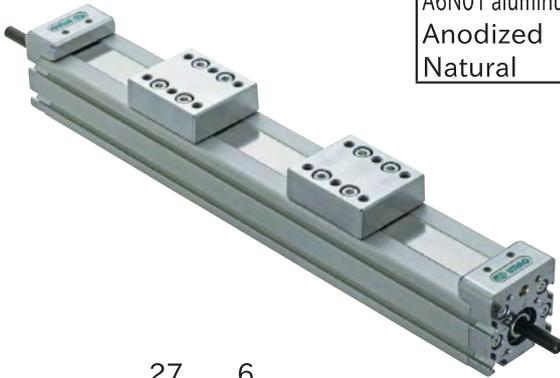
MAU5040DW

MECHANICAL LINEAR ACTUATORS (Dual Carriage, Synchro-Use)

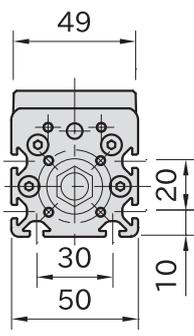
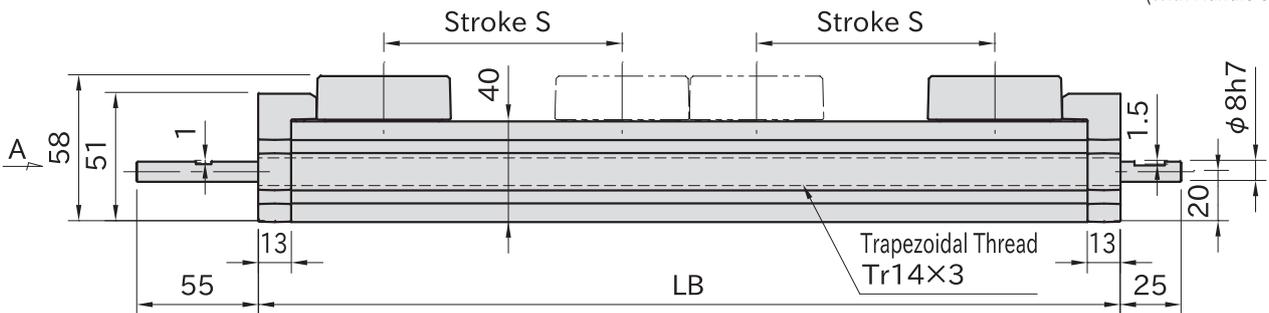
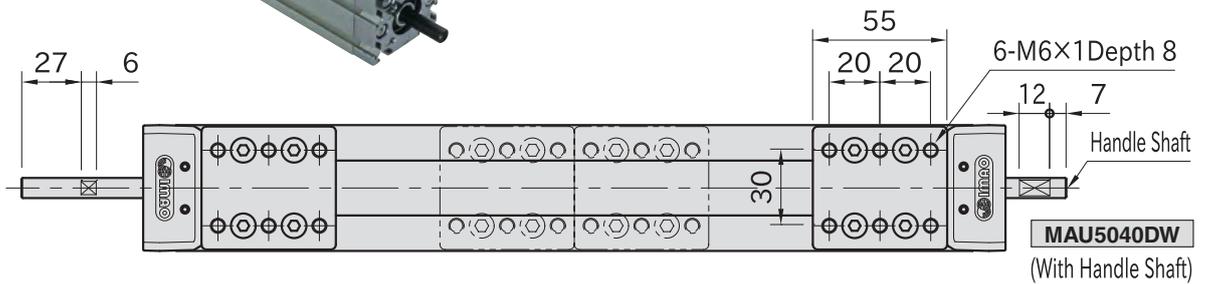
On Request



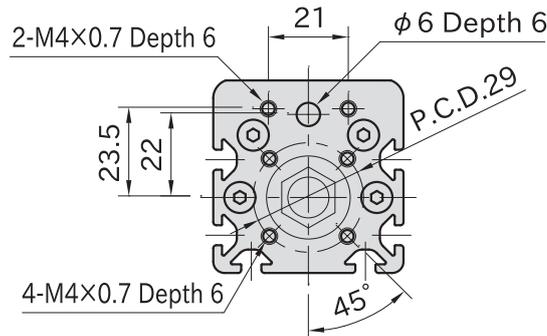
Body	Carriage End Plates	Shaft	Trapezoidal Nut	Screw	Dustproof Sheet
A6N01 aluminum Anodized Natural	ZDC2 die-cast zinc Chrome plated	S45C steel Black oxide finish	CAC902 copper alloy	SCM435 steel Trivalent chromate	SUS304H stainless steel



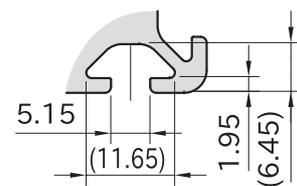
MAU5040DW-Y
(Without Handle Shaft)



VIEW:A



Dimensions of End Plate (Both ends)



Dimensions of 6 Slots

Part Number		S	LB	Weight (kg)	Delivery Time
With Handle Shaft	Without Handle Shaft				
MAU5040DW-100	MAU5040DW-100Y	100	356	2.4	10 Working Days
MAU5040DW-150	MAU5040DW-150Y	150	456	2.8	

Reference

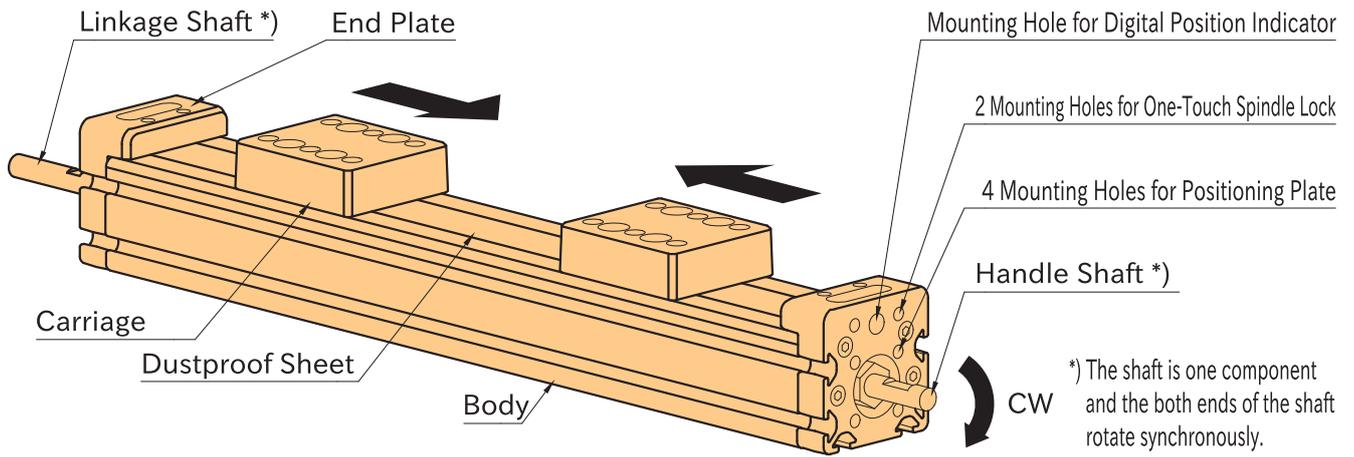
Technical Information of Mechanical Linear Actuators

Related Product

Choose the optional elements for your needs.

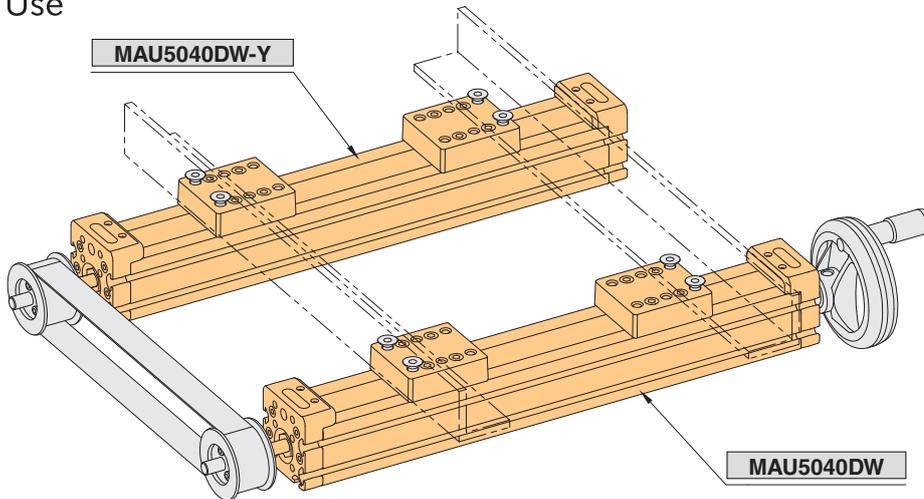
- For actuators with customized stroke, see [MAUX5040DW](#).
- One-Touch Spindle Locks
- Positioning Plate
- Digital Position Indicators
- Adapter Shafts
- Handwheels
- Pair of Stops
- T-Nuts
- Groove Cover

How To Use



- Two carriages move toward the arrow directions by turning the Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning the Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the Handle Shaft.

Parallel Use



MAUX5040DW

MECHANICAL LINEAR ACTUATORS (Dual Carriage, Synchro-Use, Customized Stroke)

On Request



Ordering Example

MAUX5040DW-CY 290
Part Number Stroke S

Feature

- The stroke of **MAUX5040DW** is customizable.
- For ordering, specify the stroke.

