MULTI-ROLLER LINEAR SLIDE 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 short guide block is now available. The full length is shorter, allowing the travel length to increase by 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.

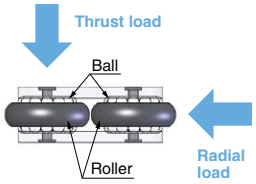
[Remarks]

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

[The Unique Mechanism]

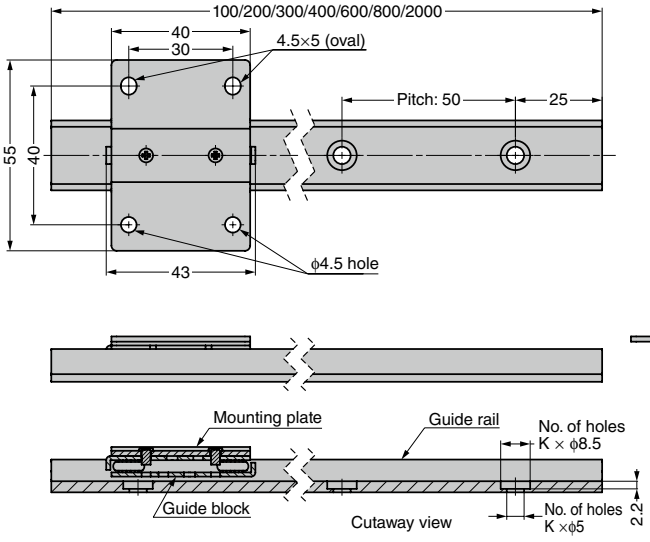
No ball creep due to roller type mechanism.

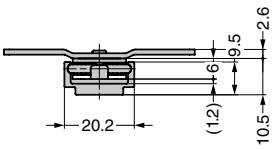
Ball creep is a phenomenon where travel distances vary between outward and return paths due to a misaligned ball contact point that may occur on ball type rails because of sliding or applied force.
If extra load is applied in this state, the rail may become unable to move.



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

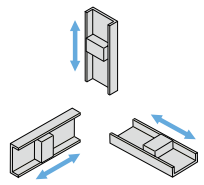
Video Link





[Mounting Directions]

Can be mounted in the following directions



* The figure shows the dimensions when the guide rail, guide block (MLG-20C), and mounting plate are combined.

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

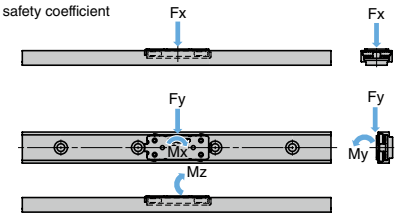
Rated Load Reference Values

- 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
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-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

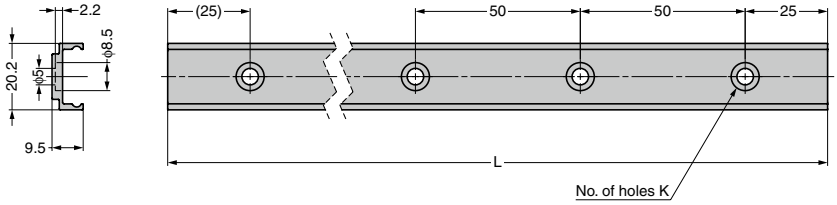


The calculation formula above is for reference purpose only.
Please confirm with the actual item before use.

GUIDE RAIL MLG20

[Recommended Screw]
- Hexagon socket bolt M4 (head diameter: ϕ7.6 mm or less, head height: 2.2 mm or less)

[Remarks]
- The rail mounting holes and ends are uncoated.

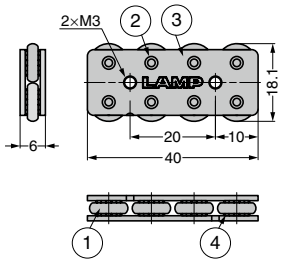


Multiple guide blocks can be used on a single rail.

RoHS	CAD	Item Code	Item Name	Length (L)	No. of Holes K	Material	Finish	Weight (g)
●	2D 3D	190-047-272	MLG20-100	100	2	Aluminium Alloy	Silver Anodised	18
●	2D 3D	190-045-763	MLG20-200	200	4			36
●	2D 3D	190-045-764	MLG20-300	300	6			54
●	2D 3D	190-045-765	MLG20-400	400	8			72
●	2D 3D	190-050-438	MLG20-600	600	12			108
●	2D 3D	190-050-439	MLG20-800	800	16			144
●	2D 3D	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)

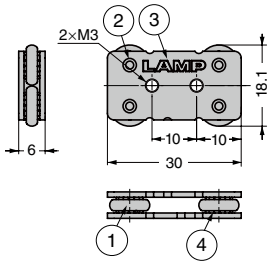


No.	Part Name	Material
①	Roller	Polyacetal (POM)
②	Pin	Stainless Steel (SUS303)
③	Plate	Stainless Steel (SUS304)
④	Ball	Steel (SUJ)

RoHS	CAD	Item Code	Item Name	Weight (g)
●	2D 3D	190-054-826	MLG-20C-8	15

SHORT GUIDE BLOCK MLG-20CS

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

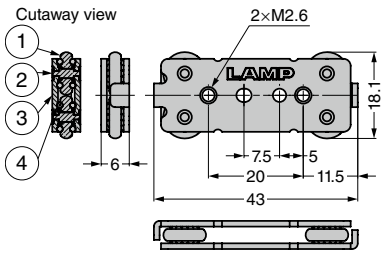


No.	Part Name	Material
①	Roller	Polyacetal (POM)
②	Pin	Stainless Steel (SUS303)
③	Plate	Stainless Steel (SUS304)
④	Ball	Steel (SUJ)

RoHS	CAD	Item Code	Item Name	Weight (g)
●	2D 3D	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)
●	2D 3D	190-045-762	MLG-20C	13

MOUNTING PLATE MLG20-P55-40

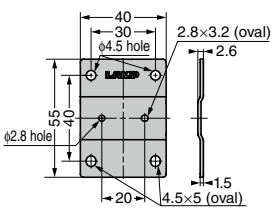
- ϕ4.5 holes and 4.5 x 5 slotted holes are pre-drilled.

[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 short or 8-wheel guide blocks.

Guide rail and guide block combination (MLG-20C) pictured.



RoHS	CAD	Item Code	Item Name	Material	Weight (g)
●	2D 3D	190-045-766	MLG20-P55-40	Stainless Steel (SUS304)	26