

Instalación Simplificada

Gran Variedad



Explore nuestra amplia gama de
Guías Lineales

Nuestras Guías Lineales

Soluciones óptimas para satisfacer sus necesidades.

Muchas industrias utilizan guías lineales de alta precisión para una variedad de aplicaciones. Sin embargo, en aplicaciones donde no es necesaria una alta precisión, a menudo existen costos ocultos asociados con los precios de los componentes y la mano de obra.

Comience a optimizar sus guías lineales para reducir costos y maximizar el valor.

Gran Variedad

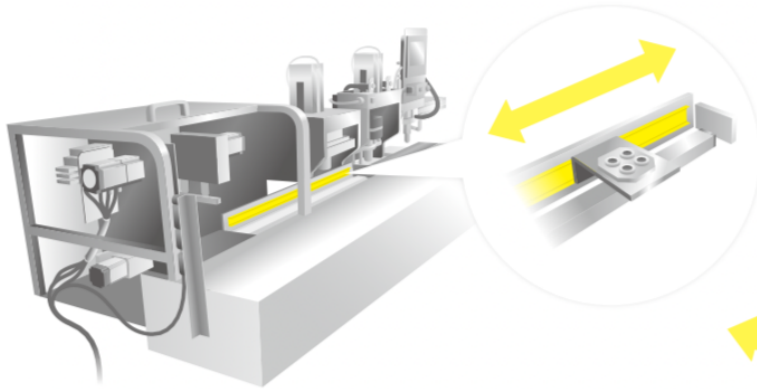
Sugatsune ofrece una amplia variedad de guías lineales de diferentes longitudes, tamaños, capacidades de carga y construcciones que se pueden seleccionar según a las necesidades del proyecto.

Instalación Simplificada

Nuestras guías no requieren una precisión de montaje meticulosa, a diferencia de las guías de alta precisión. Funcionan sin problemas sin plantillas especializadas ni preprocesamiento.

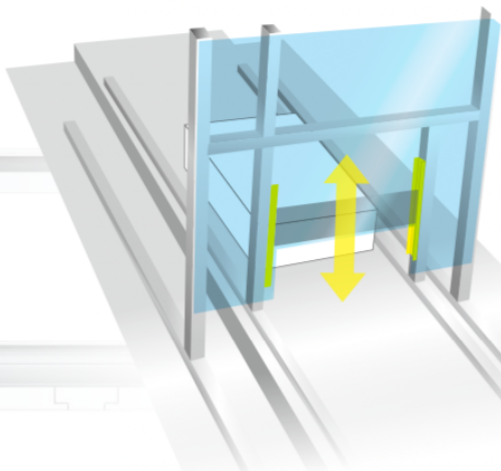
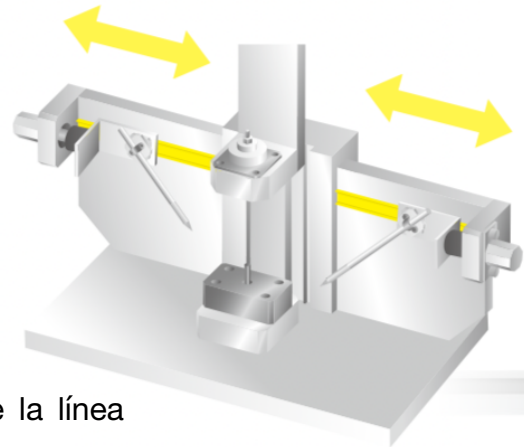


Ejemplo de Aplicaciones



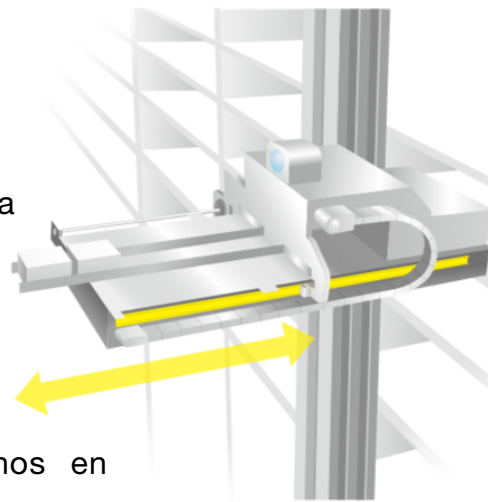
Equipos de marcado de piezas de trabajo.

Sistema de transferencia de piezas pequeñas en equipos de montaje.

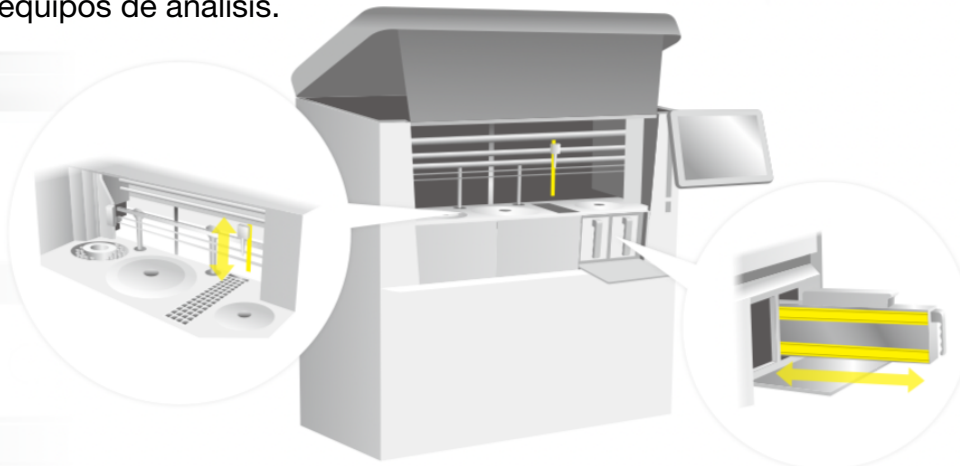


Mecanismo de la línea transportadora.

Movimiento del brazo en sistema de transferencia ligero.



Movimiento vertical de la pipeta y Unidades de cambio de cartuchos en equipos de análisis.

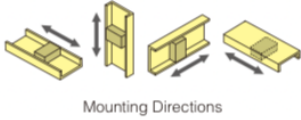


Alineación diversa

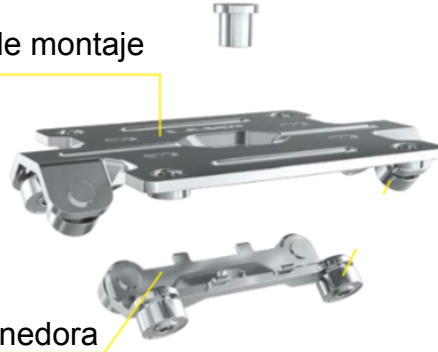
MLGX

Tipo Multi - Rodillos

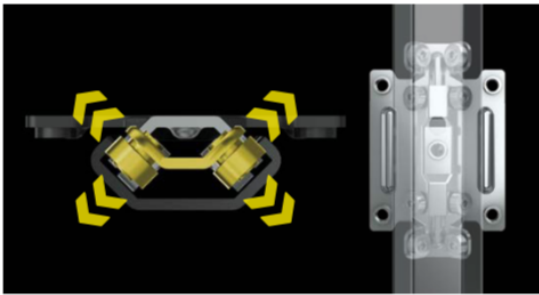
Movimiento suave y estable.
 Soporta cargas en varias direcciones.



Placa de montaje



Placa retenedora



La "estructura Dual X"

Se compone de 2 placas y 8 rodillos dispuestos en forma de X. Distribuye uniformemente la precarga para evitar ruidos y garantizar un movimiento suave, independientemente de la orientación de montaje.

F_x
120N

F_v
80N

F_y
120N

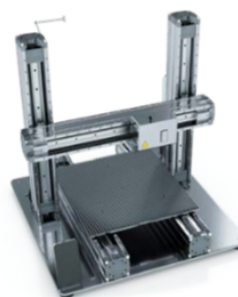
Soporta cargas verticales, horizontales y diagonales.

M_x
2.4N·m

M_z
2.4N·m

M_y
1.2N·m

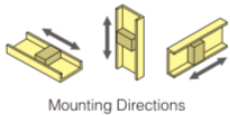
Adecuado para diversas aplicaciones, incluidas máquinas automatizadas y máquinas de corte.



Hay varios modelos disponibles, incluido un tipo con cojinete de plástico silencioso y un tipo sin grasa de bajo costo.

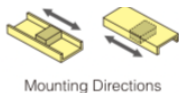
MLG Tipo Multi - Rodillos

La estructura de múltiples rodillos soporta cargas radiales y de empuje. También están disponibles el tipo delgado y el tipo compacto.



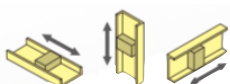
LGB Tipo Rodillo

Estos rodillos permiten un movimiento silencioso y suave. está diseñado con un ajuste de espacio moderado, lo que permite una instalación fácil y sin complicaciones.







