YOSO
LINEAR MOTION

YOSO German quality, Industrie 4.0 best platform

Low friction

High load

Precise

Focusing on the research and production of high-precision linear bearings.

Jingpeng Machinery Equipment (Shanghai) Co., Ltd.
Contact information:
Telephone: 0086-13636560152
Address: Room 123, Building 11, Block B, No. 1101 Huyi Road,Jiading District, Shanghai
Website: www.yosomove.com

Whatsapp

YOSO
LINEAR MOTION

LINEAR BEARINGS

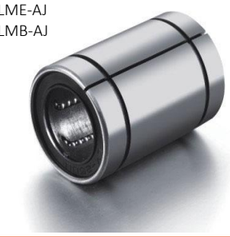
YOSO MOTION Linear Bearings

Linear Motion Ball Bearing

Standard Type
P.07 LM
P.11 LME
P.17 LMB

Standard Type
P.09 LM···GA

Adjustable Type
P.07 LM-AJ
P.11 LME-AJ
P.19 LMB-AJ



Adjustable Type
P.09 LM···GA-AJ

Open Type
P.07 LM-OP

Open Type
P.09 LM···GA-OP

Double-Wide Type
P.13 LM···L
P.14 LME···L

Double-Wide Type
P.15 LM···LGA

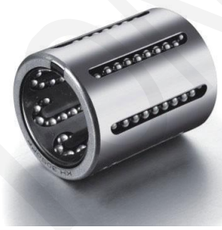
Stroke Bearing

Stroke Bearing
P.19 ST
P.20 ST ···B

Linear Ball Bushings
P.21 LBUS
LBUW

Pressing Bush Bearing

Pressing Bush Bearing
P.22 KH

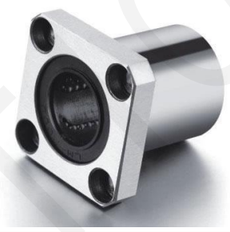


Flanged Linear Motion Ball Bearings

Round Flange Type
P.25 LMF

Round Flange Type
P.27 LMF···GA

Square Flange Type
P.25 LMK



Square Flange Type
P.27 LMK···GA

Oval Flange Type
P.29 LMH

Oval Flange Type
P.31 LMH···GA

Guide Round Flange Type
P.41 LMFP

Guide Round Flange Type
P.43 LMFP···GA

Guide Flange Type
P.41 LMKP

Guide Flange Type
P.43 LMKP···GA

Guide Oval Flange Type
P.49 LMHP

Guide Oval Flange Type
P.51 LMHP···GA

Extended Round Flange Type
P.33 LMF···L

Extended Round Flange Type
P.35 LMF···LGA

YOSO MOTION Linear Bearings

Extended Square Flange Type
P.33 LMK···L

Extended Square Flange Type
P.35 LMK···LGA

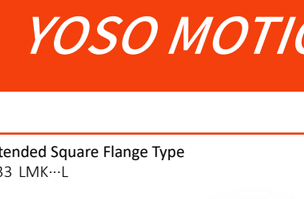
Extended Oval Flange Type
P.37 LMH···L

Extended Oval Flange Type
P.39 LMH···LGA

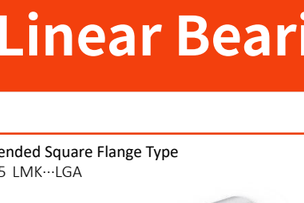
Extended Guide Circular Flange Type
P.45 LMFP···L

Extended Guided Circular Flange Type
P.47 LMFP···LGA

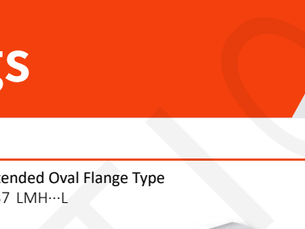
Extended Guided Square Flange Type
P.45 LMKP···L



Extended Guided Square Flange Type
P.47 LMKP···LGA



Extended Guided Oval Flange Type
P.53 LMHP···L



Extended Guided Oval Flange Type
P.55 LMHP···LGA

Extended Middle Round Flange Type
P.57 LMFM···L

Extended Middle Round Flange Type
P.59 LMFM···LGA

Extended Middle Square Flange Type
P.57 LMKM···L

Extended Middle Square Flange Type
P.59 LMKM···LGA

Extended Middle Oval Flange Type
P.61 LMHM···L

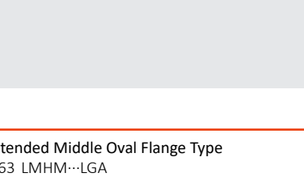
Extended Middle Oval Flange Type
P.63 LMHM···LGA

Flanged Stroke Bearings

Flange Linear Ball Bushings
P.65 LBHR
P.65 LBHRW

Flange Linear Ball Bushings
P.65 LBHS
p.65 LBHSW

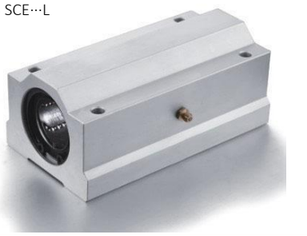
Flange Linear Ball Bushings
P.65 LBHC
P.65 LBHCW



Linear Motion Ball Bearing Slide Units

Standard Type
P.71 SC
P.73 SCE

Extended Type
P.71 SC···L
p.73 SCE···L



Short Type
P.71 SC···S
P.73 SCE···S

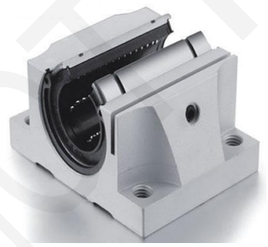
Adjustable Type
P.70 SCJ

YOSO MOTION Linear Bearings

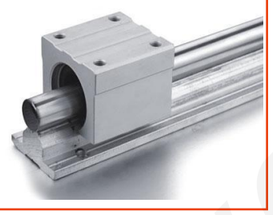
Support Rail Units

SBR Series
P.78

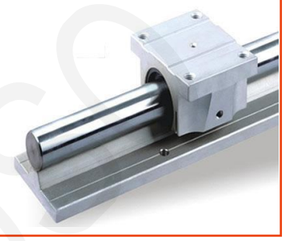
TBR Series
P.79



SBR...S Series
P.78



TBR...S Series
P.79



SBS/TBS Series
P.76-77

Shaft Support

SH(SK) Series
P.80

SHF Series
P.81

Shafts

SF Series
P.82

YOSO MOTION Linear Bearings

Structure and Features

● The YOSO linear motion bearing consists of an outer cylinder, ball retainer,balls and two end rings.The ball retainer which holds the balls in the recirculating trucks in held inside the outer cylinder by end rings.

● Those parts are assembled to optimize their required functions.

● The outer cylinder is maintained sufficient hardness by heat treatment, therefore it ensures the bushings projected travel life and satisfactory durability.

● The ball retainer is made from steel or resin. The steel retainer has high rigidity obtained by heat treatment. The user can select the optimum type for meeting the users service conditions.

① High Precision and Rigidity

The YOSO linear motion bearing is produced from a solid steel outer cylinder, Also the linear motion bearing incorporates either a patented all steel hardend seamless ball retainer or an industrial strength resin ratainen.

② Ease of Assembly

The standard type of YOSO linear motion bearing can be loaded from any diraction.Precision control is possible using only the shaft supporter, and the mounting surface can be machined easily. YOSO also provides a variely of housings for all types of slide bushings, offering convenience of design and assembly.

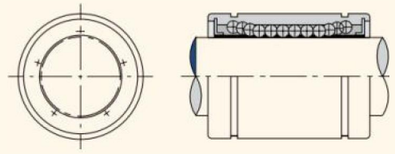
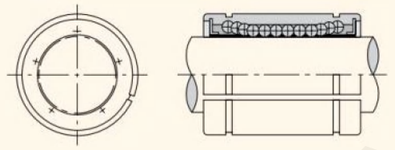
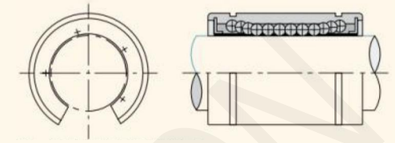
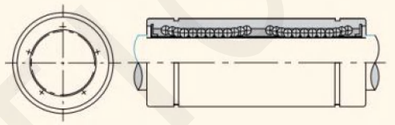
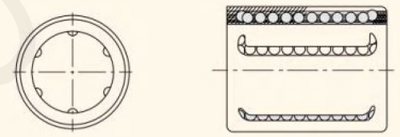
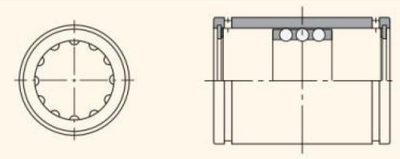
③ Ease of Replacement

YOSO linear motion bearing of each type are completely interchangeable because of their standardized dimensions and stric precision control. Replacement because of wear or damage is therefore easy and accurate.

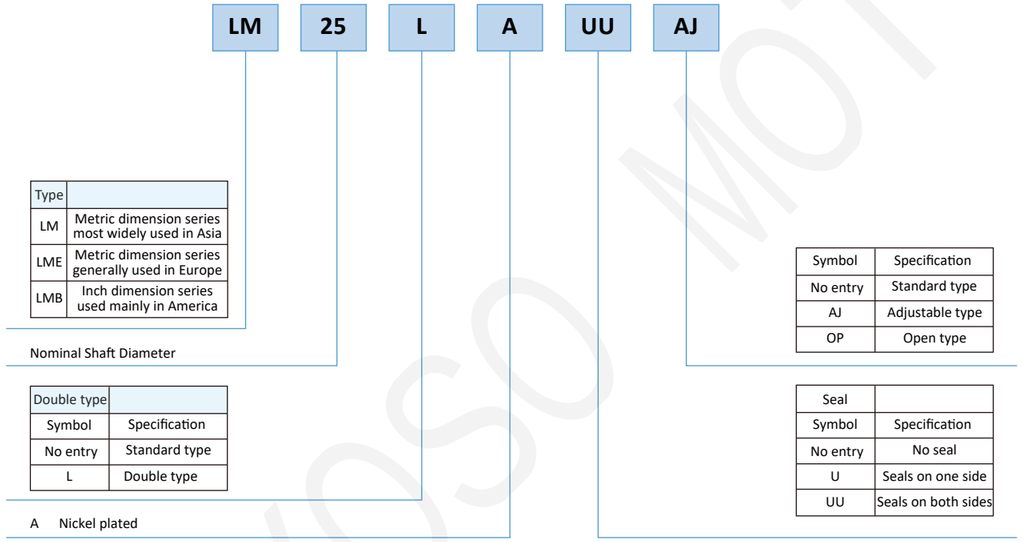
④ Variety of Types

YOSO offers a full line of linear motion bearing: the standard, integral single-retainer closed type, the clearance adjustable type and the open. double-retainer, and flanged types. The user can choose from among these according to the application requirements to be met.

Type of Linear Motion Ball Bearings

Type	Description	Material	
		Outer cylinder	Retainer
Standard Type 	 Closed type outside cylinder	Steel	Steel / Resin
Adjustable Type 	 This type has a slot in the outside cylinder. This design allows for clearance adjustment.	Steel	Steel / Resin
Open Type 	 One ball circuit is removed to allow an opening slot to fit over rail supports.	Steel	Steel / Resin
Double-Wide Type 	 This type has two retainers in the outside cylinder. This structure is useful when momentloads are applied to the slide bush.	Steel	Steel / Resin
Pressing Outer Race Type 	 Outer race is pressing	Steel	Resin
Stroke Bearing 	 Closed type outside cylinder	Steel	Aluminum

Type Number Format



Tolerance

● The YOSO linear motion ball bearing are divided into high cass and precision class, indicated in the dimension tables. Note that precision of inscribed circle diameters and outside diameters for the clearance adjustable type (….-AJ) and the open type (….-OP) indicates the value obtained before the corresponding type is subjected to cutting process.

Load Rating and Life Expectancy

● The rated life (L) of a slide bush can be obtained from the following equation with the basic dynamic load rating and the load applied to the slide bush:

$$L=\left(\frac{f_H\cdot f_T\cdot f_C}{f_W}\cdot\frac{C}{P}\right)^3\cdot 50 \qquad (1)$$

L: Raled life(km)
C: Basic dynamic load rating(N)
P: Working load(N)
fw: Load coefficient
fH: Hardness factor
fT: Temperature coefficient
fc: Contact coefficient

● The lifespan (L.)of a slide bush in hours can be obtained by calculating the traveling distance per unit time.

● The lifespan can be obtained from the following equation of the stroke length and the number of strokes are constant.

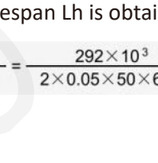
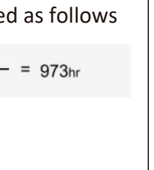
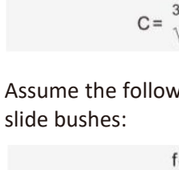
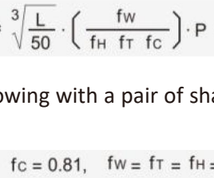
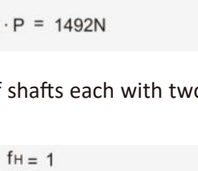
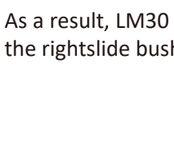
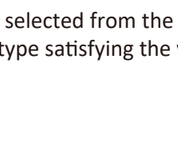
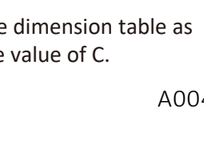
$$L_h=\left(\frac{L\cdot 10^3}{2\cdot \ell_s\cdot n_1\cdot 60}\right) \qquad (2)$$

Lh: Lifespan(hr)
Ls : Stroke length(m)
L: Raled life(km)
n1: Number of strokes per minute(CPM)

Relation between ball circuits and load rating

● The YOSO linear motion ball bearing includes ball Circuits that are spaced equally and circumferentially, The load rating varies according to the loaded position on the circumference. The value in the dimension table indicates the load rating when the load is placed on top of one ball circuit. If the YOSO Slide bush is used with two ball circuits loaded uniformly, The load rating will be greater. The following table shows the values by the number of ball circuits in such cases:

Table 1

Number of rows / Row position, Load ratio	3	4	5	6	8
Row position	 $Q_1=P_0$	 $Q_1=P_0$	 $Q_1=1.106P_0$	 $Q_1=1.354P_0$	 $Q_1=1.841P_0$
Row position	$Q_0=P_0$	$Q_0=1.414P_0$	 $Q_0=1.618P_0$	 $Q_0=1.732P_0$	 $Q_0=2.052P_0$
Load ratio	$Q_0/Q_1=1$	$Q_0/Q_1=1.414$	$Q_0/Q_1=1.463$	$Q_0/Q_1=1.280$	$Q_0/Q_1=1.115$

Sample Calculations

①Obtaining the rated life L and lifespan Lh of the right slide bush used in the following conditions:

Slide bush:LM20
Stroke Length:50mm
Number of strokes per minute:50 times/min(CPM)
Load per bush:490N

The basic dynamic load rating of the slide bush is 882N from the dimension table.From equation(1),therefore,the rated life L is obtained as follows:

$$L=\left(\frac{f_H\cdot f_T\cdot f_C}{f_W}\cdot\frac{C}{P}\right)^3\cdot 50 \qquad f_H=f_T=f_C=f_W=1.0$$
$$=\left(\frac{882}{490}\right)^3\times 50=292\text{km}$$

From equation(2), the lifespan Lh is obtained as follows

$$L_h=\frac{L\times 10^3}{2\times \ell_s\times n_1\times 60}=\frac{292\times 10^3}{2\times 0.05\times 50\times 60}=973\text{hr}$$

②Selecting the slide bush type satisfying the following conditions:

Number of slide bushes used:4
Stroke Length:1m
Traveling Speed:10m/min
Total load:980N
Number of strokes per minute:5 times/min(CPM)

From equation(2), the traveling distance within the lifespan is obtained as follows:

$$L=2\times \ell_s\times n_1\times 60\times L_h=6{,}000\text{km}$$

From equation(1), the basic dynamic load rating is obtained as follows:

$$C=\sqrt[3]{\frac{L}{50}}\cdot\left(\frac{f_W}{f_H\ f_T\ f_C}\right)\cdot P=1492\text{N}$$

Assume the following with a pair of shafts each with two slide bushes:

$$f_C=0.81,\quad f_W=f_T=f_H=1$$

As a result, LM30 is selected from the dimension table as the rightslide bush type satisfying the value of C.

Clearance and Fit

● When a standard-type YOSO slide bush is used with a shaft,inadequate clearance adjustment may cause early bush failure and/or poor, rough traveling. The clearance adjustable slide bush and open slide bush can be clearance adjusted when assembled in the housing which can control the outside cylinder diameter. However, too much clearance adjustment increases the deformation of the outside cylinder,to affect its precision and life. Therefore, the appropriate clearance between the bush and shaft, and clearance between the bush and housing are required according to the application. Table 2 shows recommended fit of the bush:

Table 2

Model \ Division		Shaft			
		Normal fit	Transition fit	Loose fit	Tight fit
LM	High class	g6	h6	H7	J7
LMB	Precision class	g5	h5	H6	J6
LME	High class	h5	j6	H7	J7

Note:The clearance may be zero or negative,Please attention the movement

Shaft and Housing

● To optimize performance of the YOSO slide bush, high precision of the shaft and housing is required.

1.High Precision and Rigidity

The rolling balls in the YOSO slide bush are in point contact with the shaft surface.Therefore,the shaft dimensions, tolerance, surface finish, and hamess greatly affect the traveling performance of the bush. The shaft should be manufactured with due attention to thefollowing points:

1)Since the surface finish critically affects smooth rolling of balls, grind the shaft at 0.4 S or better.

2)The best hardness of the shaft is YOSO 60 to 64. Hardness less than YOSO 60 decreases the life considerably,and hence reduces the permissible load. On the other hand. harness over YOSO 64 accelerates ball wear.

3)The shaft diameter for the clearance adjustable slide bush and open slide bush should as mush as possible be of the lower value of the inscribed circle diameter in the specification bable, Do not set the shaft diameter to the upper value.

4) Zero clearance or negative clearance increases the frictional resistance slightly. If the negative clearance is too tight, the deformation of the outside cylinder will become larger, to shorten the bush life.

5) The YOSO slide shaft is an ideal bush slide shaft manufactured in due consideration of dimensional tolerance,surface finish, and hardness.For details refer to the section on slide shafts.

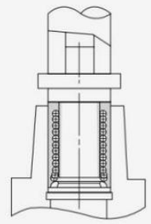
2.Housing

We provide a wide range of housings differing in design, machining and mounting. For the fitness and shapes of housings, see Table 2 and the following section on mounting.

Mounting

● When inserting the slide bush into the housing,do not hit the slide bush on the side ring holding the retainer but apply the cylinder circumference with a proper jig and push the slide bush into the housing by hand or lighly knock it in.(See Fig. 1) In insering the shaft after mounting the bush, be careful not to shock the balls. Note that if two shafts are used in parallel, the parallelism is the most important factor to assure the smooth linear movement. Take care in setting the shafts.

Fig.1



Examples of Mounting

● The popular way to mount a slide bush is to operate it with an appropriate interierence. It is recommended, however, to make a loose fit in principle because otherwise precision is apt to be minimized.The following examples (Fig.2 to 6) show assembling of the inserted bush in terms of designing and mounting, for reference.

Fig.2

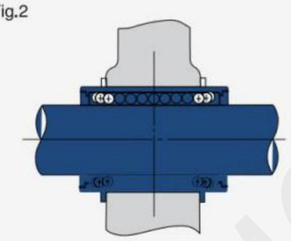


Fig.3

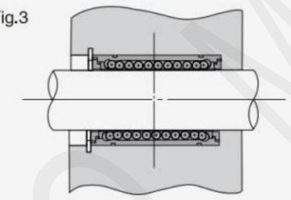


Fig.4

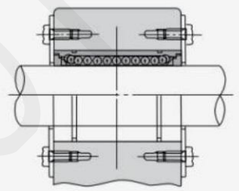


Fig.5

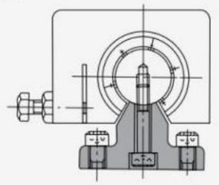
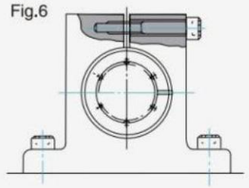


Fig.6



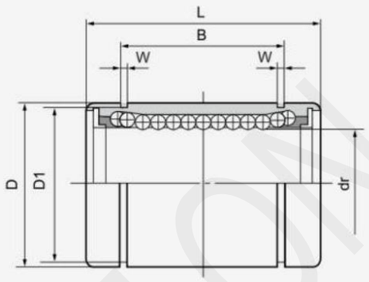
LM Series

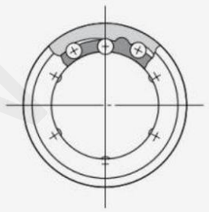
L···UU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

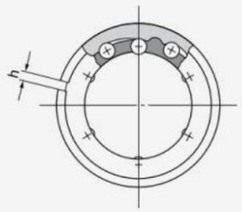

LM···UU


LM···UU···AJ

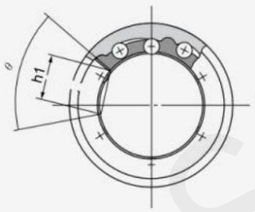

LM···UU···OP




LM···UU



LM···UU···AJ



LM···UU···OP

Nominal shaft diameter mm	Resin retainer									dr		
	LM···UU	Ball circuit	Weight (g)	LM···UU···AJ	Ball circuit	Weight (g)	LM···UU···OP	Ball circuit	Weight (g)	mm	Tolerance μm	
											Precision	High
3	LM3		1.35	——	——	——	——	——	——	3	0 -5	0 -8
4	LM4	4	1.9	——	——	——	——	——	——	4		
5	LM5UU	4	4	——	——	——	——	——	——	5	0 -6	0 -9
6	LM6UU	4	7.6	LM6UU-AJ	4	7.5	——	——	——	6		
8	LM8SUU	4	10.4	LM8SUU-AJ	4	10	——	——	——	8		
8	LM8UU	4	15	LM8UU-AJ	4	14.7	——	——	——	8		
10	LM10UU	4	29.5	LM10UU-AJ	4	29	LM10UU-OP	3	23	10		
12	LM12UU	4	31.5	LM12UU-AJ	4	31	LM12UU-OP	3	25	12		
13	LM13UU	4	43	LM13UU-AJ	4	42	LM13UU-OP	3	34	13		
16	LM16UU	5	69	LM16UU-AJ	5	68	LM16UU-OP	4	52	16		
20	LM20UU	5	87	LM20UU-AJ	5	85	LM20UU-OP	4	69	20	0 -7	0 -10
25	LM25UU	6	220	LM25UU-AJ	6	216	LM25UU-OP	5	188	25		
30	LM30UU	6	250	LM30UU-AJ	6	245	LM30UU-OP	5	210	30		
35	LM35UU	6	390	LM35UU-AJ	6	384	LM35UU-OP	5	335	35	0 -8	0 -12
40	LM40UU	6	585	LM40UU-AJ	6	579	LM40UU-OP	5	500	40		
50	LM50UU	6	1580	LM50UU-AJ	6	1560	LM50UU-OP	5	1340	50		
60	LM60UU	6	1860	LM60UU-AJ	6	1820	LM60UU-OP	5	1610	60	0 -9	0 -15
80	LM80UU	6	4420	LM85UU-AJ	6	4300	LM80UU-OP	5	3650	80		
100	LM100UU	6	8600	LM100UU-AJ	6	8540	LM100UU-OP	5	7200	100	0 -10	0 -20

Seal type:
LM20 A UU

No entry	No seals
U	Seal on one side
UU	Seal on both sides

A Nickel plated

Note:Smaller sizes(3 and 4 mm I.D.) are non-seal type only.