Note

Body length : $LB = \text{Stroke } S \times 2 + 156\text{mm}$

Reference

Technical Information of
Mechanical Linear Actuators

Part Number	S (by 10mm)	Delivery Time
MAUX5040DW-A	160~220	15 Working Days
MAUX5040DW-B	230~280	
MAUX5040DW-C	290~340	

(With Handle Shaft)
Y (Without Handle Shaft)

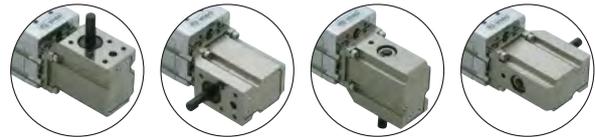
MAG5040DW

MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX (Dual Carriage, Synchro-Use)

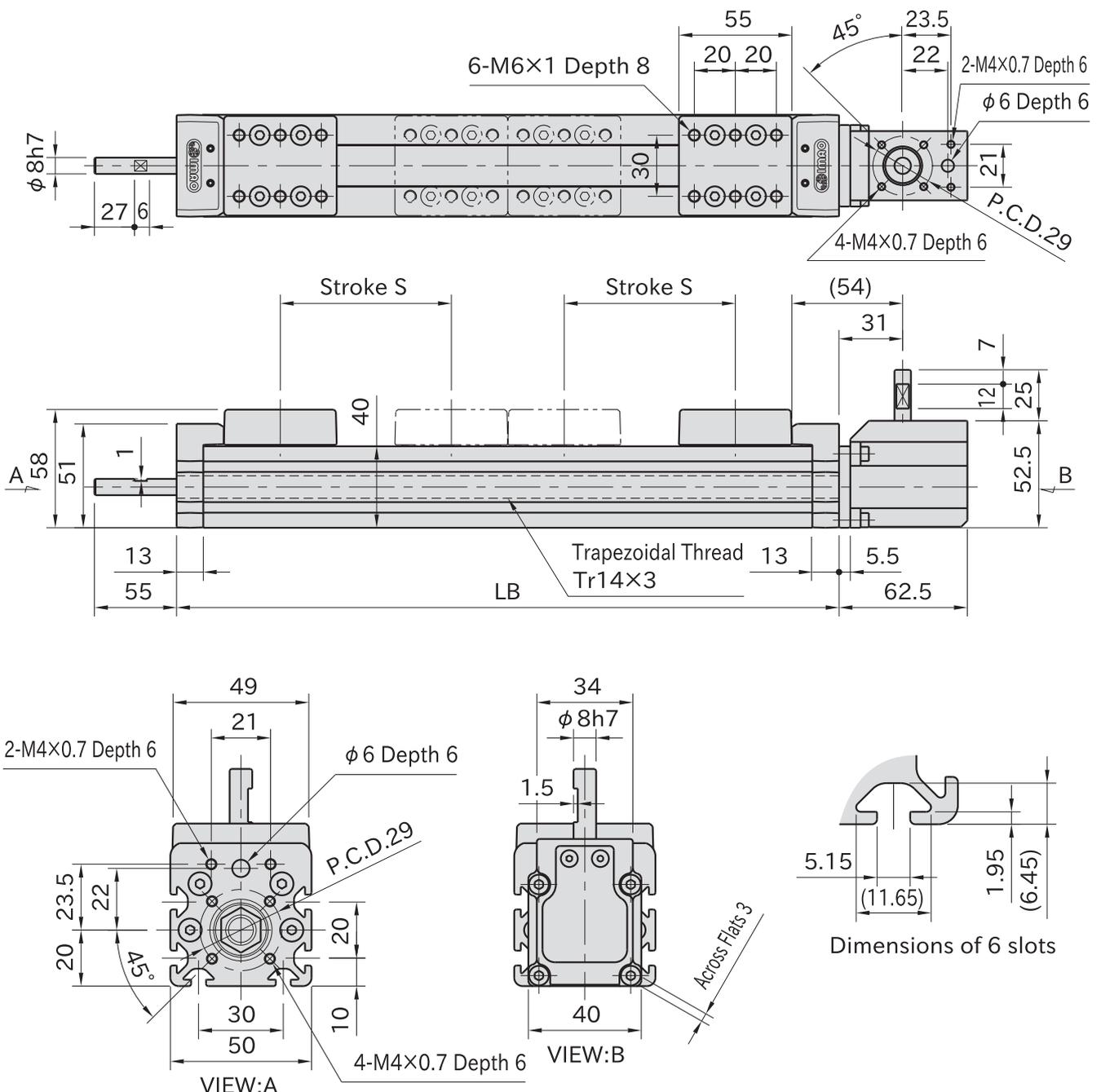
On Request



Body	Carriage/End Plates	Shaft	Trapezoidal Nut
A6N01 aluminum Anodized Natural	ZDC2 die-cast zinc Chrome plated	S45C steel Black oxide finish	CAC902 copper alloy
Screw	Dustproof Sheet	Gearbox	
SCM435 steel Trivalent chromate	SUS304H stainless steel	S45C steel Electroless nickel plated	



Gearbox can be positioned at every 90 degree.



Part Number	S	LB	Weight(kg)	Delivery Time
MAG5040DW-100	100	356	2.9	10 Working Days
MAG5040DW-150	150	456	3.3	

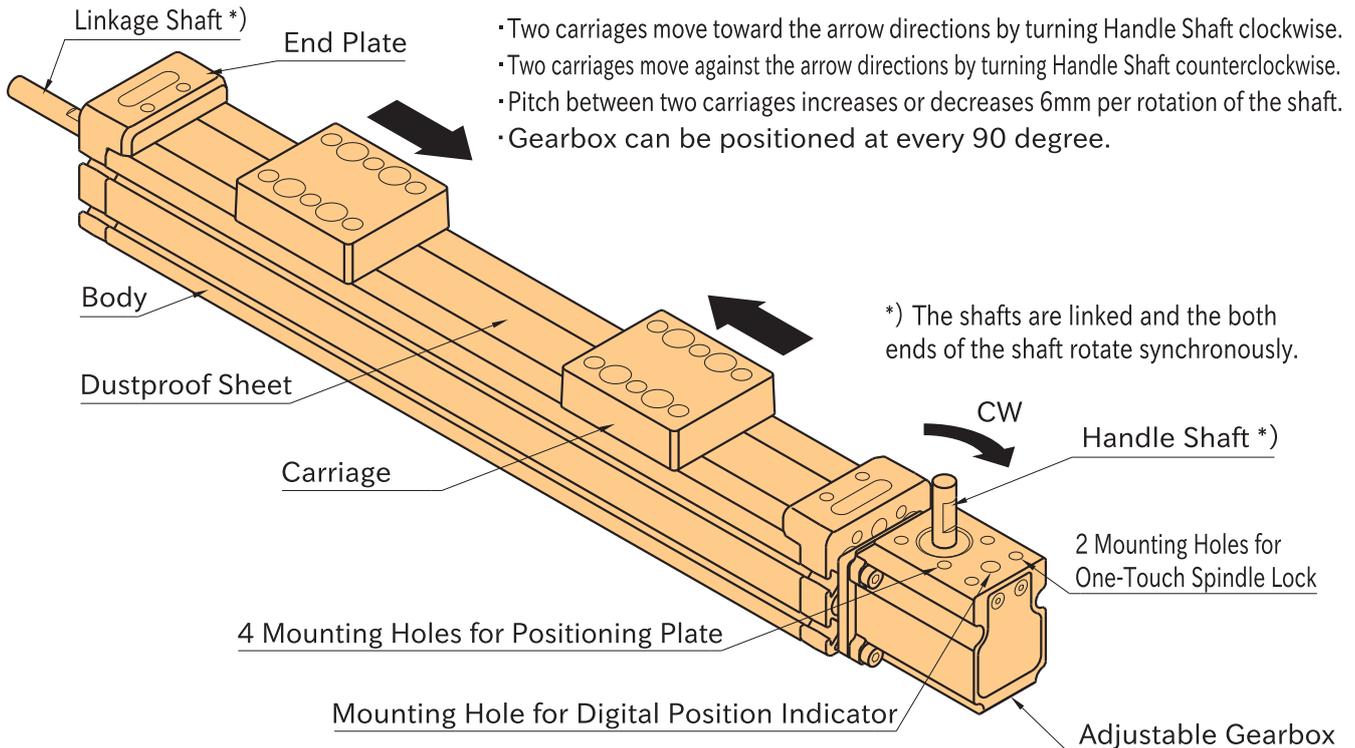
Note

The gearbox will be delivered with mounted to Mechanical Linear Actuators in the orientation as in the figure below.

Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

How To Use



- Two carriages move toward the arrow directions by turning Handle Shaft clockwise.
- Two carriages move against the arrow directions by turning Handle Shaft counterclockwise.
- Pitch between two carriages increases or decreases 6mm per rotation of the shaft.
- Gearbox can be positioned at every 90 degree.

Related Product

- Choose the optional elements for your needs.
- For actuators with customized stroke, see [MAGX5040DW](#).
 - One-Touch Spindle Locks
 - Positioning Plate
 - Digital Position Indicators
 - Adapter Shafts
 - Handwheels
 - Pair of Stops
 - T-Nuts
 - Groove Cover

MAGX5040DW

MECHANICAL LINEAR ACTUATORS WITH ADJUSTABLE GEARBOX
(Dual Carriage, Synchro-Use, Customized Stroke)

On Request



Ordering Example

MAGX5040DW-C **290**
Part Number Stroke S

Feature

- The stroke length of [MAG5040DW](#) is customizable.
- For ordering, specify the stroke.

Note

Body length : LB = Stroke S×2+156mm

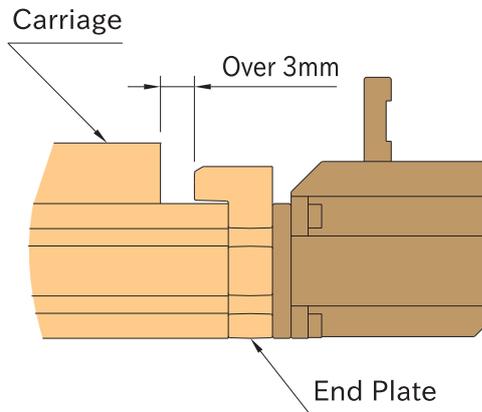
Reference

- How To Change Gearbox Position
- Dimensions of Gearbox
- Technical Information of Mechanical Linear Actuators

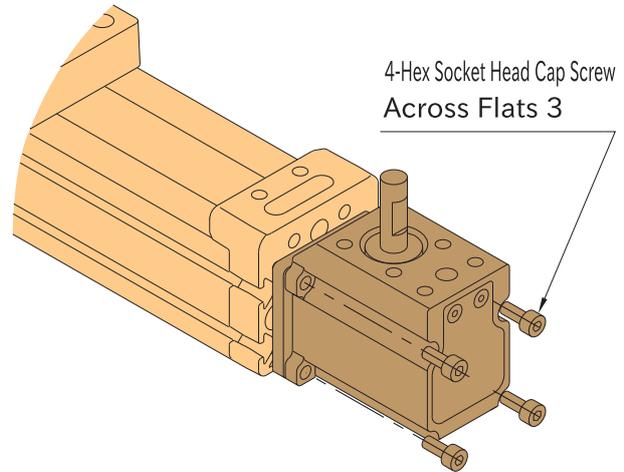
Part Number	S Desired Stroke (by 10mm)	Delivery Time
MAGX5040DW-A	160~220	15 Working Days
MAGX5040DW-B	230~280	
MAGX5040DW-C	290~340	

How To Change Gearbox Position

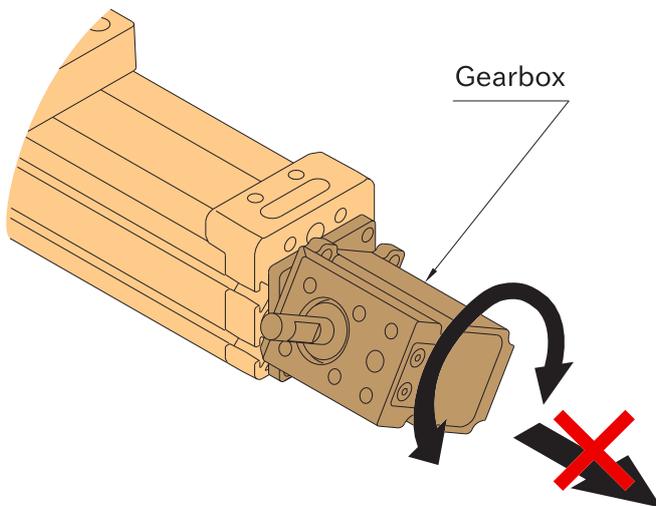
- ① The clearance between carriage and end plate should be 3mm at least.