MRS Tipo deslizante (sin rodillos)

El riel sin grasa y el bloque guía de plástico permiten una instalación simplificada y una reducción de los costos de mano de obra

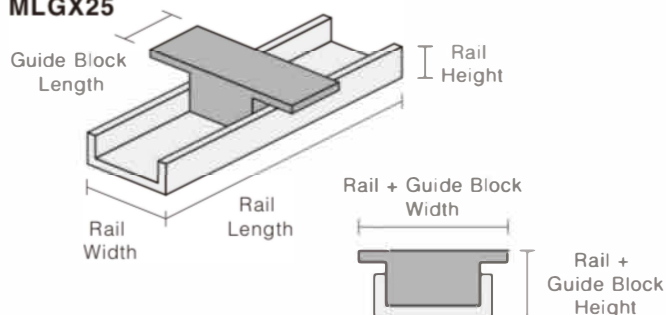


Product Lineup

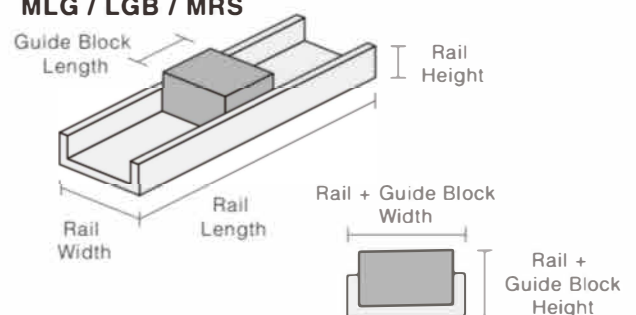
						Rail + Guide Block		Guide Block	
Series	Model	Page	Guide Block No.	Feature	Height mm	Width mm	Length mm	Screw Size	
MLGX Multi-Roller Type	 MLGX25	P.8	MLGX-25C-8	Preloaded	12	42 (Rail:25)	66	M4	
MLG Multi-Roller Type	 MLG20	P.10	MLG-20C	-	10.5	20.2	43	M3	
			MLG-20CS	Compact			30		
			MLG-20C-8	8-Wheel Roller			40		
	 MLG13	P.12	MLG-13C	Slim	10.5	13	61	M3	
LGB Roller Type	 LGB30	P.14	LGB-30CM	-	20	30	70	M5	
			LGB-30CB	Bidirectionally Preloaded			72.7		
MRS Sliding Type	 MRS15	P.20	MR-15CS	-	7	15	20	M3	
	 MRS20	P.21	MR-20CS	-	8.2	20	50	M4	
			MR-20CNB	Preloaded					
	 MRS30	P.22	MR-30CS	-	11	30	50	M4	
			MR-30CNB	Preloaded					
			MR-30CB	Bidirectionally Preloaded			60		
	 MRS40	P.25	MR-40CS	-	14	40	70	M5	
			MR-40CNB	Preloaded					

■ Dimensions

MLGX25

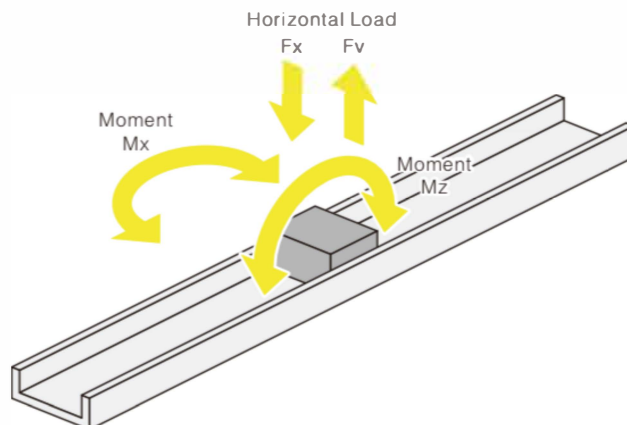
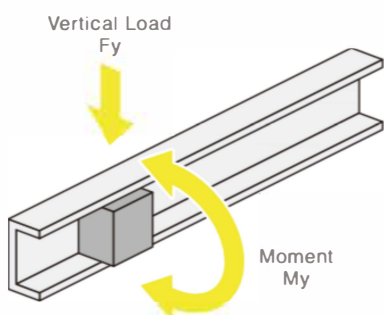


MLG / LGB / MRS



Rail				Load							Option Part
Length mm	Width mm	Screw Size	Hole Pitch mm	Load Type	Fx	Fy	Fv	Mx	My	Mz	
					(N)			(N·m)			
200~1200	25	M4	50	Operating Load	120	120	80	2.4	1.2	2.4	-
100~2000	20.2	M4	50	Static Rated Load	40	40	-	1.2	0.4	0.8	Mounting Plate
								0.8		0.4	-
								1.8	0.8	1.2	-
200~1200	13	M4	50		40	40	-	1.0	0.2	1.2	-
400~2000	30	M4	50	Load Capacity	294	-	-	-	-	-	Stopper Mounting Plate
100~1200	15	M3	50	Static Rated Load	100	30	-	-	-	-	Clamp
100~2000	20	M4	50		300	175	-	3	1.5	1.5	Clamp
100~2000	30	M4	40		520	305	-	5	2.5	2.5	Clamp Bracket for Sensor
400~2000	40	M4	50		700	490	-	7	3.5	3.5	-

■ Load Direction



MULTI-ROLLER LINEAR GUIDE MLGX25 For Medium Load

Passed a run test of 100 km



- The unique structure called "Dual X" allows for smooth movement even when the load is applied horizontally or vertically.
- The rail is for medium load, designed to withstand an operating load of up to 120 N in either a horizontal or vertical direction.
- Tested at 200 mm/s for 500,000 round trips of 100 mm (total distance 100 km).
- Since there is no ball creep, it can be used together with a motor drive.
- Moves smoothly even when moment load occurs.
- The guide block is a preloaded type with minimal backlash.

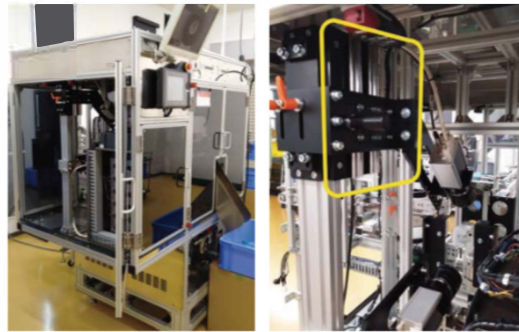
[Application]

- Automatic machine, medical equipment, analytical instrument, machine tool.

[Remarks]

- Please use with stoppers.

[Application Example]



Used for height adjustment of inspection machine's camera.

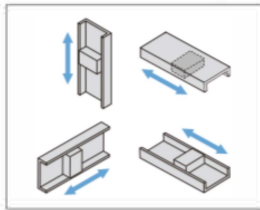
Multiple guide blocks can be used in a guide rail.

Video Link



[Mounting Direction]

Can be mounted in the following directions



[Dual X Structure]



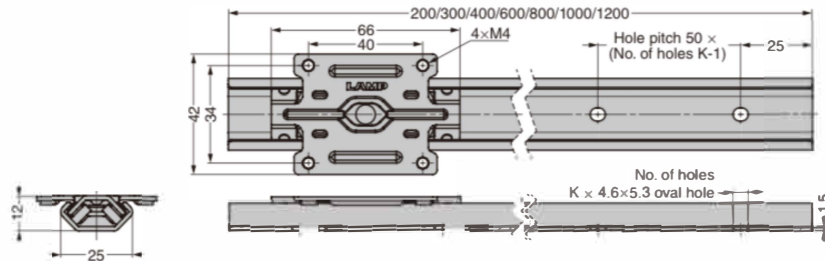
Rollers are located at two different angles to resist both horizontal and vertical loads.

[No Ball Creep]



Ball creep² does not occur on roller sides, unlike ball bearing slides.

² A phenomenon where travel distances vary between outward and return paths due to a misaligned ball contact point that may occur depending on the smoothness of sliding or applied force when a ball type rail is moved. If extra load is applied in this state, the rail may become unable to move.

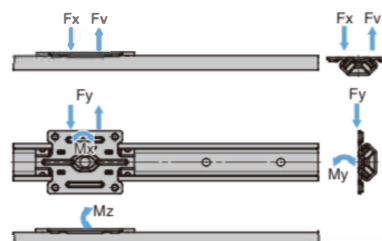


* The figure shows the dimensions when the guide rail and a guide block are combined.

[Rated Load Reference Values]

Loading Direction	Horizontal Load Fx		Vertical Load Fy		Horizontal Load Fv	
	N	kgf	N	kgf	N	kgf
Max. Load Capacity	200	20.4	200	20.4	130	13.2
Operating Load	120	12.2	120	12.2	80	8.1

Loading Direction	Moment Mx		Moment My		Moment Mz	
	N-m	kgf-cm	N-m	kgf-cm	N-m	kgf-cm
Max. Moment	4.0	40.8	2.0	20.4	4.0	40.8
Operating Moment	2.4	24.4	1.2	12.2	2.4	24.4



MULTI-ROLLER LINEAR GUIDE RAIL **MLGX25** For Medium Load

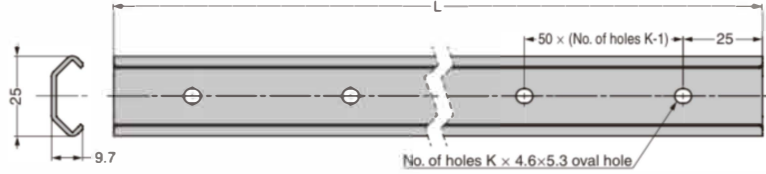


[Other]

● Grease is applied to the rail. When applying additional grease, use lithium soap grease.

[Recommended Screw]

● Hexagon socket bolt M4 (head diameter: $\phi 7.6$ mm or less, head height: 2.2 mm or less)



RoHS	CAD	Item Code	Item Name	Length (L)	No. of Holes K	Material	Weight (g)	Box (pcs)
●		190-047-257	MLGX25-200S	200	4	Stainless Steel (SUS304)	86	1,850
●		190-047-258	MLGX25-300S	300	6		130	2,270
●		190-047-259	MLGX25-400S	400	8		173	2,680
●		190-047-260	MLGX25-600S	600	12		258	3,350
●		190-047-261	MLGX25-800S	800	16		344	4,450
●		190-047-262	MLGX25-1000S	1000	20		430	5,560
●		190-047-263	MLGX25-1200S	1200	24		516	6,700

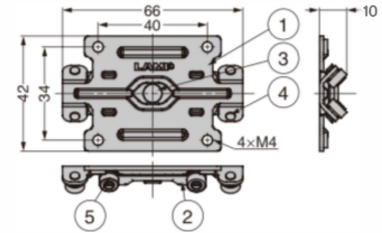
MULTI-ROLLER LINEAR GUIDE BLOCK **MLGX-25C-8** For Medium Load



Front



Back



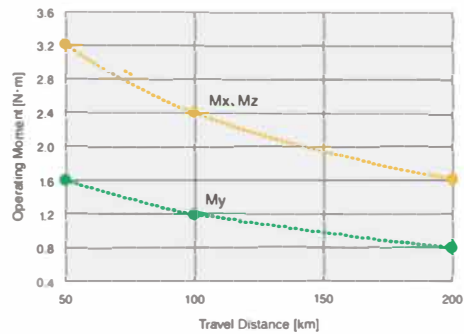
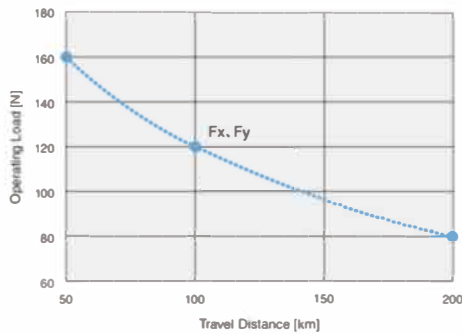
No.	Part Name	Material
①	Mounting Plate	Stainless Steel (SUS430)
②	Holding Plate	Stainless Steel (SUS303)
③	Caulking Pin	Stainless Steel (SUS303)
④	Roller Pin	Stainless Steel (SUS XM7)
⑤	Bearing Roller	Steel

● Preloaded type with minimal backlash.