Major dimensions and tolerance												Eccentricity μm		Radial clearance (Max) μm	Basic load rating	
D		L		B		W	D_1	h	h_1	θ						
mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	mm	mm	mm			Precision	High		Dynamic C N	Static Co N
7	0 -9	10	0 -120	——	——	——	——	——	——	——		4	8	-3	69	105
8		12		——	——	——	——	——	——	——					88	127
10		15		10.2	0 -200	1.1	9.6	——	——	——					167	206
12	0 -11	19	0 -200	13.5		1.1	11.5	1	——	——		8	12		206	265
15		17		11.5		1.1	14.3	1	——	——					176	216
15		24		17.5		1.1	14.3	1	——	——					274	392
19	0 -13	29		22		1.3	18	1	6.8	80°				-4	372	549
21		30		23		1.3	20	1.5	8	80°					510	784
23		32		23		1.3	22	1.5	9	80°					510	784
28		37		26.5		1.6	27	1.5	11	80°				-6	774	1180
32	0 -16	42		30.5		1.6	30.5	1.5	11	60°		10	15		882	1370
40		59	0 -300	41	0 -300	1.85	38	2	12	50°					980	1570
45		64		44.5		1.85	43	2.5	15	50°				-8	1570	2740
52	0 -19	70		49.5		2.1	49	2.5	17	50°		12	20		1670	3140
60		80		60.5		2.1	57	3	20	50°				-10	2160	4020
80		100		74		2.6	76.5	3	25	50°				-13	3820	7940
90	0 -22	110		85		3.15	86.5	3	30	50°		17	25		4700	10000
120		140	0 -400	105.5	0 -400	4.15	116	3	40	50°				-20	7350	16000
150	0 -25	175		125.5		4.15	145	3	50	50°		20	30		14100	34800

SIUNIT:1N≈0.102kgf

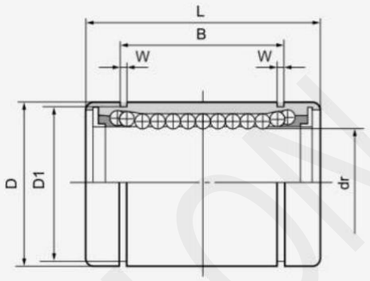
LM···GA Steel cage

LM···GA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

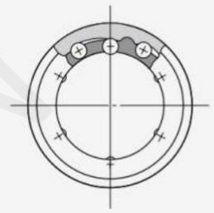

LM···GA

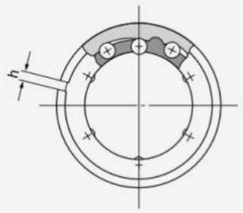

LM···GA···AJ


LM···GA···OP



LM···GA


LM···GA···AJ



LM···GA···OP

Nominal shaft diameter mm	Resin retainer									dr		
	LM···GA	Ball circuit	Weight (g)	LM···GA···AJ	Ball circuit	Weight (g)	LM···GA···OP	Ball circuit	Weight (g)	mm	Tolerance μm	
											Precision	High
5	LM5GA	4	5.5	——	——	——	——	——	——	5	0 -5	0 -8
6	LM6GA	4	8.9	LM6GA-AJ	4	8.8	——	——	——	6		
8	LM8GA	4	17.3	LM8GA-AJ	4	17	——	——	——	8		
10	LM10GA	4	32	LM10GA-AJ	4	31.5	LM10GA-OP	3	24	10	0 -6	0 -9
12	LM12GA	4	36.7	LM12GA-AJ	4	36.2	LM12GA-OP	3	27.5	12		
13	LM13GA	4	50	LM13GA-AJ	4	49	LM13GA-OP	3	37.5	13		
16	LM16GA	5	86	LM16GA-AJ	5	85	LM16GA-OP	4	68.8	16		
20	LM20GA	5	112	LM20GA-AJ	5	110	LM20GA-OP	4	89.6	20	0 -7	0 -10
25	LM25GA	6	282	LM25GA-AJ	6	278	LM25GA-OP	5	235	25		
30	LM30GA	6	326	LM30GA-AJ	6	321	LM30GA-OP	5	271.7	30		
35	LM35GA	6	489	LM35GA-AJ	6	483	LM35GA-OP	5	407.5	35	0 -8	0 -12
40	LM40GA	6	730	LM40GA-AJ	6	724	LM40GA-OP	5	608.3	40		
50	LM50GA	6	1580	LM50GA-AJ	6	1560	LM50GA-OP	5	1340	50		
60	LM60GA	6	1860	LM60GA-AJ	6	1820	LM60GA-OP	5	1610	60	0 -9	0 -15
80	LM80GA	6	4420	LM80GA-AJ	6	4300	LM80GA-OP	5	3650	80		
100	LM100GA	6	8600	LM100GA-AJ	6	8540	LM100GA-OP	5	7200	100	0 -10	0 -20

LM20 A GA

A Nickel plated

5-6	Alloy steel retainer
8-100	Cold-formed steel retainer

Major dimensions and tolerance												Eccentricity μm		Radial clearance (Max) μm	Basic load rating	
D		L		B		W	D_1	h	h_1	θ						
mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	mm	mm	mm			Precision	High		Dynamic C N	Static Co N
10	0 -9	15	0 -120	10.2		1.1	9.6	——	——	——		4	8		167	206
12	0 -11	19		13.5		1.1	11.5	1	——	——				-3	206	265
15		24		17.5		1.1	14.3	1	——	——		8	12		274	392
19	0 -13	29	0 -200	22	0 -200	1.3	18	1	6.8	80°				-4	372	549
21		30		23		1.3	20	1.5	8	80°					510	784
23		32		23		1.3	22	1.5	9	80°					510	784
28		37		26.5		1.6	27	1.5	11	80°				-6	774	1180
32	0 -16	42		30.5		1.6	30.5	1.5	11	60°		10	15		882	1370
40		59	0 -300	41	0 -300	1.85	38	2	12	50°					980	1570
45		64		44.5		1.85	43	2.5	15	50°				-8	1570	2740
52	0 -19	70		49.5		2.1	49	2.5	17	50°		12	20		1670	3140
60		80		60.5		2.1	57	3	20	50°				-10	2160	4020
80		100		74		2.6	76.5	3	25	50°				-13	3820	7940
90	0 -22	110		85		3.15	86.5	3	30	50°		17	25		4700	10000
120		140	0 -400	105.5	0 -400	4.15	116	3	40	50°				-20	7350	16000
120	0 -25	175		125.5		4.15	145	3	50	50°		20	30		14100	34800

SIUNIT:1N≈0.102kgf

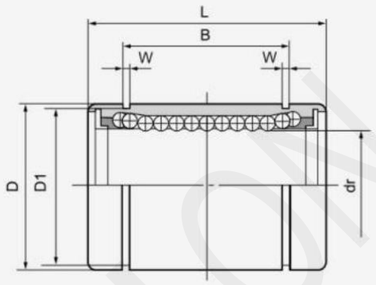
LME Series

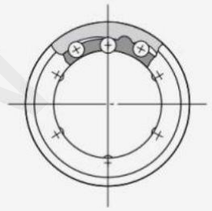
LME···UU (Resin retainer)
This type is a metric dimension series generally used in Europe.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

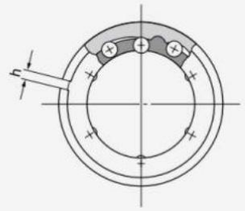

LME···UU


LME···UU···AJ

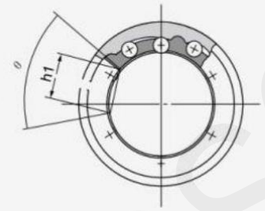

LME···UU···OP




LME···UU



LME···UU···AJ



LME···UU···OP

Nominal shaft diameter mm	Resin retainer									dr		
	LME···UU	Ball circuit	Weight (g)	LME···UU···AJ	Ball circuit	Weight (g)	LME···UU···OP	Ball circuit	Weight (g)	mm	Tolerance μm	
											Precision	High
3	LME3	4	1.35	——	——	——	——	——	——	3		
4	LME4	4	1.9	——	——	——	——	——	——	4		
5	LME5UU	4	11	LME5UU-AJ	4	10	——	——	——	5	——	+8 0
8	LME8UU	4	20	LME8UU-AJ	4	19.5	——	——	——	8		
10	LME10UU	4	29.5	LME10UU-AJ	4	29	LME10UU-OP	3	23	10		
12	LME12UU	4	41	LME12UU-AJ	4	40	LME12UU-OP	3	32	12		
16	LME16UU	5	57	LME16UU-AJ	5	56	LME16UU-OP	4	44	16	——	+9 -1
20	LME20UU	5	91	LME20UU-AJ	5	90	LME20UU-OP	4	75	20		
25	LME25UU	6	215	LME25UU-AJ	6	212	LME25UU-OP	5	181	25	——	+11 -1
30	LME30UU	6	325	LME30UU-AJ	6	320	LME30UU-OP	5	272	30		
40	LME40UU	6	705	LME40UU-AJ	6	694	LME40UU-OP	5	600	40	——	+13 -2
50	LME50UU	6	1130	LME50UU-AJ	6	1110	LME50UU-OP	5	970	50		
60	LME60UU	6	2050	LME60UU-AJ	6	2000	LME60UU-OP	5	1580	60		
80	LME80UU	6	5140	LME80UU-AJ	6	5000	LME80UU-OP	5	4380	80	——	+16 -4

Seal type:
LME20 A UU

No entry	No seals
U	Seal on one side
UU	Seal on both sides

A Nickel plated

Note:Smaller sizes(3 and 4 mm I.D.) are non-seal type only.

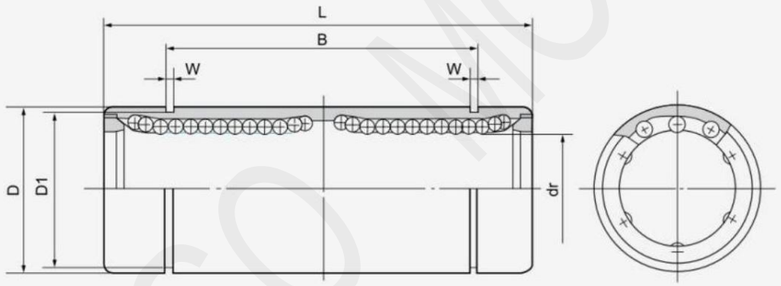
Major dimensions and tolerance												Eccentricity μm	Radial clearance (Max) μm	Basic load rating	
D		L		B		W	D_1	h	h_1	θ				Dynamic C N	Static Co N
mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	mm	mm	mm						
7	0 -8	10	0 -120	——	——	——	——	——	——	——		10	-3	69	105
8		12		——	——	——	——	——	——	——				88	127
12		22	0 -200	14.5	0 -200	1.1	11.5	1	——	——				206	265
16		25		16.5		1.1	15.2	1	——	——				265	402
19	0 -9	29		22		1.3	18	1	6.8	80°		12	-4	372	549
22		32		22.9		1.3	21	1.5	7.5	78°				510	784
26		36		24.9		1.3	24.9	1.5	10	78°				578	892
32	0 -11	45		31.5		1.6	30.3	2	10	60°		15	-6	862	1370
40		58	0 -300	44.1	0 -300	1.85	37.5	2	12.5	60°				980	1570
47		68		52.1		1.85	44.5	2	12.5	50°			-8	1570	2740
62	0 -13	80		60.6		2.15	59	3	16.8	50°		17		2160	4020
75		100		77.6		2.65	72	3	21	50°			-13	3820	7940
90	0 -15	125	0 -400	101.7	0 -400	3.15	86.5	3	27.2	54°		20		4700	9800
120	0 -19	165		133.7		4.15	116	3	36.3	54°		25	-20	7350	16000

SIUNIT:1N≈0.102kgf

LM···L Series

LM···LUU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LM···LUU



Nominal shaft diameter mm	LM···LUU	Ball circuit	Major dimensions and tolerance										Eccentricity μm	Basic load rating		Weight (g)
			dr		D		L		B		W	D1				
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	mm		Dynamic C N	Static Co N	
3	LM3L	3	3	0 -9	7	0 -11	19	0 -200	—	—		—	12	138	210	3
4	LM4L	4	4		8		23		—	—	—	—		176	254	4
5	LM5LUU	4	5		10		28		20.4	0 -200	1.1	9.6		265	412	8.4
6	LM6LUU	4	6	0 -10	12	0 -13	35	0 -300	27	0 -300	1.1	11.5	15	323	530	16
8	LM8LUU	4	8		15		45		35		1.1	14.3		431	784	31
10	LM10LUU	4	10		19	0 -16	55		44		1.3	18		588	1100	62
12	LM12LUU	4	12		21		57		46		1.3	20		813	1570	80
13	LM13LUU	4	13		23		61		46		1.3	22		813	1570	90
16	LM16LUU	5	16		28		70		53		1.6	27		1230	2350	145
20	LM20LUU	5	20	0 -12	32	0 -19	80	0 -400	61	0 -400	1.6	30.5	20	1400	2740	180
25	LM25LUU	6	25		40		112		82		1.85	38		1560	3140	440
30	LM30LUU	6	30		45		123		89		1.85	43		2490	5490	480
35	LM35LUU	6	35	0 -15	52	0 -22	135		99		2.1	49	25	2650	6270	795
40	LM40LUU	6	40		60		151		121		2.1	57		3430	8040	1170
50	LM50LUU	6	50		80		192		148		2.6	76.5		6080	15900	3100
60	LM60LUU	6	60	0 -20	90	0 -25	209		170		3.15	86.5	30	7550	20000	3500
80	LM80LUU	6	80		120		265		216		4.15	116		11500	32000	7710

SIUNIT:1N≈0.102kgf

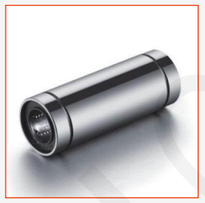
Steal type:
LM20 L A UU

No entry	No seals
U	Seal on one side
UU	Seal on both sides

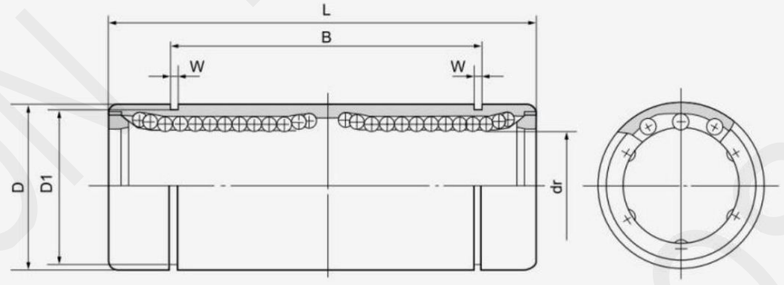
A Nickel plated

LME···L Series

LME···LUU (Resin retainer)
This type is a metric dimension series generally used in Europe.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



LME···LUU



Nominal shaft diameter mm	LME···LUU	Ball circuit	Major dimensions and tolerance										Eccentricity μm	Basic load rating		Weight (g)
			dr		D		L		B		W	D1				
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	mm		Dynamic C N	Static Co N	
8	LME8LUU	4	8	+9 -1	16	0 -9	46	0 -300	33	0 -300	1.1	15.2	15	421	804	40
12	LME12LUU	4	12		22	0 -11	61		45.8		1.3	21		813	1570	80
16	LME16LUU	5	16	+11 -1	26		68		49.8		1.3	24.9		921	1780	115
20	LME20LUU	5	20		32	0 -13	80	0 -400	61	0 -400	1.6	30.5	17	1370	2740	180
25	LME25LUU	6	25	+13 -2	40		112		82		1.85	38		1570	3140	430
30	LME30LUU	6	30		47		123		104.2		1.85	44.5		2500	5490	615
40	LME40LUU	6	40	+16 -4	62	0 -15	151		121.2		2.15	59	20	3430	8040	1400
50	LME50LUU	6	50		75		192		155.2		2.65	72		6080	15900	2320
60	LME60LUU	6	60		90	0 -20	209		170		3.15	86.5	25	7550	20000	3920
80	LME80LUU	6	80	+19 -6	120		265		216		4.15	116	30	11500	32000	7710

SIUNIT:1N≈0.102kgf

Seal type:
LME20 L A UU

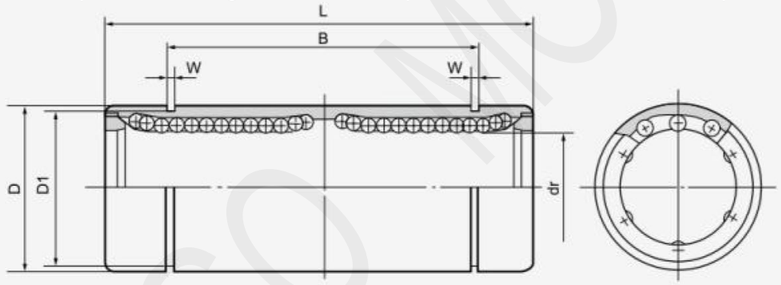
No entry	No seals
U	Seal on one side
UU	Seal on both sides

A Nickel plated

LM···LGA Series

LM···LGA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LM···LGA



Nominal shaft diameter mm	LM···LGA	Ball circuit	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
5	LM5LGA	4	5	0 -9	10	0 -11	28	0 -200
6	LM6LGA	4	6	0 -10	12	0 -13	35	0 -300
8	LM8LGA	4	8		15		45	
10	LM10LGA	4	10		19	0 -16	55	
12	LM12LGA	4	12		21		57	
13	LM13LGA	4	13		23		61	
16	LM16LGA	5	16		28		70	
20	LM20LGA	5	20	0 -12	32	0 -19	80	
25	LM25LGA	6	25		40		112	0 -400
30	LM30LGA	6	30		45		123	
35	LM35LGA	6	35	0 -15	52	0 -22	135	
40	LM40LGA	6	40		60		151	
50	LM50LGA	6	50		80		192	
60	LM60LGA	6	60	0 -20	90	0 -25	209	
80	LM80LGA	6	80		100		265	

Major dimensions and tolerance				Eccentricity μm	Basic load rating		Weight (g)
B	W	D_1					
Tolerance μm	mm	mm			Dynamic C N	Static Co N	
0 -200	1.1	9.6	20.4	12	265	412	11.4
0 -300	1.1	11.5	27	15	323	530	18.6
	1.1	14.3	35		431	784	35.6
	1.3	18	44		588	1100	67
	1.3	20	46		813	1570	90.4
	1.3	22	46		813	1570	104
	1.6	27	53		1230	2350	179
	1.6	30.5	61	20	1400	2740	230
0 -400	1.85	38	82		1560	3140	564
	1.85	43	89		2490	5490	632
	2.1	49	99	25	2650	6270	993
	2.1	57	121		3430	8040	1460
	2.6	76.5	148		6080	15900	3100
	3.15	86.5	170	30	7550	20000	3500
	4.15	116	216		11500	32000	7710

LM20 L A GA

A Nickel plated

5-6	Alloy steel retainer
8-80	Cold-formed steel retainer

SIUNIT:1N≈0.102kgf

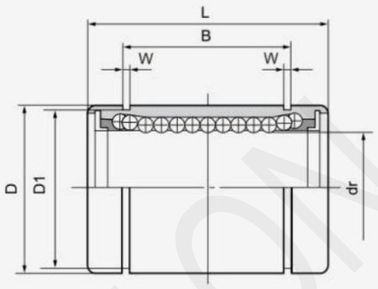
LMB Series

LMB···UU (Resin retainer)
This type is a metric dimension series generally used in Europe.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

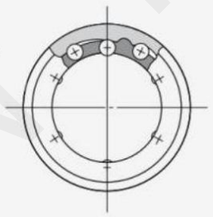

LMB···UU

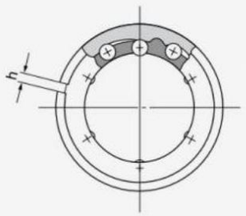

LMB···UU···AJ


LMB···UU···OP



LMB···UU


LMB···UU···AJ



LMB···UU···OP

Nominal shaft diameter mm	Resin retainer									dr		
	LMB···UU	Ball circuit	Weight (g)	LMB···UU···AJ	Ball circuit	Weight (g)	LMB···UU···OP	Ball circuit	Weight (g)	Inch mm	Tolerance Inch μm Precision	Tolerance Inch μm High
1/4 6.350	LMB4	4	8.0	LMB4-AJ	4	7.5	—	—	—	.2500 6.350	0 -.00025	0 -.00040
3/8 9.525	LMB6UU	4	14	LMB6UU-AJ	4	13.5	—	—	—	.3750 9.525	0 -6	0 -9
1/2 12.700	LMB8UU	4	37	LMB8UU-AJ	4	36.5	LMB8UU-OP	3	28	.5000 12.700		
5/8 15.875	LMB10UU	4	76	LMB10UU-AJ	4	74	LMB10UU-OP	3	57	.6250 15.875		
3/4 19.050	LMB12UU	5	95	LMB12UU-AJ	5	93	LMB12UU-OP	4	76	.7500 19.050	0 -.00030	0 -.00040
1 25.400	LMB16UU	6	200	LMB16UU-AJ	6	198	LMB16UU-OP	5	170	1.0000 25.400	0 -7	0 -10
1-1/4 31.750	LMB20UU	6	440	LMB20UU-AJ	6	430	LMB20UU-OP	5	370	1.2500 31.750	0 -.00035	0 -.00050
1-1/2 38.100	LMB24UU	6	670	LMB24UU-AJ	6	660	LMB24UU-OP	5	570	1.5000 38.100	0 -8	0 -12
2 50.800	LMB32UU	6	1140	LMB32UU-AJ	6	1120	LMB32UU-OP	5	980	2.0000 50.800		

Seal type:
LMB20 A UU

No entry	No seals
U	Seal on one side
UU	Seal on both sides

A Nickel plated

Note:Smaller sizes(1/4Inch I.D.) are non-seal type only.

