5. Miniature Linear Motion Guide M Series

1) Structure of M Series

WON Miniature Linear Motion Guide M Series has a shape of a gothic-arch groove in the raceway between a rail and a block and a 4-direction equal type structure with 2-row 4-point contact balls at 45 degree. Even though it is small in size, it provides stable travel and rigidity under the environment where variable load and combined load is applied.

2) Features of M Series

a. A compact highly-rigid 4-direction equal load type
b. Various specifications for easy design with space and load rating taken into account
c. Balls are maintained during the assembly of a block and a rail since a wire to retain balls is built in the block.
d. It's material is stainless steel which does not rust easily, so it is very suitable for the environment where rust and particle generation should be prevented - clean room, for instance.

6. Wide Miniature Linear Motion Guide MB Series

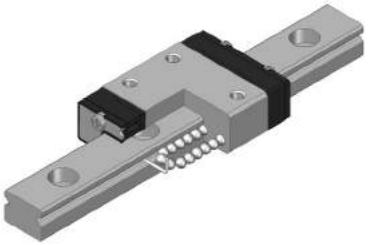
1) Structure of MB Series

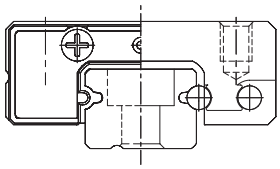
WON Miniature Linear Motion Guide MB Series has a 4-direction equal load type which is identical to M Series, and the basic load rating and moment load are significantly improved compared to the general M Series by broadening the width between a rail and a block.

2) Features of MB Series

a. As the width between a rail and a block is broadened and the number of balls increased, load rating and moment load are improved.
b. Suitable for use in a one-axis type since it is wider than the general miniature Linear Motion guide and rigidity increased.
e. A compact highly-rigid 4-direction equal load type
f. Various specifications for easy design with space and load rating taken into account
g. Balls are maintained during the assembly of a block and a rail since a wire to retain balls is built in the block.
h. Its material is stainless steel which does not rust easily so it is very suitable for the environment where rust and particle generation should be prevented for clean room, for instance.
For MB12 and MB15 Model Numbers, Bearing Steel material (MBT12, MBT15) is ready to produce.

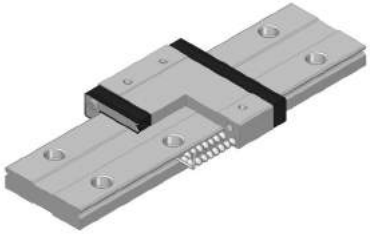
Miniature Linear Motion Guide M, MB Series

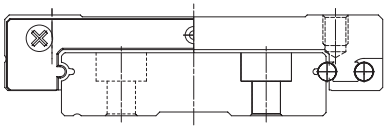




Standard M Series

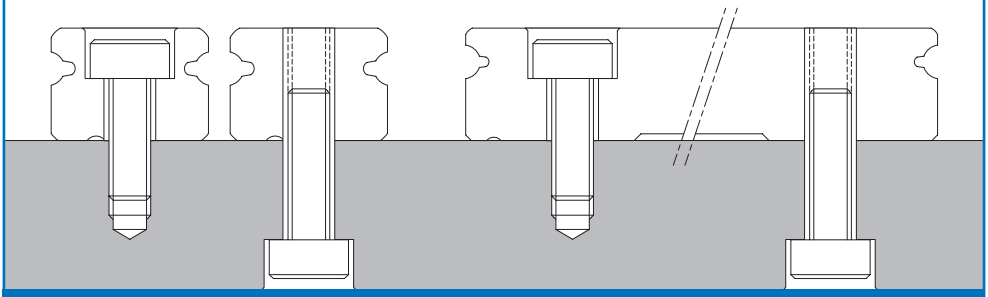
Standard





Wide body MB Series

Wide body

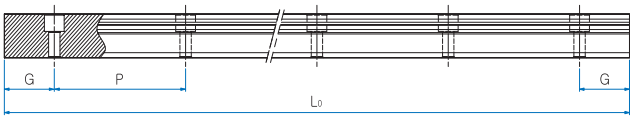


Bolt fastening

Types and Features

Category	Type	Shape & Features		
Compact type	M-C		Standard Miniature Linear-Motion Guide Bearing steel material of blocks for the type of MT12 and MT15 are available.	Semiconductor test equipment, semiconductor assembly equipment, display test equipment, HEAD-axis LED inspection equipment, pneumatic machinery, table cylinder, automation machinery, medical equipment, smart actuators, Cartesian coordinated robot, UVW stage
	M-N			
	M-L			
Wide board	MB-C MBT-C		High rigidity is achieved as the block is wider and longer than M Series to increase load rating and allowable moment. Bearing steel material of blocks for the type of MBT12 and MBT15 are available.	
	MB-N MBT-N			
	MB-L MBT-L			

Standard and maximum length of a rail

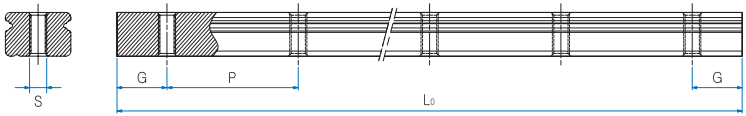


Unit : mm

Model No.	M5	M7	M9	M12	MT12	M15	MT15	M20
Standard length	40	40	55	70	70	70	70	220
	55	55	75	95	95	110	110	280
	70	70	95	120	120	150	150	340
	⋮	⋮	115	145	145	190	190	460
	100	100	⋮	170	170	230	230	⋮
	130	130	275	⋮	⋮	⋮	⋮	1120
	160	160	375	570	570	670	670	1240
			495	695	695	870	870	1360
				820	820	1070	1070	
Standard maximum length of a rail	1000	1000	995	1995	1995	1990	1990	1960
Standard pitch P	15	15	20	25	25	40	40	60
G	5	5	7.5	10	10	15	15	20
Max. length	1000				2000			

Model No.	MB5	MB7	MB9	MB12	MBT12	MB15	MBT15
Standard length	50	50	50	70	70	110	110
	70	80	80	110	110	150	150
	90	110	110	150	150	190	190
	⋮	⋮	140	190	190	230	230
	130	260	⋮	230	230	270	270
	150	290	500	⋮	⋮	⋮	⋮
	170	350	710	590	590	750	750
			860	750	750	790	790
				910	910	910	910
Standard maximum length of a rail	990	980	980	1990	1990	1990	1990
Standard pitch P	20	30	30	40	40	40	40
G	5	10	10	15	15	15	15
Max. length	1000		2000				

Standard tap hole type of a rail



Model No.	S (Thru)
M5	M2.6
M7	M3
M9	M4
M12 / MT12	M4
M15 / MT15	M4
M20	M6

Model No.	S (Thru)
MB5	M3
MB7	M4
MB9	M4
MB12 / MBT12	M5
MB15 / MBT15	M5