The roller is made of steel. To prevent rusting, it is important not to store this product in an environment with high temperatures and humidity once the package has been opened.

RoHS	CAD	Item Code	Item Name	Weight (g)	Box (pcs)
●		190-047-256	MLGX-25C-8	39	3,070

[Operating Load/Moment and Travel Distance (Life) Guidelines] Condition: 200 mm/sec of speed



MULTI-ROLLER LINEAR GUIDE MLG20 Mini Type

Passed a run test of 60 km



MLG20-200 MLG-20C



MLG20-200 MLG-20CS



MLG20-200 MLG-20C-8

- Allows for smooth movement with the unique mechanism called "multi-roller".
- Tested at 200 mm/s for 300,000 round trips of 100 mm (total distance 60 km).
- Since there is no ball creep, it can be used together with a motor drive.
- A 100 mm type rail is now available.
- A compact guide block is now available. The shortened overall length of the guide block extends the travel distance by an additional 13 mm.
- An 8-wheel guide block is now available. The load rating has been improved while maintaining the same travel distance.

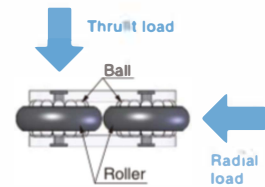
[Application]

Medical equipment, food machine, amusement machine, analytical instruments.

[Remarks]

- Please use with stoppers.
- Mounting plates cannot be attached to compact or 8-wheel guide block.

[The Unique Mechanism]

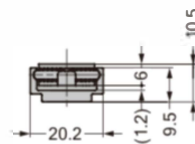
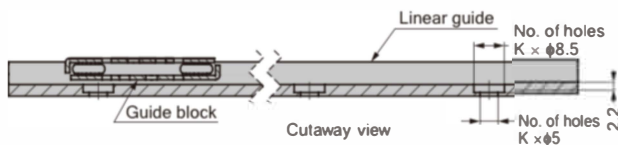
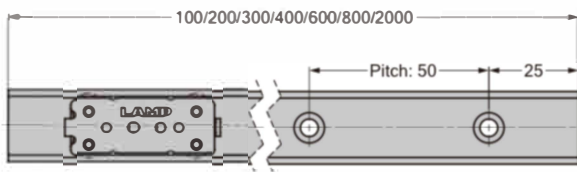


No ball creep due to roller type mechanism.

Ball creep is a phenomenon where travel distances vary between outward and return paths due to a misaligned ball contact point that may occur on ball type rails because of sliding or applied force. If extra load is applied in this state, the rail may become unable to move.

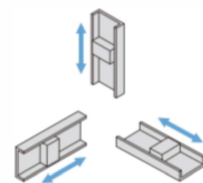
The multi-roller mechanism allows for smooth movement even with loads applied in radial or thrust directions.

Video Link



[Mounting Directions]

Can be mounted in the following directions



* The figure shows the dimensions when the linear guide and guide block are combined.

[Rated Load Reference Values] The rated load refers to the load limit.

Rated Load Reference Values

- Max. load = Static rated load × Static safety coefficient
- Max. moment = Static rated moment × Static safety coefficient
- Operating load = Max. load × Dynamic safety coefficient
- Operating moment = Max. moment × Static safety coefficient

Use Conditions	Static Safety Coefficient		Dynamic Safety Coefficient	
	Low movement frequency with gentle movement	0.4 - 0.5	0.9 - 1.0	0.6 - 0.8
High movement frequency with smooth movement	0.3 - 0.4	0.6 - 0.8	0.3 - 0.5	
High movement frequency with vibration or impact	0.2 - 0.3	0.3 - 0.5		

Item Name	Horizontal Static Rated Load Fx		Vertical Static Rated Load Fy	
	N	kgf	N	kgf
MLG-20C	40	4.0	40	4.0
MLG-20CS	40	4.0	40	4.0
MLG-20C-8	80	8.1	80	8.1

Item Name	Vertical Static Rated Moment Mx		Horizontal Static Rated Moment My		Horizontal Static Rated Moment Mz	
	N·m	kgf·cm	N·m	kgf·cm	N·m	kgf·cm
MLG-20C	1.2	12.2	0.4	4.0	0.8	8.1
MLG-20CS	0.8	8.1	0.4	4.0	0.4	4.0
MLG-20C-8	1.8	18.3	0.8	8.1	1.2	12.2

The calculation formula above is for reference purpose only. Please confirm with the actual item before use.

GUIDE RAIL MLG20

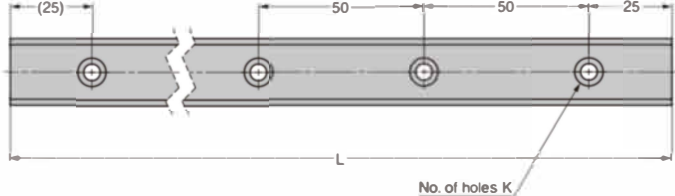
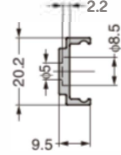


[Recommended Screw]

- Hexagon socket bolt M4 (head diameter: $\phi 7.6$ mm or less, head height: 2.2 mm or less)

[Remarks]

- The rail mounting holes and ends are uncoated.



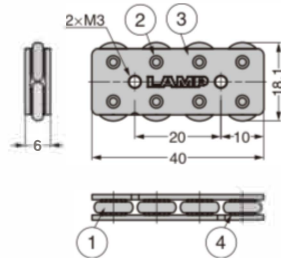
Multiple guide blocks can be used on a single rail.

RoHS	CAD	Item Code	Item Name	Length (L)	No. of Holes K	Material	Finish	Weight (g)
●		190-047-272	MLG20-100	100	2	Aluminium Alloy	Silver Anodised	18
●		190-045-763	MLG20-200	200	4			36
●		190-045-764	MLG20-300	300	6			54
●		190-045-765	MLG20-400	400	8			72
●		190-050-438	MLG20-600	600	12			108
●		190-050-439	MLG20-800	800	16			144
●		190-050-440	MLG20-2000	2000	40			359

8-WHEEL GUIDE BLOCK MLG-20C-8

[Recommended Screw]

- Screw M3 (Max. length: sheet thickness + 4 mm)



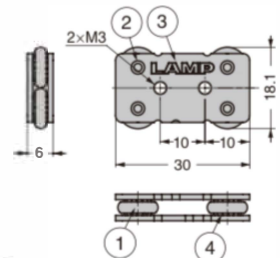
No.	Part Name	Material
①	Roller	Polyacetal (POM)
②	Pin	Stainless Steel (SUS303)
③	Plate	Stainless Steel (SUS304)
④	Ball	Steel (SUJ)

RoHS	CAD	Item Code	Item Name	Weight (g)
●		190-054-826	MLG-20C-8	15

COMPACT GUIDE BLOCK MLG-20CS

[Recommended Screw]

- Screw M3 (Max. length: sheet thickness + 4 mm)



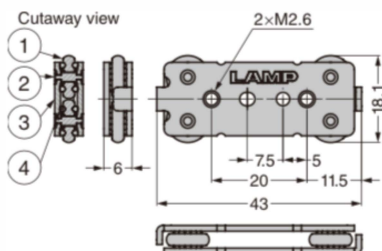
No.	Part Name	Material
①	Roller	Polyacetal (POM)
②	Pin	Stainless Steel (SUS303)
③	Plate	Stainless Steel (SUS304)
④	Ball	Steel (SUJ)

RoHS	CAD	Item Code	Item Name	Weight (g)
●		190-047-271	MLG-20CS	11

GUIDE BLOCK MLG-20C

[Recommended Screw]

- Screw M2.6 (Max. length: sheet thickness + 4 mm)



No.	Part Name	Material
①	Roller	Polyacetal (POM)
②	Pin	Stainless Steel (SUS303)
③	Plate	Stainless Steel (SUS304)
④	Ball	Steel (SUJ)

RoHS	CAD	Item Code	Item Name	Weight (g)
●		190-045-762	MLG-20C	13

MOUNTING PLATE MLG20-P55-40

- $\phi 4.5$ holes and 4.5 x 5 slotted holes are pre-drilled.

[Parts Included]

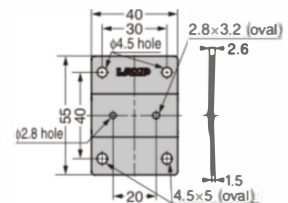
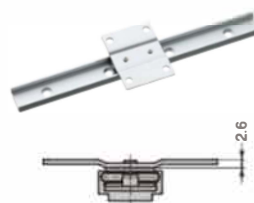
- No. 0 Class 1 pan head screw, M2.6 x 4, with looseness stop (guide block mounting screw)

[Recommended Screw]

- Screw M4

[Remarks]

- Cannot be attached to compact or 8-wheel guide blocks.



When used with the guide rail and block.