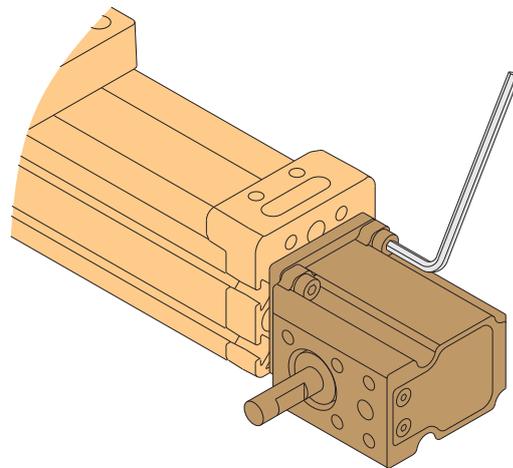
- ② Remove four hex socket head cap screws attached to the gearbox.



- ③ The gearbox is free to rotate and change the position at every 90 degree.



- ④ Fix the gearbox at the desired position with four hex socket head cap screws.



Note: Do not pull the gearbox to the axial direction.

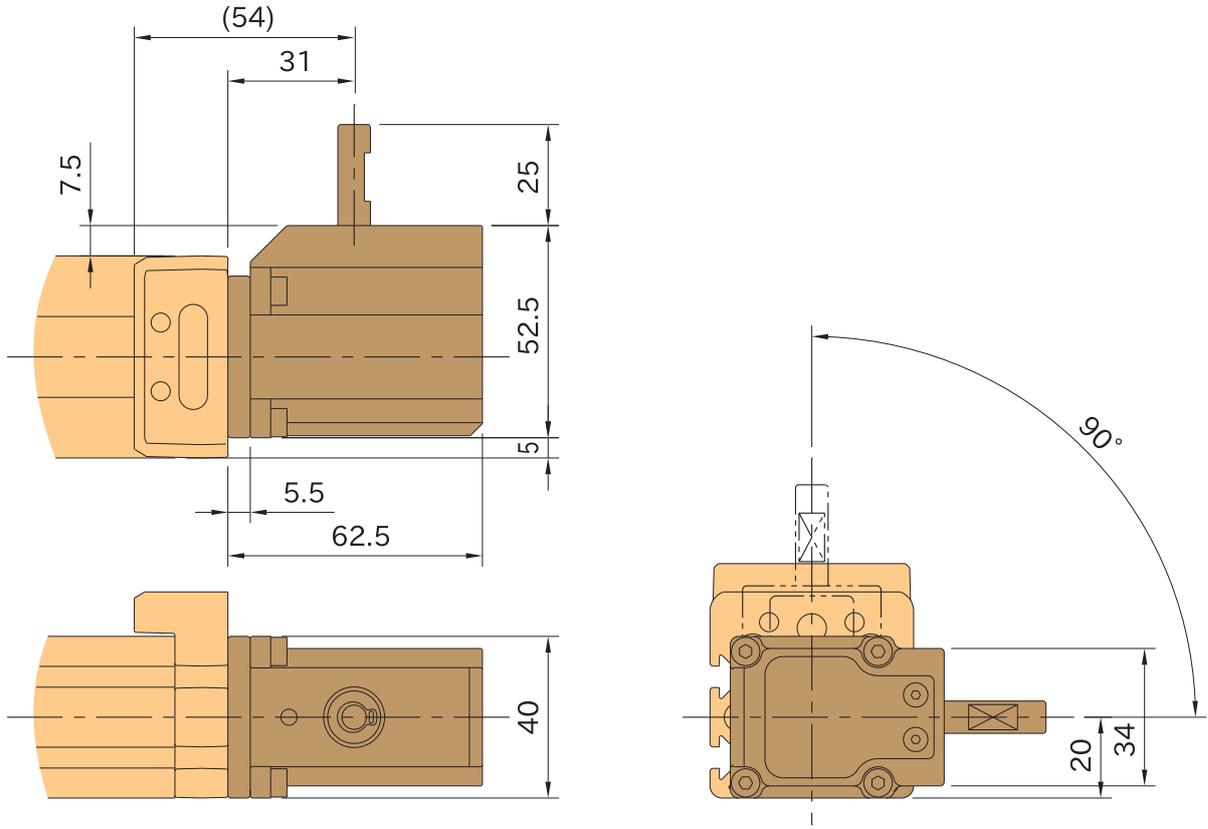
Dimensions of Gearbox

Compact

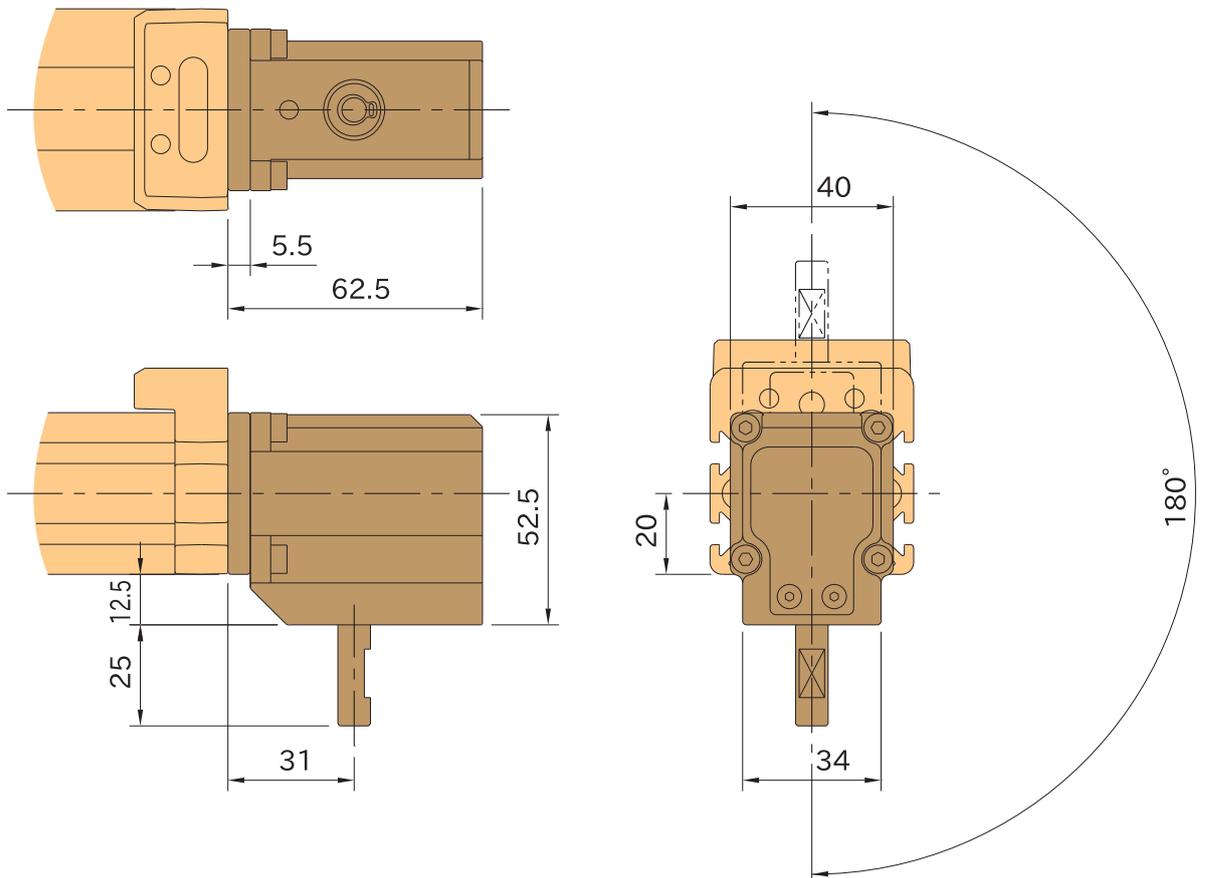
Standard

Accessories

- Dimensions of Gearbox at 90 degrees rotation
(For dimensions of Gearbox at 270 degrees, invert the drawing below.)