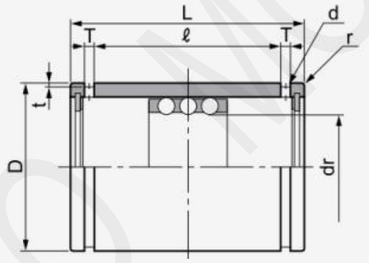
Major dimensions and tolerance												Eccentricity Inch/μm		Radial clearance (Max) Inch/μm	Basic load rating	
D		L		B		W	D_1	h	h_1	θ						
Inch mm	Tolerance Inch/μm	Inch mm	Tolerance Inch/μm	Inch mm	Tolerance Inch/μm	Inch mm	Inch mm	Inch mm	Inch mm			Precision	High		Dynamic C N	Static Co N
.5000 12.700	0 -.00045	.7500 19.050	0 -.0008	.5100 12.98	0 -.0008	.0390 0.992	.4687 11.906	.04 1	—	—		.0003 8	.0005 8	-.0001 -3	206	265
.6250 15.875	0 -.00050	.8750 22.225		.6358 16.15		.0390 0.992	.5880 14.935	.04 1	—	—					225	314
.8750 22.225		1.2500 31.750		.9625 24.46		.0459 1.168	.8209 20.853	.06 1.5	.34 7.9375	80°				-.0001 -4	510	784
1.1250 28.575	0 -13	1.5000 38.100	0 -200	1.1039 28.04	0 -200	.0559 1.422	1.0590 26.899	.06 1.5	.375 9.525	80°					774	1180
1.2500 31.750	0 -.00065	1.6250 41.275		1.1657 29.61		.0559 1.422	1.1760 29.870	.06 1.5	.4375 11.1125	60°		.0004 10	.0006 15	-.0002 -6	862	1370
1.5625 39.688	0 -16	2.2500 57.150	0 -.0012	1.7547 44.57	0 -.0012	.0679 1.727	1.4687 37.306	.06 1.5	.5625 14.2875	50°					980	1570
2.0000 50.800	0 -.00075	2.6250 66.675		2.0047 50.92		.0679 1.727	1.8859 47.904	.10 2.5	.625 15.875	50°		.0005 12	.0008 20	-.0003 -8	1570	2740
2.3750 60.325	0 -19	3.0000 76.200	0 -300	2.4118 61.26	0 -300	.0859 2.184	2.2389 56.870	.12 3	.75 19.05	50°					2180	4020
3.0000 76.200	0 -.00090	4.0000 101.600		3.1917 81.07		.1029 2.616	2.8379 72.085	.12 3	1.0 25.40	50°		.0007 17	.0010 25	-.0005 -13	3820	7940

SIUNIT:1N≈0.102lbs
1kg≈2.205lbs

ST Series

Ordinary type: ST
ST stroke bearing is a linear and rotational motion mechanism utilizing,
the rotational motion of ball elements between an outer cylinder and a shaft.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

ST



Model	Maximum stroke mm	Number of steel rows	Major dimensions and tolerance											Basic load rating		Weight (g)
			dr		D		L		ℓ	T	t	d	r			
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	mm	mm	mm	mm	Dynamic C N	Static Co N	
ST 6	20	3	6	+22 +13	12	0 -11	20	0 -200	11.3	1.1	0.5	1	0.5	147	216	8.9
ST 8	24	3	8		15		24		17.1	1.5	0.5	1.2	0.5	245	343	15.6
ST 10	30	3	10		19	0 -13	30		22.7	1.5	0.5	1.2	0.5	461	637	28.8
ST 12	32	3	12	+27 +16	23		32		24.5	1.5	0.5	1.2	0.5	813	1070	42
ST 13	32	3	13		23		32		24.5	1.5	0.5	1.2	0.5	813	1070	39.8
ST 16	40	3	16		28		37		29.1	1.5	0.7	1.3	0.5	990	1180	71
ST 20	50	3	20	+33 +20	32	0 -16	45		35.8	2	0.7	1.5	0.5	1170	1260	99
ST 25	50	3	25		37		45	0 -300	35.8	2	0.7	1.6	1	1330	1490	117
ST 30	82	3	30		45		65		53.5	2.5	1	2	1	2990	3140	205
ST 35	92	3	35	+41 +25	52	0 -19	70		58.5	2.5	1	2	1.5	3140	3530	329
ST 40	108	3	40		60		80		68.3	2.5	1	2	1.5	4120	4800	516
ST 50	138	3	50		72		100		86.4	3	1	2.5	1.5	5540	6910	827
ST 60	138	3	60	+49 +30	85	0 -22	100		86.4	3	1	2.5	2	5980	8230	1240
ST 80	132	3	80		110		100	0 -400	86	3	1.5	2.5	2	7840	12200	2050
ST100	132	3	100	+58 +36	130	0 -25	100		86	3	1.5	2.5	2	8430	14700	2440

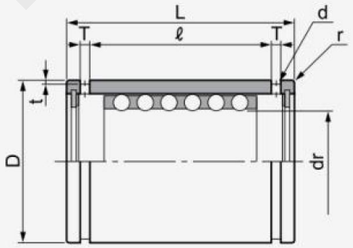
1N≈0.102kgf

ST20 A
A Nickel plated

ST···B Series

Heavy duty type: ST···B

ST···B



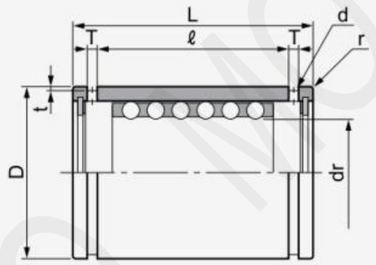
Model	Maximum stroke mm	Number of steel rows	Major dimensions and tolerance											Basic load rating		Weight (g)
			dr		D		L		ℓ	T	t	d	r			
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	mm	mm	mm	mm	Dynamic C N	Static Co N	
ST 8B	8	6	8	+22 +13	15	0 -11	24	0 -200	17.1	1.5	0.5	1.2	0.5	490	549	16.8
ST 10B	8	6	10		19	0 -13	30		22.7	1.5	0.5	1.2	0.5	931	1030	31.2
ST 12B	8	6	12	+27 +16	23		32		24.5	1.5	0.5	1.2	0.5	1630	1720	46
ST 16B	16	6	16		28		37		29.1	1.5	0.7	1.3	0.5	1910	1980	75
ST 20B	20	6	20	+33 +20	32	0 -16	45		35.8	2	0.7	1.5	0.5	2060	2320	106
ST 25B	20	6	25		37		45	0 -300	35.8	2	0.7	1.6	1	2170	2670	125
ST 30B	44	6	30		45		65		53.5	2.5	1	2	1	4800	6270	220
ST 35B	54	6	35	+41 +25	52	0 -19	70		58.5	2.5	1	2	1.5	5050	7060	346
ST 40B	66	6	40		60		80		68.3	2.5	1	2	1.5	6710	9560	540
ST 50B	88	6	50		72		100		86.4	3	1	2.5	1.5	8970	13800	862
ST 60B	88	6	60	+49 +30	85	0 -22	100		86.4	3	1	2.5	2	9700	16500	1290
ST 80B	76	6	80		110		100	0 -400	86	3	1.5	2.5	2	12700	24300	2110
ST100B	76	6	100	+58 +36	130	0 -25	100		86	3	1.5	2.5	2	13700	29400	2520

1N≈0.102kgf

ST20 B A
A Nickel plated
B Heavy duty type

Flange Linear Ball Bushings

Flange Linear Ball Bushings

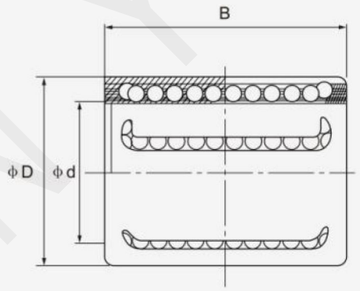


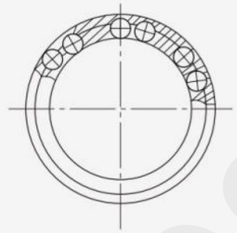
Model			Maximum stroke		Number of steel rows		ℓ		D		L		B		W	D1	(r)	Basic load rating				Static allowable moment (Nm)		Weight (g)	
Type	dr	Tolerance μm	Single	Double	Single	Double	Single	Double		Tolerance μm		Tolerance μm		Tolerance μm				Dynamic C N		Static Co N				Single	Double
																		Single	Double	Single	Double	Single	Double		
LBUS LBUW	5	0 -0.008	13	6	3	6	5.9	9.4	10	0 -0.009	15	0 -0.12	8	0 -0.4	1.1	9.6	0.4	131	209	106	212	-	1.38	4	5
	6	0 -0.009	15	7			8.3	12.3	12	0 -0.011	19	0 -0.2	11.3			11.5		210	333	164	328	-	2.18	8	8
	8		24	8			8.8	16.8	15		24		15.3			14.3		323	512	278	556	-	4.31	15	17
	10		30	8			10.8	21.8	19	0 -0.013	29		19.4		1.3	18		499	793	408	815	-	7.24	30	33
	12		32	8			10.4	22.4	21		30		20.4			20	0.8	722	1146	579	1157	-	10.9	32	36
	13		34	10			11.4	23.4	23		32		20.4			22		773	1226	634	1268	-	11.6	45	49
	16		40	16			12.8	24.8	28		37		23.3		1.6	27		1330	2112	1029	2058	-	19.7	72	79
	20	0 -0.010	46	28			14.8	23.8	32	0 -0.016	42		27.3			30.5		1609	2554	1517	3035	-	26.8	94	102

KH Series

Pressing Bush Bearing: KH

KH…





Model	Major dimensions and tolerance(mm)			Basic load rating		Weight (g)
	Φd	ΦD	B	Dynamic C N	Static Co N	
KH0622PP	6	12	22	239	400	7
KH0824PP	8	15	24	280	435	12
KH1026PP	10	17	26	370	500	14.5
KH1228PP	12	19	28	510	620	18.5
KH1428PP	14	21	28	520	620	20.5
KH1630PP	16	24	30	620	800	27.5
KH2030PP	20	28	30	790	950	32.5
KH2540PP	25	35	40	1670	1990	66
KH3050PP	30	40	50	2700	2800	95
KH4060PP	40	52	60	4400	4450	182
KH5070PP	50	62	70	5500	6300	252

Seal type:

No entry	No seals
P	Seal on one side
PP	Seal on both sides

Flanged Linear Motion Ball Bearings Type Number Format

LM **F** **25** **L** **A** **UU**

Type	
LM	Metric dimension series most widely used in Asia
LME	Metric dimension series generally used in Europe
LMB	Inch dimension series used mainly in America

Flange Type	
Symbol	Specification
F	Round flange
K	Square flange
FM	Centered round flange
KM	Centered square flange
H	Two side cut flange
HM	Two side cut centered flange
FP	Pilot round type
KP	Pilot square flange
HP	Pilot two side cut flange

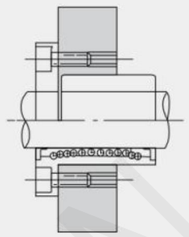
Seal	
Symbol	Specification
No entry	No seal
UU	Seals on one sides

A Nickel plated

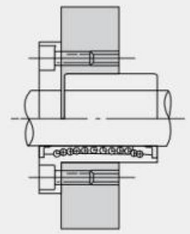
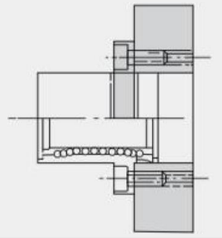
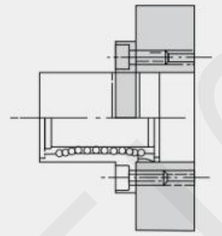
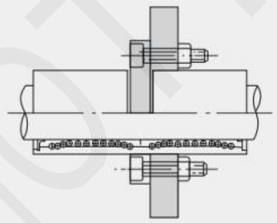
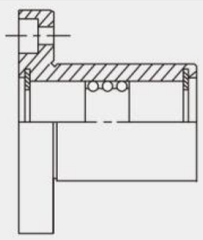
Double type

Nominal Shaft Diameter

Classifications of Flanged Linear Motion Ball Bearings No.(1)

Structure	Mounting example	Flange Type		Length
Standard Flange type 		LMF		Single
		LMK		Single
		LMH		Single

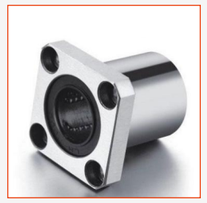
Classifications of Flanged Linear Motion Ball Bearings No.(2)

Structure	Mounting example	Flange Type		Length
Doubl-Wide Flanged type 		LMF···L		Double
		LMK···L		Double
		LMH···L		Double
Pilot Flanged type 		LMFP		Single
		LMKP		Single
		LMHP		Single
Double-Wide-Position-Pilot Flanged type 		LMFP···L		Double
		LMKP···L		Double
		LMHP···L		Double
Double-Wide-Middle Flanged type 		LMFM···L		Double
		LMKM···L		Double
		LMHM···L		Double
Flanged Stroke Bearing 		LBHR LBHRW		Single
		LBHS LBHSW		Single
		LBHC LBHCW		Single

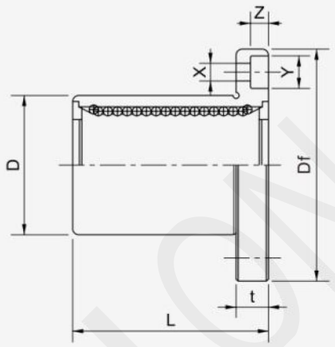
LMF LMK Series

LMF(K)···UU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

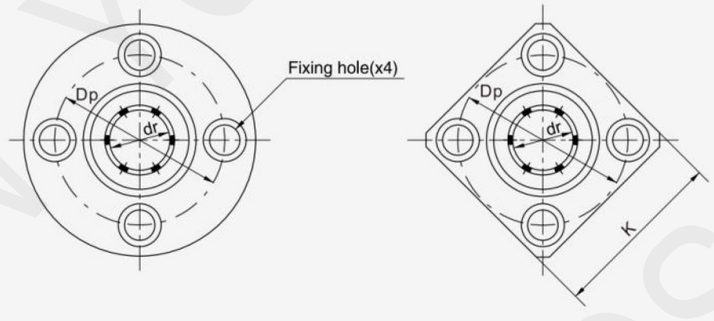
LMF···UU



LMK···UU



LMF···UU



LMK···UU

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMF···UU	Weight (g)	LMK···UU	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
5	LMF5UU	18	LMK5UU	13	5	0 -9	10	0 -11	15	±300
6	LMF6UU	24	LMK6UU	18	6		12		19	
8	LMF8SUU	32	LMK8SU	24	8		15		17	
8	LMF8UU	37	LMK8UU	29	8		15		24	
10	LMF10UU	72	LMK10UU	52	10		19	0 -13	29	
12	LMF12UU	76	LMK12UU	57	12		21		30	0 -200
13	LMF13UU	88	LMK13UU	72	13		23		32	
16	LMF16UU	120	LMK16UU	104	16		28		37	
20	LMF20UU	180	LMK20UU	145	20	0 -10	32	0 -16	42	0 -300
25	LMF25UU	340	LMK25UU	300	25		40		59	
30	LMF30UU	470	LMK30UU	375	30		45		64	
35	LMF35UU	650	LMK35UU	560	35	0 -12	52	0 -19	70	
40	LMF40UU	1060	LMK40UU	880	40		60		80	
50	LMF50UU	2200	LMK50UU	2000	50		80		100	
60	LMF60UU	3000	LMK60UU	2560	60	0 -15	90	0 -22	110	0 -400
80	LMF80UU	5800	LMK80UU	5300	80		120		140	
100	LMF100UU	10600	LMK100UU	9900	100	0 -20	150	0 -25	175	

Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
26	21	5	18	3.5	6	3.1	12	12	167	206
28	22	5	20	3.5	6	3.1			206	265
32	25	5	24	3.5	6	3.1			176	216
32	25	5	24	3.5	6	3.1			274	392
40	30	6	29	4.5	7.5	4.1			372	549
42	32	6	32	4.5	7.5	4.1			510	784
43	34	6	33	4.5	7.5	4.1			510	784
48	37	6	38	4.5	7.5	4.1			774	1180
54	42	8	43	5.5	9	5.1	15	15	882	1370
62	50	8	51	5.5	9	5.1			980	1570
74	58	10	60	6.6	11	6.1			1570	2740
82	64	10	67	6.6	11	6.1	20	20	1670	3140
96	75	13	78	9	14	8.1			2160	4020
116	92	13	98	9	14	8.1			3820	7940
134	106	18	112	11	17	11.1	25	25	4700	10000
164	136	18	142	11	17	11.1			7350	16000
200	170	20	175	14	20	13.1	30	30	14100	34800

SIUNIT:1N≈0.102kgf

Seal type:
LMF20 A UU

No entry	No seals
UU	Seal on one sides

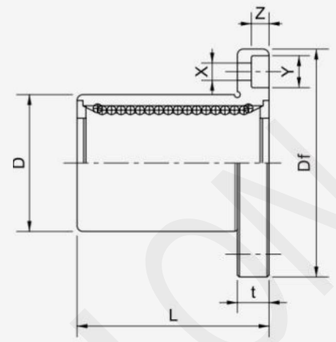
A Nickel plated

LMF(K)···GA Series

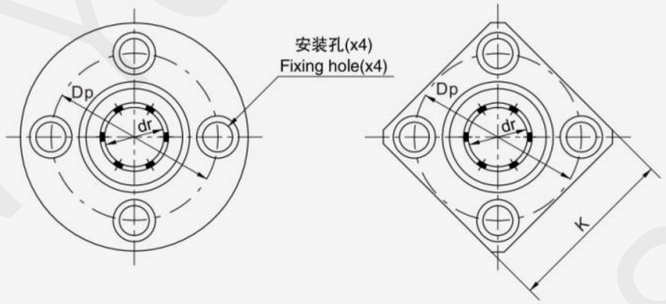
LMF(K)···GA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMF···GA

LMK···GA



LMF···GA



LMK···GA

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
	LMF···GA	Weight (g)	LMK···GA	Weight (g)	dr		D		L	
					mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
5	LMF5GA	19.5	LMK5GA	14.5	5	0 -9	10	0 -11	15	±300
6	LMF6GA	25.3	LMK6GA	19.3	6		12		19	
8	LMF8GA	39.3	LMK8GA	31.3	8		15		24	
10	LMF10GA	74.5	LMK10GA	54.5	10		19	0 -13	29	
12	LMF12GA	81.2	LMK12GA	62.2	12		21		30	0 -200
13	LMF13GA	95	LMK13GA	79	13		23		32	
16	LMF16GA	137	LMK16GA	121	16		28		37	
20	LMF20GA	205	LMK20GA	170	20	0 -10	32	0 -16	42	0 -300
25	LMF25GA	402	LMK25GA	362	25		40		59	
30	LMF30GA	546	LMK30GA	451	30		45		64	
35	LMF35GA	749	LMK35GA	659	35	0 -12	52	0 -19	70	
40	LMF40GA	1205	LMK40GA	1025	40		60		80	
50	LMF50GA	2200	LMK50GA	2000	50		80		100	
60	LMF60GA	3000	LMK60GA	2560	60	0 -15	90	0 -22	110	0 -400
80	LMF80GA	5800	LMK80GA	5300	80		120		140	
100	LMF100GA	10600	LMK100GA	9900	100	0 -20	150	0 -25	175	

Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
26	21	5	17	3.5	6	3.1	12	12	167	206
28	22	5	20	3.5	6	3.1			206	265
32	25	5	24	3.5	6	3.1			274	392
40	30	6	29	4.5	7.5	4.1			372	549
42	32	6	32	4.5	7.5	4.1			510	784
43	34	6	33	4.5	7.5	4.1			510	784
48	37	6	38	4.5	7.5	4.1			774	1180
54	42	8	43	5.5	9	5.1	15	15	882	1370
62	50	8	51	5.5	9	5.1			980	1570
74	58	10	60	6.6	11	6.1			1570	2740
82	64	10	67	6.6	11	6.1	20	20	1670	3140
96	75	13	78	9	14	8.1			2160	4020
116	92	13	98	9	14	8.1			3820	7940
134	106	18	112	11	17	11.1	25	25	4700	10000
164	136	18	142	11	17	11.1			7350	16000
200	170	20	175	14	20	13.1	30	30	14100	34800

SIUNIT:1N≈0.102kgf

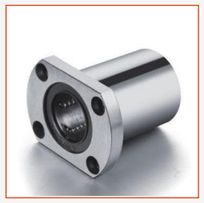
Seal type:
LM20 A GA

A Nickel plated

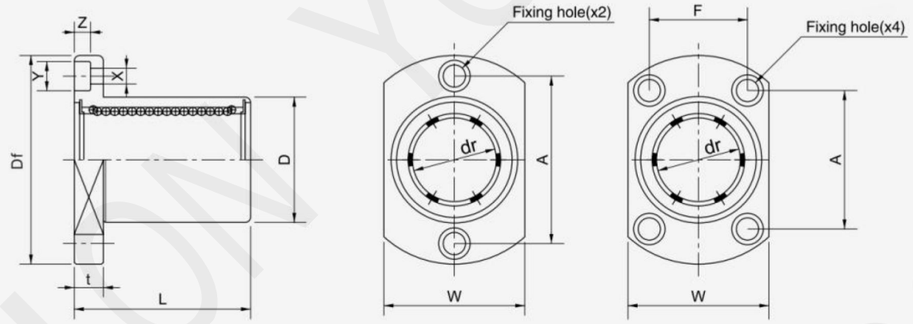
5-6	Alloy steel retainer
8-100	Cold-formed steel retainer

LMH Series

LMH (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



LMH···UU



LMH13 or Less　　LMH16 or More

Nominal shaft diameter mm	LMH···UU	Weight (g)	Major dimensions and tolerance						Eccentricity µm	Squareness µm	Basic load rating	
			dr		D		L					
			mm	Tolerance µm	mm	Tolerance µm	mm	Tolerance µm			Dynamic C N	Static Co N
5	LMH5UU	15	5	0 -9	10	0 -11	15	±300	12	12	167	206
6	LMH6UU	21	6		12		19				206	265
8	LMH8UU	33	8		15		24				274	392
10	LMH10UU	64	10		19	0 -13	29	0 -200			372	549
12	LMH12UU	68	12		21		30				510	784
13	LMH13UU	81	13		23		32				510	784
16	LMH16UU	112	16		28		37				774	1180
20	LMH20UU	167	20	0 -10	32	0 -16	42	0 -300	15	15	882	1370
25	LMH25UU	325	25		40		59				980	1570
30	LMH30UU	388	30		45		64				1570	2740
35	LMH35UU	580	35	0 -12	52	0 -19	70		20	20	1670	3140
40	LMH40UU	920	40		60		80				2160	4020
50	LMH50UU	2000	50		80		100				3820	7920
60	LMH60UU	2560	60		90		110				4700	10000

Major dimensions and tolerance								Eccentricity µm	Squareness µm	Basic load rating	
Flange											
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
26	16	5	17	——	3.5	6	3.1	12	12	167	206
28	18	5	20	——	3.5	6	3.1			206	265
32	21	5	24	——	3.5	6	3.1			274	392
40	25	6	29	——	4.5	7.5	4.1			372	549
42	27	6	32	——	4.5	7.5	4.1			510	784
43	29	6	33	——	4.5	7.5	4.1			510	784
48	34	6	31	22	4.5	7.5	4.1			774	1180
54	38	8	36	24	5.5	9	5.1	15	15	882	1370
62	46	8	40	32	5.5	9	5.1			980	1570
74	51	10	49	35	6.6	11	6.1			1570	2740
82	58	10	55	38	6.6	11	6.1	20	20	1670	3140
96	66	13	64	45	9	14	8.1			2160	4020
116	86	13	80	56	9	14	8.1			3820	7920
134	96	18	84	74	11	17	11.1			4700	10000

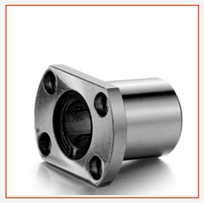
SIUNIT:1N≈0.102kgf

Seal type:
LMH20 A UU

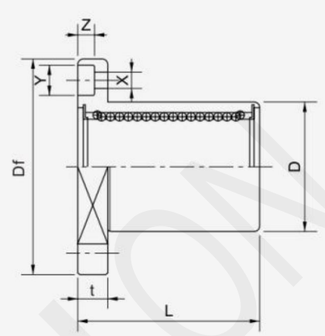
No entry	No seals
UU	Seal on one sides
A	Nickel plated

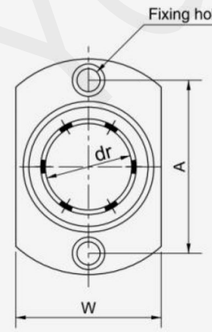
LMH···GA Series

LMH···GA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

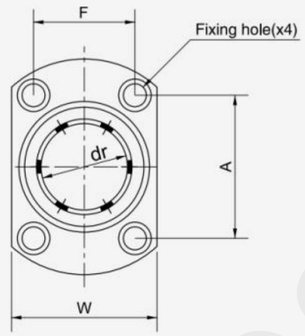


LMH···GA





LMH13 or Less



LMH16 or More

Nominal shaft diameter mm	LMH···GA	Weight (g)	Major dimensions and tolerance						Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
			dr		D		L		Flange											
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
5	LMH5GA	16.5	5	0 -9	10	0 -11	15	±300	26	16	5	17	——	3.5	6	3.1	12	12	167	206
6	LMH6GA	22.3	6		12		19		28	18	5	20	——	3.5	6	3.1			206	265
8	LMH8GA	35.3	8		15		24		32	21	5	24	——	3.5	6	3.1			274	392
10	LMH10GA	65.5	10		19	0 -13	29	0 -200	40	25	6	29	——	4.5	7.5	4.1			372	549
12	LMH12GA	73.2	12		21		30		42	27	6	32	——	4.5	7.5	4.1			510	784
13	LMH13GA	88	13		23		32		43	29	6	33	——	4.5	7.5	4.1			510	784
16	LMH16GA	129	16		28		37		48	34	6	31	22	4.5	7.5	4.1			774	1180
20	LMH20GA	192	20	0 -10	32	0 -16	42	0 -300	54	38	8	36	24	5.5	9	5.1	15	15	882	1370
25	LMH25GA	387	25		40		59		62	46	8	40	32	5.5	9	5.1			980	1570
30	LMH30GA	464	30		45		64		74	51	10	49	35	6.6	11	6.1			1570	2740
35	LMH35GA	679	35	0 -12	52	0 -19	70		82	58	10	55	38	6.6	11	6.1	20	20	1670	3140
40	LMH40GA	1065	40		60		80		96	66	13	64	45	9	14	8.1			2160	4020
50	LMH50GA	2000	50		80		100		116	86	13	80	56	9	14	8.1			3820	7940
60	LMH60GA	2560	60		90		110		134	96	18	84	74	11	17	11.1			4700	10000

SIUNIT:1N≈0.102kgf

Seal type:
LMH20 A GA

A Nickel plated

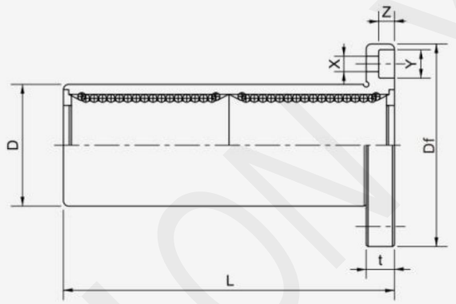
5-6	Alloy steel retainer
8-60	Cold-formed steel retainer

LMF(K)···L Series

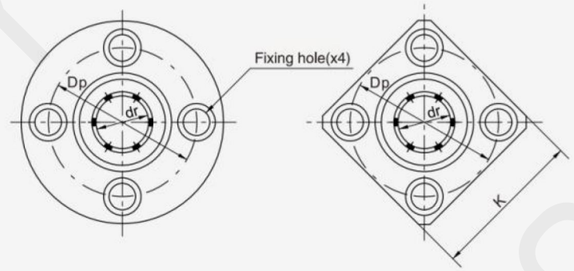
LMF(K)···LUU (Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMF···LUU