RoHS	CAD	Item Code	Item Name	Material	Weight (g)
●		190-045-766	MLG20-P55-40	Stainless Steel (SUS304)	26

MULTI-ROLLER LINEAR GUIDE MLG13 Slim Type

Passed a run test of 60 km



Multiple guide blocks can be used in a guide rail.

- Allows for smooth movement with the unique mechanism called "multi-roller".
- Tested at 200 mm/s for 300,000 round trips of 100 mm (total distance 60 km).
- Since there is no ball creep, it can be used together with a motor drive.
- Slim type with a guide rail width of 13 mm.

[Application]

Medical equipment, food machine, amusement machine, analytical instruments.

[Other]

● Guide rails with a length of up to 2000 mm are available through custom order.

[Remarks]

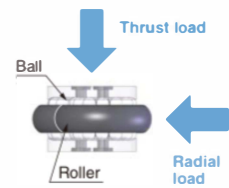
● Please use with stoppers.

[The Unique Mechanism]



No ball creep due to roller type mechanism.

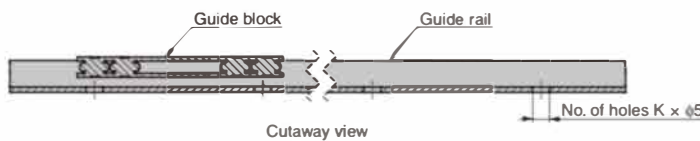
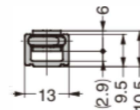
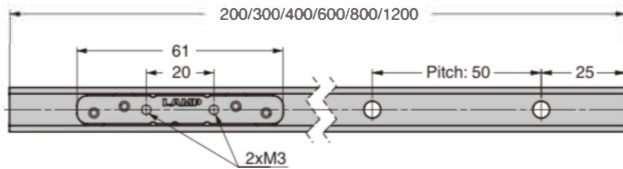
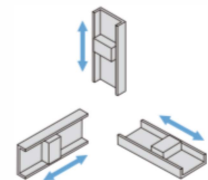
Ball creep is a phenomenon where travel distances vary between outward and return paths due to a misaligned ball contact point that may occur on ball type rails because of sliding or applied force. If extra load is applied in this state, the rail may become unable to move.



The multi-roller mechanism allows for smooth movement even with loads applied in radial or thrust directions.

[Mounting Directions]

Can be mounted in the following directions



Video Link



[Rated Load Reference Values] The rated load refers to the load limit.

Rated Load Reference Values

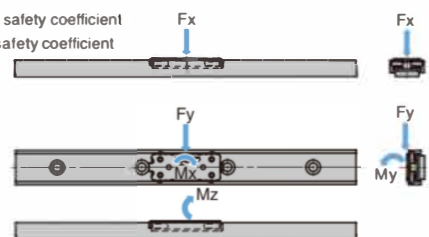
- Max. load = Static rated load × Static safety coefficient
- Max. moment = Static rated moment × Static safety coefficient
- Operating load = Max. load × Dynamic safety coefficient
- Operating moment = Max. moment × Static safety coefficient

Use Conditions	Static Safety Coefficient		Dynamic Safety Coefficient	
	N	kgf	N	kgf
Low movement frequency with gentle movement	0.4 - 0.5		0.9 - 1.0	
High movement frequency with smooth movement	0.3 - 0.4		0.6 - 0.8	
High movement frequency with vibration or impact	0.2 - 0.3		0.3 - 0.5	

Item Name	Horizontal Static Rated Load Fx		Vertical Static Rated Load Fy	
	N	kgf	N	kgf
MLG-13C	40	4.0	40	4.0

Although the rollers of MLG-13C are installed alternately, the rated load is the same even when it is mounted in reverse.

Item Name	Vertical Static Rated Moment Mx		Horizontal Static Rated Moment My		Horizontal Static Rated Moment Mz	
	N-m	kgf-cm	N-m	kgf-cm	N-m	kgf-cm
MLG-13C	1.0	10.2	0.2	2.0	1.2	12.2



The calculation formula above is for reference purpose only. Please confirm with the actual item before use.

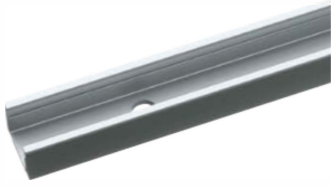
MLGX

MLG

LGB

MRS

GUIDE RAIL MLG13

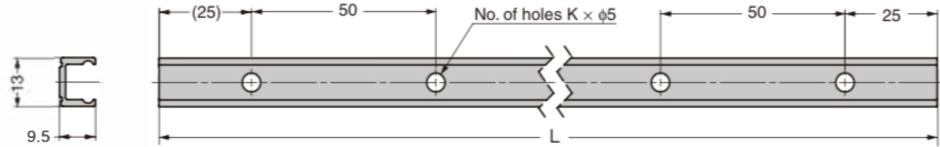


[Recommended Screw]

● Hexagon socket bolt M4 (head diameter: $\phi 7.6$ mm or less, head height: 2.2 mm or less)

[Remarks]

● The rail mounting holes and ends are uncoated.



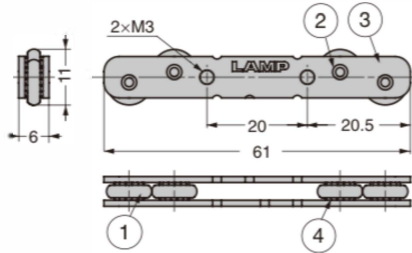
RoHS	CAD	Item Code	Item Name	Length (L)	No. of Holes K	Material	Finish	Weight (g/Rail)	Box (pcs)
●		190-047-265	MLG13-200	200	4	Aluminium Alloy	Silver Anodised	23	760
●		190-047-266	MLG13-300	300	6			34	860
●		190-047-267	MLG13-400	400	8			45	1,000
●		190-047-268	MLG13-600	600	12			68	1,330
●		190-047-269	MLG13-800	800	16			91	1,650
●		190-047-270	MLG13-1200	1200	24			137	2,450

GUIDE BLOCK MLG-13C



[Recommended Screw]

● Screw M3 (Max. length: sheet thickness + 4 mm)



No.	Part Name	Material
①	Roller	Polyacetal (POM)
②	Pin	Stainless Steel (SUS303)
③	Plate	Stainless Steel (SUS304)
④	Ball	Steel (SUJ)

RoHS	CAD	Item Code	Item Name	Weight (g)	Box (pcs)
●		190-047-264	MLG-13C	11	1,000

LINEAR ROLLER GUIDE RAIL LGB30



- Bearing roller used in guide block allows for smooth movement.
- The guide block features a noise-reducing bearing roller using a plastic outer ring.
- Clearance between the guide rail and guide block provides versatility.

[Specifications]

- Temperature: 0-40°C

[Applications]

- Vending machine, amusement machine, medical equipment, semiconductor equipment, food processing equipment, and washing machine.

[Remarks]

- The surface of the mounting hole and both ends is not treated.
- Do not use it under the condition that moment load is applied.

[Parts Included]

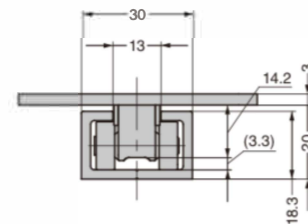
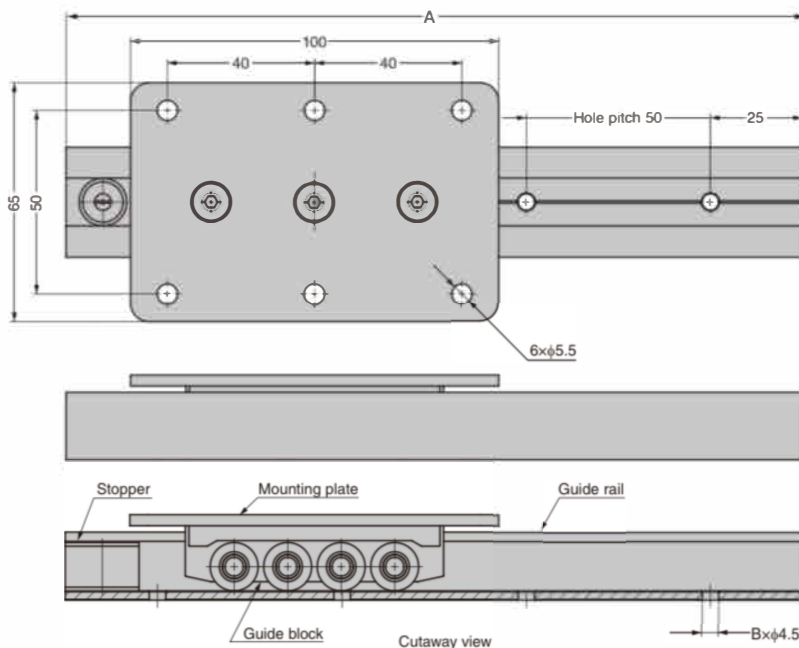
- For plate: Hexagon socket countersunk bolt M5 (stainless steel)

[Recommended Screws]

- For rail: Hexagon socket button head screw M4, cross-recessed binding screw M4, cross-recessed binding tapping screw nominal 4

Combination dimensions of guide rail, guide block, stopper and mounting plate

Combination example: Guide rail LGB30, guide block LGB-30CM **1**, stopper LGB30-ST and mounting plate LGB30-P65-100 **2**

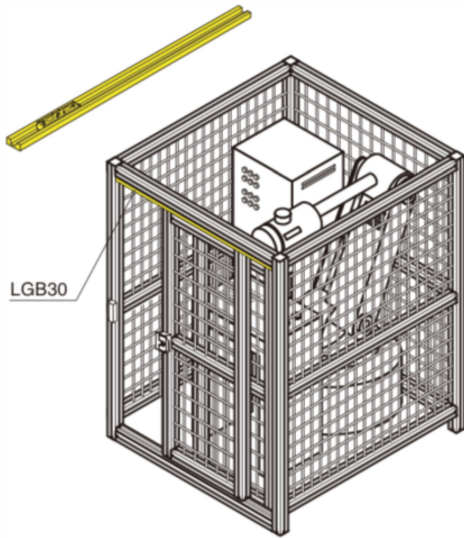


Guide rail

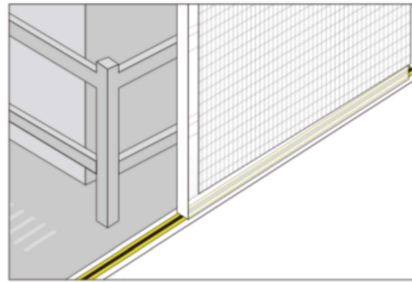
Item Name	Slide Length A	Holes B
LGB30-400	400	8
LGB30-800	800	16
LGB30-2000	2000	40