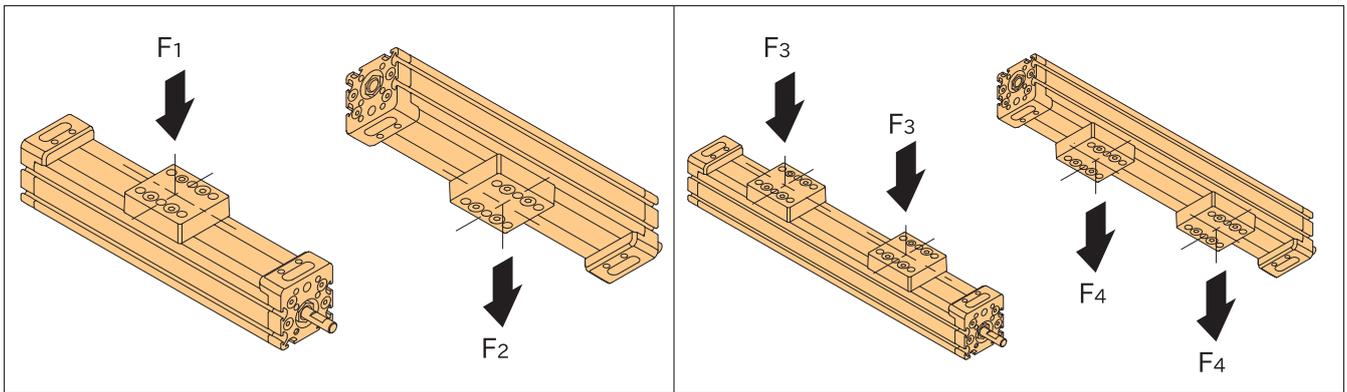


- Dimensions of Gearbox at 180 degrees rotation

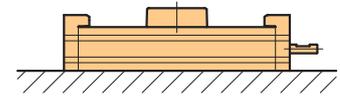


Technical Information of Mechanical Linear Actuators

Allowable Load

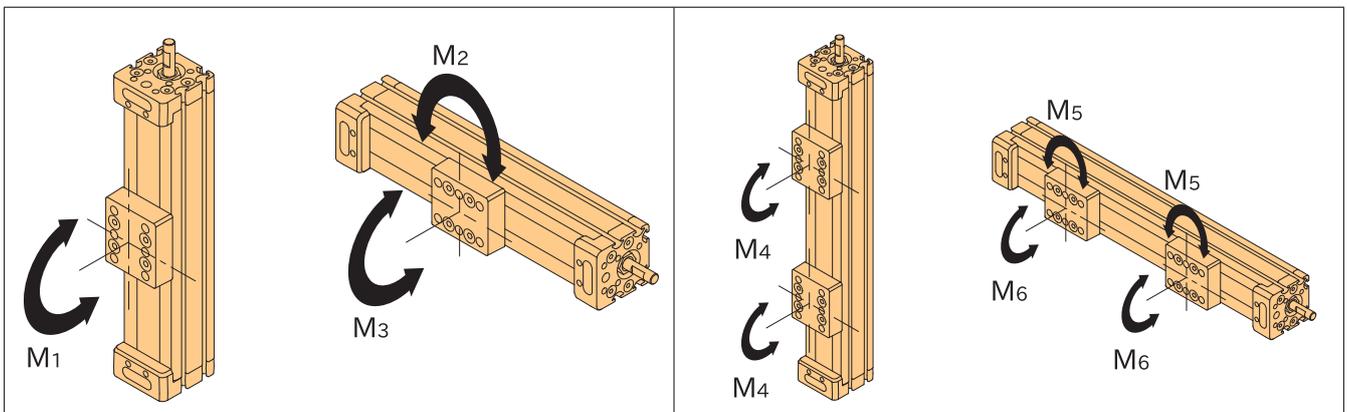


Type	F ₁ (N)	F ₂ (N)	F ₃ (N)	F ₄ (N)
MAU3222*S	30	15	-	-
MAU5040*S	600	300	-	-
MAG5040*S				
MAU5040*W	-	-	300	150
MAG5040*W				

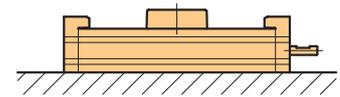


Note: The values above are for Actuators placed on a flat surface.

Allowable Moment



Type	M ₁ (N·m)	M ₂ (N·m)	M ₃ (N·m)	M ₄ (N·m)	M ₅ (N·m)	M ₆ (N·m)
MAU3222*S	0.3	0.2	0.3	-	-	-
MAU5040*S	9	8	10	-	-	-
MAG5040*S						
MAU5040*W	-	-	-	4.5	4	5
MAG5040*W						



Note: The values above are for Actuators placed on a flat surface.

Allowable Rotation Speed

When using a motor, rotation speed must be within;
 150min⁻¹ for **MAU3222****
 250min⁻¹ for **MAU5040**** **MAG5040****

QCSPL

ONE-TOUCH SPINDLE LOCKS



QCSPL-OG

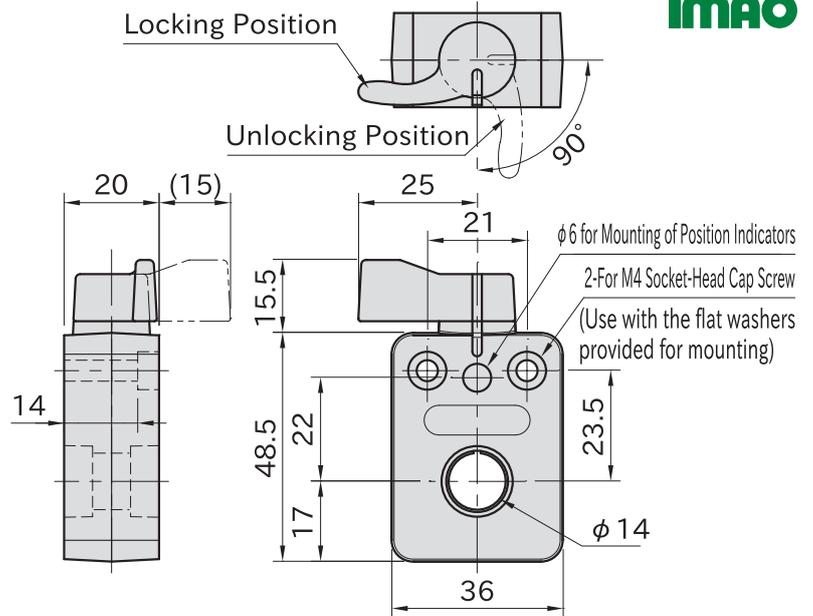
(Plastic knob, Orange)

QCSPL-BK

(Plastic knob, Black)

QCSPL-S

(Metal knob)



Type	Housing	Knob	Clamp Collar
QCSPL-OG	Polyamide plastic (glass-fiber reinforced)	Polyamide plastic (glass-fiber reinforced)	SUS630 stainless steel
QCSPL-BK		Black matte	
QCSPL-S		SCS13 stainless steel (Equivalent to SUS304)	

★Key Point

Secure locking of spindles with one-touch action!

Plastic Knob			Metal Knob		Allowable Holding Torque(N·m)	Suitable shaft dia. (h7)
Part Number		Weight (g)	Part Number	Weight (g)		
Orange	Black		50	QCSPL0414-S	70	4
QCSPL0414-OG	QCSPL0414-BK					

Feature

- One-touch Spindle Locks enable quick and secure locking of shafts with one click of the knob.
- When One-touch Spindle Lock is operated, the knob clicks and the shaft is locked with a steady force. This provides reliable locking of shafts.

Supplied With

2 of Flat round washer (Stainless Steel)

How To Use

Usage examples to mount on Mechanical Linear Actuators.

Mechanical Linear Actuator With Adjustable Gear Box

MAG5040

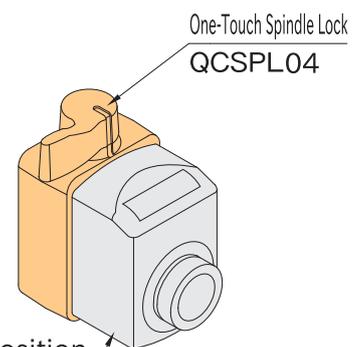
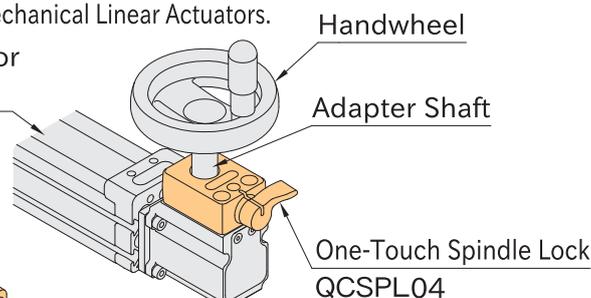
Mechanical Linear Actuator

MAU5040

One-Touch Spindle Lock

QCSPL04

Adapter Shaft



Reference

Please refer to another [QCSPL](#) page for further information.

Note

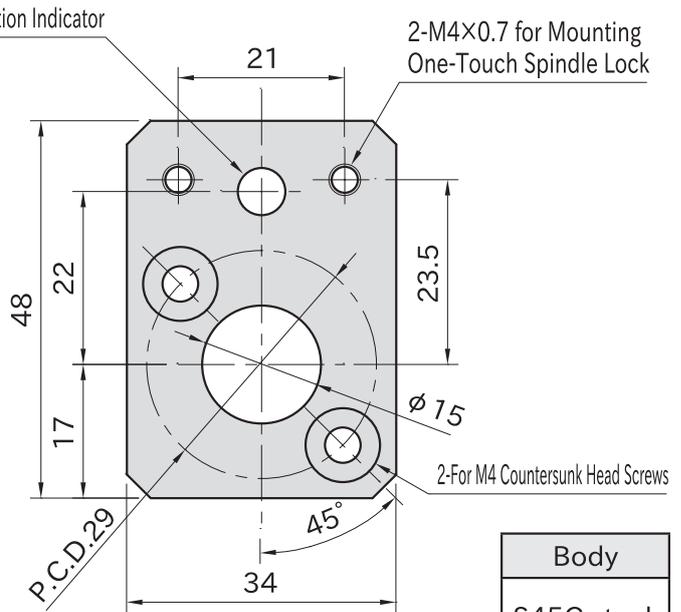
- Allowable Tightening Torque for Mounting Screws is 1.5N·m.
- Tightening with torque greater than the allowable tightening torque may cause failure by deformation of the body.
- Can not be used with [MAU3222**](#).

MAU5040-PS01

POSITIONING PLATE



φ 6 for Mounting Position Indicator



Body
S45C steel Chrome plated

Part Number	Weight (g)
MAU5040-PS01	63

Feature

Enables to change the orientation of One-Touch Spindle Locks and Digital Position Indicators for every 90 degrees.

Supplied With

2 of M4x0.7-10L Hex Socket Countersunk Head Screw

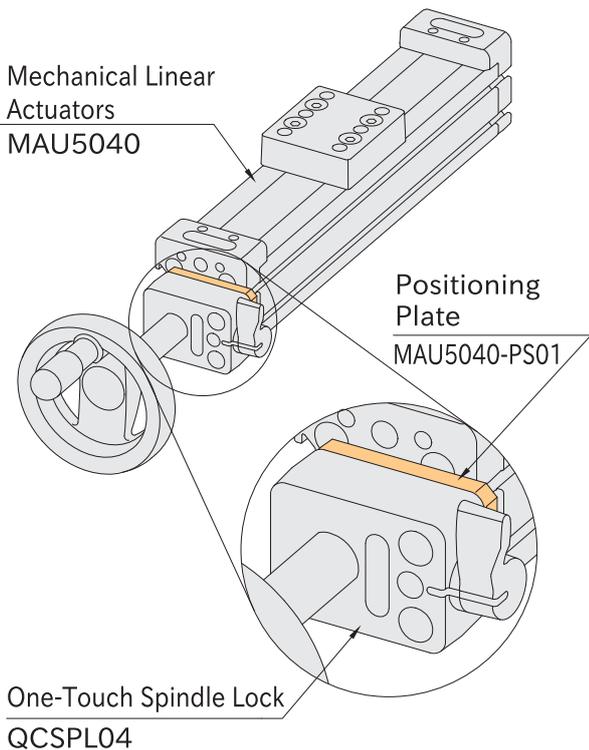
Note

Can not be used with **MAU3222****.