LMK···LUU



LMF···LUU



LMK···LUU

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
	LMF···LUU	Weight (g)	LMK···LUU	Weight (g)	dr		D		L	
					mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
5	LMF5LUU	24	LMK5LUU	19	5	0 -10	10	0 -13	28	±300
6	LMF6LUU	31	LMK6LUU	25	6		12		35	
8	LMF8LUU	51	LMK8LUU	43	8		15		45	
10	LMF10LUU	98	LMK10LUU	78	10		19		55	
12	LMF12LUU	110	LMK12LUU	90	12		21	0 -16	57	0 -300
13	LMF13LUU	130	LMK13LUU	108	13		23		61	
16	LMF16LUU	190	LMK16LUU	165	16		28		70	
20	LMF20LUU	260	LMK20LUU	225	20	0 -12	32	0 -19	80	0 -400
25	LMF25LUU	540	LMK25LUU	500	25		40		112	
30	LMF30LUU	680	LMK30LUU	590	30		45		123	
35	LMF35LUU	1020	LMK35LUU	930	35	0 -15	52	0 -22	135	
40	LMF40LUU	1570	LMK40LUU	1380	40		60		151	
50	LMF50LUU	3600	LMK50LUU	3400	50		80		192	
60	LMF60LUU	4500	LMK60LUU	4060	60	0 -20	90	0 -25	209	
80	LMF80LUU	9090	LMK80LUU	8590	80		120		265	

Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
26	21	5	17	3.5	6	3.1	15	15	261	412
28	22	5	20	3.5	6	3.1			323	529
32	25	5	24	3.5	6	3.1			431	784
40	30	6	29	4.5	7.5	4.1			588	1100
42	32	6	32	4.5	7.5	4.1			813	1570
43	34	6	33	4.5	7.5	4.1			813	1570
48	37	6	38	4.5	7.5	4.1			1230	2350
54	42	8	43	5.5	9	5.1	20	20	1400	2740
62	50	8	51	5.5	9	5.1			1560	3140
74	58	10	60	6.6	11	6.1			2490	5490
82	64	10	67	6.6	11	6.1	25	25	2650	6270
96	75	13	78	9	14	8.1			3430	8040
116	92	13	98	9	14	8.1			6080	15900
134	106	18	112	11	17	11.1	30	30	7550	20000
164	136	18	142	11	17	11.1			11500	32000

SIUNIT:1N≈0.102kgf

Seal type:
LMF20 L A UU

No entry	No seals
UU	Seal on one sides

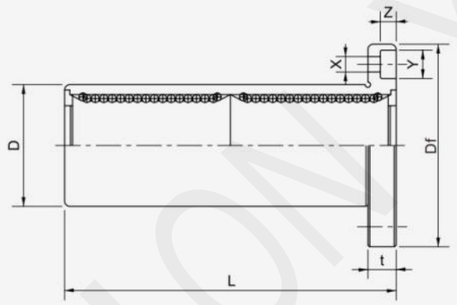
A Nickel plated

LMH(K)···LGA Series

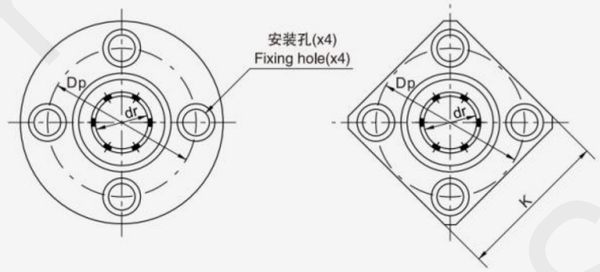
LMF(K)···LGA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMF···LGA

LMK···LGA



LMF···LGA



LMK···LGA

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMF···LGA	Weight (g)	LMK···LGA	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
5	LMF5LGA	27	LMK5LGA	22	5	0 -10	10	0 -13	28	±300
6	LMF6LGA	33.6	LMK6LGA	27.6	6		12		35	
8	LMF8LGA	55.6	LMK8LGA	47.6	8		15		45	
10	LMF10LGA	103	LMK10LGA	83	10		19		55	
12	LMF12LGA	120.4	LMK12LGA	100.4	12		21	0 -16	57	0 -300
13	LMF13LGA	144	LMK13LGA	122	13		23		61	
16	LMF16LGA	224	LMK16LGA	199	16		28		70	
20	LMF20LGA	310	LMK20LGA	275	20	0 -12	32	0 -19	80	
25	LMF25LGA	664	LMK25LGA	624	25		40		112	0 -400
30	LMF30LGA	832	LMK30LGA	742	30		45		123	
35	LMF35LGA	1218	LMK35LGA	1128	35	0 -15	52	0 -22	135	
40	LMF40LGA	1860	LMK40LGA	1670	40		60		151	
50	LMF50LGA	3600	LMK50LGA	3400	50		80		192	
60	LMF60LGA	4500	LMK60LGA	4060	60	0 -20	90	0 -25	209	
80	LMF80LGA	9090	LMK80LGA	8590	80		120		265	

Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
26	21	5	17	3.5	6	3.1	15	15	261	412
28	22	5	20	3.5	6	3.1			323	529
32	25	5	24	3.5	6	3.1			431	784
40	30	6	29	4.5	7.5	4.1			588	1100
42	32	6	32	4.5	7.5	4.1			813	1570
43	34	6	33	4.5	7.5	4.1			813	1570
48	37	6	38	4.5	7.5	4.1			1230	2350
54	42	8	43	5.5	9	5.1	20	20	1400	2740
62	50	8	51	5.5	9	5.1			1560	3140
74	58	10	60	6.6	11	6.1			2490	5490
82	64	10	67	6.6	11	6.1	25	25	2650	6270
96	75	13	78	9	14	8.1			3430	8040
116	92	13	98	9	14	8.1			6080	15900
134	106	18	112	11	17	11.1	30	30	7550	20000
164	136	18	142	11	17	11.1			11500	32000

SIUNIT:1N≈0.102kgf

Seal type:
LMF20 L A GA

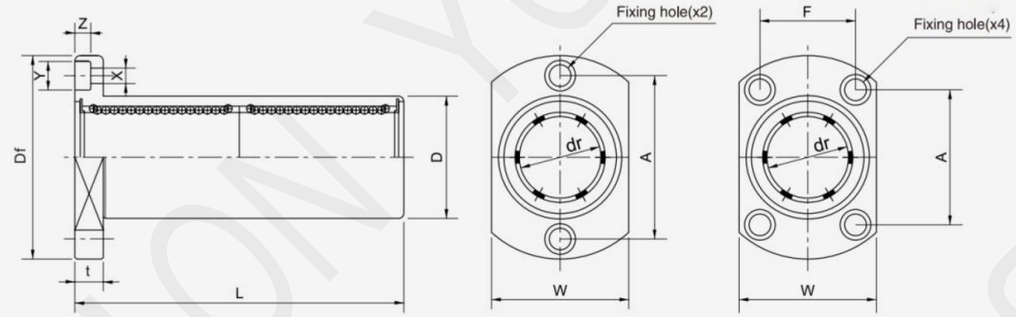
A Nickel plated

5-6	Alloy steel retainer
8-80	Cold-formed steel retainer

LMH···L Series

LMH···LUU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMH···LUU



LMH13 or Less　　LMH16 or More

Nominal shaft diameter mm	LMH···LUU	Weight (g)	Major dimensions and tolerance						Eccentricity μm	Squareness μm	Basic load rating	
			dr		D		L					
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm			Dynamic C N	Static Co N
5	LMH5LUU	21	5	0 -10	10	0 -13	28	±300	15	15	261	412
6	LMH6LUU	28	6		12		35				323	529
8	LMH8LUU	47	8		15		45				431	784
10	LMH10LUU	90	10		19	0 -16	55				588	1100
12	LMH12LUU	102	12		21		57	0 -300			813	1570
13	LMH13LUU	123	13		23		61				813	1570
16	LMH16LUU	182	16		28		70				1230	2350
20	LMH20LUU	247	20	0 -12	32	0 -19	80	0 -400	20	20	1400	2740
25	LMH25LUU	525	25		40		112				1560	3140
30	LMH30LUU	645	30		45		123				2490	5490
35	LMH35LUU	950	35	0 -15	52	0 -22	135		25	25	2650	6270
40	LMH40LUU	1450	40		60		151				3430	8040
50	LMH50LUU	3437	50	0 -20	80	0 -25	192				6860	15900
60	LMH60LUU	4060	60		90		209				7550	20000

Major dimensions and tolerance								
Flange								
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm	
26	16	5	17	——	3.5	6	3.1	
28	18	5	20	——	3.5	6	3.1	
32	21	5	24	——	3.5	6	3.1	
40	25	6	29	——	4.5	7.5	4.1	
42	27	6	32	——	4.5	7.5	4.1	
43	29	6	33	——	4.5	7.5	4.1	
48	34	6	31	22	4.5	7.5	4.1	
54	38	8	36	24	5.5	9	5.1	
62	46	8	40	32	5.5	9	5.1	
74	51	10	49	35	6.6	11	6.1	
82	58	10	55	38	6.6	11	6.1	
96	66	13	64	45	9	14	8.1	
116	86	13	80	56	9	14	8.1	
134	96	18	84	74	11	17	11.1	

Seal type:
LMH20 L A UU

No entry	No seals
UU	Seal on one sides

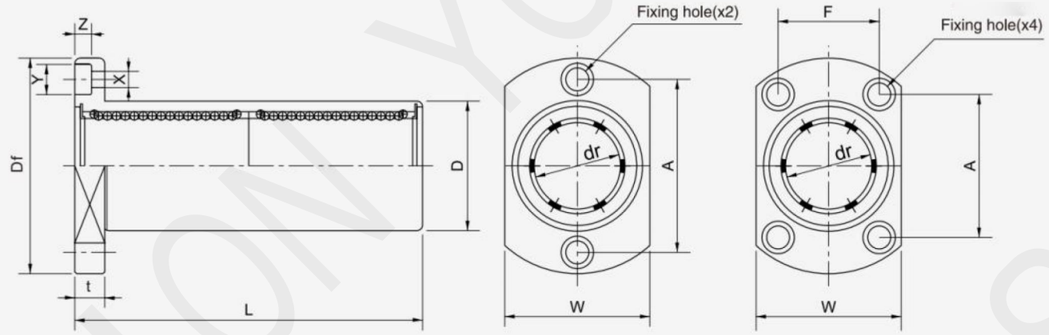
A　Nickel plated

SIUNIT:1N≈0.102kgf

LMH···LGA Series

LMH···LGA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMH···LGA



LMH13 or Less　　LMH16 or More

Nominal shaft diameter mm	LMH···LGA	Weight (g)	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
5	LMH5LGA	24	5	0 -10	10	0 -13	28	±300
6	LMH6LGA	30.6	6		12		35	
8	LMH8LGA	51.6	8		15		45	
10	LMH10LGA	95	10		19	0 -16	55	
12	LMH12LGA	112.4	12		21		57	0 -300
13	LMH13LGA	137	13		23		61	
16	LMH16LGA	216	16		28		70	
20	LMH20LGA	297	20	0 -12	32	0 -19	80	0 -400
25	LMH25LGA	649	25		40		112	
30	LMH30LGA	797	30		45		123	
35	LMH35LGA	1148	35	0 -15	52	0 -22	135	
40	LMH40LGA	1740	40		60		151	
50	LMH50LGA	3437	50		80		192	
60	LMH60LGA	4060	60		90		209	

Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
26	16	5	17	——	3.5	6	3.1	15	15	261	412
28	18	5	20	——	3.5	6	3.1			323	529
32	21	5	24	——	3.5	6	3.1			431	784
40	25	6	29	——	4.5	7.5	4.1			588	1100
42	27	6	32	——	4.5	7.5	4.1			813	1570
43	29	6	33	——	4.5	7.5	4.1			813	1570
48	34	6	31	22	4.5	7.5	4.1			1230	2350
54	38	8	36	24	5.5	9	5.1	20	20	1400	2740
62	46	8	40	32	5.5	9	5.1			1560	3140
74	51	10	49	35	6.6	11	6.1			2490	5490
82	58	10	55	38	6.6	11	6.1	25	25	2650	6270
96	66	13	64	45	9	14	8.1			3430	8040
116	86	13	80	56	9	14	8.1			6860	15900
134	96	18	84	74	11	17	11.1			7550	20000

SIUNIT:1N≈0.102kgf

Seal type:
LMH20 L A GA

A	Nickel plated

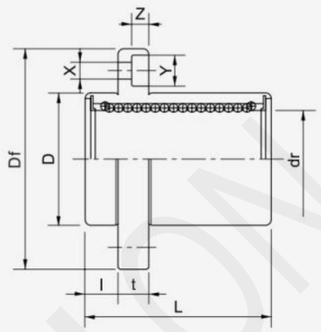
5-6	Alloy steel retainer
8-60	Cold-formed steel retainer

LMF(K)P Series

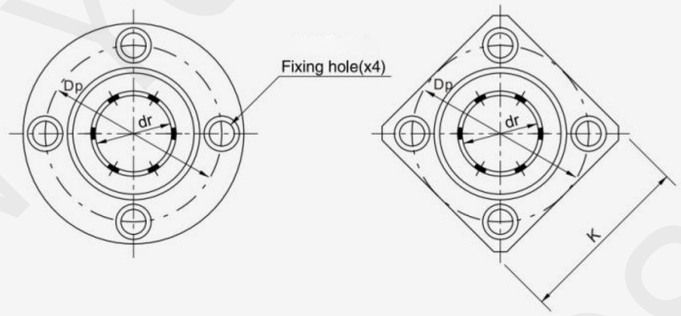
LMF(K)P···UU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMFP···UU

LMKP···UU



LMFP···UU



LMKP···UU

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMFP···UU	Weight (g)	LMKP···UU	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMFP6UU	24	LMKP6UU	18	6	0 -9	12	0 -13	19	±300
8	LMFP8UU	37	LMKP8UU	29	8		15		24	
10	LMFP10UU	72	LMKP10UU	52	10		19		29	
12	LMFP12UU	76	LMKP12UU	57	12		21	0 -16	30	0 -200
13	LMFP13UU	88	LMKP13UU	72	13		23		32	
16	LMFP16UU	120	LMKP16UU	104	16		28		37	
20	LMFP20UU	180	LMKP20UU	145	20	0 -10	32	0 -19	42	0 -300
25	LMFP25UU	340	LMKP25UU	300	25		40		59	
30	LMFP30UU	470	LMKP30UU	375	30		45		64	
35	LMFP35UU	650	LMKP35UU	560	35	0 -12	52	0 -22	70	
40	LMFP40UU	1060	LMKP40UU	880	40		60		80	
50	LMFP50UU	2200	LMKP50UU	2000	50		80		100	
60	LMFP60UU	3000	LMKP60UU	2560	60	0 -15	90	0 -25	110	

Seal type:
LMFP20 A UU

No entry	No seals
UU	Seal on one sides

A Nickel plated

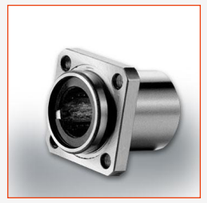
Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
5	28	22	5	20	3.5	6	3.1		12	12	206	265
5	32	25	5	24	3.5	6	3.1				274	392
6	40	30	6	29	4.5	7.5	4.1				372	549
6	42	32	6	32	4.5	7.5	4.1				510	784
6	43	34	6	33	4.5	7.5	4.1				510	784
6	48	37	6	38	4.5	7.5	4.1				774	1180
8	54	42	8	43	5.5	9	5.1		15	15	882	1370
8	62	50	8	51	5.5	9	5.1				980	1570
10	74	58	10	60	6.6	11	6.1				1570	2740
10	82	64	10	67	6.6	11	6.1		20	20	1670	3140
13	96	75	13	78	9	14	8.1				2160	4020
13	116	92	13	98	9	14	8.1				3820	7940
18	134	106	18	112	11	17	11.1		25	25	4700	10000

SIUNIT:1N≈0.102kgf

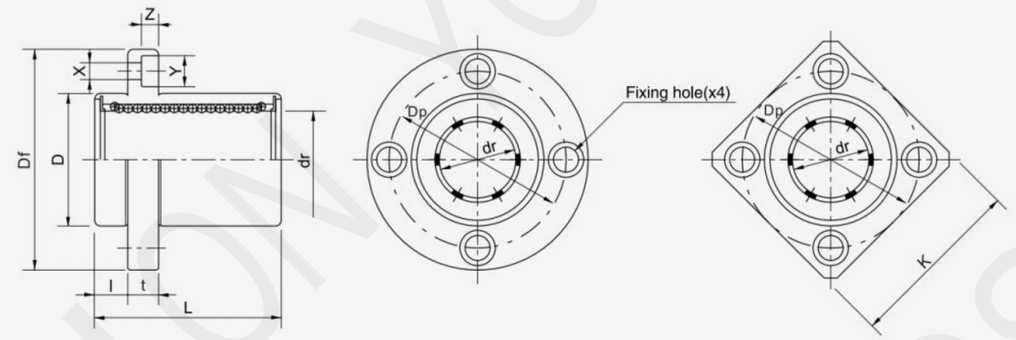
LMF(K)P···GA Series

LMF(K)P···GA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMFP···GA



LMKP···GA



LMFP···GA

LMKP···GA

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMFP···GA	Weight (g)	LMKP···GA	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMFP6GA	25.3	LMKP6GA	19.3	6	0 -9	12	0 -13	19	±300
8	LMFP8GA	39.3	LMKP8GA	31.3	8		15		24	
10	LMFP10GA	74.5	LMKP10GA	54.5	10		19		29	
12	LMFP12GA	81.2	LMKP12GA	62.2	12		21	0 -16	30	0 -200
13	LMFP13GA	95	LMKP13GA	79	13		23		32	
16	LMFP16GA	137	LMKP16GA	121	16		28		37	
20	LMFP20GA	205	LMKP20GA	170	20	0 -10	32	0 -19	42	0 -300
25	LMFP25GA	402	LMKP25GA	362	25		40		59	
30	LMFP30GA	546	LMKP30GA	451	30		45		64	
35	LMFP35GA	789	LMKP35GA	659	35	0 -12	52	0 -22	70	
40	LMFP40GA	1205	LMKP40GA	1025	40		60		80	
50	LMFP50GA	2200	LMKP50GA	2000	50		80		100	
60	LMFP60GA	3000	LMKP60GA	2560	60	0 -15	90	0 -25	110	

Seal type:
LMFP20 A GA

A Nickel plated

5-6	Alloy steel retainer
8-60	Cold-formed steel retainer

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
5	28	22	5	20	3.5	6	3.1				206	265
5	32	25	5	24	3.5	6	3.1				274	392
6	40	30	6	29	4.5	7.5	4.1		12	12	372	549
6	42	32	6	32	4.5	7.5	4.1				510	784
6	43	34	6	33	4.5	7.5	4.1				510	784
6	48	37	6	38	4.5	7.5	4.1				774	1180
8	54	42	8	43	5.5	9	5.1		15	15	882	1370
8	62	50	8	51	5.5	9	5.1				980	1570
10	74	58	10	60	6.6	11	6.1				1570	2740
10	82	64	10	67	6.6	11	6.1		20	20	1670	3140
13	96	75	13	78	9	14	8.1				2160	4020
13	116	92	13	98	9	14	8.1				3820	7940
18	134	106	18	112	11	17	11.1		25	25	4700	10000

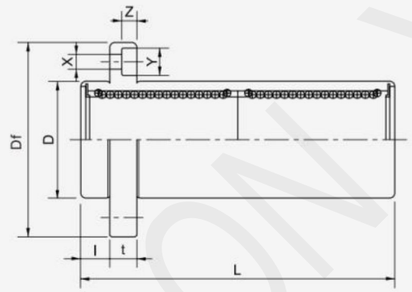
SIUNIT:1N≈0.102kgf

LMF(K)P···LUU Series

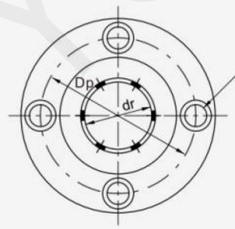
LMF(K)P···LUU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMFP···LUU

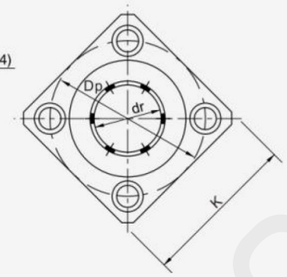
LMKP···LUU



LMFP···LUU



LMFP···LUU



LMKP···LUU

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMFP···LUU	Weight (g)	LMKP···LUU	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMFP6LUU	31	LMKP6LUU	25	6	0 -10	12	0 -13	35	±300
8	LMFP8LUU	51	LMKP8LUU	43	8		15		45	
10	LMFP10LUU	98	LMKP10LUU	78	10		19		55	
12	LMFP12LUU	110	LMKP12LUU	90	12		21	0 -16	57	0 -300
13	LMFP13LUU	130	LMKP13LUU	108	13		23		61	
16	LMFP16LUU	190	LMKP16LUU	165	16		28		70	
20	LMFP20LUU	260	LMKP20LUU	225	20	0 -12	32	0 -19	80	0 -400
25	LMFP25LUU	540	LMKP25LUU	500	25		40		112	
30	LMFP30LUU	680	LMKP30LUU	590	30		45		123	
35	LMFP35LUU	1020	LMKP35LUU	930	35	0 -15	52	0 -22	135	
40	LMFP40LUU	1570	LMKP40LUU	1380	40		60		151	
50	LMFP50LUU	3600	LMKP50LUU	3400	50		80		192	
60	LMFP60LUU	4500	LMKP60LUU	4060	60	0 -20	90	0 -25	209	

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
5	28	22	5	20	3.5	6	3.1		15	15	323	529
5	32	25	5	24	3.5	6	3.1				431	781
6	40	30	6	29	4.5	7.5	4.1				588	1100
6	42	32	6	32	4.5	7.5	4.1				813	1570
6	43	34	6	33	4.5	7.5	4.1				813	1570
6	48	37	6	38	4.5	7.5	4.1				1230	2350
8	54	42	8	43	5.5	9	5.1		20	20	1400	2740
8	62	50	8	51	5.5	9	5.1				1560	3140
10	74	58	10	60	6.6	11	6.1				2490	5490
10	82	64	10	67	6.6	11	6.1		25	25	2650	6270
13	96	75	13	78	9	14	8.1				3430	8040
13	116	92	13	98	9	14	8.1				6080	15900
18	134	106	18	112	11	17	11.1		30	30	7550	20000

SIUNIT:1N≈0.102kgf

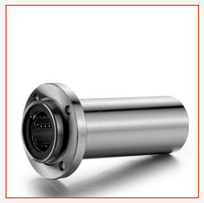
Seal type:
LMFP20 L A UU

No entry	No seals
UU	Seal on one sides

A Nickel plated

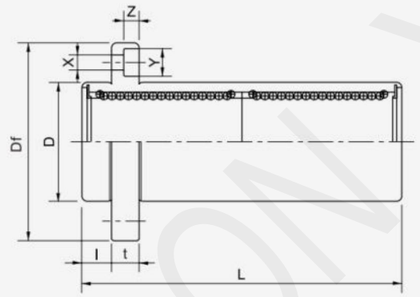
LMF(K)P···LGA Series

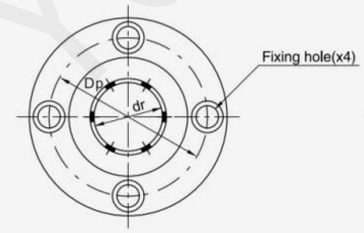
LMF(K)P···LGA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



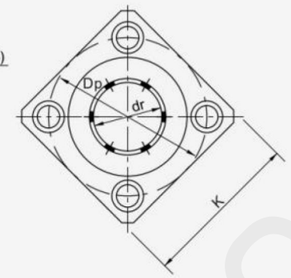
LMFP···LGA

LMKP···LGA





LMFP···LGA



LMKP···LGA

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMFP···LGA	Weight (g)	LMKP···LGA	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMFP6LGA	33.6	LMKP6LGA	27.6	6	0 -10	12	0 -13	35	±300
8	LMFP8LGA	55.6	LMKP8LGA	47.6	8		15		45	
10	LMFP10LGA	103	LMKP10LGA	83	10		19		55	
12	LMFP12LGA	120.4	LMKP12LGA	100.4	12		21	0 -16	57	0 -300
13	LMFP13LGA	144	LMKP13LGA	122	13		23		61	
16	LMFP16LGA	224	LMKP16LGA	199	16		28		70	
20	LMFP20LGA	310	LMKP20LGA	275	20	0 -12	32	0 -19	80	0 -400
25	LMFP25LGA	664	LMKP25LGA	624	25		40		112	
30	LMFP30LGA	832	LMKP30LGA	742	30		45		123	
35	LMFP35LGA	1218	LMKP35LGA	1128	35	0 -15	52	0 -22	135	
40	LMFP40LGA	1860	LMKP40LGA	1670	40		60		151	
50	LMFP50LGA	3600	LMKP50LGA	3400	50		80		192	
60	LMFP60LGA	4500	LMKP60LGA	4060	60	0 -20	90	0 -25	209	