Refer to **1**: P.16, **2**: P.17

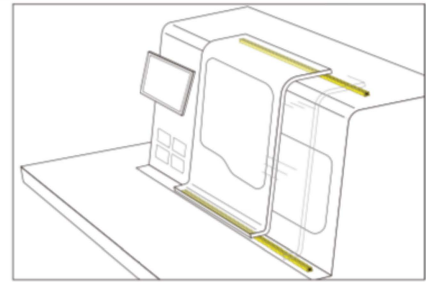
[Application Example]



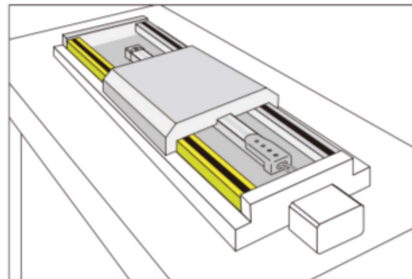
For safety fences for industrial robots



For safety fences in factories



For sliding doors of factory equipment



For transfer system of production facilities



For sliding shelves in pharmacies and hospitals

GUIDE RAIL LGB30

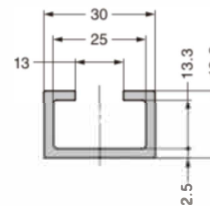
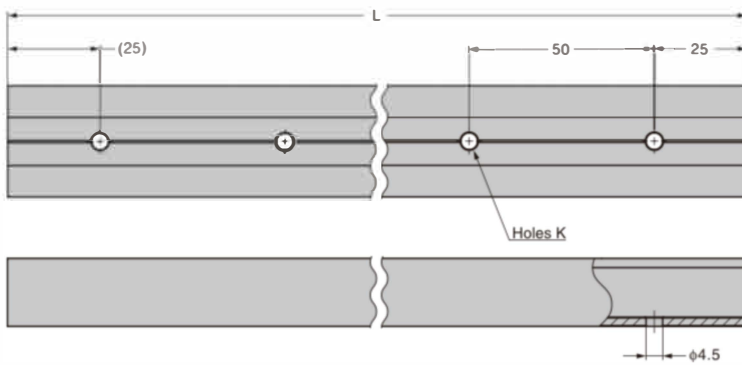


[Recommended Screws]

- Hexagon socket button head screw M4
- Binding head screw M4
- Binding head tapping screw 4

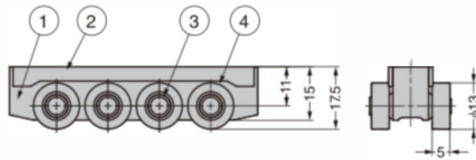
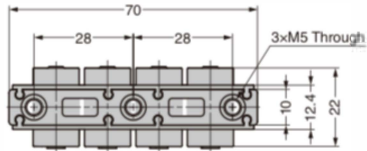
[Remarks]

- Mounting holes and both ends are not surface treated.
- Do not use under moment load.



RevS	CAD	Item Code	Item Name	L	K	Material	Finish	Weight (g/pc)	Box (pcs)	Carton (pcs)
3D		190-036-273	LGB30-400	400	8	Aluminium Alloy	Anodised Silver	195	50	-
3D		190-036-274	LGB30-800	800	16			390	25	-
3D		190-036-275	LGB30-2000	2000	40			875	10	-

GUIDE BLOCK LGB-30CM Silent Type

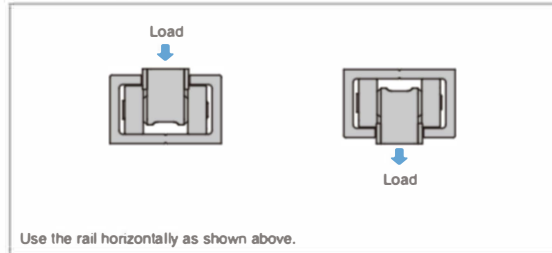


- Bearing roller used in guide block allows for smooth movement.
- Plastic outer ring type bearing roller.
- For guide rail LGB30 1 only.

[Remarks]

- Do not remove the slide protector.

[Load Direction]

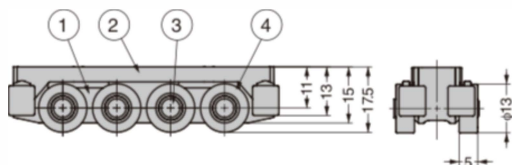
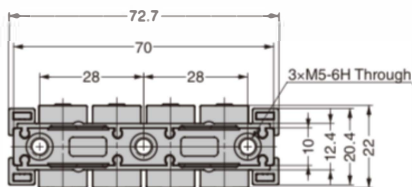


No.	Product Name	Material	Finish / Colour
①	Body	Zinc Alloy (ZDC)	Clear Zinc Chromate (Trivalent)
②	Slide Protector	PE	Black
③	Roller Shaft	Stainless Steel (SUS304)	Plain
④	Roller	Steel/POM	Outer Ring: Black

Rev	CAD	Item Code	Item Name	Load Capacity N	Load Capacity kgf	Weight (g)	Box (pcs)	Carton (pcs)
3D		190-036-158	LGB-30CM	Max. 294	Max. 30	76	200	2000

Refer to 1 : P.14

GUIDE BLOCK LGB-30CB Silent Type / Bidirectional Preloaded

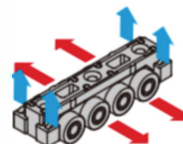
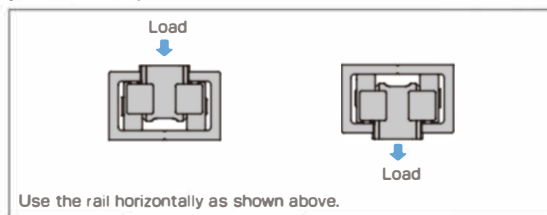


- Preloaded in two directions to significantly reduce the rattling between the guide block and rail.

[Remarks]

- Do not remove the slide protector.
- Not designed to free-stop objects. Do not use it in a vertical or diagonal position.

[Load Direction]

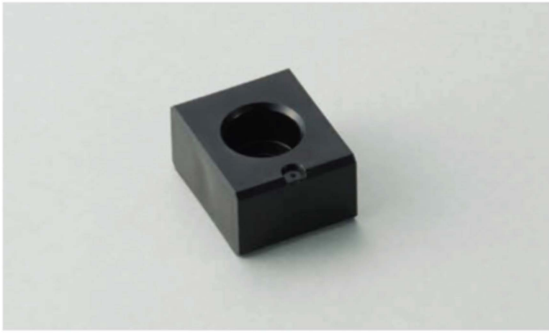


Pre-load direction

No.	Product Name	Material	Finish / Colour
①	Body	Zinc Alloy (ZDC)	Clear Zinc Chromate (Trivalent)
②	Slide Protector	PE	Black
③	Roller Shaft	Stainless Steel (SUS304)	Plain
④	Roller	Steel/POM	Outer Ring: Black

Rev	CAD	Item Code	Item Name	Load Capacity N	Load Capacity kgf	Weight (g)
●	●	190-054-829	LGB-30CB	294	30	76

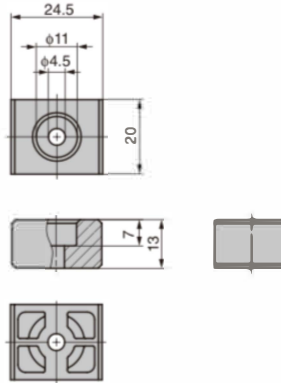
STOPPER LGB30-ST



- Used for preventing guide block LGB-30CM 1 from coming off.
- Install to guide rail LGB30 2 with screws. Mounting screws not included.

[Remarks]

- Do not use for stopping guide block collision.



Rev	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)	Carton (pcs)
1	3D	190-036-127	LGB30-ST	POM	Black	5.6	240	960

Refer to 1 : P.16, 2 : P.14

MOUNTING PLATE LGB30-P65-100

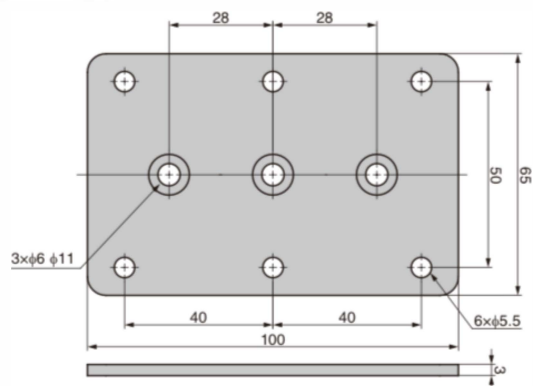


- The mounting plate facilitates attachment when mounting requires additional contact area and mounting holes.
- Install to guide block LGB-30CM 1 with supplied screws.

[Parts Included]

- Hexagon socket countersunk head screw M5x16 3 pcs (SUS)

[Dimensions]



[Installation]



Rev	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
1	3D	190-036-465	LGB30-P65-100	Stainless Steel (SUS304)	Barrel Polished	137	50	-

Refer to 1 : P.16

Series Lineup **MINI GUIDE RAIL MRS**

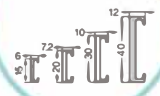
Simple

For applications not requiring high precision.

