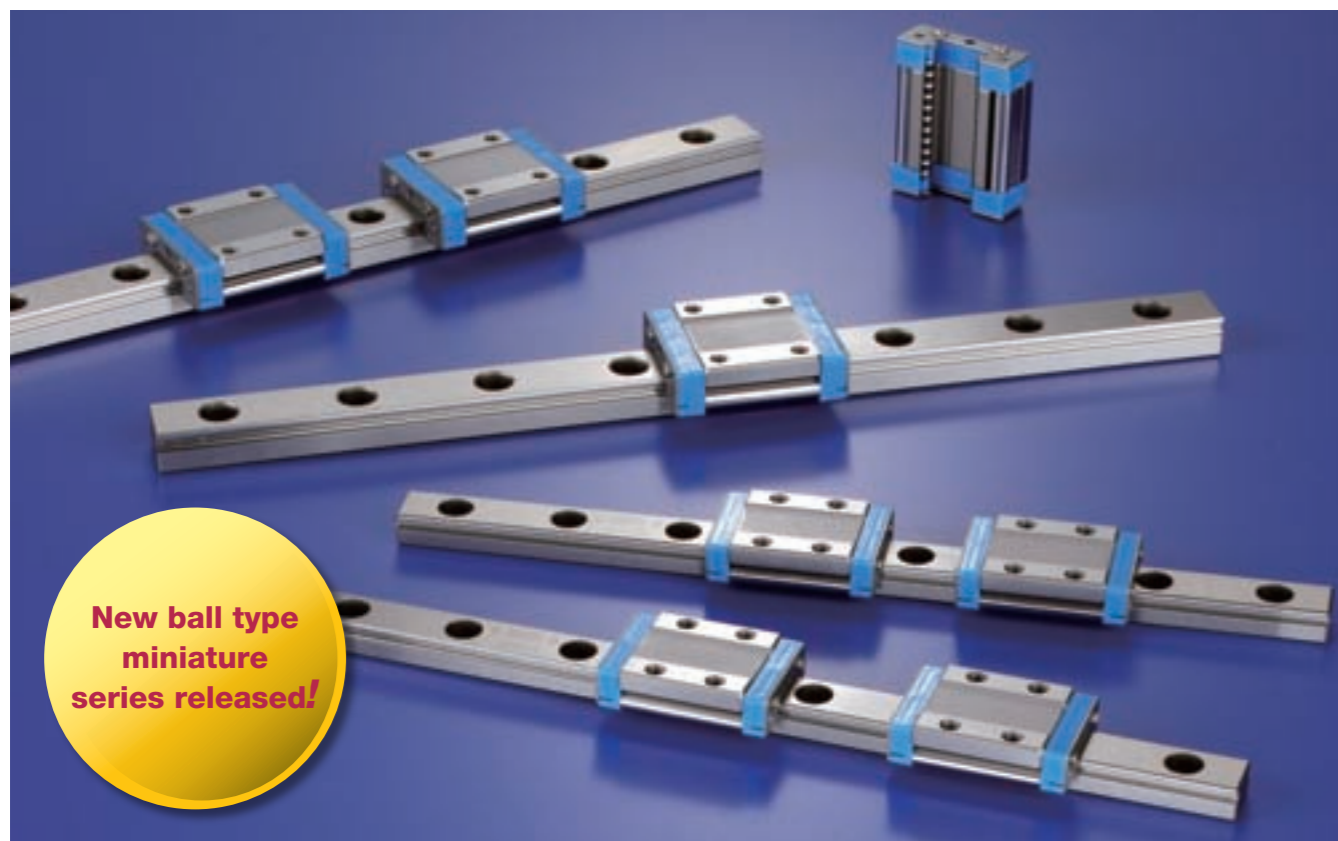


C-Lube Linear Way MLV

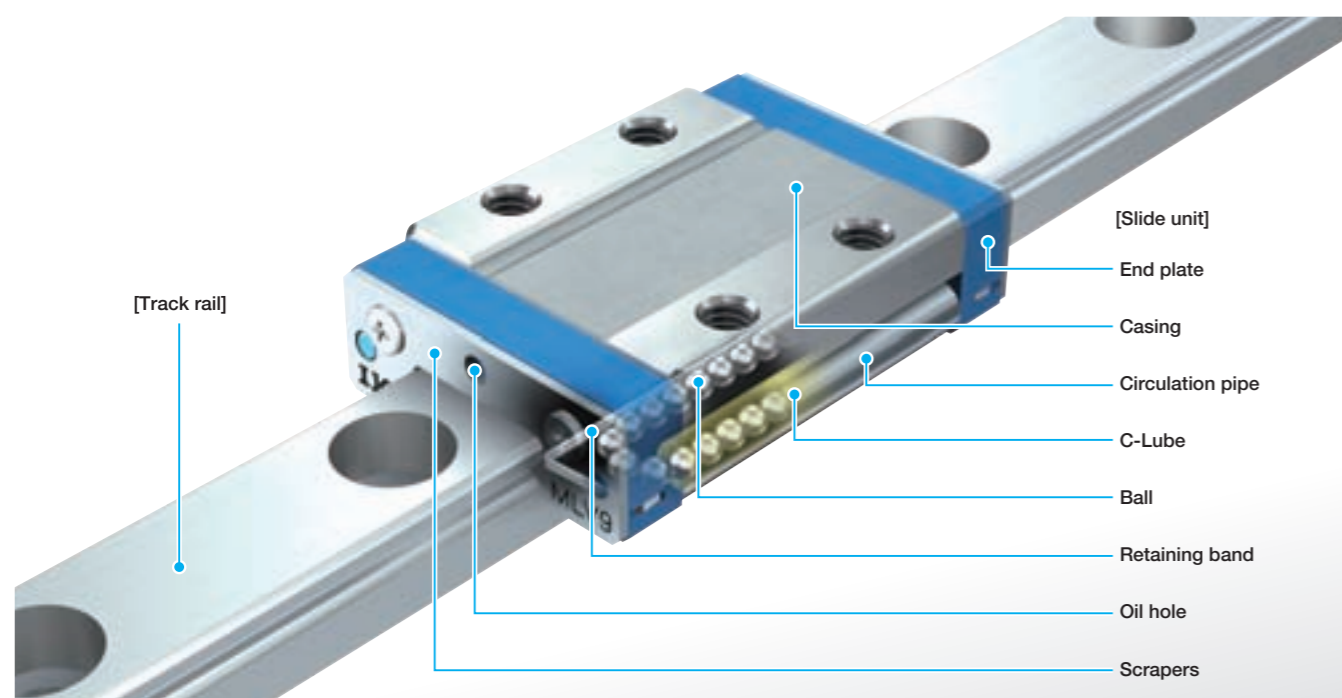
MLV (Size: 9 and 12)



**New ball type
miniature
series released!**

MLV series is a super small-size linear motion rolling guide produced by original small sizing technology. Thanks to the structure with two rows of balls to contact with the way at four points, stable accuracy and rigidity can be achieved even in applications where load has variable direction and size or complex load is applied, despite its very small body and light weight.

MLV Structure



Features

1 Extremely small size

Super small-size produced with simple four-points contact in two-row raceways structure and original small sizing technology.

2 Cost performance

Price reduction achieved by redesigning of the structure including ball circulation section with excellent performance.

3 Long term maintenance free

The lubrication part "C-Lube" integrated in the slide unit. As lubrication oil in C-Lube is supplied by the amount necessary to maintain lubrication performance of the rolling guide parts, the consumption is reduced and lubrication performance is maintained. Furthermore, grease is pre-packed in the slide unit so long term maintenance free is realized.

4 Stainless steel material for excellent corrosion-resistant

Corrosion resistant stainless steel is used, so that the products are suitable for applications where rust prevention oil is not preferred, such as in cleanroom environment.

5 Ball retained type for easy assembling

The slide unit incorporates the ball retaining band, which prevents the ball from dropping when the slide unit is removed from the track rail. This convenient structure brings you an easy instruction to the machines / equipment.