Seal type:
LMFP20 L A GA

A Nickel plated

5-6	Alloy steel retainer
8-60	Cold-formed steel retainer

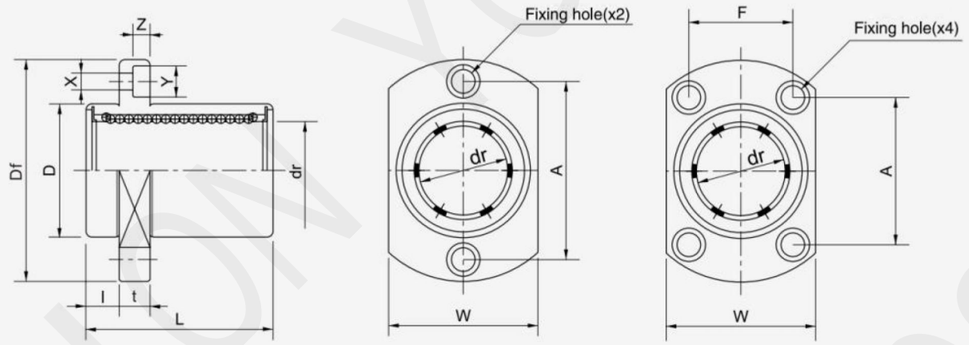
Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
5	28	22	5	20	3.5	6	3.1		15	15	323	529
5	32	25	5	24	3.5	6	3.1				431	781
6	40	30	6	29	4.5	7.5	4.1				588	1100
6	42	32	6	32	4.5	7.5	4.1				813	1570
6	43	34	6	33	4.5	7.5	4.1				813	1570
6	48	37	6	38	4.5	7.5	4.1				1230	2350
8	54	42	8	43	5.5	9	5.1		20	20	1400	2740
8	62	50	8	51	5.5	9	5.1				1560	3140
10	74	58	10	60	6.6	11	6.1				2490	5490
10	82	64	10	67	6.6	11	6.1		25	25	2650	6270
13	96	75	13	78	9	14	8.1				3430	8040
13	116	92	13	98	9	14	8.1				6080	15900
18	134	106	18	112	11	17	11.1		30	30	7550	20000

SIUNIT:1N≈0.102kgf

LMHP Series

LMHP (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHP···UU



LMHP13 or Less　　LMHP16 or More

Nominal shaft diameter mm	LMHP···UU	Weight (g)	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMHP6UU	21	6	0 -9	12	0 -13	19	±300
8	LMHP8UU	33	8		15		24	
10	LMHP10UU	64	10		19	0 -16	29	0 -200
12	LMHP12UU	68	12		21		30	
13	LMHP13UU	81	13		23		32	
16	LMHP16UU	112	16		28		37	
20	LMHP20UU	167	20	0 -10	32	0 -19	42	0 -300
25	LMHP25UU	325	25		40		59	
30	LMHP30UU	388	30		45		64	
35	LMHP35UU	580	35	0 -12	52	0 -22	70	
40	LMHP40UU	920	40		60		80	
50	LMHP50UU	2037	50		80		100	

Seal type:
LMHP20 A UU

No entry	No seals
UU	Seal on one sides

A　Nickel plated

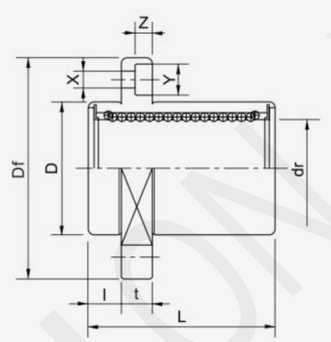
Major dimensions and tolerance										Eccentricity μm	Squareness μm	Basic load rating	
Flange													
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
5	28	18	5	20	——	3.5	6	3.1				206	265
5	32	21	5	24	——	3.5	6	3.1				274	392
6	40	25	6	29	——	4.5	7.5	4.1		12	12	372	549
6	42	27	6	32	——	4.5	7.5	4.1				510	784
6	43	29	6	33	——	4.5	7.5	4.1				510	784
6	48	34	6	31	22	4.5	7.5	4.1				774	1180
8	54	38	8	36	24	5.5	9	5.1		15	15	882	1370
8	62	46	8	40	32	5.5	9	5.1				980	1570
10	74	51	10	49	35	6.6	11	6.1				1570	2740
10	82	58	10	55	38	6.6	11	6.1		20	20	1670	3140
13	96	66	13	64	45	9	14	8.1				2160	4020
13	116	86	13	80	56	9	14	8.1				3820	7940

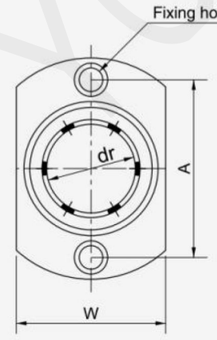
SIUNIT:1N≈0.102kgf

LMHP···GA Series

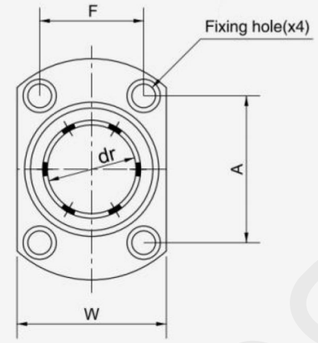
LMHP···GA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHP···GA





LMHP13 or Less



LMHP16 or More

Nominal shaft diameter mm	LMHP···GA	Weight (g)	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMHP6GA	22.3	6	0 -9	12	0 -13	19	±300
8	LMHP8GA	35.3	8		15		24	
10	LMHP10GA	65.5	10		19	0 -16	29	
12	LMHP12GA	73.2	12		21		30	0 -200
13	LMHP13GA	88	13		23		32	
16	LMHP16GA	129	16		28		37	
20	LMHP20GA	192	20	0 -10	32	0 -19	42	0 -300
25	LMHP25GA	387	25		40		59	
30	LMHP30GA	464	30		45		64	
35	LMHP35GA	679	35	0 -12	52	0 -22	70	
40	LMHP40GA	1065	40		60		80	
50	LMHP50GA	2037	50		80		100	

Major dimensions and tolerance										Eccentricity μm	Squareness μm	Basic load rating	
Flange													
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
5	28	18	5	20	——	3.5	6	3.1				206	265
5	32	21	5	24	——	3.5	6	3.1				274	392
6	40	25	6	29	——	4.5	7.5	4.1		12	12	372	549
6	42	27	6	32	——	4.5	7.5	4.1				510	784
6	43	29	6	33	——	4.5	7.5	4.1				510	784
6	48	34	6	31	22	4.5	7.5	4.1				774	1180
8	54	38	8	36	24	5.5	9	5.1		15	15	882	1370
8	62	46	8	40	32	5.5	9	5.1				980	1570
10	74	51	10	49	35	6.6	11	6.1				1570	2740
10	82	58	10	55	38	6.6	11	6.1		20	20	1670	3140
13	96	66	13	64	45	9	14	8.1				2160	4020
13	116	86	13	80	56	9	14	8.1				3820	7940

SIUNIT:1N≈0.102kgf

Seal type:
LMFP20 L A GA

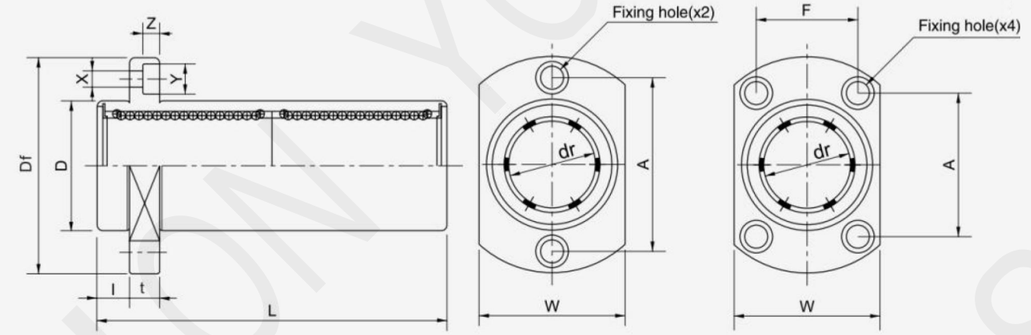
A Nickel plated

5-6	Alloy steel retainer
8-50	Cold-formed steel retainer

LMHP···LUU Series

LMHP···LUU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHP···LUU



LMHP13 or Less　　LMHP16 or More

Nominal shaft diameter mm	LMHP···LUU	Weight (g)	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMHP6LUU	28	6	0 -10	12	0 -13	35	±300
8	LMHP8LUU	47	8		15		45	
10	LMHP10LUU	90	10		19	0 -16	55	
12	LMHP12LUU	102	12		21		57	0 -300
13	LMHP13LUU	123	13		23		61	
16	LMHP16LUU	182	16		28		70	
20	LMHP20LUU	247	20	0 -12	32	0 -19	80	
25	LMHP25LUU	525	25		40		112	0 -400
30	LMHP30LUU	645	30		45		123	
35	LMFP35LUU	950	35	0 -15	52	0 -22	135	
40	LMHP40LUU	1450	40		60		151	
50	LMHP50LUU	3437	50		80		192	

Major dimensions and tolerance										Eccentricity μm	Squareness μm	Basic load rating	
Flange													
I mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
5	28	18	5	20	——	3.5	6	3.1				323	529
5	32	21	5	24	——	3.5	6	3.1				431	784
6	40	25	6	29	——	4.5	7.5	4.1		15	15	588	1100
6	42	27	6	32	——	4.5	7.5	4.1				813	1570
6	43	29	6	33	——	4.5	7.5	4.1				813	1570
6	48	34	6	31	22	4.5	7.5	4.1				1230	2350
8	54	38	8	36	24	5.5	9	5.1		20	20	1400	2740
8	62	46	8	40	32	5.5	9	5.1				1560	3140
10	74	51	10	49	35	6.6	11	6.1				2490	5490
10	82	58	10	55	38	6.6	11	6.1		25	25	2650	6270
13	96	66	13	64	45	9	14	8.1				3430	8040
13	116	86	13	80	56	9	14	8.1				6080	15900

SIUNIT:1N≈0.102kgf

Seal type:
LMHP20 L A UU

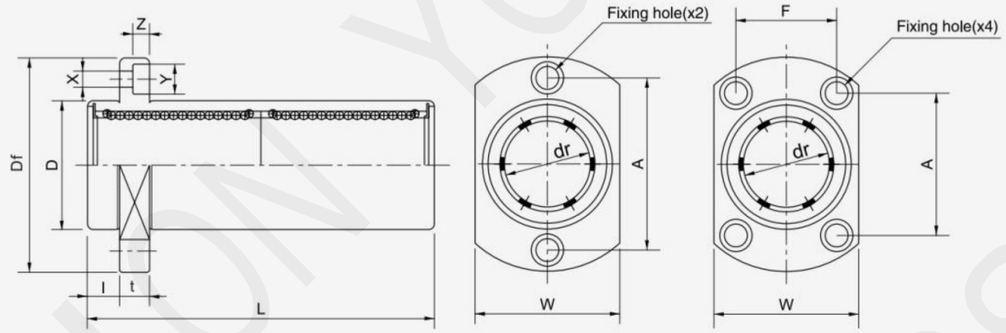
No entry	No seals
UU	Seal on one sides

A　Nickel plated

LMHP···LGA Series

LMHP···LGA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHP···LGA



LMHP13 or Less　　LMHP16 or More

Nominal shaft diameter mm	LMHP···LGA	Weight (g)	Major dimensions and tolerance						Eccentricity μm	Squareness μm	Basic load rating	
			dr		D		L					
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm			Dynamic C N	Static Co N
6	LMHP6LGA	30.6	6	0 -10	12	0 -13	35	±300	5	28	18	5	20	—	3.5	6	3.1			323	529
8	LMHP8LGA	51.6	8		15		45		5	32	21	5	24	—	3.5	6	3.1			431	784
10	LMHP10LGA	95	10		19	0 -16	55	0 -300	6	40	25	6	29	—	4.5	7.5	4.1	15	15	588	1100
12	LMHP12LGA	112.4	12		21		57		6	42	27	6	32	—	4.5	7.5	4.1			813	1570
13	LMHP13LGA	137	13		23		61		6	43	29	6	33	—	4.5	7.5	4.1			813	1570
16	LMHP16LGA	216	16		28		70		6	48	34	6	31	22	4.5	7.5	4.1			1230	2350
20	LMHP20LGA	297	20	0 -12	32	0 -19	80	0 -400	8	54	38	8	36	24	5.5	9	5.1	20	20	1400	2740
25	LMHP25LGA	649	25		40		112		8	62	46	8	40	32	5.5	9	5.1			1560	3140
30	LMHP30LGA	797	30		45		123		10	74	51	10	49	35	6.6	11	6.1			2490	5490
35	LMFP35LGA	1148	35	0 -15	52	0 -22	135		10	82	58	10	55	38	6.6	11	6.1	25	25	2650	6270
40	LMHP40LGA	1740	40		60		151		13	96	66	13	64	45	9	14	8.1			3430	8040
50	LMHP50LGA	3437	50		80		192		13	116	86	13	80	56	9	14	8.1			6080	15900

SIUNIT:1N≈0.102kgf

Seal type:
LMHP20 L A GA

A　Nickel plated

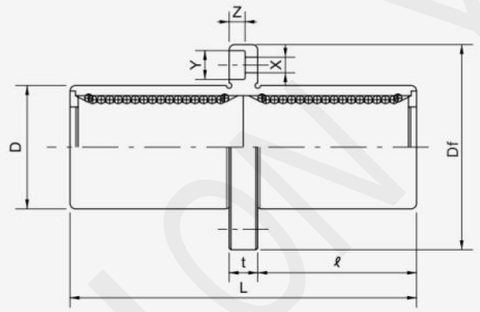
5-6	Alloy steel retainer
8-50	Cold-formed steel retainer

LMF(K)M···LUU Series

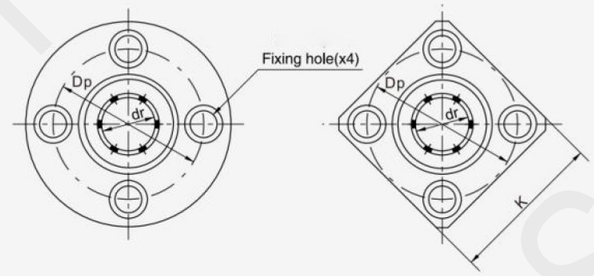
LMF(K)M···LUU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMFM···LUU

LMKM···LUU



LMFM···LUU



LMKM···LUU

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMFM···LUU	Weight (g)	LMKM···LUU	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMFM6LUU	31	LMKM6LUU	25	6	0 -10	12	0 -13	35	±300
8	LMFM8LUU	51	LMKM8LUU	43	8		15		45	
10	LMFM10LUU	98	LMKM10LUU	78	10		19		55	
12	LMFM12LUU	110	LMKM12LUU	90	12		21	0 -16	57	0 -300
13	LMFM13LUU	130	LMKM13LUU	108	13		23		61	
16	LMFM16LUU	190	LMKM16LUU	165	16		28		70	
20	LMFM20LUU	260	LMKM20LUU	225	20	0 -12	32	0 -19	80	0 -400
25	LMFM25LUU	540	LMKM25LUU	500	25		40		112	
30	LMFM30LUU	680	LMKM30LUU	590	30		45		123	
35	LMFM35LUU	1020	LMKM35LUU	930	35	0 -15	52	0 -22	135	
40	LMFM40LUU	1570	LMKM40LUU	1380	40		60		151	
50	LMFM50LUU	3600	LMKM50LUU	3400	50		80		192	
60	LMFM60LUU	4500	LMKM60LUU	4060	60	0 -20	90	0 -25	209	

Seal type:
LMFM20 L A UU

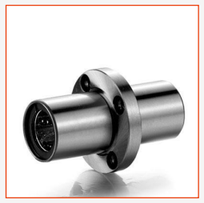
No entry	No seals
UU	Seal on one sides
A	Nickel plated

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
ℓ mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
15	28	22	5	20	3.5	6	3.1				323	529
20	32	25	5	24	3.5	6	3.1				431	781
24.5	40	30	6	29	4.5	7.5	4.1		15	15	588	1100
25.5	42	32	6	32	4.5	7.5	4.1				813	1570
27.5	43	34	6	33	4.5	7.5	4.1				813	1570
32	48	37	6	38	4.5	7.5	4.1				1230	2350
36	54	42	8	43	5.5	9	5.1				1400	2740
52	62	50	8	51	5.5	9	5.1		20	20	1560	3140
56.5	74	58	10	60	6.6	11	6.1				2490	5490
62.5	82	64	10	67	6.6	11	6.1				2650	6270
69	96	75	13	78	9	14	8.1		25	25	3430	8040
89.5	116	92	13	98	9	14	8.1				6080	15900
95.5	134	106	18	112	11	17	11.1		30	30	7550	20000

SIUNIT:1N≈0.102kgf

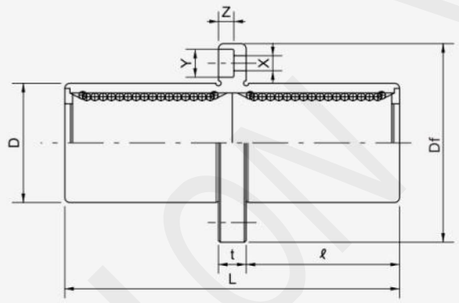
LMF(K)M···LGA Series

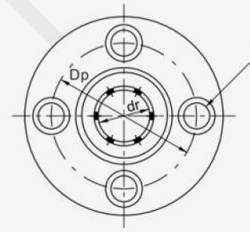
LMF(K)M···LGA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



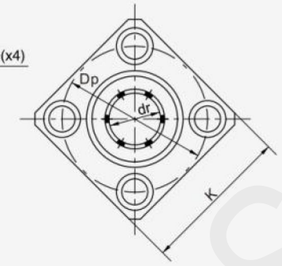
LMFM···LGA

LMKM···LGA





LMFM···LGA



LMKM···LGA

Nominal shaft diameter mm	Resin retainer				Major dimensions and tolerance					
					dr		D		L	
	LMFM···LUU	Weight (g)	LMKM···LUU	Weight (g)	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMFM6LUU	31	LMKM6LUU	25	6	0 -10	12	0 -13	35	±300
8	LMFM8LUU	51	LMKM8LUU	43	8		15		45	
10	LMFM10LUU	98	LMKM10LUU	78	10		19		55	
12	LMFM12LUU	110	LMKM12LUU	90	12		21	0 -16	57	0 -300
13	LMFM13LUU	130	LMKM13LUU	108	13		23		61	
16	LMFM16LUU	190	LMKM16LUU	165	16		28		70	
20	LMFM20LUU	260	LMKM20LUU	225	20	0 -12	32	0 -19	80	0 -400
25	LMFM25LUU	540	LMKM25LUU	500	25		40		112	
30	LMFM30LUU	680	LMKM30LUU	590	30		45		123	
35	LMFM35LUU	1020	LMKM35LUU	930	35	0 -15	52	0 -22	135	
40	LMFM40LUU	1570	LMKM40LUU	1380	40		60		151	
50	LMFM50LUU	3600	LMKM50LUU	3400	50		80		192	
60	LMFM60LUU	4500	LMKM60LUU	4060	60	0 -20	90	0 -25	209	

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
ℓ mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
15	28	22	5	20	3.5	6	3.1		15	15	323	529
20	32	25	5	24	3.5	6	3.1				431	781
24.5	40	30	6	29	4.5	7.5	4.1				588	1100
25.5	42	32	6	32	4.5	7.5	4.1				813	1570
27.5	43	34	6	33	4.5	7.5	4.1				813	1570
32	48	37	6	38	4.5	7.5	4.1				1230	2350
36	54	42	8	43	5.5	9	5.1		20	20	1400	2740
52	62	50	8	51	5.5	9	5.1				1560	3140
56.5	74	58	10	60	6.6	11	6.1				2490	5490
62.5	82	64	10	67	6.6	11	6.1		25	25	2650	6270
69	96	75	13	78	9	14	8.1				3430	8040
89.5	116	92	13	98	9	14	8.1				6080	15900
95.5	134	106	18	112	11	17	11.1		30	30	7550	20000

SIUNIT:1N≈0.102kgf

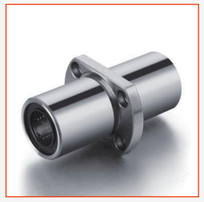
Seal type:
LMFM20 L A GA

A Nickel plated

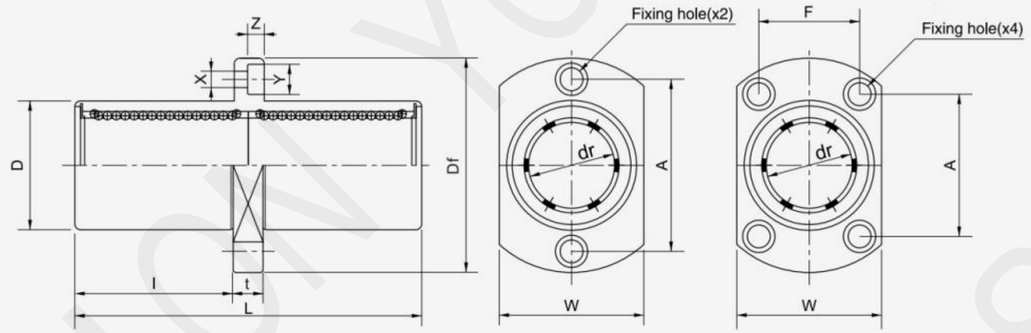
5-6	Alloy steel retainer
8-60	Cold-formed steel retainer

LMHM···LUU Series

LMHM···LUU (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



LMHM···LUU



LMHM13L or Less　　LMHM16L or More

Nominal shaft diameter mm	LMHM···LUU	Weight (g)	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMHM6LUU	28	6	0 -10	12	0 -13	35	±300
8	LMHM8LUU	47	8		15		45	
10	LMHM10LUU	90	10		19	0 -16	55	
12	LMHM12LUU	102	12		21		57	0 -300
13	LMHM13LUU	123	13		23		61	
16	LMHM16LUU	182	16		28		70	
20	LMHM20LUU	247	20	0 -12	32	0 -19	80	
25	LMHM25LUU	525	25		40		112	0 -400
30	LMHM30LUU	645	30		45		123	
35	LMFM35LUU	950	35	0 -15	52	0 -22	135	
40	LMHM40LUU	1450	40		60		151	
50	LMHM50LUU	3437	50		80		192	

Major dimensions and tolerance										Eccentricity μm	Squareness μm	Basic load rating	
Flange													
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
15	28	18	5	20	——	3.5	6	3.1				323	529
20	32	21	5	24	——	3.5	6	3.1				431	784
24.5	40	25	6	29	——	4.5	7.5	4.1		15	15	588	1100
25.5	42	27	6	32	——	4.5	7.5	4.1				813	1570
27.5	43	29	6	33	——	4.5	7.5	4.1				813	1570
32	48	34	6	31	22	4.5	7.5	4.1				1230	2350
36	54	38	8	36	24	5.5	9	5.1		20	20	1400	2740
52	62	46	8	40	32	5.5	9	5.1				1560	3140
56.5	74	51	10	49	35	6.6	11	6.1				2490	5490
62.5	82	58	10	55	38	6.6	11	6.1		25	25	2650	6270
69	96	66	13	64	45	9	14	8.1				3430	8040
89.5	116	86	13	80	56	9	14	8.1				6080	15900

SIUNIT:1N≈0.102kgf

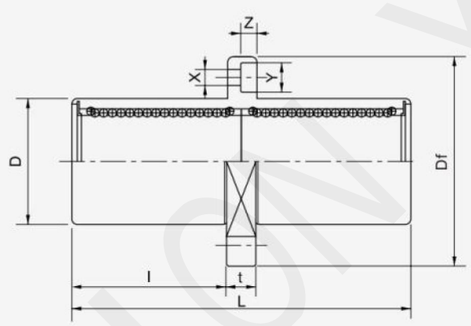
Seal type:
LMHM20 L A UU

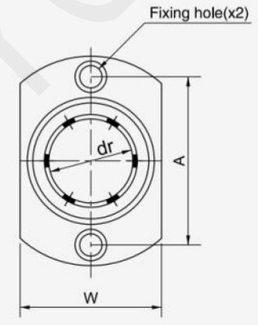
No entry	No seals
UU	Seal on one sides
A	Nickel plated