Greaseless

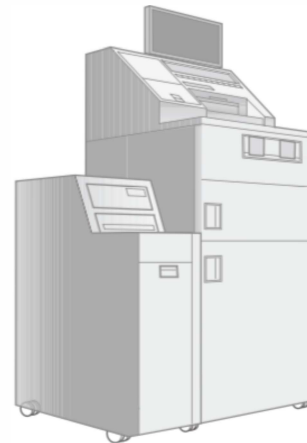
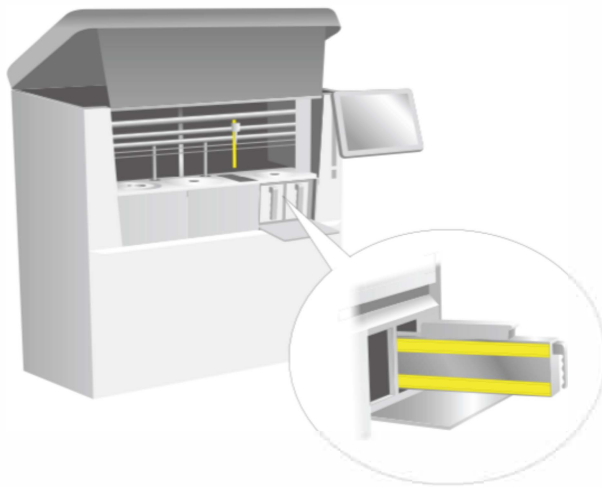


Compact

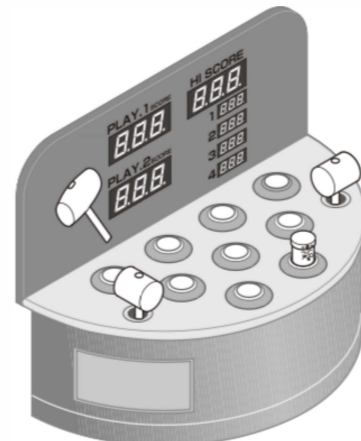


- Grease or oil not required due to the utilization of a special polyethylene resin with outstanding sliding properties.
- Special polyethylene resin with excellent chemical resistance.
- UL94HB rated flame retardant material.
- Recyclable.
- Preload type carriage with minimal gap is also available (MRS-20, 30, 40 only).

[Application Example]



For cartridge drawers on analysis equipment.



For sliding mechanism in vending machines and amusement machines

MLGX
MLG
LGB
MRS

Item Name	Size	Slide Length	Max. Load Capacity Guidelines ^{※1}	Preload Type	Options	Page
MRS 15		100 ~ 1200	No moment load Approx. 1.2 kg Approx. 0.6 kg with vibration/impact	×	 Clamp (for temporary fixing)	P.20
MRS 20		100 ~ 2000	Approx. 5.3 kg Approx. 3.5 kg with vibration/impact	○	 Clamp (for temporary fixing)	P.21
MRS 30		100 ~ 2000	Approx. 12.4 kg Approx. 6.2 kg with vibration/impact	○	 Clamp (for temporary fixing) Bracket for center ^{※2}	P.22
MRS 40		400 ~ 2000	Approx. 20 kg Approx. 10k g with vibration/impact	○	×	P.25

※1 The max. load capacity guidelines, which apply to the rated load below, are values found by multiplying the vertical static rated load and the static safety coefficient.

※2 The picture shows a horizontal mount type. A vertical mount type is also available.

[Rated Load Guidelines] The rated load indicates the limit load.

- Max. load=static rated load x static safety coefficient
- Operating load=max. load x dynamic safety coefficient
- Max. moment load=static rated moment load x static safety coefficient
- Operating moment load=max. moment load x dynamic safety coefficient

Usage Conditions	Static Safety Coefficient		Dynamic Safety Coefficient	
	N	kgf	N	kgf
Low movement frequency with gentle movement	0.4 ~ 0.5		0.9 ~ 1.0	
High movement frequency with smooth movement	0.3 ~ 0.4		0.6 ~ 0.8	
High movement frequency with vibration or impact	0.2 ~ 0.3		0.3 ~ 0.5	

Item Name	Horizontal static rated load Fx		Vertical static rated load Fy		Vertical static rated moment load Mx	
	N	kgf	N	kgf	N-m	kgf-cm
MR-15CS	100	10.2	30	3.0	-	-
MR-20CS	300	30.6	175	17.8	3	30.6
MR-30CS	520	53.0	305	31.1	5	51.0
MR-40CS	700	71.4	490	50.0	7	71.4

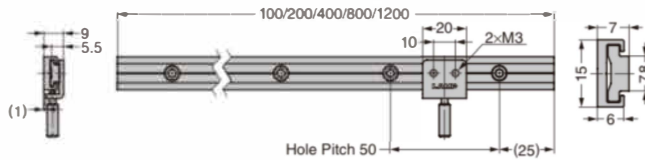
Item Name	Horizontal static rated moment load My		Horizontal static rated moment load Mz	
	N-m	kgf-cm	N-m	kgf-cm
MR-15CS	-	-	-	-
MR-20CS	1.5	15.3	1.5	15.3
MR-30CS	2.5	25.5	2.5	25.5
MR-40CS	3.5	35.7	3.5	35.7

The above formulae are guidelines.
Conyrm with the actual product for use.
Use MR-15CS so that moment load is not applied.

MINI GUIDE RAIL MRS15



Combination Dimensions for Guide Rail, Carriage, & Clamp



- Grease or oil not required due to the utilization of a special polyethylene resin with outstanding sliding properties.
- Special polyethylene resin with excellent chemical resistance.
- UL94HB rated flame retardant material.
- Recyclable.

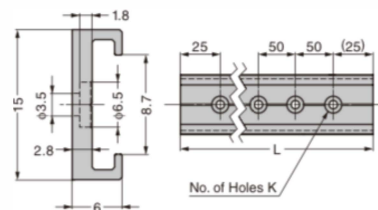
[Recommended Mounting Screws]

- (Rail) M3 hexagon socket button head screw or M3 pan head machine screw

[Remarks]

- Refer to the Rated Load Guidelines 1 to prevent moment from being applied.
- The rail mounting holes and ends are plain.

[MINI GUIDE RAIL MRS15]



RoHS	CAD	Item Code	Item Name	L	No. of Holes K	Material	Finish	Weight (g)
RoHS	3D	190-027-331	MRS15-100	100	2	Aluminium Alloy	Silver Anodised	14.5
RoHS	3D	190-027-332	MRS15-200	200	4			29
RoHS	3D	190-027-333	MRS15-400	400	8			58
RoHS	3D	190-027-334	MRS15-800	800	16			117
RoHS	3D	190-046-490	MRS15-1200	1200	24			174

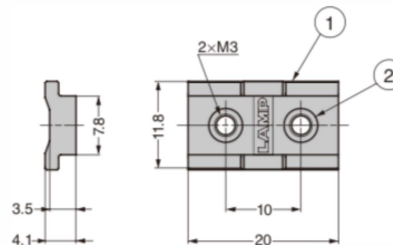
[MINI GUIDE CARRIAGE MR-15CS]



[Specifications]

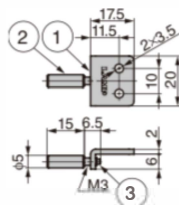
- Operating temperature: 0° C ~ 40° C

RoHS	CAD	Item Code	Item Name	Weight (g)
RoHS	3D	190-027-335	MR-15CS	1



No.	Material	Finish/Colour
①	Special Polyethylene	High Sliding Grade/Grey
②	Stainless Steel (SUS304)	Plain

[MINI GUIDE CLAMP MR-15CLP]



- Tighten the knob to the rail for simple fixing.
- Mount to the carriage with screws.

[Remarks]

- If external force exceeding the retaining force (reference value) is applied, the retaining position may deviate.
- If the knob tightening torque is exceeded, the knob tip may be damaged.
- Mounting screws are to be supplied by the customer.

No.	Part Name	Material	Finish/Colour
①	Plate	Stainless Steel (SUS304)	Barrel Polished
②	Knob Body	Stainless Steel (SUS303)	Plain
③	Knob Tip	Polyacetal (POM)	Black

RoHS	CAD	Item Code	Item Name	Retaining Force N (reference value)	Knob Tightening Torque N-m	Weight (g)
RoHS	3D	190-035-310	MR-15CLP	7 or below	0.05 or below	8.6

Refer to 1 : P.19

MINI GUIDE RAIL MRS20



- Grease or oil not required due to the utilization of a special polyethylene resin with outstanding sliding properties.
- Special polyethylene resin with excellent chemical resistance.
- UL94HB rated flame retardant material.
- Preload type carriage with minimal gap is also available.
- Recyclable.

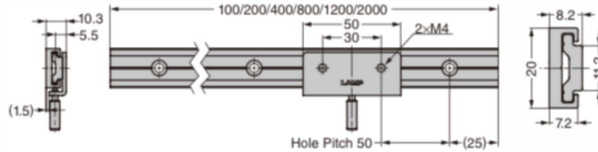
[Recommended Mounting Bolts]

- (Rail) M4 hexagon socket button head screws

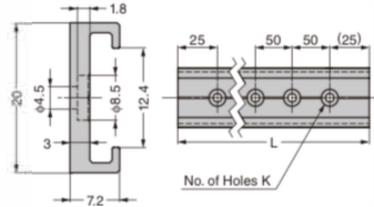
[Remarks]

- When combined with a clamp, use under moment load is not possible.
- The rail mounting holes and ends are plain.
- The preload type carriage does not fix the slider. Do not use the MINI GUIDE RAIL in a vertical or diagonal position, as it will lead to danger when the slider falls.