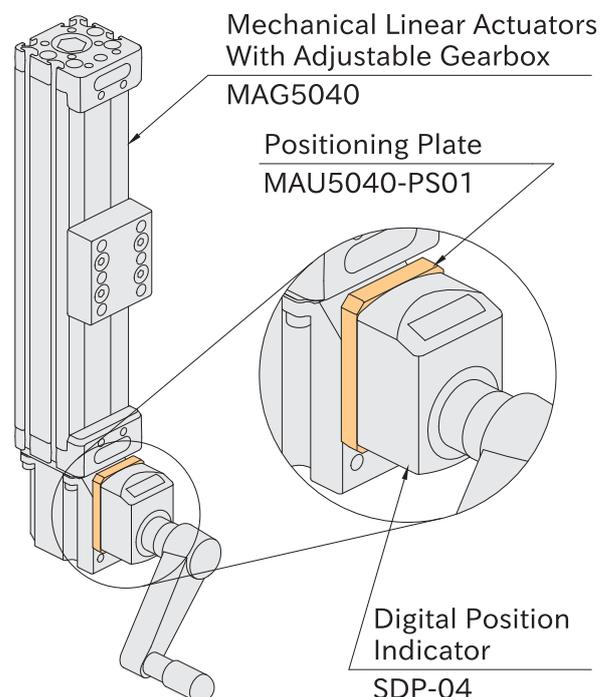
How To Use

Mount Positioning Plate to the End Plate of actuators with the included hex-socket countersunk head screws.

■ For rotating One-Touch Spindle Lock



■ For rotating Digital Position Indicator



SDP-02

DIGITAL POSITION INDICATORS



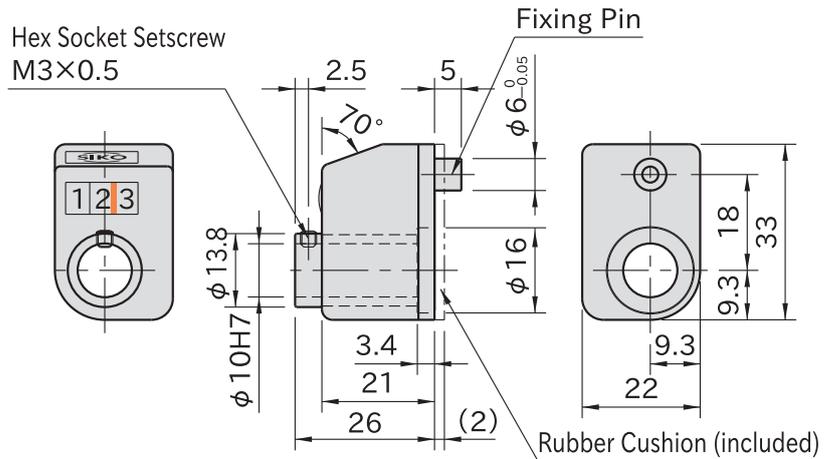
SDP-02H



SDP-02V
On Request



SDP-02F
On Request



Housing
Polyamide (nylon6) plastic Orange

Feature

Easy to read the feed amount of Compact Mechanical Linear Actuators.

Supplied With

1 of rubber cushion (with adhesive tape)

Technical Information

Working temperature : Up to 80°C

Reference

Please refer to another SPD-02 page for further information at our website.

Note

- Ensure that the start-up revolution speed is 1/3 or less of the allowable revolution speed.
- Do not give rapid acceleration or sudden stop.
- These position indicators can not be used in applications where the shaft moves in axial direction.
- Can not be used with MAU5040** · MAG5040**.

Window Position		
Style H	Style F	Style V
	On Request	On Request
To install on shaft at lower eye level	Window is visual at eye level	Install on vertical shaft

Rotative Direction	
R	L
CW Forward Counting	CCW Forward Counting
CCW Backforward Counting	CW Backforward Counting

Display Example		
Yellow Line		
Yellow Line indicates decimal point.	Forward counting from "000"	Backforward counting from "000"

Type	Window Style	Rotative Direction	Display Per Rotation	Allowable Rotation Speed (min ⁻¹)	Weight (g)	Proper Compact Mechanical Linear Actuators *)
SDP-02	H	R	1B 010)	500	20	MAU3222SS
	F On Request	L	2B 020			MAU3222DS
	V On Request					

Compact

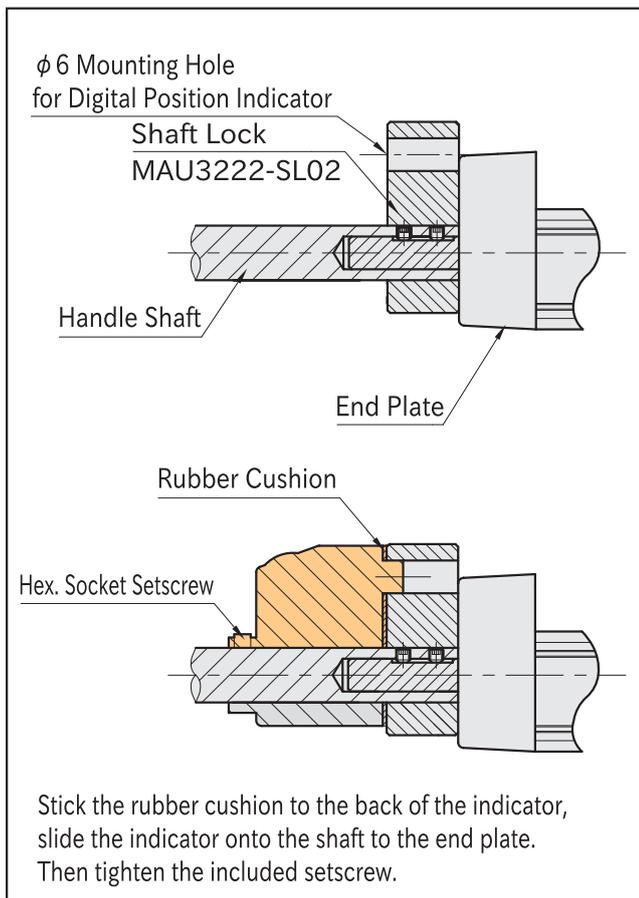
Standard

Accessories

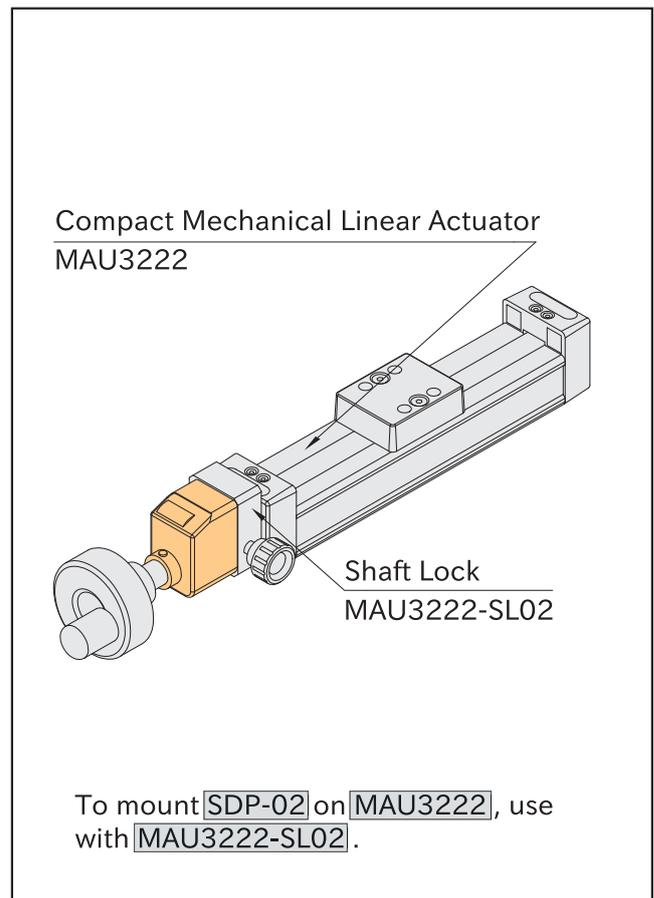
*) Compact Mechanical Linear Actuators uses M6×1 Thread (Pitch 1mm).
Carriage moves 1mm per rotation of the Handle Shaft.

Ordering Example | **SDP-02** H L - 1B
 Window Style Rotative Direction Display Per Rotation

How To Install



How To Use



SDP-04

DIGITAL POSITION INDICATORS



SDP-04H

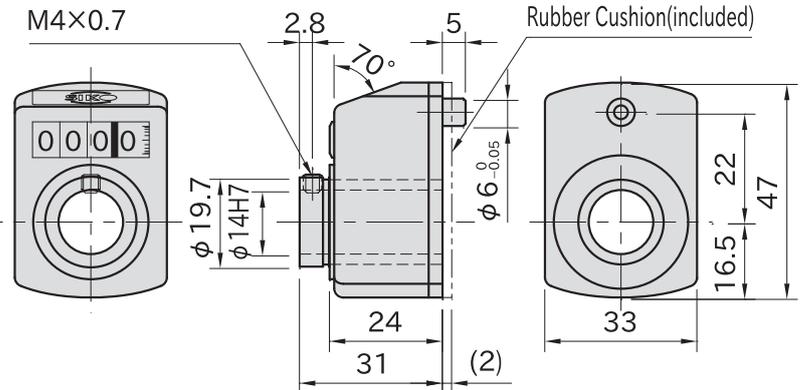


SDP-04F



SDP-04V

Hex Socket Setscrew
M4×0.7



Housing
Polyamide (nylon6) plastic
Orange

Feature

- Easy to read the feed amount of Mechanical Linear Actuator.
- Display figure height : 6mm

Supplied With

One rubber cushion

Technical Information

Working temperature : Up to 80°C

Reference

Please refer to another [SDP-04](#) page for further information at our website.

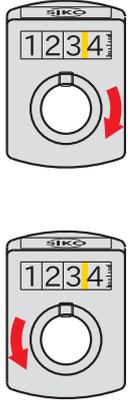
Note

- Ensure that the start-up revolution speed is 1/3 or less of the allowable revolution speed.
- Do not give rapid acceleration or sudden stop.
- These position indicators can not be used in applications where the shaft moves in axial direction.
- Can not be used with [MAU3222**](#).