LMHM···LGA Series

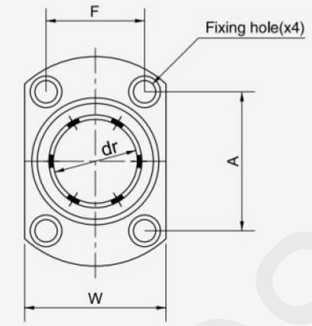
LMHM···LGA (High-temperature Resistant Retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHM···LGA





LMHM13L or Less



LMHM16L or More

Nominal shaft diameter mm	LMHM···LGA	Weight (g)	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LMHM6LGA	30.6	6	0 -10	12	0 -13	35	±300
8	LMHM8LGA	51.6	8		15		45	
10	LMHM10LGA	95	10		19	0 -16	55	
12	LMHM12LGA	112.4	12		21		57	0 -300
13	LMHM13LGA	137	13		23		61	
16	LMHM16LGA	216	16		28		70	
20	LMHM20LGA	297	20	0 -12	32	0 -19	80	0 -400
25	LMHM25LGA	649	25		40		112	
30	LMHM30LGA	797	30		45		123	
35	LMFM35LGA	1148	35	0 -15	52	0 -22	135	
40	LMHM40LGA	1740	40		60		151	
50	LMHM50LGA	3437	50		80		192	

Major dimensions and tolerance										Eccentricity μm	Squareness μm	Basic load rating	
Flange													
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
15	28	18	5	20	——	3.5	6	3.1		15	15	323	529
20	32	21	5	24	——	3.5	6	3.1				431	784
24.5	40	25	6	29	——	4.5	7.5	4.1				588	1100
25.5	42	27	6	32	——	4.5	7.5	4.1				813	1570
27.5	43	29	6	33	——	4.5	7.5	4.1				813	1570
32	48	34	6	31	22	4.5	7.5	4.1				1230	2350
36	54	38	8	36	24	5.5	9	5.1		20	20	1400	2740
52	62	46	8	40	32	5.5	9	5.1				1560	3140
56.5	74	51	10	49	35	6.6	11	6.1				2490	5490
62.5	82	58	10	55	38	6.6	11	6.1		25	25	2650	6270
69	96	66	13	64	45	9	14	8.1				3430	8040
89.5	116	86	13	80	56	9	14	8.1				6080	15900

SIUNIT:1N≈0.102kgf

Seal type:
LMHM20 L A GA

A Nickel plated

5-6	Alloy steel retainer
8-50	Cold-formed steel retainer

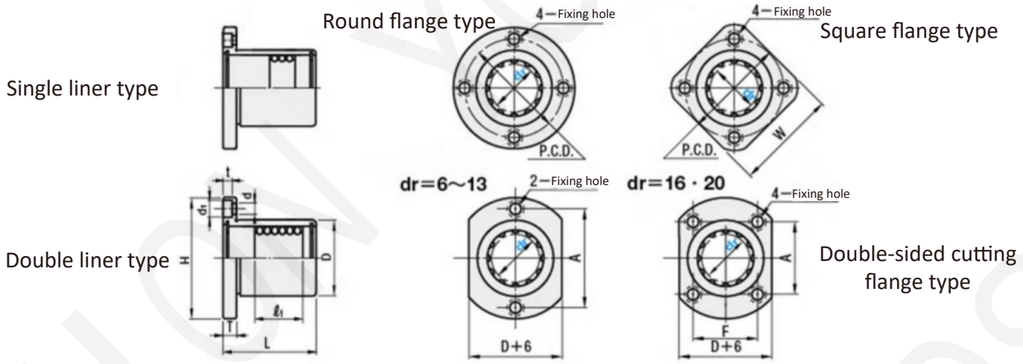
Flange Linear Ball Bushings

Flanged Ordinary type:
Flanged stroke bearing is a linear and rolational motion mechanism utilizing, the rotational motion of ball elements between an outer cyinder and a shaft, which is easy assembling.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LBHR
LBHRW

LBHS
LBHSW

LBHC
LBHCW



Model			Maximum stroke		Number of steel rows		ℓ_1		D		L	
Type	dr	Tolerance μm	Single	Double	Single	Double	Single	Double		Tolerance μm		Tolerance μm
Single liner type LBHR LBHS LBHC Double liner type LBHRW LBHSW LBHCW	6	0 -0.009	15	7	3	6	8.3	12.3	12	0 -0.013	19	±0.3
	8		24	8			8.8	16.8	15		24	
	10		30	8			10.8	21.8	19	0 -0.016	29	
	12		32	8			10.4	22.4	21		30	
	13		34	10			11.4	23.4	23		32	
	16		40	16			12.8	24.8	28		37	
	20	0 -0.010	46	28			14.8	23.8	32	0 -0.019	42	

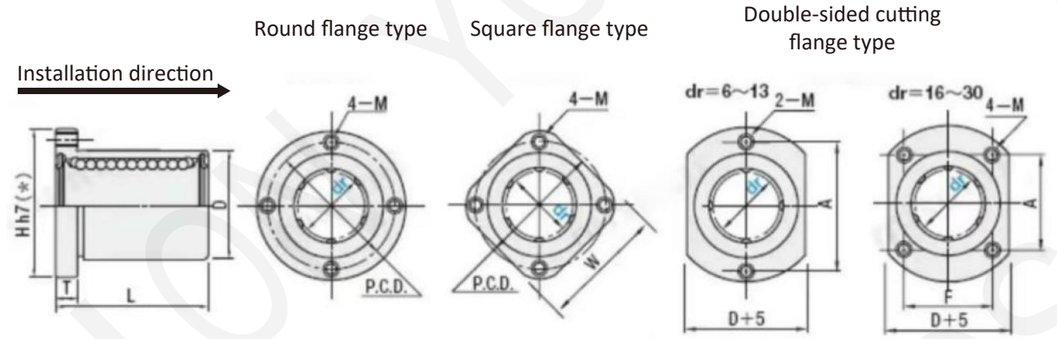
H	T	d	d1	t	P.C.D	W	F	A	Eccentricity μm	Squareness μm	Basic load rating				Static allowable moment (Nm)	
											Dynamic C N		Static Co N			
											Single	Double	Single	Double	Single	Double
28	5	3.5	6	3.1	20	22	—	20	-0.012	-0.012	210	333	164	328	——	2.18
32					24	25		24			323	512	278	556	——	4.31
40	6	4.5	7.5	4.1	29	30		29			499	793	408	815	——	7.24
42					32	32		32			722	1146	579	1157	——	10.9
43					33	34		33			773	1226	634	1268	——	11.6
48					38	37	22	31			1330	2112	1029	2058	——	19.7
54	8	5.5	9	5.1	43	42	24	36	-0.015	-0.015	1609	2554	1517	3035	——	26.8

Miniature flange type

LHTB

LHTS

LHTC



Model			D		L		H	T	M	P.C.D	W	F	A
Type	dr	Tolerance μm		Tolerance μm		Tolerance μm							
LHTR LHTRF LHTS LHTSF LHTC LHTCH	6	0 -0.009	12	0 -0.013	19	±0.3	23	5	M3	17	18	——	17
	8		15		24		27			21	21	——	21
	10		19	0 -0.016	29		34	6	M4	26	26	——	26
	12		21		30		37			29	28	——	29
	13		23		32		38			30	30	——	30
	16		28		37		43			35	33	20	29
	20	0 -0.010	32	0 -0.019	42		48	8	M5	39	37	22	32
	25		40		59		56			47	45	27	39
	30		45		64		66	10	M6	55	51	32	45

Eccentricity μm	Squareness μm	Number of steel rows	Basic load rating		Weight (g)		
			Dynamic C N	Static Co N	Round flange type	Square flange type	Double-sided cutting flange type
0.012	0.012	4	206	265	19	15	17
			265	380	30	25	27
			372	549	61	50	53
			412	598	66	52	57
			510	784	78	66	70
			775	1180	108	90	99
0.015	0.015	5	882	1370	159	130	145
		6	980	1570	314	283	298
			1570	2740	417	350	380

Linear Motion Ball Bearings Slide Unites

● YOSO can supply all types of Linear MYT's slide unit with features of low cost, ease of replacement and high precision can be widely designed into many different linear motion applications. Such as factory automated equipment, machine tools, industrial machines, electrical machine tools and soon.Processing aluminum slide units strictly follows standardized design.

SCJ

SCJ clearance adjustment aluminium Slide Units
(include a long shaft groove)
SCJ serie can accomplish shaft with case unit through clearance adjustment perfectly.

SC
SC(E)

SC(E) Standard aluminium Slide Units
Through screw accomplish simple installation

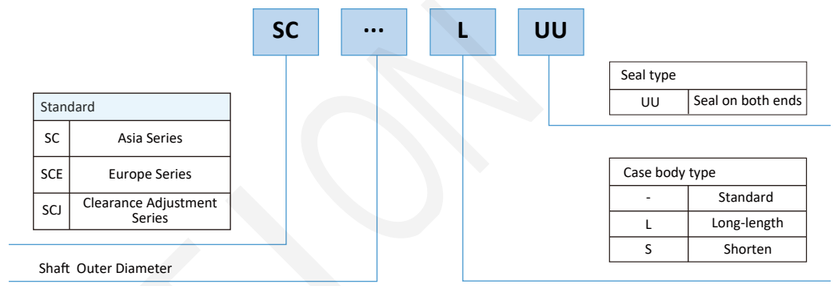
SC···L
SC(E)···L

SC(E)...L Long-length aluminium Slide Units
(include two standard linear motion ball bearings)

SC···S
SC(E)···S

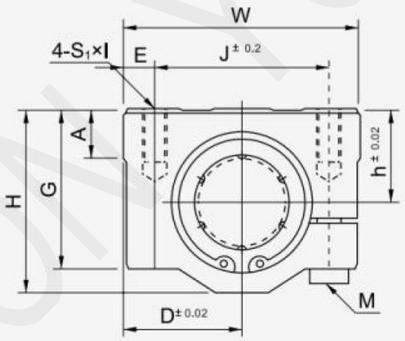
SC(E)-..S Shorten aluminium Slide Units
(include one standard linear motion ball bearings)
Than SC(E) much compact.

Product Model Description



SCJ Series

SCJ···UU

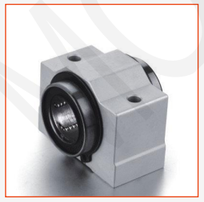


Model	Liner bearing	Basic load rating		Shaft diameter mm	Dimensions(mm)												Weight (g)
		Dynamic C N	Static Co N		h	D	W	H	G	A	J	E	S1×I	K	L	M	
SCJ10UU	LM10UU-AJ	372	549	10	13	20	40	26	21	8.0	28	6.0	M5×12	21	35	M5	90
SCJ12UU	LM12UU-AJ	510	784	12	15	21	42	28	24	8.0	30.5	5.75	M5×12	26	36	M5	112
SCJ13UU	LM13UU-AJ	510	784	13	15	22	44	30	24.5	8.0	33	5.5	M5×12	26	39	M5	123
SCJ16UU	LM16UU-AJ	774	1180	16	19	25	50	38.5	32.5	9.0	36	7.0	M5×12	34	44	M5	189
SCJ20UU	LM20UU-AJ	882	1370	20	21	27	54	41	35	11	40	7.0	M8×18	40	50	M5	237
SCJ25UU	LM25UU-AJ	980	1570	25	26	38	76	51.5	42	12	54	11	M8×18	50	67	M6	555
SCJ30UU	LM30UU-AJ	1570	2740	30	30	39	78	59.5	49	15	58	10	M8×18	58	72	M6	685
SCJ35UU	LM35UU-AJ	1670	3140	35	34	45	90	68	54	18	70	10	M10×25	60	80	M6	1100
SCJ40UU	LM40UU-AJ	2160	4020	40	40	51	102	78	62	20	80	11	M10×25	60	90	M8	1600
SCJ50UU	LM50UU-AJ	3820	7940	50	52	61	122	102	80	25	100	11	M10×25	80	110	M8	3350

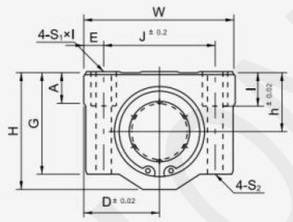
SC Series

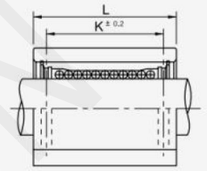
SC···UU

SC···LUU

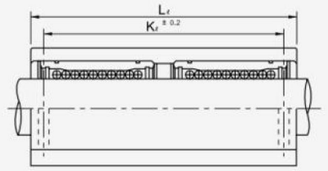


SC···SUU

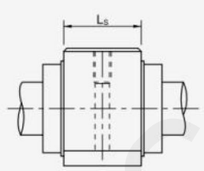




SC···UU



SC···LUU



SC···SUU

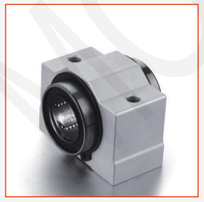
Standard		Basic load rating		Weight (g)	Length type		Basic load rating		Weight (g)	Shorten type	
Model	Liner bearing	Dynamic C N	Static Co N		Model	Liner bearing	Dynamic C N	Static Co N		Model	Liner bearing
SC6UU	LM6UU	206	265	32	——	——	——	——	——	——	——
SC8UU	LM8UU	274	392	56	SC8LUU	2×LM8UU	431	784	94	SC8SUU	LM8UU
SC10UU	LM10UU	372	549	90	SC10LUU	2×LM10UU	588	1100	147	SC10SUU	LM10UU
SC12UU	LM12UU	510	784	112	SC12LUU	2×LM12UU	813	1570	220	SC12SUU	LM12UU
SC13UU	LM13UU	510	784	123	SC13LUU	2×LM13UU	813	1570	245	SC13SUU	LM13UU
SC16UU	LM16UU	774	1180	189	SC16LUU	2×LM16UU	1230	2350	376	SC16SUU	LM16UU
SC20UU	LM20UU	882	1370	237	SC20LUU	2×LM20UU	1410	2740	476	SC20SUU	LM20UU
SC25UU	LM25UU	980	1570	555	SC25LUU	2×LM25UU	1610	3140	1115	SC25SUU	LM25UU
SC30UU	LM30UU	1570	2740	685	SC30LUU	2×LM30UU	2450	5490	1375	SC30SUU	LM30UU
SC35UU	LM35UU	1670	3140	1100	SC35LUU	2×LM35UU	2650	6270	2200	SC35SUU	LM35UU
SC40UU	LM40UU	2160	4020	1600	SC40LUU	2×LM40UU	3430	8040	3200	SC40SUU	LM40UU
SC50UU	LM50UU	3820	7940	3350	SC50LUU	2×LM50UU	6080	15900	6720	SC50SUU	LM50UU
SC60UU	LM60UU	4700	10000	4720	SC60LUU	2×LM60UU	7550	20000	8480	SC60SUU	LM60UU
SC80UU	LM80UU	7350	16000	8100	SC80LUU	2×LM80UU	11500	32000	15100	SC80SUU	LM80UU

Basic load rating		Weight (g)	Dimensions(mm)																
			Shaft diameter mm	Nominal dimensions(mm)										SC···UU		SC···LUU		SC···SUU
Dynamic C N	Static Co N			h	D	W	H	G	A	J	E	S₁×l	S₂	K	L	K₁	L₁	Ls
——	——	——	6	9	15	30	18	15	6	20	5	M4×8	3.4	15	25	——	——	——
260	400	36	8	11	17	34	22	18	6	24	5	M4×8	3.4	18	30	42	58	15.4
370	540	63	10	13	20	40	26	21	8	28	6	M5×12	4.3	21	35	46	68	19.5
410	590	74	12	15	21	42	28	24	8	30.5	5.75	M5×12	4.3	26	36	50	70	20.5
500	770	85	13	15	22	44	30	24.5	8	33	5.5	M5×12	4.3	26	39	50	75	20.5
770	1170	132	16	19	25	50	38.5	32.5	9	36	7	M5×12	4.3	34	44	60	85	23.5
860	1370	170	20	21	27	54	41	35	11	40	7	M6×12	5.2	40	50	70	96	27.4
980	1560	405	25	26	38	76	51.5	42	12	54	11	M8×18	7.0	50	67	100	130	37.4
1560	2740	495	30	30	39	78	59.5	49	15	58	10	M8×18	7.0	58	72	110	140	40.9
1660	3130	790	35	34	45	90	68	54	18	70	10	M8×18	7.0	60	80	120	155	45.4
2150	4010	1220	40	40	51	102	78	62	20	80	11	M10×25	8.7	60	90	140	175	56.4
3820	7930	2300	50	52	61	122	102	80	25	100	11	M10×25	8.7	80	110	160	215	68.9
4700	10000	3530	60	58	66	132	114	94	30	108	12	M12×25	10.7	90	112	180	240	78.8
7350	16000	7020	80	75	81	162	148	125	35	138	12	M12×30	10.7	120	155	230	303	97.3

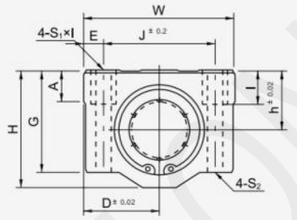
SC Series

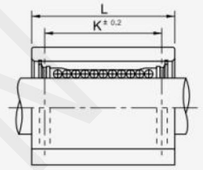
SCE···UU

SCE···LUU

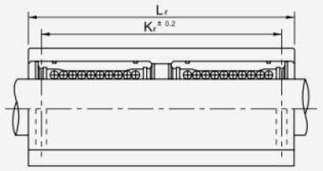


SCE···SUU

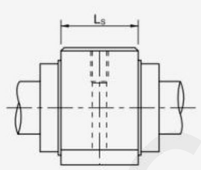




SCE···UU



SCE···LUU



SCE···SUU

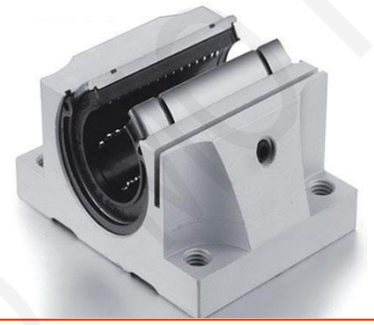
Standard		Basic load rating		Weight (g)	Length type		Basic load rating		Weight (g)	Shorten type	
Model	Liner bearing	Dynamic C N	Static Co N		Model	Liner bearing	Dynamic C N	Static Co N		Model	Liner bearing
SCE8UU	LME8UU	260	400	60	SCE8LUU	2×LME8UU	410	800	98	SCE8SUU	LME8UU
SCE12UU	LME12UU	410	590	118	SCE12LUU	2×LME12UU	650	1180	232	SCE12SUU	LME12UU
SCE16UU	LME16UU	770	1170	180	SCE16LUU	2×LME16UU	1230	2340	360	SCE16SUU	LME16UU
SCE20UU	LME20UU	860	1370	245	SCE20LUU	2×LME20UU	1370	2740	490	SCE20SUU	LME20UU
SCE25UU	LME25UU	980	1560	550	SCE25LUU	2×LME25UU	1560	3120	1100	SCE25SUU	LME25UU
SCE30UU	LME30UU	1560	2740	760	SCE30LUU	2×LME30UU	2490	5480	1525	SCE30SUU	LME30UU
SCE40UU	LME40UU	2150	4010	1700	SCE40LUU	2×LME40UU	3440	8020	3400	SCE40SUU	LME40UU
SCE50UU	LME50UU	3820	7930	2950	SCE50LUU	2×LME50UU	6110	15860	5920	SCE50SUU	LME50UU
SCE60UU	LME60UU	4700	9800	5330	SCE60LUU	2×LME60UU	7550	20000	9760	SCE60SUU	LME60UU

Basic load rating		Weight (g)	Dimensions(mm)																
			Shaft diameter mm	Nominal dimensions(mm)										SCE···UU		SC·E··LUU		SCE···SUU
Dynamic C N	Static Co N			h	D	W	H	G	A	J	E	S₁×l	S₂	K	L	K₁	L₁	Ls
260	400	40	8	11	17	34	22	18	6	24	5	M4×8	3.4	18	30	42	58	14.4
410	590	82	12	15	22	44	30	24.5	8	33	5.5	M5×12	4.3	26	39	64	77	20.3
770	1170	122	16	19	25	50	38.5	32.5	9	36	7	M5×12	4.3	34	44	79	89	22.3
860	1370	176	20	21	27	54	41	35	11	40	7	M6×12	5.2	40	53	90	106	28.3
980	1560	400	25	26	38	76	51.5	42	12	54	11	M8×18	7.0	50	67	119	136	40.4
1560	2740	570	30	30	39	78	59.5	49	15	58	10	M8×18	7.0	58	76	132	154	48.4
2150	4010	1320	40	40	51	102	78	62	20	80	11	M10×25	8.7	60	90	150	180	56.4
3820	7930	1900	50	52	61	122	102	80	25	100	11	M10×25	8.7	80	110	200	230	72.3
4700	9800	4230	60	58	66	132	114	94	30	108	12	M12×25	10.7	100	137	220	270	95.5

Support Rail Units

SBR···Slide Units

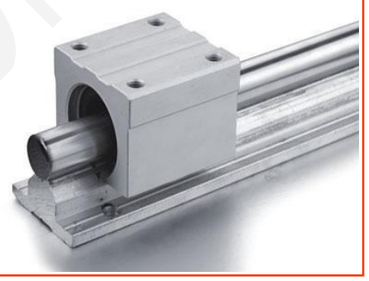
TBR···Slide Units



SBS···Support Rail

TBS···Support Rail

SBR···S Support Rail Units

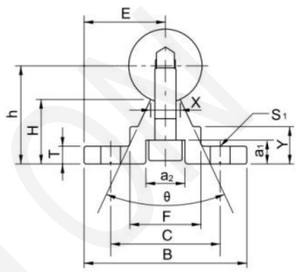


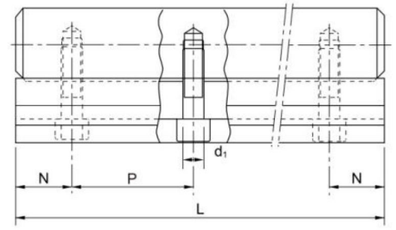
TBR···S Support Rail Units

SBS Series

SB **S** **···A** **-1000L**

- SB Support Rail
- S: With shaft / -: No shaft
- Length of Rail
- Shaft Diameter
- *We could manufacture according to customer's requirements.





Model	Shaft diameter	Dimensions(mm)														Weight (g)
		E	h	B	H	T	F	X	Y	C	θ	S_1	a_1	a_2	d_1	
SBS10A	10	16	18	32	13.5	4	12.4	4.7	8.9	22	80°	4.5	5	7.5	4.5	1260
SBS12A	12	17	20.4	34	15	4.5	15	6	9.6	25	80°	4.5	5	7.5	4.5	1880
SBS16A	16	20	25	40	17.8	5	18.5	8	11.7	30	70°	5.5	6	9.5	5.5	2560
SBS20A	20	22.5	27	45	17.7	5	19	8	10	30	50°	5.5	6.5	11	6.6	3500
SBS25A	25	27.5	33	55	21	6	21.5	8	12	35	50°	6.5	6.5	11	6.6	5300
SBS30A	30	30	37	60	22.8	7	26.5	10.3	13	40	50°	6.5	8.5	14	9	7380
SBS35A	35	32.5	43	65	26.5	8	28	13	15.5	45	50°	9.0	8.5	14	9	9680
SBS40A	40	37.5	48	75	29.4	9	38	16	17	55	50°	9.0	8.5	14	9	12690
SBS50A	50	47.5	62	95	38.8	11	45	20	21	70	50°	11	12.5	19	11	20460

Support Rail Standard Length and Dimensions

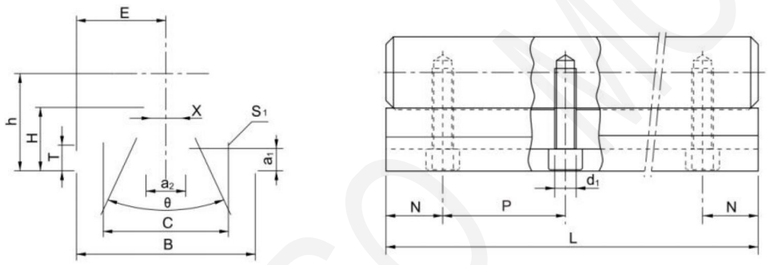
Model	SBS10A	SBS12A	SBS16A	SBS20A	SBS25A	SBS30A	SBS35A	SBS40A	SBS50A
Standard Length L	150	150	190	340	250	450	460	460	470
	270	270	340	640	450	850	660	660	670
	390	510	640	940	850	1250	860	860	870
	510	750	940	1240	1250	1450	1060	1060	1070
	750							1260	1270
N	15	15	20	20	25	25	30	30	35
P	120	120	150	150	200	200	200	200	200
Max.Length	1110	1110	1390	1390	1850	1850	1860	1860	2070
	4000	4000	4000	4000	4000	4000	4000	4000	4000

TBS Series

TB | S | ···A | -1000L

- TB: TB Support Rail
- S: With shaft / -: No shaft
- ···A: Shaft Diameter
- -1000L: Length of Rail

*We could manufacture according to customer's requirements.