Combination Dimensions for Guide Rail, Carriage, & Clamp

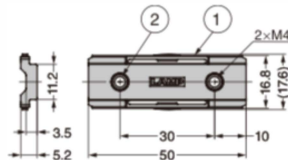


[MINI GUIDE RAIL MRS20]



RoHS	CAD	Item Code	Item Name	L	No. of Holes K	Material	Finish	Weight (g)
RoHS	3D	190-111-491	MRS20-100	100	2	Aluminium Alloy	Silver Anodised	20
RoHS	3D	190-111-492	MRS20-200	200	4			40
RoHS	3D	190-111-493	MRS20-400	400	8			80
RoHS	3D	190-111-494	MRS20-800	800	16			160
RoHS	3D	190-046-491	MRS20-1200	1200	24			240
RoHS	3D	190-111-495	MRS20-2000	2000	40			400

[MINI GUIDE CARRIAGE MR-20CNB Preload Type]



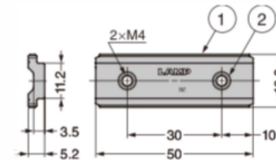
[Specifications]

- Operating temperature: 0°C - 40°C

No.	Material	Finish/Colour
①	Special Polyethylene	High Sliding Grade/Grey
②	Stainless Steel (SUS304)	Plain

RoHS	CAD	Item Code	Item Name	Weight (g)
RoHS	3D	190-037-638	MR-20CNB	5

[MINI GUIDE CARRIAGE MR-20CS]



[Specifications]

- Operating temperature: 0°C - 40°C

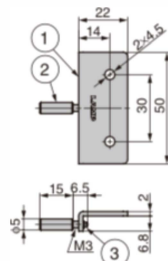
[Remarks]

- The carriage unit working force changes depending on the operating temperature.

No.	Material	Finish/Colour
①	Special Polyethylene	High Sliding Grade/Grey
②	Stainless Steel (SUS304)	Plain

RoHS	CAD	Item Code	Item Name	Weight (g)
RoHS	3D	190-111-496	MR-20CS	6

[MINI GUIDE CLAMP MR-20CLP]



- Tighten the knob to the rail for simple fixing.
- Mount to the carriage with screws.

[Remarks]

- If external force exceeding the retaining force (reference value) is applied, the retaining position may deviate.
- If the knob tightening torque is exceeded, the knob tip may be damaged.
- Mounting screws are to be supplied by the customer.

No.	Part Name	Material	Finish/Colour
①	Plate	Stainless Steel (SUS304)	Barrel Polished
②	Knob Body	Stainless Steel (SUS303)	Plain
③	Knob Tip	Polyacetal (POM)	Black

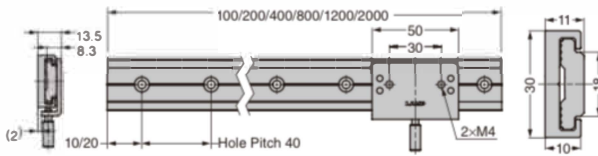
RoHS	CAD	Item Code	Item Name	Retaining Force N (reference value)	Knob Tightening Torque N-m	Weight (g)
RoHS	3D	190-035-311	MR-20CLP	7 or below	0.05 or below	22.6

MINI GUIDE RAIL MRS30



- Grease or oil not required due to the utilization of a special polyethylene resin with outstanding sliding properties.
- Special polyethylene resin with excellent chemical resistance.
- UL94HB rated flame retardant material.
- Preload type carriage with minimal gap is also available.
- Recyclable.

Combination Dimensions for Guide Rail, Carriage, & Clamp



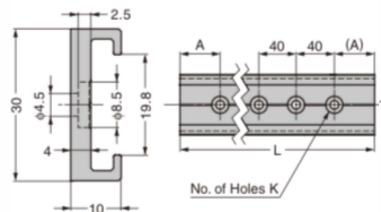
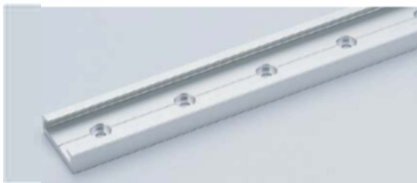
[Recommended Mounting Bolts]

- (Rail) M4 hexagon socket button head screws

[Remarks]

- When combined with a clamp, use under moment load is not possible.
- The rail mounting holes and ends are plain.
- The preload type carriage does not fix the slider. Do not use the MINI GUIDE RAIL in a vertical or diagonal position, as it will lead to danger when the slider falls.

[MINI GUIDE RAIL MRS30]



RoS	CAD	Item Code	Item Name	L	A	No. of Holes K	Material	Finish	Weight (g)
3D	3D	190-112-860	MRS30-100	100	10	3	Aluminium Alloy	Silver Anodised	39
3D	3D	190-112-861	MRS30-200	200	5	79			
3D	3D	190-112-862	MRS30-400	400	10	159			
3D	3D	190-112-863	MRS30-800	800	20	312			
3D	3D	190-046-492	MRS30-1200	1200	30	468			
3D	3D	190-112-864	MRS30-2000	2000	50	790			

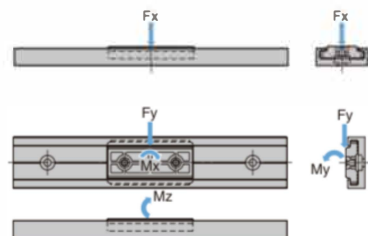
[Rated Load Guidelines] The rated load indicates the limit load.

- Max. load=static rated load x static safety coefficient
- Operating load=max. load x dynamic safety coefficient
- Max. moment load=static rated moment load x static safety coefficient
- Operating moment load=max. moment load x dynamic safety coefficient

Usage Conditions	Static Safety Coefficient	Dynamic Safety Coefficient
Low movement frequency with gentle movement	0.4 - 0.5	0.9 - 1.0
High movement frequency with smooth movement	0.3 - 0.4	0.6 - 0.8
High movement frequency with vibration or impact	0.2 - 0.3	0.3 - 0.5

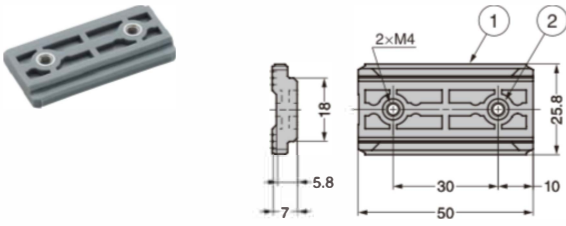
Item Name	Horizontal static rated load Fx		Vertical static rated load Fy		Vertical static rated moment load Mx	
	N	kgf	N	kgf	N-m	kgf-cm
MR-15CS	100	10.2	30	3.0	-	-
MR-20CS	300	30.6	175	17.8	3	30.6
MR-30CS	520	53.0	305	31.1	5	51.0
MR-40CS	700	71.4	490	50.0	7	71.4

Item Name	Horizontal static rated moment load My		Horizontal static rated moment load Mz	
	N-m	kgf-cm	N-m	kgf-cm
MR-15CS	-	-	-	-
MR-20CS	1.5	15.3	1.5	15.3
MR-30CS	2.5	25.5	2.5	25.5
MR-40CS	3.5	35.7	3.5	35.7



The above formulae are guidelines.
 Conform with the actual product for use.
 Use MR-15CS so that moment load is not applied.

[MINI GUIDE BLOCK MR-30CS]



- A guide block without preload.

[Specifications]

- Operating temperature: 0°C - 40°C

[Remarks]

- The carriage unit working force changes depending on the operating temperature.

RoHS	CAD	Item Code	Item Name	Weight (g)
		190-111-489	MR-30CS	7

No.	Material	Finish/Colour
①	Special Polyethylene	High Sliding Grade/Grey
②	Stainless Steel (SUS304)	Plain

[MINI GUIDE BLOCK MR-30CNB Preloaded Type]



Pre-load direction

- Preloaded to reduce the rattling between the guide block and rail.

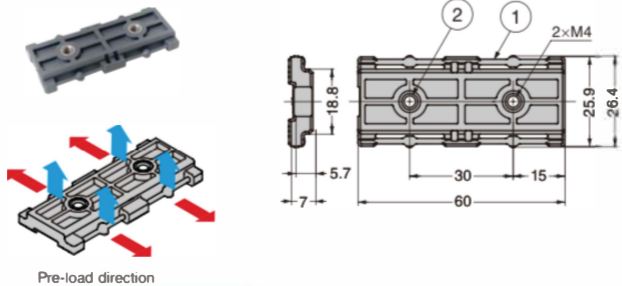
[Specifications]

- Operating temperature: 0°C - 40°C

RoHS	CAD	Item Code	Item Name	Weight (g)
		190-037-639	MR-30CNB	7

No.	Material	Finish/Colour
①	Special Polyethylene	High Sliding Grade/Grey
②	Stainless Steel (SUS304)	Plain

[MINI GUIDE BLOCK MR-30CB Bidirectional Preloaded Type]



Pre-load direction

- Preloaded in two directions to significantly reduce the rattling between the guide block and rail.

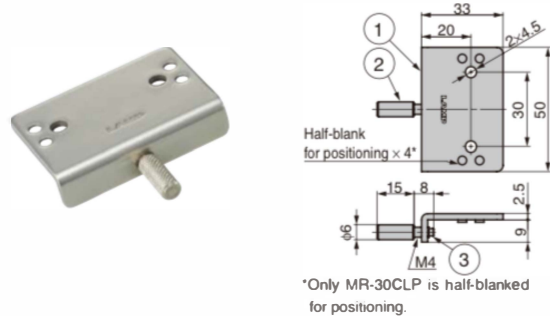
[Specifications]

- Operating temperature: 0 °C to 40 °C

RoHS	CAD	Item Code	Item Name	Weight (g)
		190-048-938	MR-30CB	7

No.	Material	Finish/Colour
①	Special Polyethylene	High Sliding Grade/Grey
②	Stainless Steel (SUS304)	Plain

[MINI GUIDE CLAMP MR-30CLP]



- Tighten the knob to the rail for simple fixing.
- Mount to the guide block with screws.

[Remarks]

- If external force exceeding the retaining force (reference value) is applied, the retaining position may deviate.
- If the knob tightening torque is exceeded, the knob tip may be damaged.
- Mounting screws are to be supplied by the customer.