Window Position		
Style H	Style F	Style V
To install on shaft at lower eye level	Window is visual at eye level	Install on vertical shaft

Rotative Direction	
R	L
CW Forward Counting CCW Backward Counting	CCW Forward Counting CW Backward Counting

Display Example		
Yellow Line indicates decimal point.	Count up from "0000".	Count down from "0000".

Type	Window Style	Rotative Direction	Spindle Thread Pitch Per Rotation	Allowable Rotation Speed (min ⁻¹)	Weight (g)	Proper Mechanical Linear Actuators *)
SDP-04	 H F	 R L	3B  **)	500	50	MAU5040*S MAUX5040*S MAG5040*S MAGX5040*S
			6B  ***)	250		MAU5040*W MAUX5040*W MAG5040*W MAGX5040*W

Compact

Standard

Accessories

*)Mechanical Linear Actuator uses Tr14x3 Trapezoidal Thread (Pitch 3mm).

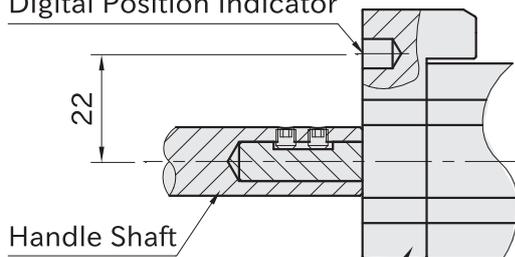
) **MAU5040*S · **MAUX5040*S** · **MAG5040*S** · **MAGX5040*S** Carriage moves 3mm per rotation of the Handle Shaft.

***) **MAU5040*W** · **MAUX5040*W** · **MAG5040*W** · **MAGX5040*W** Pitch between two carriages increases or decreases 6mm per rotation of the shaft.

Ordering Example

SDP-04 H L - 3BWindow
StyleRotative
DirectionSpindle Thread Pitch
After 1st Revolution**How To Install**

φ 6 Mounting Hole for
Digital Position Indicator

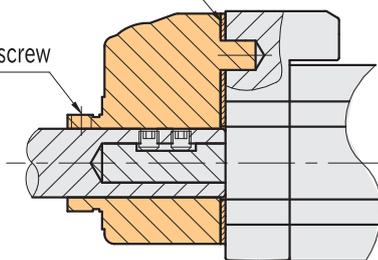


Handle Shaft

End Plate

Rubber Cushion

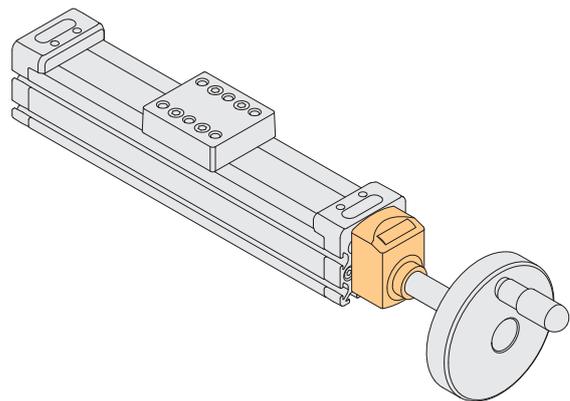
Hex. Socket Setscrew



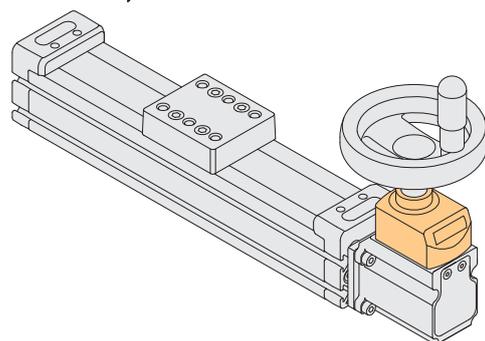
Stick the rubber cushion to the back of the indicator, slide the indicator onto the shaft to the end plate. Then tighten the included setscrew.

How To Use

■ Install on Mechanical Linear Actuator



■ Install on Adjustable Gearbox of Mechanical Linear Actuator

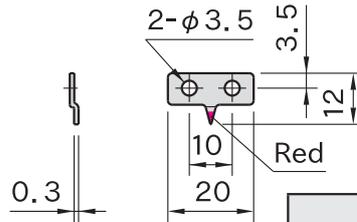


ES3-A

POINTER



Stainless Steel



Body
SUS304 stainless steel

Part Number	Weight(g)
ES3-A	1

Note

- This pointer is adhesive-mount. Ensure that the mounting surface is dry and clean before mount.
- The pointer tip can be bent.

ES1N

SCALES

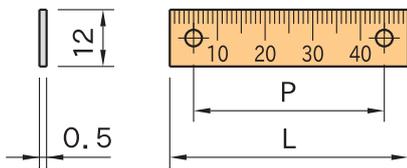


ES1N-U50R

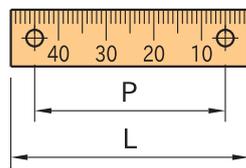


ES1N-U5050

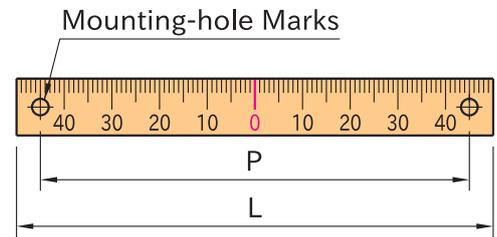
Body
A1050P aluminum
Graduations etched



ES1N-U50R,100R



ES1N-U50L,100L



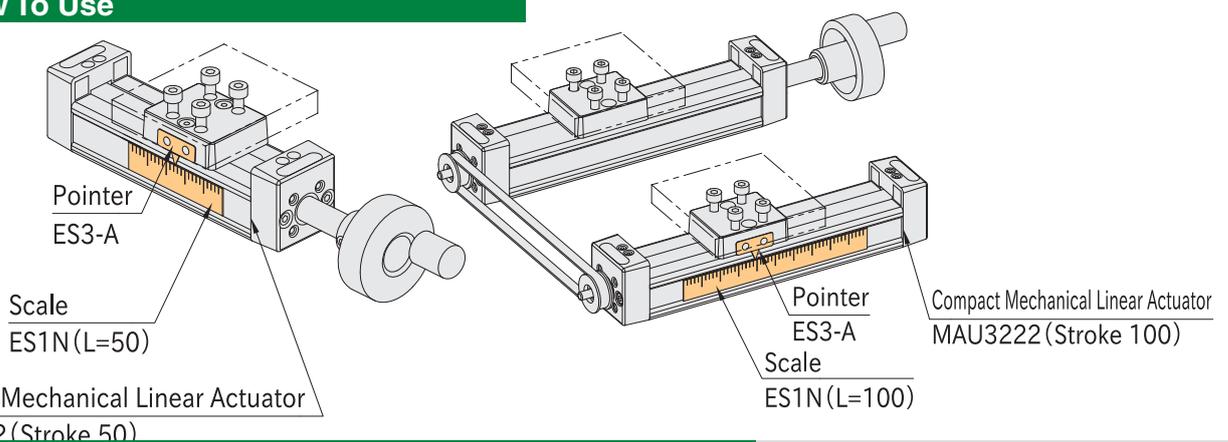
ES1N-U5050

Part Number	L	P	No. of Mounting-Hole Mark	Weight(g)
ES1N-U50R	50	40	2	0.8
ES1N-U100R	100	90		1.6
ES1N-U50L	50	40		0.8
ES1N-U100L	100	90		1.6
ES1N-U5050	100	90		1.6

Note

- This scale is adhesive-mount. Ensure that the mounting surface is dry and clean before mount.
- Scales are not designed for accurate measurement.

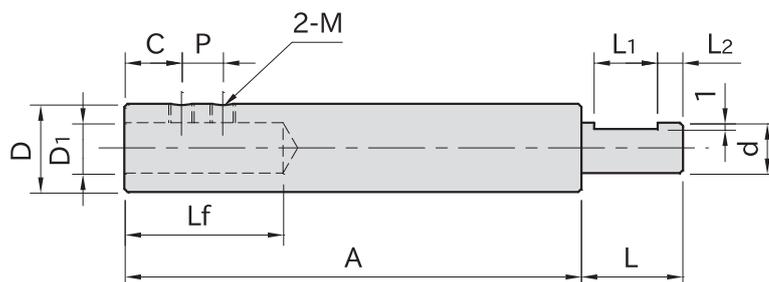
How To Use



Compact Mechanical Linear Actuator MAU3222 (Stroke 50)

Compact Mechanical Linear Actuator MAU3222 (Stroke 100)





Body
S45C steel Black oxide finish

MAU3222-SH

Part Number	d (h8)	A	L	L ₁	L ₂	D (h7)	D ₁ (+0.018/+0.005)	C	P	L _f	M	Weight (g)	Proper Actuators
MAU3222-SH06-26	6	26	12	8	3	10	6	4	6	21.5	M3X0.5	13	MAU3222**
MAU3222-SH06-50		50										28	

MAU5040-SH

Part Number	d (h8)	A	L	L ₁	L ₂	D (h7)	D ₁ (H7)	C	P	L _f	M	Weight (g)	Proper Actuators
MAU5040-SH08-42	8	42	16	10	4	14	8	9	6.5	25	M4X0.7	46	MAU5040** MAG5040**
MAU5040-SH08-62		62										70	
MAU5040-SH10-42	10	42	20	12	6	14	8	9	6.5	25	M4X0.7	50	
MAU5040-SH10-62		62										74	
MAU5040-SH12-42	12	42	20	12	6	14	8	9	6.5	25	M4X0.7	57	
MAU5040-SH12-62		62										82	

Related Product

■ Handwheel for [MAU3222-SH](#)

·GH-N

■ Handwheel for [MAU5040-SH](#)

·GH-N

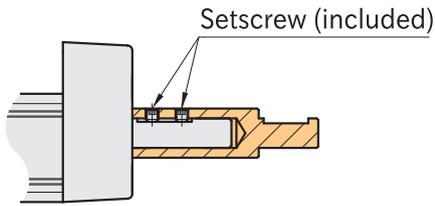
·EDHN-M

·TWN-M

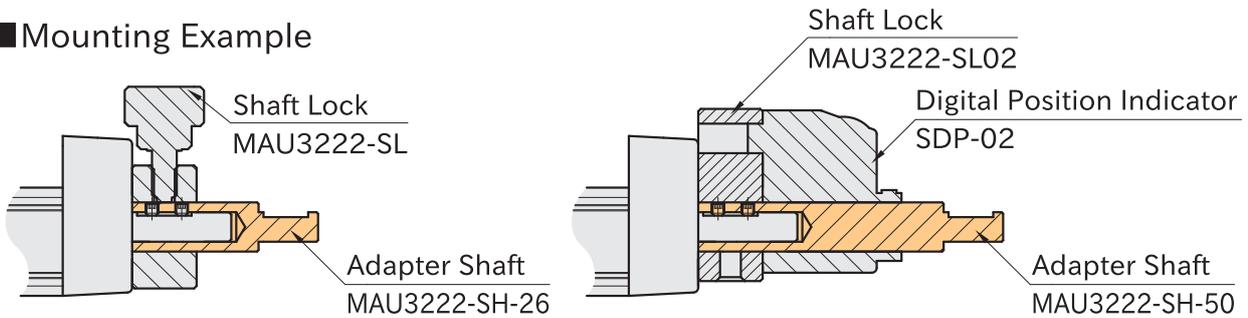
MAU3222-SH

■ How to Fix

Fix the Adapter Shaft using setscrews included to the Handle Shaft of Compact Mechanical Linear Actuators.