Example of an Identification Number

MLV 9 C1 R160 T0 H S /US

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Model

MLV Indicate "LWL...B" for the model code of the single track rail.

② Size

9, 12

③ Number of slide unit (C○)

For an assembled set, indicates the number of slide units assembled on a track rail. For a single slide unit, only "C1" is specified.

④ Length of track rail (R○)

Indicate the length of track rail in mm. For standard and maximum lengths, see Table 1 in the following page. "No symbol" is indicated for single slide unit.

⑤ Preload amount

For details of the preload amount, see Table 2 in the following page. "No symbol" is indicated for single track rail.

⑥ Accuracy class

For details of classification symbol, see Table 3 in the following page.

⑦ Interchangeable

S	S specification (applicable to clearance specification)
S1	S1 specification (applicable to standard preload amount specification)
S2	S2 specification (applicable to standard preload amount specification)
No symbol	Non-interchangeable specification

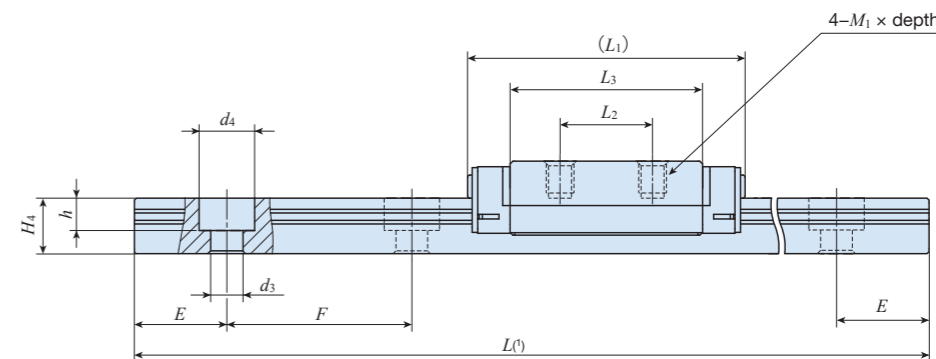
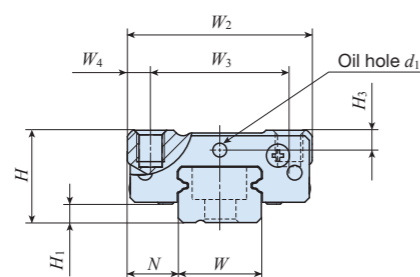
This is specified for the interchangeable specifications. Assemble a track rail and a slide unit with the same "S1" or "S2" interchangeable code. However, in case of "S", use either "S1" or "S2" track rail. Performance and accuracy of "S", "S1" and "S2" are the same. "No symbol" is indicated for non-interchangeable specification.

⑧ Special Specification

/D	Opposite reference surfaces arrangement
/E	Specified rail mounting hole positions
/MN	Without track rail mounting bolt
/US	End seal
/W○	A group of multiple assembled sets
/YCG	Specified grease (Low Dust-Generation Grease for Clean Environment CG2)

Remark: For details of special specification, please contact IKO.

Dimension and Specification



Identification Number	Interchangeable	Mass (Ref.) g		Dimensions of assembly mm			Dimensions of slide unit mm									Dimensions of track rail mm			Track rail Appended mounting bolt (2) mm	Basic dynamic load rating (3) N	Basic static load rating (3) N	Static moment rating (3) N·m						
		Slide unit	Track rail (per 100 mm)	H	H1	N	W2	W3	W4	L1	L2	L3	M1 x depth	H3	d1	W	H4	d3	d4	h	E	F	Bolt size x l	C	C0	T0	TX	TY
MLV 9	○	17	35	10	2	5.5	20	15	2.5	30	10	20.8	M3x3	2.2	1.5	9	6	3.5	6	3.5	10	20	M3x8	1 810	2 760	12.8	9.1 51.1	7.6 42.9
MLV 12	○	31	65	13	3	7.5	27	20	3.5	34	15	21.6	M3x3.5	2.7	2	12	8	3.5	6.5	4.5	12.5	25	M3x8	3 330	4 290	26.6	15.4 93.1	12.9 78.2

Notes (1) Track rail length L is shown in Table 1.
 (2) The appended track rail mounting bolts are hexagon socket head bolts equivalent to JIS B 1176.
 (3) Basic dynamic load rating (C), basic static load rating (C0), static moment rating (T0, TX, and TY) are values for the direction indicated in the right figure. The upper values of TX and TY are for one slide unit and the lower values are for two slide units sticking.