RoHS	CAD	Item Code	Item Name	Retaining Force N (reference value)	Knob Tightening Torque N·m	Weight (g)
		190-035-312	MR-30CLP	14 or below	0.1 or below	40.8

No.	Part Name	Material	Finish/Colour
①	Plate	Stainless Steel (SUS304)	Barrel Polished
②	Knob Body	Stainless Steel (SUS303)	Plain
③	Knob Tip	Polyacetal (POM)	Black

BRACKET FOR SENSOR MR-30BKT



Horizontal Mount Type

Vertical Mount Type

- Mounts photoelectric sensors on the guide block (MRS-30).
- Compatible with sensors which have hole interval of 25.4 mm.
- Height and angle of photoelectric sensors are adjustable.

[Application]

- Production line, test equipment

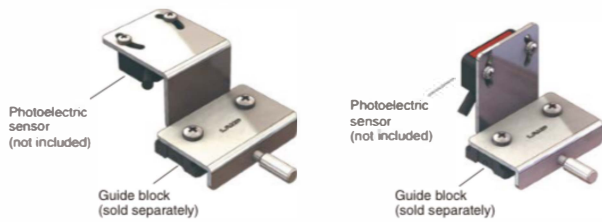
[Remarks]

- Fixing position may shift when an external force more than the retaining force (reference value) is applied.
- Knob tip may be damaged when the knob tightening torque is exceeded.

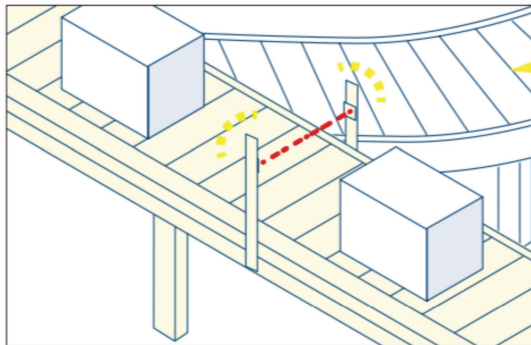
[Included Parts]

- Pre-assembled cross-recessed pan head screw (p=4) stainless steel M3 x 12 (for photoelectric sensor)
- Cross-recessed pan head screw stainless steel M4 x 8 (for guide block)

[With a Photoelectric Sensor]

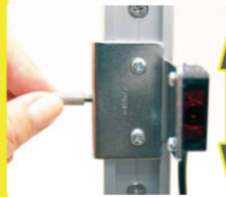


[Application]



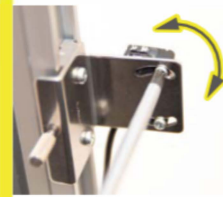
Easy Position Adjustments

[Height]



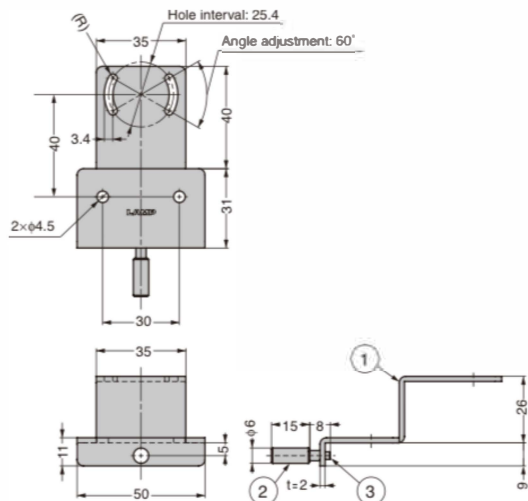
Turn the knob to adjust the height of the photoelectric sensor.

[Angle]

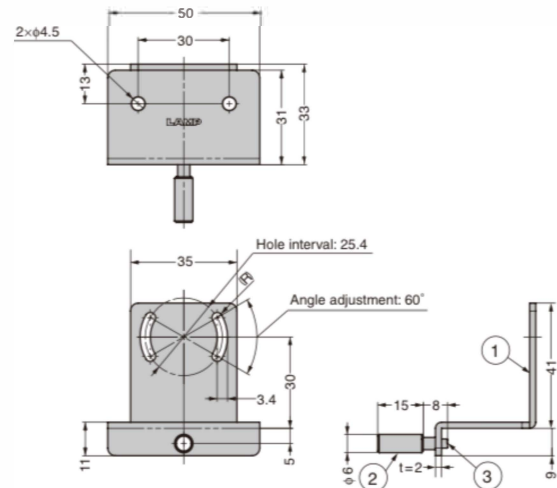


Turn the screws to adjust the angle of the photoelectric sensor.

[Horizontal Mount Type]



[Vertical Mount Type]



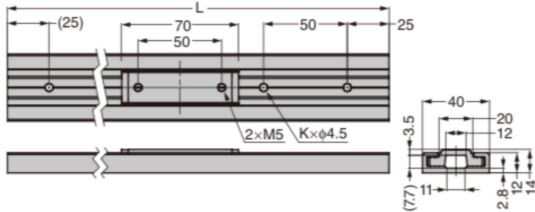
RoHS	CAD	Item Code	Item Name	Mount Type	Retaining Force N (reference)	Knob Tightening Torque N	Weight (g)
		190-048-569	MR-30BKT-PH	Horizontal	14 and under	0.1 and under	60
		190-048-568	MR-30BKT-PV	Vertical	14 and under	0.1 and under	50

No.	Part Name	Material	Finish/Colour
①	Plate	Stainless Steel	Barrel Polished
②	Knob Body	(SUS304)	Plain
③	Knob Tip	POM	Black

MINI GUIDE RAIL MRS40



Combination Dimensions for Guide Rail & Carriage



- Grease or oil not required due to the utilization of a special polyethylene resin with outstanding sliding properties.
- Special polyethylene resin with excellent chemical resistance.
- UL94HB rated flame retardant material.
- Preload type carriage with minimal gap is also available.
- Recyclable.

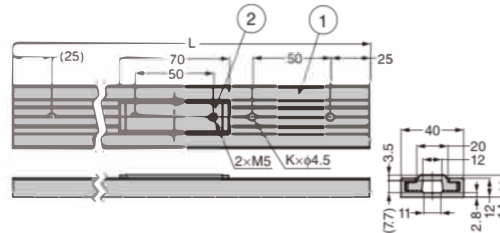
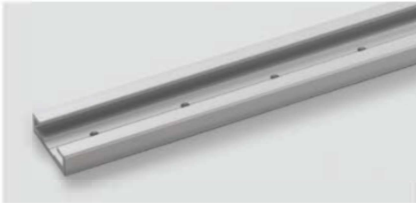
[Recommended Mounting Screws]

- (Rail) M4 hexagon socket button head screw, M4 hexagon socket low head bolt, or M4 binding machine screw

[Remarks]

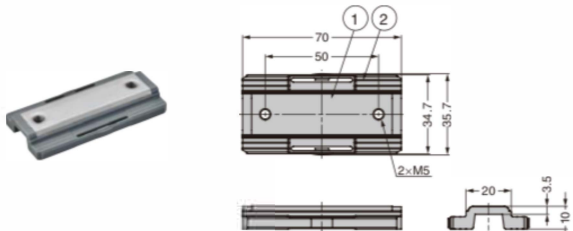
- The rail mounting holes and ends are plain.
- The preload type carriage does not fix the slider. Do not use the MINI GUIDE RAIL in a vertical or diagonal position, as it will lead to danger when the slider falls.
- The carriage unit working force changes depending on the operating temperature.

[MINI GUIDE RAIL MRS40]



RoHS	CAD	Item Code	Item Name	L	No. of Holes K	Material	Finish	Weight (g)
3D		190-037-686	MRS40-400	400	8	Aluminium Alloy	Silver Anodised	236
3D		190-037-687	MRS40-800	800	16			472
3D		190-043-711	MRS40-1200	1200	24			708
3D		190-037-688	MRS40-2000	2000	40			1180

[MINI GUIDE CARRIAGE MR-40CNB Preload Type]



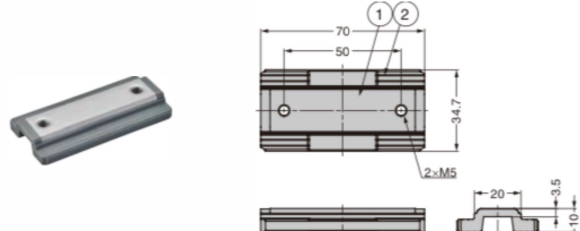
[Specifications]

- Operating temperature: 0°C - 40°C

No.	Material	Finish/Colour
①	Stainless Steel (SUS304)	Barrel Polished
②	Special Polyethylene	High Sliding Grade/Grey

RoHS	CAD	Item Code	Item Name	Weight (g)
3D		190-041-093	MR-40CNB	40

[MINI GUIDE CARRIAGE MR-40CS]



[Specifications]

- Operating temperature: 0°C - 40°C

No.	Material	Finish/Colour
①	Stainless Steel (SUS304)	Barrel Polished
②	Special Polyethylene	High Sliding Grade/Grey

RoHS	CAD	Item Code	Item Name	Weight (g)
3D		190-041-092	MR-40CS	41

Mini Slide Series

Slides with ultra-compact construction, just 15.5mm in height. Perfect for small drawers and transfer systems.



Linear Guides

Size	Load Capacity N										Main Material	Item Name	Page in Catalogue No.400	
	Vertical Use (pair)					Horizontal Use (pair)								
	100	150	200	250	300	100	150	200	250	300				
15.5	5.2	177~235										Stainless Steel	SCRL2	P.565
15.5	5.2	177~235										Stainless Steel	SCRL2-15S	P.565
16.0	6.0	20/49					8/18				Aluminium Alloy	ARL2-16	P.562	

Drawer Slide

Size	Length	Load Capacity N/pair					Main Material	Feature	Item Name	Page in Catalogue No.400		
		100	150	200	250	300						
15.5	9.7	80	98~118							Steel	SCR3	P.563
15.5	5.2	80	137~177					2-Way		Steel	SCRW2	P.564
15.5	9.7	80	98~118							Stainless Steel	SCR3-15S	P.563
15.5	5.2	80	137~177					2-Way		Stainless Steel	SCRW2-15S	P.564
16.0	11.0	80	20~39							Aluminium Alloy	AR3-16	P.561
16.0	6.0	70	11~69					2-Way		Aluminium Alloy	ARW2-16	P.562



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