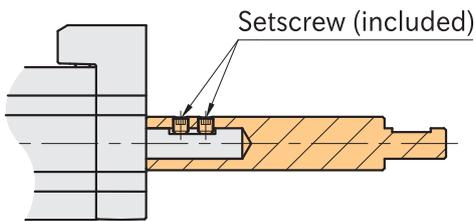
■ Mounting Example



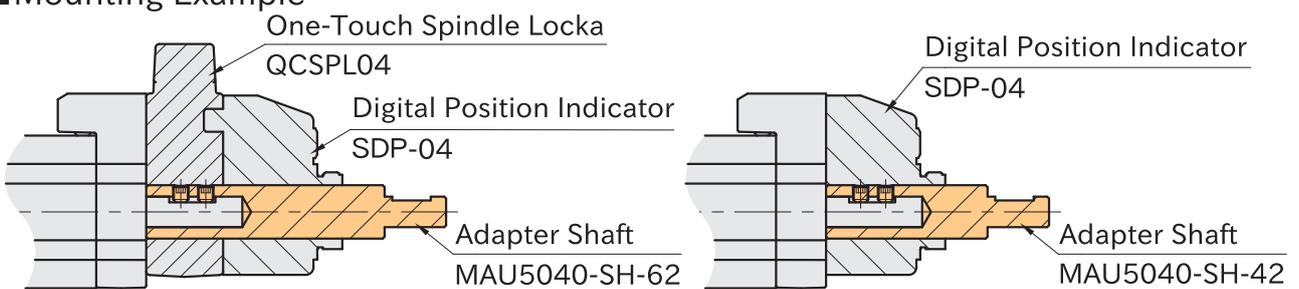
MAU5040-SH

■ How to Fix

Fix the Adapter Shaft using setscrews included to the Handle Shaft of Mechanical Linear Actuators.



■ Mounting Example



Note

To produce an adapter shaft at customers, we recommend to follow the specifications below.

MAU3222-SH

O.D. of Shaft: ϕ 10h7 Surface Roughness: $\sqrt{6.3}$

MAU5040-SH

<For use with One-Touch Spindle Locks>

O.D. of Shaft: ϕ 14h7 Surface Roughness: $\sqrt{6.3}$

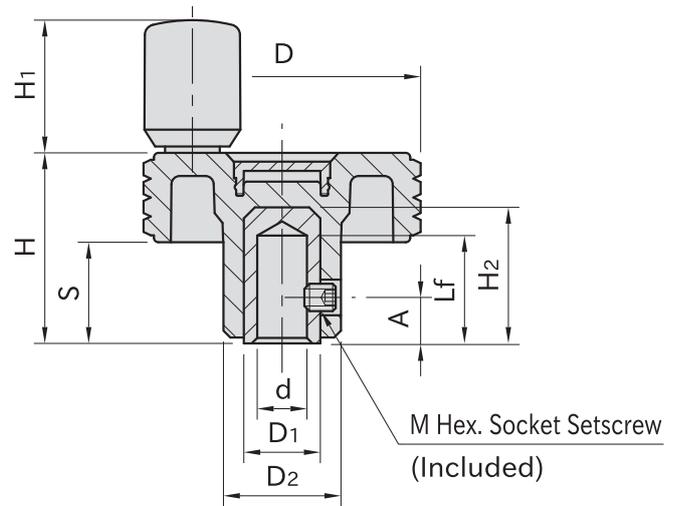
<For use with Digital Position Indicators>

O.D. of Shaft: ϕ 14h9 Surface Roughness: $\sqrt{6.3}$

Supplied With

MAU3222-SH: 2 of M3x0.5-2.5L Hex Socket Setscrew

MAU5040-SH: 2 of M4x0.7-4L Hex Socket Setscrew

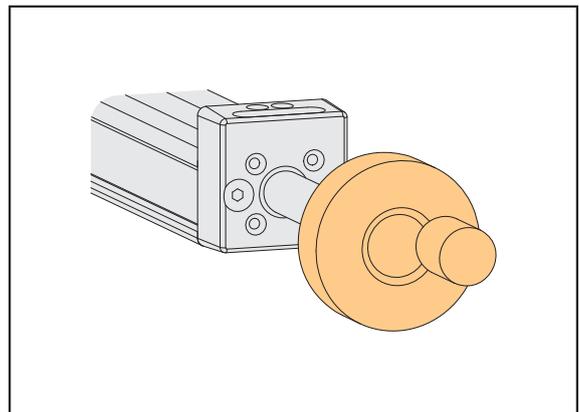


Knob	Handle	Hub	Center Cap
Polypropylene Black matte	Polyamide Black matte	Brass (Low cadmium)	Polyamide Black matte

Part Number	D	d (H9)	H	D ₂	D ₁	H ₂	L _f	S	A	H ₁	M	Weight (g)	Proper Adapter Shaft
GH40N	39.5	6	26.5	17	12	17	14	12.5	4	20	M4×0.7	34	MAU3222-SH06- **
GH50N	50		33	20	15	23	18	16	5		M5×0.8	54	
GH60N	61	8	39	23		25	20	18.5	6	23	M5×0.8	65	MAU5040-SH08- **
GH70N	70	10	42	24	16	30	25	20.5			M5×0.8	73	MAU5040-SH10- **

Reference

Please refer to another [GH-N](#) page for further information at our website.



EDHN-M

PLASTIC SOLID DISK HANDWHEEL



On Request



Compact

Standard

Accessories



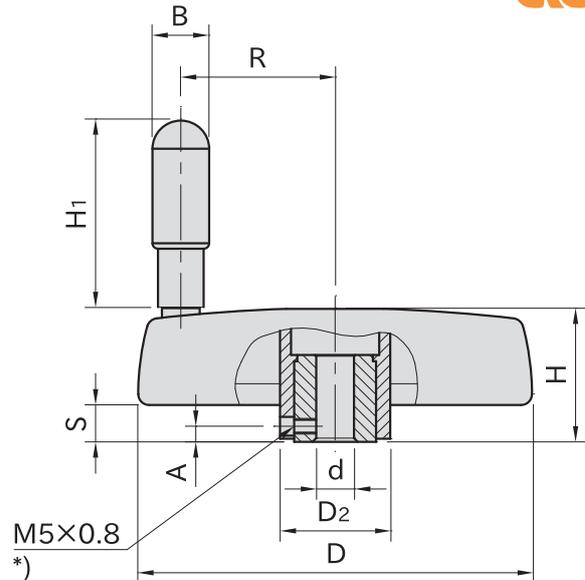
EDHN-R-M

(With Revolving Handle)



EDHN-F-M

(With Revolving Fold-Away Handle)



Handwheel	Hub	Center cap	Handle
Polypropylene Black matte	SUM24L steel Black oxide finish	Polyacetal plastic Light gray (Only for EDHN80F-M) Polypropylene Black matte	Polyamide Black matte

EDHN-R-M (With Revolving Handle)

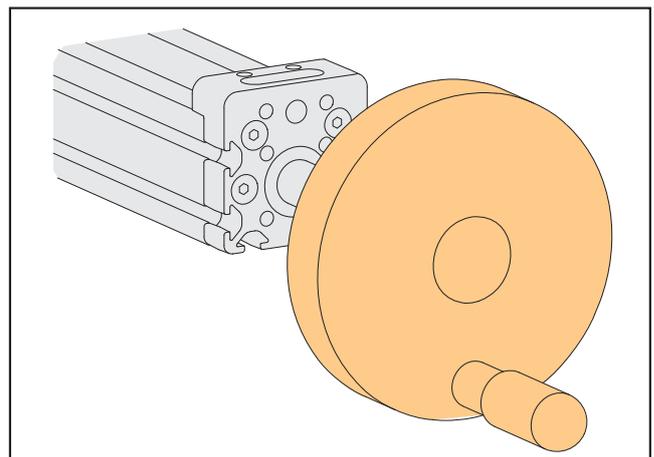
Part Number	D	d (H7)	H	D ₂	S	A	B	H ₁	R	Weight (g)	Delivery Time
EDHN 80R-M	83	8	29	26	9	5	15.5	45	30.5	106	2 Working days **)
EDHN100R-M	102	10	34	30	10		18	60	39	174	
EDHN125R-M	125	12	39.5	35	11		6	49	270		

EDHN-F-M (With Revolving Fold-Away Handle)

Part Number	D	d (H7)	H	D ₂	S	A	B	H ₁	R	Weight (g)	Delivery Time
EDHN 80F-M	83	8	38	25	18.5	9	15.5	45	28	133	2 Working days **)
EDHN100F-M	102	10	34	30	10	5			39	170	
EDHN125F-M	125	12	39.5	35	11	6			49	307	

Note

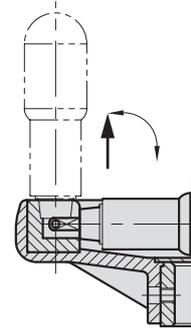
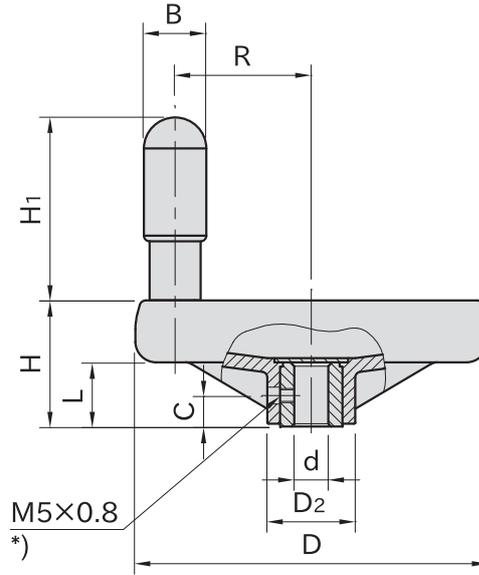
- *) These are machined handwheels of **EDHN-R**, **EDHN-F** to add the hole for setscrew. For further information, please refer to the catalog pages at our website.
- **) Ordering 11 pcs or more, please ask us for the delivery time.
- ***) Can not be used with **MAU3222****.