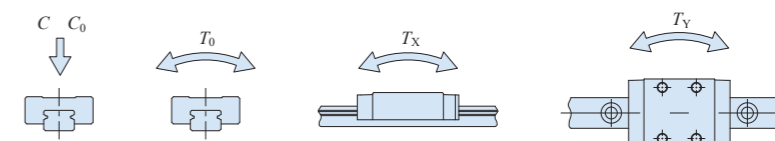


Table 1 Standard and maximum lengths of track rail unit: mm

Item	Identification Number	MLV 9	MLV 12
Standard length L (1)		60(3)	100(4)
		80(4)	150(6)
		120(6)	200(8)
		160(8)	275(11)
		220(11)	350(14)
		280(14)	475(19)
Pitch of mounting holes F		20	25
E		10	12.5
E reference dimensions	higher	4.5	5
	below	14.5	17.5
Maximum length (2)		860 (1 200)	1 000 (1 450)

Notes (1) The value in () indicates the number of mounting holes.
 (2) Length up to the value in () can be produced. If needed, please contact IKO.
 Remarks 1 Indicate "LWL...B" for the model code of the single track rail.
 2 If not directed, E dimensions for both ends will be the same within the range of E reference dimensions.
 To change the dimensions, indicate the specified rail mounting hole positions "E" of special specification.

Table 2 Preload amount

Preload amount type	Preload amount symbol	Preload amount N	Operational conditions
Clearance	T0	0(1)	Very light motion
Standard	(No symbol)	0(2)	Light and very precise motion

Notes (1) There is zero or minimal amount of clearance.
 (2) Indicates zero or minimal amount of preload amount.

Table 3 Tolerance and allowance

Item	Class (classification symbol)	High (H)
Dim. H tolerance		±0.020
Dim. N tolerance		±0.025
Dimension variation of H (1)		0.015
Dimension variation of N (1)		0.020
Dimension variation of H for multiple assembled sets (2)		0.030
Parallelism in operation of the slide unit C surface to A surface		See Fig. 1
Parallelism in operation of the slide unit D surface to B surface		See Fig. 1

Notes (1) It means the size variation between slide units mounted on the same track rail.
 (2) Applicable to the interchangeable specifications.

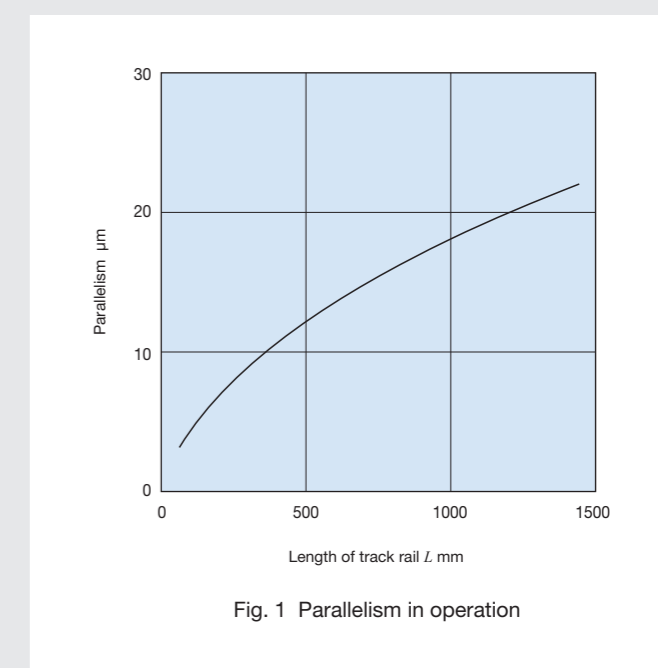


Fig. 1 Parallelism in operation