TWN-M

PLASTIC ANGLED-SPOKE HANDWHEELS

On Request



TWN-M

TWN-F-M

(With Revolving Handle)

(With Revolving Fold-Away Handle)

Handwheel	Hub	Center Cap	Handle
Polypropylene plastic Black matte	SUM24L steel Black oxide finish	A3104 aluminum Silver matte	Polyamide plastic Black matte

TWN-M (With Revolving Handle)

Part Number	D	d (H7)	H	D ₂	L	C	B	H ₁	R	Weight (g)	Delivery Time
TWN 80-M	80	8	35	25	17	8	15.5	45	29	104	2 Working Days **)
TWN100-M	99	10	37	25.5			18	60	37	145	
TWN125-M	125	12	44	31			22	11	22	65	

TWN-F-M (With Revolving Fold-Away Handle)

Part Number	D	d (H7)	H	D ₂	L	C	B	H ₁	R	Weight (g)	Delivery Time
TWN 80F-M	80	8	35	25	17	8	15.5	45	29	102	2 Working Days **)
TWN100F-M	99	10	37	25.5			18	60	37	163	
TWN125F-M	125	12	44	31			22	11	22	65	

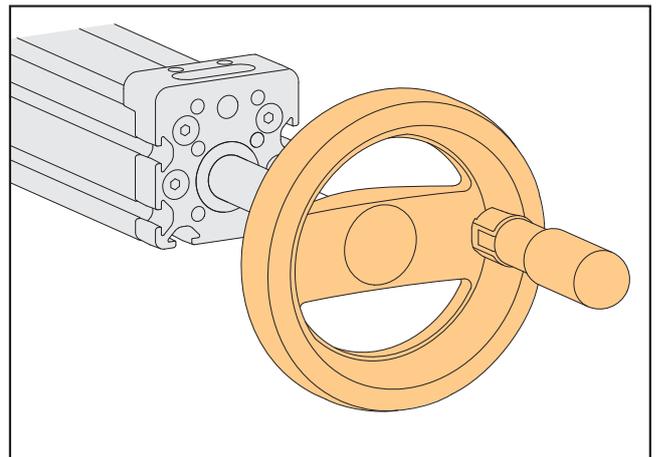
Note

*) These are machined handwheels of **TWN** , **TWN-F** to add the hole for setscrew.

For further information, please refer to the catalog pages at our website.

***) Ordering 11 pcs or more, please ask us for the delivery time.

****) Can not be used with **MAU3222****.



MAU5040-ST02

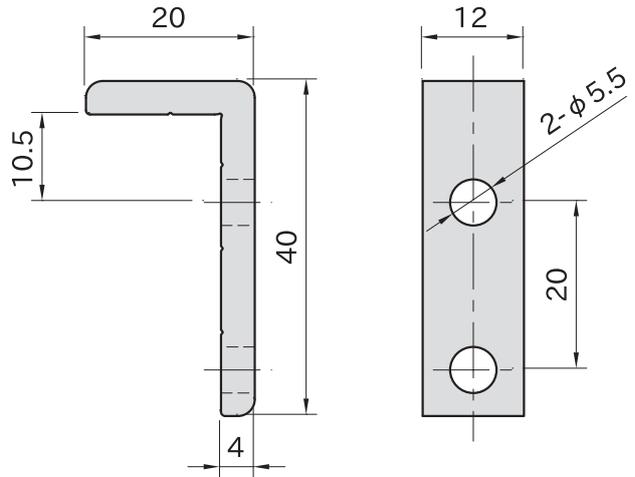
PAIR OF STOPS



Compact

Standard

Accessories

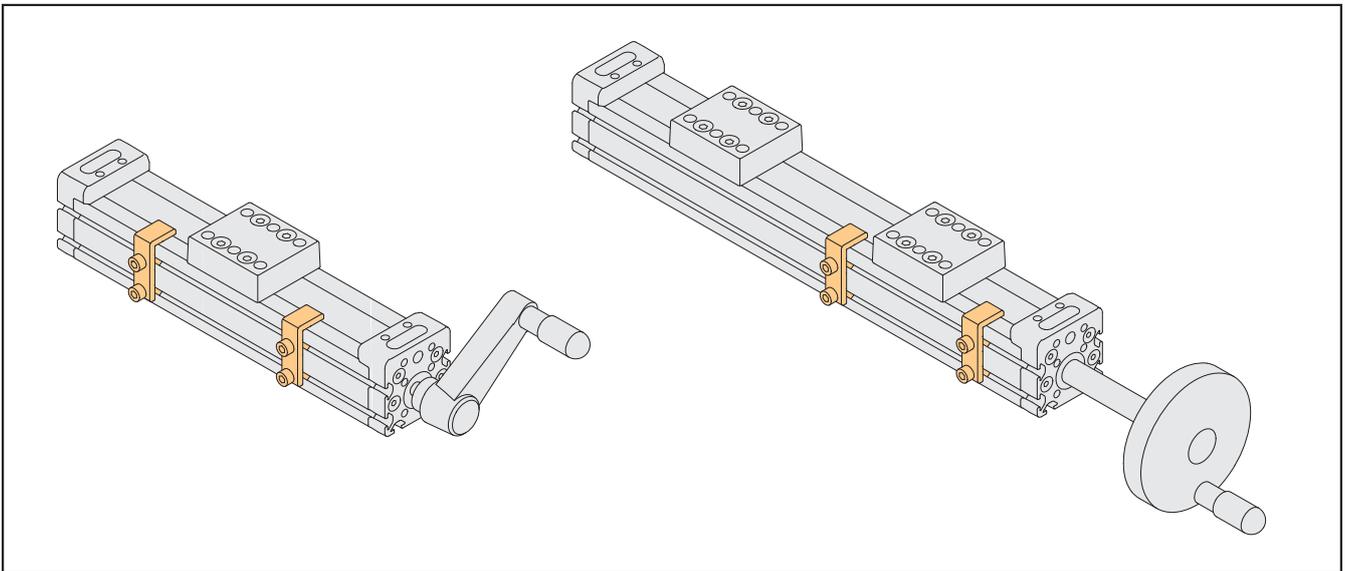


Part Number	Weight (g)
MAU5040-ST02	20

Body
Equivalent to A6N01 aluminum Anodized Natural color

How To Use

For limiting the travel of Carriages on Actuators.



Note

- Stops can be misaligned by shock or load from Carriages of Actuators.
- The surfaces inside the mounting holes and the both cut ends are not anodized.
- T-Nut can be inserted directly into the T-slot of the body. (Cannot be slide-inserted from the end plates.)
- Can not be used with **MAU3222****.

Supplied With

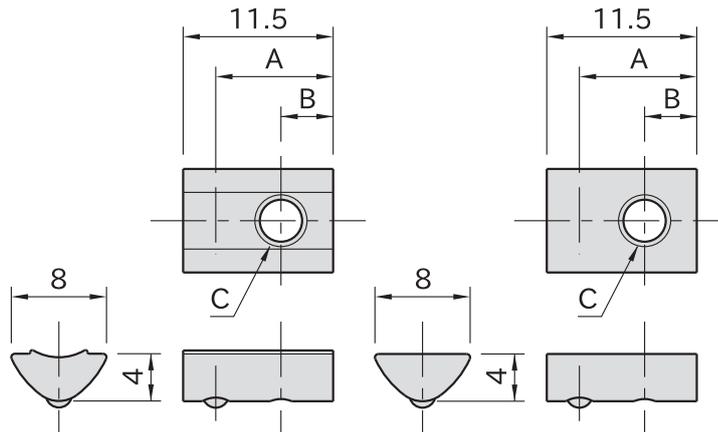
- 2 of M5×0.8-10L Hex-Socket Head Cap Screw
- 2 of round washer for M5 screws
- 2 of M5 T-Slot Nut

L5-TST

T-NUT

item

RoHS Stainless Steel



L5-TST
(Steel)

L5-TST-SUS
(Stainless steel)

Part Number	A	B	C	Weight (g)
L5-TST3	8	3	M3×0.5	2
L5-TST4			M4×0.7	
L5-TST5	9	4	M5×0.8	
L5-TST4-SUS	8	3	M4×0.7	
L5-TST5-SUS	9	4	M5×0.8	

Type	Body
L5-TST	Steel Galvanized trivalent chromate treated
L5-TST-SUS	Stainless steel

Note

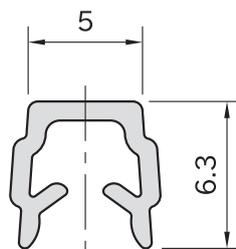
T-Nut can be inserted directly into the T-slot of the body. (Cannot be slide-inserted from the end plates.)

L5-GVC2000N

GROOVE COVER

item

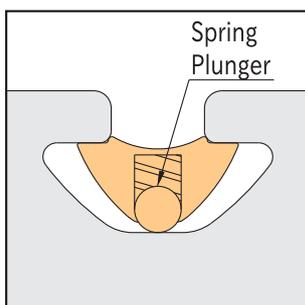
RoHS



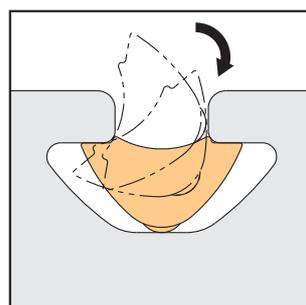
Body
PP Polypropylene plastic (Include Thermoplastic elastomer)

Part Number	Length (m)	Weight (g)
L5-GVC2000N	2	27

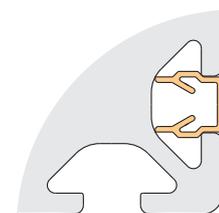
How To Use



Insert the nut into the groove. The spring plunger prevents the nut move freely inside the groove.



The nut can be inserted from any position on groove.



Use the groove cover for unused groove on profile body.



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