Model	Shaft diameter	Dimensions(mm)												Weight (g)
		E	h	B	H	T	X	C	θ	S_1	a_1	a_2	d_1	
TBS16A	16	25	22	50	14.84	6	8	37	60°	5.5	6	9.5	5.5	2660
TBS20A	20	27.5	29	55	19.64	8	8	40	50°	5.5	6.5	11	6.6	4230
TBS25A	25	32.5	32	65	20	10	8	45	50°	6.6	6.5	11	6.6	5850
TBS30A	30	37.5	36.5	75	22.28	12	10.3	55	50°	6.6	8.5	14	9	8280

Support Rail Standard Length and Dimensions

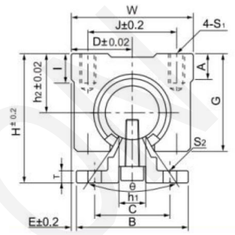
Model	TBS16A	TBS20A	TBS25A	TBS30A
Standard Length L	190	340	250	450
	340	640	450	850
	640	940	850	1250
	940	1240	1250	1450
N	20	20	25	25
P	150	150	200	200
Max.Length	1390	1390	1850	1850
	4000	4000	4000	4000

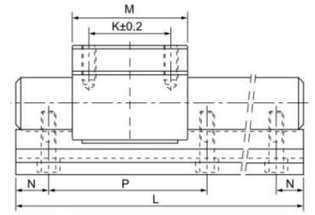
SBR SBR···S Series

SBR···S | 2A | + | 1000L

- SBR···S: SBR Support Rail Units / Shaft Diameter
- 2A: Number of the Units On One Support Rail
- 1000L: Length of Rail

*The main length of rails and slide units can be searched on the form of SBS series.
**Units Designation





Model		Shaft diameter	Basic load rating		Weight (g)		Dimensions(mm)				
Rail units	Slide units		Dynamic C N	Static Co N	Slide units (g)	Rail units (g/m)	D	h_2	H	E	θ
SBR10SA	SBR10UU	10	380	560	65	1260	18	15	33	2	80°
SBR12SA	SBR12UU	12	510	780	100	1880	20	17	37.4	3	80°
SBR16SA	SBR16UU	16	770	1170	150	2560	22.5	20	45	2.5	80°
SBR20SA	SBR20UU	20	860	1370	200	3500	24	23	50	1.5	60°
SBR25SA	SBR25UU	25	980	1560	450	5300	30	27	60	2.5	50°
SBR30SA	SBR30UU	30	1560	2740	630	7380	35	33	70	5	50°
SBR35SA	SBR35UU	35	1660	3130	920	10050	40	37	80	7.5	50°
SBR40SA	SBR40UU	40	2150	4010	1330	13100	45	42	90	7.5	50°
SBR50SA	SBR50UU	50	3820	7930	3000	20650	60	53	115	12.5	50°

Rail units	Dimensions(mm)												
	W	G	A	B	T	M	S_1×l	J	K	S_2	C	N	P
SBR10SA	36	24	7	32	4	32	M5×10	25	20	4.5	22	15	120
SBR12SA	40	27	8	34	4.5	39	M5×10	28	26	4.5	25	15	120
SBR16SA	45	33	9	40	5	45	M5×12	32	30	5.5	30	20	150
SBR20SA	48	39	11	45	5	50	M6×12	35	35	5.5	30	20	150
SBR25SA	60	47	14	55	6	65	M6×12	40	40	6.6	35	25	200
SBR30SA	70	56	15	60	7	70	M8×18	50	50	6.6	40	25	200
SBR35SA	80	63	18	65	8	80	M8×18	55	55	9.0	45	30	200
SBR40SA	90	72	20	75	9	90	M10×20	65	65	9.0	55	30	200
SBR50SA	120	92	25	95	11	110	M10×20	94	80	11	70	35	200

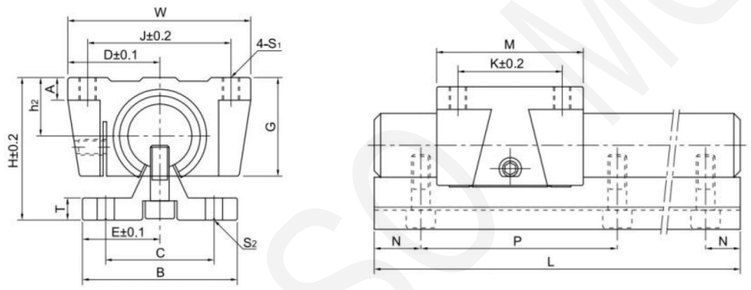
Model	Dimensions(mm)											Model	Basic load rating		Weight (g)
	h_2	D	W	M	G	h_1	θ	K	S_1	I	A		Dynamic C N	Static Co N	
SBR12LUU	17	20	40	70	27	8	80°	46	M5	10	8	2×LM12UUOP	1020	1568	170
SBR16LUU	20	22.5	45	85	33	11	80°	60	M5	12	9	2×LM16UUOP	1548	2360	300
SBR20LUU	23	24	48	96	39	11	60°	70	M6	12	11	2×LM20UUOP	1764	2740	400
SBR25LUU	27	30	60	130	47	12	50°	100	M6	12	14	2×LM25UUOP	1960	3140	900
SBR30LUU	33	35	70	140	56	15	50°	110	M8	18	15	2×LM30UUOP	3140	5480	1260
SBR35LUU	37	40	80	155	63	17	50°	130	M8	18	18	2×LM35UUOP	3340	6260	1840
SBR40LUU	42	45	90	175	72	20	50°	140	M10	20	20	2×LM40UUOP	4320	8040	2660
SBR50LUU	53	60	120	215	92	25	50°	175	M10	20	25	2×LM50UUOP	7640	15880	5952

TBR TBR···S Series

TBR···S | **2A** + **1000L**

- TBR···S: TBR Support Rail Units; Shaft Diameter
- 2A: Number of the Units On One Support Rail
- 1000L: Length of Rail

*The main length of rails and slide units can be searched on the form of TBS series.
**Units Designation



Model		Shaft diameter	Basic load rating		Weight (g)		Dimensions(mm)			
Rail units	Slide units		Dynamic C N	Static Co N	Slide units (g)	Rail units (g/m)	D	h_2	H	E
TBR16SA	TBR16UU	16	392	490	180	2450	31	18	40	25
TBR20SA	TBR20UU	20	784	1176	300	3600	34	21	50	27.5
TBR25SA	TBR25UU	25	1568	2352	600	5600	41	28	60	32.5
TBR30SA	TBR30UU	30	1764	2940	900	8000	45.5	33.5	70	37.5

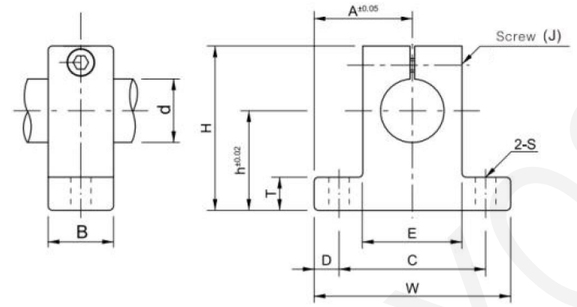
Rail units	Dimensions(mm)												
	W	G	A	B	T	M	S_1	J	K	S_2	C	N	P
TBR16SA	62	26	8	50	6	42	M5	50	30	5.5	37	20	150
TBR20SA	68	31	10	55	8	51	M6	54	37	5.5	40	20	150
TBR25SA	82	41	12	65	10	65	M8	65	50	6.6	45	25	200
TBR30SA	91	48	12	75	12	75	M8	75	60	6.6	55	25	200

SH(SK) Series

SH | **···**

- SH: Shaft Support
- ···: Shaft Diameter

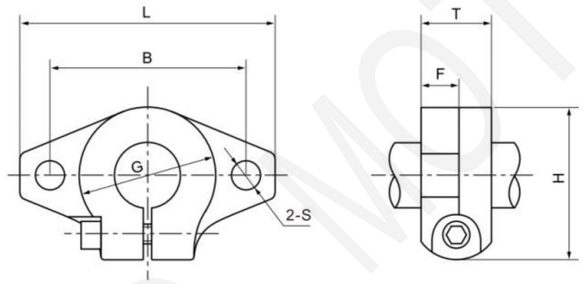
SH(SK)



Model	Shaft diameter	Dimensions(mm)											Weight (g)
		h	A	W	H	T	E	D	C	B	S	J	
SH6	6	20	21	42	32.8	6	18	5	32	14	5.5	M4	24
SH8	8	20	21	42	32.8	6	18	5	32	14	5.5	M4	24
SH10	10	20	21	42	32.8	6	18	5	32	14	5.5	M4	24
SH12	12	23	21	42	37.5	6	20	5	32	14	5.5	M4	30
SH13	13	23	21	42	37.5	6	20	5	32	14	5.5	M4	30
SH16	16	27	24	48	44	8	25	5	38	16	5.5	M4	40
SH20	20	31	30	60	51	10	30	7.5	45	20	6.6	M5	70
SH25	25	35	35	70	60	12	38	7	56	24	6.6	M6	130
SH30	30	42	42	84	70	12	44	10	64	28	9	M6	180
SH35	35	50	49	98	82	15	50	12	74	32	11	M8	270
SH40	40	60	57	114	96	15	60	12	90	36	11	M8	420
SH50	50	70	63	126	120	18	74	13	100	40	14	M12	750
SH60	60	80	74	148	136	18	90	14	120	45	14	M12	1100

SHF Series

SHF



Model	Shaft diameter	Dimensions(mm)							Mounting bolt designation	Clamping bolt designation	Weight (g)
		L	T	F	B	G	H	S			
SHF6	6	43	10	5	32	20	24	5.5	M5	M4	13
SHF8	8	43	10	5	32	20	24	5.5	M5	M4	13
SHF10	10	43	10	5	32	20	24	5.5	M5	M4	13
SHF12	12	47	13	7	36	25	28	5.5	M5	M4	20
SHF13	13	47	13	7	36	25	28	5.5	M5	M4	20
SHF16	16	50	16	8	40	28	31	5.5	M5	M4	27
SHF20	20	60	20	8	48	34	37	7	M6	M5	40
SHF25	25	70	25	10	56	40	42	7	M6	M5	60
SHF30	30	80	30	12	64	46	50	9	M8	M6	110
SHF35	35	92	35	14	72	50	58	12	M10	M8	380
SHF40	40	102	40	16	80	56	67	12	M10	M10	510
SHF50	50	122	50	19	96	70	83	14	M12	M12	890
SHF60	60	140	60	23	112	82	95	14	M12	M12	1500

SF Series

SF

SF	LINEAR SHAFT
SFC	HARD CHROMIC PLATING SHAFT
SSF	9Cr18 SHAFT
PSF	LM PIPE SHAFT

Model	Shaft diameter (g6)		Dimensions(mm)												
	d(mm)	Tolerance μm	100	200	300	400	500	600	700	800	1000	1200	1300	1500	2000
SF3	3	-2 -8	○	○	◎	—	—	—	—	—	—	—	—	—	—
SF4	4	-4 -12	○	○	◎	◎	—	—	—	—	—	—	—	—	—
SF5	5		○	○	○	◎	—	—	—	—	—	—	—	—	—
SF6	6		○	○	○	○	◎	—	—	—	—	—	—	—	—
SF8	8	-5 -14	○	○	○	○	◎	—	—	—	—	—	—	—	—
SF10	10		○	○	○	○	○	○	○	○	◎	◎	○	◎	—
SF12	12	-6 -17	—	○	○	○	○	○	○	○	◎	◎	○	◎	—
SF13	13		—	○	○	○	○	○	○	○	◎	◎	○	◎	—
SF16	16		—	○	○	○	○	○	○	○	◎	◎	○	◎	—
SF20	20	-7 -20	—	○	○	○	○	○	○	○	◎	◎	○	◎	◎
SF25	25		—	○	○	○	○	○	○	○	◎	◎	○	◎	◎
SF30	30		—	—	○	○	○	○	○	○	◎	◎	○	◎	◎
SF35	35	-9 -25	—	—	—	—	○	○	○	○	◎	◎	○	◎	◎
SF40	40		—	—	—	—	○	○	○	○	◎	◎	○	◎	◎
SF50	50		—	—	—	—	○	○	○	○	◎	◎	○	◎	◎
SF60	60	-10 -29	—	—	—	—	—	—	—	—	◎	◎	○	◎	◎
SF80	80		—	—	—	—	—	—	—	—	◎	◎	○	◎	◎
SF100	100	-12 -34	—	—	—	—	—	—	—	—	◎	◎	○	◎	◎

○ Standard Length
◎ The Length to order

YOSO MOTION Linear Bearings

Linear Bearing Short,Medium Series

Short Type
P.87 LMUT

Medium Type
P.88 LMUD

Round Flange Type
P.89 LHFRD

Square Flange Type
P.89 LHFSD

Oval Flange Type
P.91 LHFCD

Guide Round Flange Type
P.93 LHIRD

Guide Square Flange Type
P.93 LHISD

Guide Oval Flange Type
P.95 LHICD

Middle Round Flange Type
P.97 LHMRD

Middle Square Flange Type
P.97 LHMSD

Middle Oval Flange Type
P.99 LHMCD

Linear Bearing Compact Series

Compact Type
P.101 LMK

Compact Extended Type
P.102 LMKW

Round Flange Type
P.103 LHKR

Square Flange Type
P.103 LHKS

Oval Flange Type
P.105 LHKC

Extended Round Flange Type
P.107 LHKRW

Extended Square Flange Type
P.107 LHKSW

Extended Oval Flange Type
P.109 LHKCW

Guide Round Flange Type
P.111 LHIRK

Guide Square Flange Type
P.111 LHISK

Guide Oval Flange Type
P.113 LHICK

Extended Guided Round Flange Type
P.115 LHIRKW

Extended Guided Round Flange Type
P.115 LHISKW

Extended Guided Oval Flange Type
P.117 LHICKW

Bearing Belt Lubrication Device Series

Lubrication Device Type
P.119 LM···UUMX

Lubrication Device Extended Type
P.120 LM···UUUMX

YOSO MOTION Linear Bearings

Round Flange Type
P.121 LMF···UUMX

Square Flange Type
P.121 LMK···UUMX

Oval Flange Type
P.123 LMH···UUMX

Extended Round Flange Type
P.125 LMF···LUUMX

Extended Square Flange Type
P.125 LMK···LUUMX

Extended Oval Flange Type
P.127 LMH···LUUMX

Guide Round Flange Type
P.129 LMFP···UUMX

Guide Square Flange Type
P.129 LMKP···UUMX

Guide Oval Flange Type
P.131 LMHP···UUMX

Extended Guided Round Flange Type
P.133 LMFP···LUUMX

Extended Guided Round Flange Type
P.133 LMKP···LUUMX

Extended Guided Oval Flange Type
P.135 LMHP···LUUMX

Extended Middle Flange Type
P.137 LMFM···LUUMX

Extended Middle Square Flange Type
P.137 LMKM···LUUMX

Extended Middle Oval Flange Type
P.139 LMHM···LUUMX

King-size Linear Bearing

Ultra-Extended Round Flange Type
P.141 LHKRNL

Ultra-Extended Square Flange Type
P.141 LHKSNL

Ultra-Extended Oval Flange Type
P.143 LHKCNL

Ultra-Extended Guided Round Flange Type
P.145 LHKIRNL

Ultra-Extended Guided Square Flange Type
P.145 LHKISNL

Ultra-Extended Guided Oval Flange Type
P.147 LHKICNL

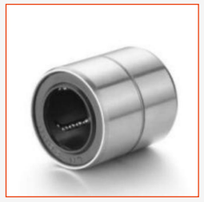
Ultra-Extended Middle Round Flange Type
P.149 LHKMRNL

Ultra-Extended Middle Square Flange Type
P.149 LHKMSNL

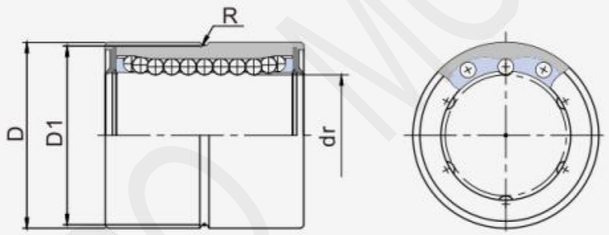
Ultra-Extended Middle Oval Flange Type
P.151 LHKMCNL

LMUT Series

LMUT (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



LMUT



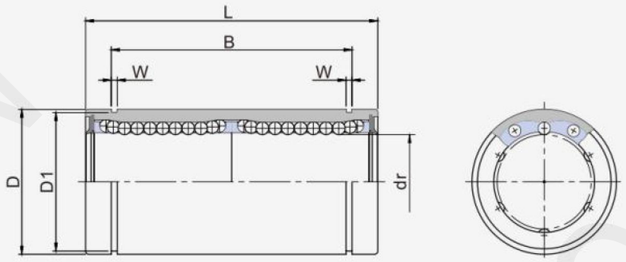
Nominal shaft diameter mm	LMUT	Ball circuit	Major dimensions and tolerance								Eccentricity μm	Basic load rating		Weight (g)
			dr		D		L		R mm	D1 mm		Dynamic C N	Static Co N	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm						
6	LMUT6	4	6	0 -9	12	0 -11	16	0 -200	1	11.4	12	113	155	6.5
8	LMUT8		8		15		20		1	14.4		155	226	11.4
10	LMUT10		10		19	0 -13	25		1.2	18.2		254	359	22.6
12	LMUT12		12		21		25		1.2	20.2		317	407	24.5
13	LMUT13		13		23		25		1.2	22.2		320	413	33
16	LMUT16	5	16		28		30		1.5	27		582	724	63
20	LMUT20		20	0 -10	32	0 -16	35		1.5	31	15	777	1034	74
25	LMUT25	6	25		40		45	0 -300	1.5	39		862.5	1534	166
30	LMUT30		30		45		50		1.5	44		1220	1987	189

SIUNIT:1N≈0.102kgf

LMUD Series

LMUD (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMUD

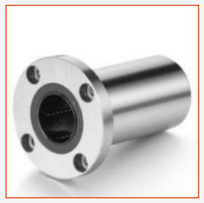


Nominal shaft diameter mm	LMUD	Ball circuit	Major dimensions and tolerance												Eccentricity μm	Basic load rating		Weight (g)
			dr		D			L		B		W mm	D1 mm			Dynamic C N	Static Co N	
			mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	Tolerance μm	mm	Tolerance μm							
6	LMUD6	4	6	0 -10	12	0 -13	0 -18	29	0 -300	22.2	0 -300	1.1	11.5		15	226	310	12.1
8	LMUD8		8		15			37		27.2		1.1	14.3			310	452	21.5
10	LMUD10		10		19	0 -16	0 -21	47		32.6		1.3	18			508	718	43
12	LMUD12		12		21			47		32.6		1.3	20			634	814	45.6
13	LMUD13		13		23			47		32.6		1.3	22			640	826	61
16	LMUD16	5	16		28			56		38.2		1.6	27			1164	1448	119
20	LMUD20		20	0 -12	32	0 -19	0 -25	65		43.2		1.6	30.5		20	1554	2068	140
25	LMUD25	6	25		40			83	0 -400	58.7	0 -400	1.85	38			1725	3068	309
30	LMUD30		30		45			90		75		1.85	43			2440	3974	376

SIUNIT:1N≈0.102kgf

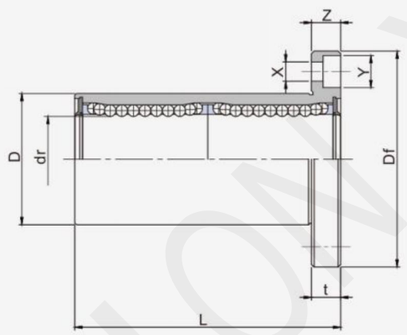
LHFR(S)D Series

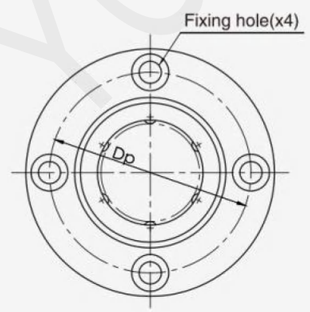
LHFR(S)D (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



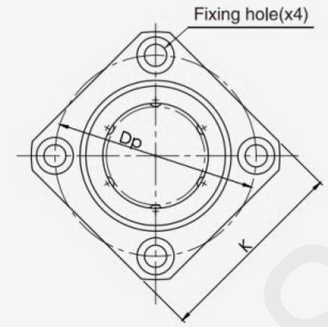
LHFRD

LHFSD





LHFRD



LHFSD

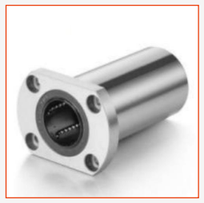
Nominal shaft diameter mm	LHFRD	Weight (g)	LHFSD	Weight (g)	Ball circuit	Major dimensions and tolerance						
						dr		D			L	
						mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	Tolerance μm
6	LHFRD6	27.1	LHFSD6	21.1	4	6	0 -10	12	0 -13	0 -18	29	±300
8	LHFRD8	41.5	LHFSD8	33.5		8		15			37	
10	LHFRD10	79	LHFSD10	59		10		19	0 -16	0 -21	47	0 -300
12	LHFRD12	80.6	LHFSD12	60.6		12		21			47	
13	LHFRD13	101	LHFSD13	79		13		23			47	
16	LHFRD16	164	LHFSD16	139	5	16		28			56	
20	LHFRD20	220	LHFSD20	185		20	0 -12	32	0 -19	0 -25	65	0 -400
25	LHFRD25	456	LHFSD25	417	6	25		40			83	
30	LHFRD30	513	LHFSD30	435		30		45			90	

Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
28	22	5	20	3.5	6	3.1	15	15	226	310
32	25	5	24	3.5	6	3.1			310	452
40	30	6	29	4.5	7.5	4.1			508	718
42	32	6	32	4.5	7.5	4.1			634	814
43	34	6	33	4.5	7.5	4.1			640	826
48	37	6	38	4.5	7.5	4.1			1164	1448
54	42	8	43	5.5	9	5.1	20	20	1554	2068
62	50	8	51	5.5	9	5.1			1725	3068
74	58	10	60	6.6	11	6.1			2440	3974

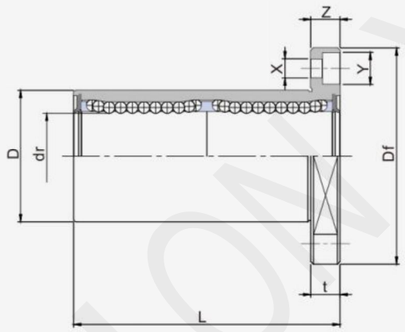
SIUNIT:1N≈0.102kgf

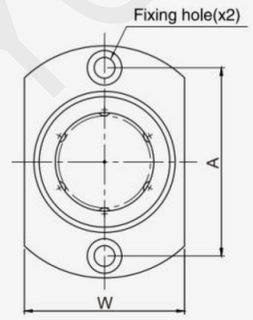
LHFCD Series

LHFCD (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

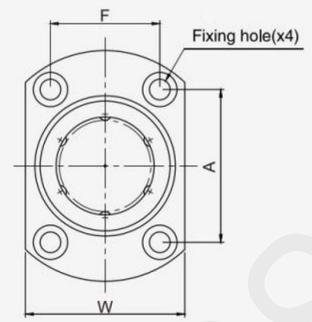


LHFCD





LHFCD13 or Less



LHFCD16 or More

Nominal shaft diameter mm	LHFCD	Weight (g)	Ball circuit	Major dimensions and tolerance						
				dr		D			L	
				mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	Tolerance μm
6	LHFCD6	24.1	4	6	0 -10	12	0 -13	0 -18	29	±300
8	LHFCD8	37.5		8		15			37	
10	LHFCD10	71		10		19	0 -16	0 -21	47	
12	LHFCD12	72.6		12		21			47	0 -300
13	LHFCD13	94		13		23			47	
16	LHFCD16	156	5	16		28			56	
20	LHFCD20	207	6	20	0 -12	32	0 -19	0 -25	65	
25	LHFCD25	427		25		40			83	0 -400
30	LHFCD30	446		30		45			90	

Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange										Dynamic C N	Static Co N
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm				
28	18	5	20	——	3.5	6	3.1	15	15	226	310
32	21	5	24	——	3.5	6	3.1			310	452
40	25	6	29	——	4.5	7.5	4.1			508	718
42	27	6	32	——	4.5	7.5	4.1			634	814
43	29	6	33	——	4.5	7.5	4.1			640	826
48	34	6	31	22	4.5	7.5	4.1			1164	1448
54	38	8	36	24	5.5	9	5.1	20	20	1554	2068
62	46	8	40	32	5.5	9	5.1			1725	3068
74	51	10	49	35	6.6	11	6.1			2440	3974

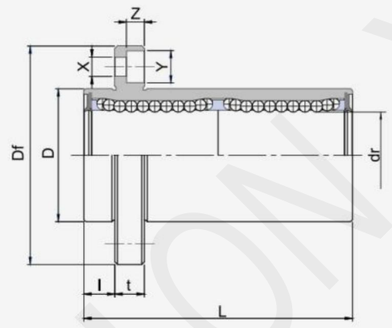
SIUNIT:1N≈0.102kgf

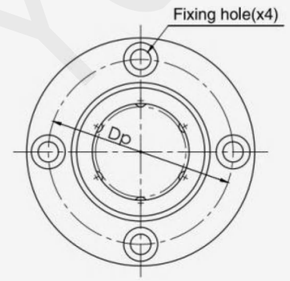
LHIR(S)D Series

LHIR(S)D (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

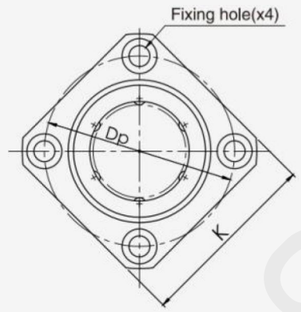
LHIRD

LHISD





LHIRD



LHISD

Nominal shaft diameter mm	LHIRD	Weight (g)	LHISD	Weight (g)	Ball circuit	Major dimensions and tolerance					
						dr		D		L	
						mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHIRD6	27.1	LHISD6	21.1		6		12	0 -13	29	
8	LHIRD8	41.5	LHISD8	33.5		8		15		37	±300
10	LHIRD10	79	LHISD10	59	4	10	0 -10	19		47	
12	LHIRD12	80.6	LHISD12	60.6		12		21	0 -16	47	
13	LHIRD13	101	LHISD13	79		13		23		47	0 -300
16	LHIRD16	164	LHISD16	139	5	16		28		56	
20	LHIRD20	220	LHISD20	185		20	0 -12	32	0 -19	65	
25	LHIRD25	456	LHISD25	417	6	25		40		83	0 -400
30	LHIRD30	513	LHISD30	435		30		45		90	

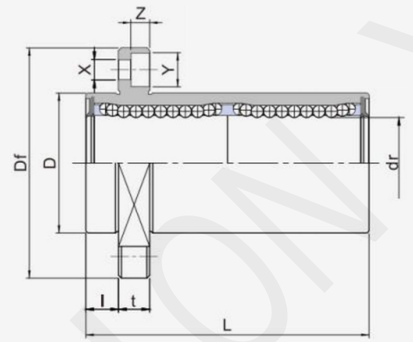
Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
5	28	22	5	20	3.5	6	3.1			226	310
5	32	25	5	24	3.5	6	3.1			310	452
6	40	30	6	29	4.5	7.5	4.1			508	718
6	42	32	6	32	4.5	7.5	4.1	15	15	634	814
6	43	34	6	33	4.5	7.5	4.1			640	826
6	48	37	6	38	4.5	7.5	4.1			1164	1448
8	54	42	8	43	5.5	9	5.1			1554	2068
8	62	50	8	51	5.5	9	5.1	20	20	1725	3068
10	74	58	10	60	6.6	11	6.1			2440	3974

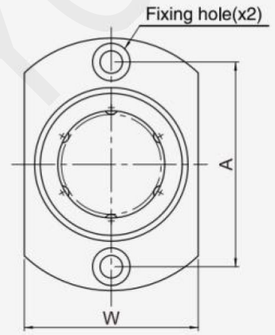
SIUNIT:1N≈0.102kgf

LHICD Series

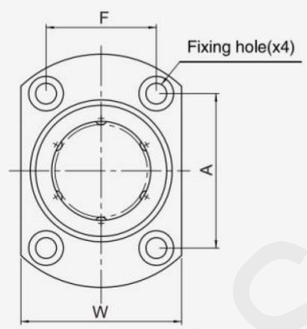
LHICD (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHICD





LHICD13 or Less



LHICD16 or More

Nominal shaft diameter mm	LHICD	Weight (g)	Ball circuit	Major dimensions and tolerance					
				dr		D		L	
				mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHICD6	24.1	4	6	0 -10	12	0 -13	29	±300
8	LHICD8	37.5		8		15		37	
10	LHICD10	71		10		19	0 -16	47	
12	LHICD12	72.6		12		21		47	0 -300
13	LHICD13	94		13		23		47	
16	LHICD16	156	5	16		28		56	
20	LHICD20	207		20	0 -12	32	0 -19	65	
25	LHICD25	427	6	25		40		83	0 -400
30	LHICD30	446		30		45		90	

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
5	28	18	5	20	——	3.5	6	3.1	15	15	226	310
5	32	21	5	24	——	3.5	6	3.1			310	452
6	40	25	6	29	——	4.5	7.5	4.1			508	718
6	42	27	6	32	——	4.5	7.5	4.1			634	814
6	43	29	6	33	——	4.5	7.5	4.1			640	826
6	48	34	6	31	22	4.5	7.5	4.1			1164	1448
8	54	38	8	36	24	5.5	9	5.1	20	20	1554	2068
8	62	46	8	40	32	5.5	9	5.1			1725	3068
10	74	51	10	49	35	6.6	11	6.1			2440	3974

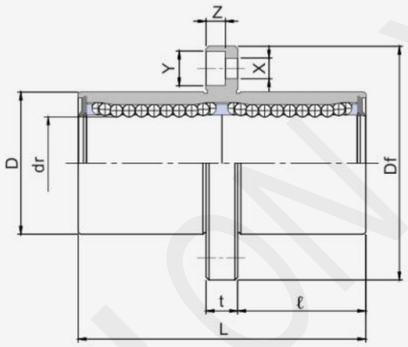
SIUNIT:1N≈0.102kgf

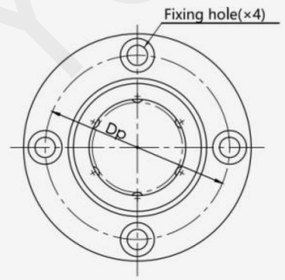
LHMR(S)D Series

LHMR(S)D (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

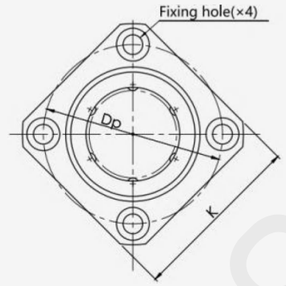
LHMRD

LHMSD





LHMRD



LHMSD

Nominal shaft diameter mm	LHMRD	Weight (g)	LHMSD	Weight (g)	Ball circuit	Major dimensions and tolerance					
						dr		D		L	
						mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHMRD6	27.1	LHMSD6	21.1	4	6	0 -10	12	0 -13	29	±300
8	LHMRD8	41.5	LHMSD8	33.5		8		15		37	
10	LHMRD10	79	LHMSD10	59		10		19	0 -16	47	0 -300
12	LHMRD12	80.6	LHMSD12	60.6		12		21		47	
13	LHMRD13	101	LHMSD13	79		13		23		47	
16	LHMRD16	164	LHMSD16	139	5	16		28		56	
20	LHMRD20	220	LHMSD20	185		20	0 -12	32	0 -19	65	0 -400
25	LHMRD25	456	LHMSD25	417	6	25		40		83	
30	LHMRD30	513	LHMSD30	435		30		45		90	

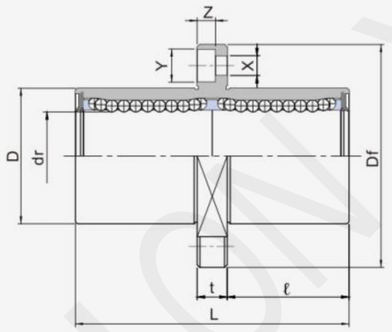
Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
ℓ mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
12	28	22	5	20	3.5	6	3.1	15	15	226	310
16	32	25	5	24	3.5	6	3.1			310	452
20.5	40	30	6	29	4.5	7.5	4.1			508	718
20.5	42	32	6	32	4.5	7.5	4.1			634	814
20.5	43	34	6	33	4.5	7.5	4.1			640	826
25	48	37	6	38	4.5	7.5	4.1			1164	1448
28.5	54	42	8	43	5.5	9	5.1	20	20	1554	2068
37.5	62	50	8	51	5.5	9	5.1			1725	3068
40	74	58	10	60	6.6	11	6.1			2440	3974

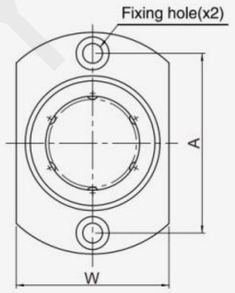
SIUNIT:1N≈0.102kgf

LHMCD Series

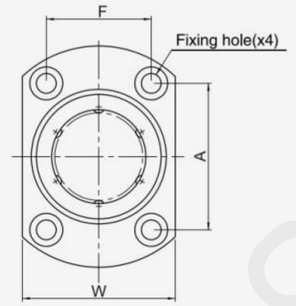
LHMCD (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHMCD





LHMCD13 or Less



LHMCD16 or More

Nominal shaft diameter mm	LHMCD	Weight (g)	Ball circuit	Major dimensions and tolerance					
				dr		D		L	
				mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHMCD6	24.1	4	6	0 -10	12	0 -13	29	±300
8	LHMCD8	37.5		8		15		37	
10	LHMCD10	71		10		19	0 -16	47	0 -300
12	LHMCD12	72.6		12		21		47	
13	LHMCD13	94		13		23		47	
16	LHMCD16	156	5	16		28		56	
20	LHMCD20	207		20	0 -12	32	0 -19	65	
25	LHMCD25	427	6	25		40		83	0 -400
30	LHMCD30	446		30		45		90	

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
ℓ mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
12	28	18	5	20	——	3.5	6	3.1	15	15	226	310
16	32	21	5	24	——	3.5	6	3.1			310	452
20.5	40	25	6	29	——	4.5	7.5	4.1			508	718
20.5	42	27	6	32	——	4.5	7.5	4.1			634	814
20.5	43	29	6	33	——	4.5	7.5	4.1			640	826
25	48	34	6	31	22	4.5	7.5	4.1			1164	1448
28.5	54	38	8	36	24	5.5	9	5.1	20	20	1554	2068
37.5	62	46	8	40	32	5.5	9	5.1			1725	3068
40	74	51	10	49	35	6.6	11	6.1			2440	3974

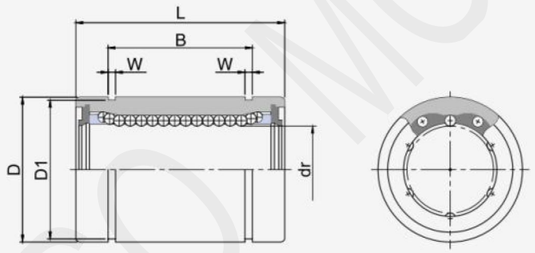
SIUNIT:1N≈0.102kgf

YOSO MOTION Linear Bearings

LMK Series

LMK (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMK

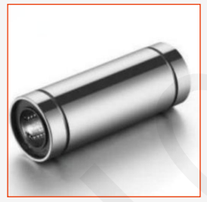


Nominal shaft diameter mm	LMK	Ball circuit	Major dimensions and tolerance										Eccentricity μm	Basic load rating		Weight (g)
			dr		D		L		B		W mm	D1 mm		Dynamic C N	Static Co N	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm						
6	LMK6	6	6	0 -9	10	0 -11	19	0 -200	13.6	0 -200	1.15	9.6	12	131	155	3.9
8	LMK8		8		13		24		17.6		1.15	12.4		235	277	8.7
10	LMK10		10		17	0 -13	29		21.7		1.15	16.2		368	433	21.9
12	LMK12		12		19		30		23.1		1.35	18		381	449	24
16	LMK16		16		26		37		26		1.35	24.9		608	716	60

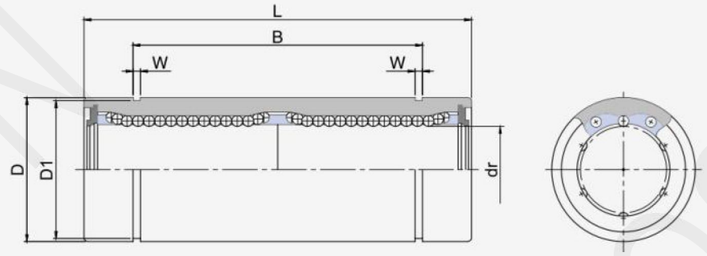
SIUNIT:1N≈0.102kgf

LMKW Series

LMKW (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.



LMKW



Nominal shaft diameter mm	LMKW	Ball circuit	Major dimensions and tolerance										Eccentricity μm	Basic load rating		Weight (g)
			dr		D		L		B		W mm	D1 mm		Dynamic C N	Static Co N	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm						
6	LMKW6	6	6	0 -10	10	0 -13	35	0 -300	27.1	0 -300	1.15	9.6	15	206	309	7.3
8	LMKW8		8		13		45		35.1		1.15	12.4		383	555	16.9
10	LMKW10		10		17	0 -16	55		43.7		1.15	16.2		585	867	42
12	LMKW12		12		19		57		46.1		1.35	18		608	899	47
16	LMKW16		16		26		70		52.5		1.35	24.9		965	1431	60

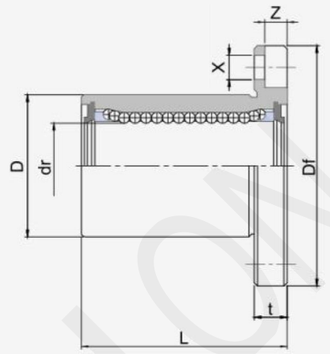
SIUNIT:1N≈0.102kgf

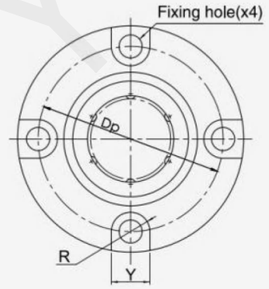
LHKR(S) Series

LHKR(S) (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

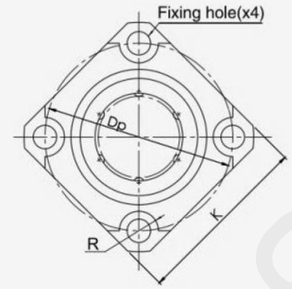
LHKR

LHKS





LHKR



LHKS

Nominal shaft diameter mm	LHKR	Weight (g)	LHKS	Weight (g)	Ball circuit	Major dimensions and tolerance						
						dr		D			L	
						mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	Tolerance μm
6	LHKR6	15.9	LHKS6	11.9	6	6	0 -9	10	0 -13	0 -18	19	±300
8	LHKR8	23.7	LHKS8	18.7		8		13			24	
10	LHKR10	47.9	LHKS10	36.9		10		17	0 -16	0 -21	29	
12	LHKR12	56	LHKS12	42		12		19			30	0 -200
16	LHKR16	98	LHKS16	79		16		26			37	

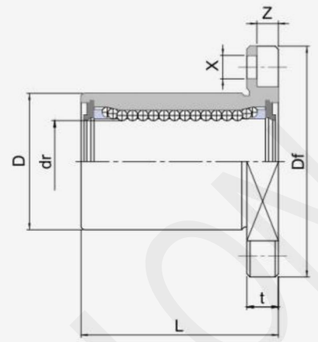
Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm	R mm			Dynamic C N	Static Co N
25	20	5	19	3.5	6	3.1	3	12	12	131	155
28	23	5	22	3.5	6	3.1	3			235	277
35	27	6	27	4.5	7.5	4.1	3.75			368	433
38	29	6	30	4.5	7.5	4.1	3.75			381	449
44	34	6	36	4.5	7.5	4.1	3.75			608	716

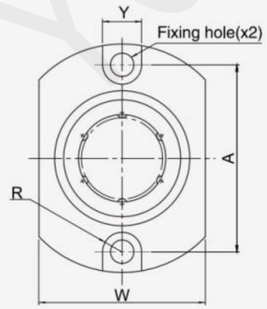
SIUNIT:1N≈0.102kgf

LHKC Series

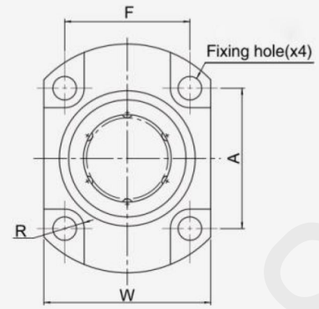
LHKC (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHKC





LHKC12 or Less



LHKC16 or More

Nominal shaft diameter mm	LHKC	Weight (g)	Ball circuit	Major dimensions and tolerance						
				dr		D			L	
				mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	Tolerance μm
6	LHKC6	12.9	6	6	0 -9	10	0 -13	0 -18	19	±300
8	LHKC8	20.7		8		13			24	
10	LHKC10	41.9		10		17	0 -16	0 -21	29	
12	LHKC12	47		12		19			30	0 -200
16	LHKC16	85		16		26			37	

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm	R mm			Dynamic C N	Static Co N
25	16	5	19	——	3.5	6	3.1	3	12	12	131	155
28	19	5	22	——	3.5	6	3.1	3			235	277
35	23	6	27	——	4.5	7.5	4.1	3.75			368	433
38	25	6	30	——	4.5	7.5	4.1	3.75			381	449
44	32	6	27	24	4.5	7.5	4.1	3.75			608	716

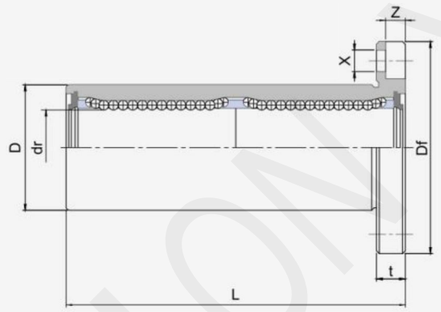
SIUNIT:1N≈0.102kgf

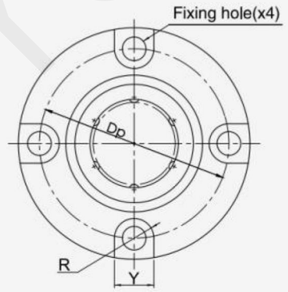
LHKR(S)W Series

LHKR(S)W (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

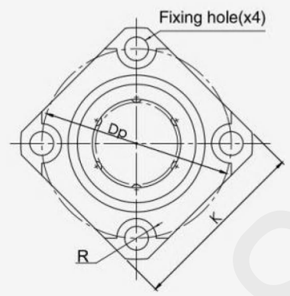
LHKRW

LHKSW





LHKRW



LHKSW

Nominal shaft diameter mm	LHKRW	Weight (g)	LHKSW	Weight (g)	Ball circuit	Major dimensions and tolerance						
						dr		D			L	
						mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	Tolerance μm
6	LHKRW6	19.3	LHKSW6	15.3	6	6	0 -10	10	0 -13	0 -18	35	±300
8	LHKRW8	30.9	LHKSW8	26.9		8		13			45	
10	LHKRW10	69	LHKSW10	58		10		17	0 -16	0 -21	55	
12	LHKRW12	78	LHKSW12	65		12		19			57	0 -300
16	LHKRW16	155	LHKSW16	136		16		26			70	

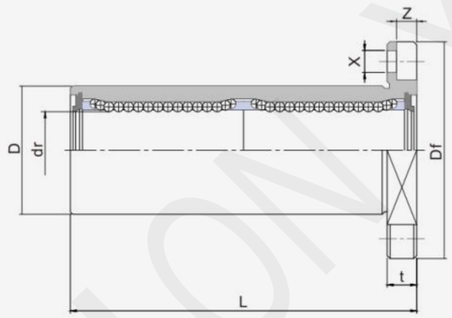
Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm	R mm			Dynamic C N	Static Co N
25	20	5	19	3.5	6	3.1	3	15	15	206	309
28	23	5	22	3.5	6	3.1	3			383	555
35	27	6	27	4.5	7.5	4.1	3.75			585	867
38	29	6	30	4.5	7.5	4.1	3.75			608	899
44	34	6	36	4.5	7.5	4.1	3.75			965	1431

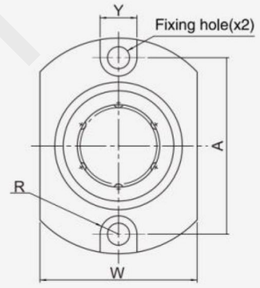
SIUNIT:1N≈0.102kgf

LHKCW Series

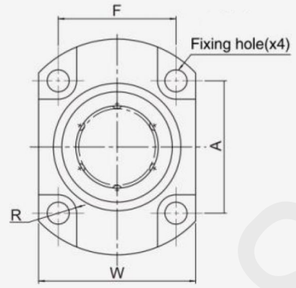
LHKCW (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHKCW





LHKCW12 or Less



LHKCW16 or More

Nominal shaft diameter mm	LHKCW	Weight (g)	Ball circuit	Major dimensions and tolerance						
				dr		D			L	
				mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	Tolerance μm
6	LHKCW6	16.3	6	6	0 -10	10	0 -13	0 -18	35	±300
8	LHKCW8	27.9		8		13			45	
10	LHKCW10	63		10		17	0 -16	0 -21	55	
12	LHKCW12	70		12		19			57	0 -300
16	LHKCW16	142		16		26			70	

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm	R mm			Dynamic C N	Static Co N
25	16	5	19	——	3.5	6	3.1	3	15	15	206	309
28	19	5	22	——	3.5	6	3.1	3			383	555
35	23	6	27	——	4.5	7.5	4.1	3.75			585	867
38	25	6	30	——	4.5	7.5	4.1	3.75			608	899
44	32	6	27	24	4.5	7.5	4.1	3.75			965	1431

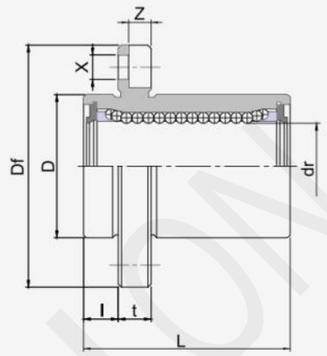
SIUNIT:1N≈0.102kgf

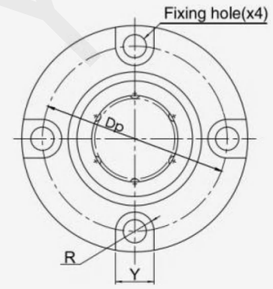
LHIR(S)K Series

LHIR(S)K (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

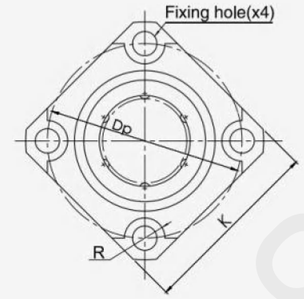
LHIRK

LHISK





LHIRK



LHISK

Nominal shaft diameter mm	LHIRK	Weight (g)	LHISK	Weight (g)	Ball circuit	Major dimensions and tolerance					
						dr		D		L	
						mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHIRK6	15.9	LHISK6	11.9	6	6	0 -9	10	0 -13	19	±300
8	LHIRK8	23.7	LHISK8	18.7		8		13		24	
10	LHIRK10	47.9	LHISK10	36.9		10		17	0 -16	29	
12	LHIRK12	56	LHISK12	42		12		19		30	0 -200
16	LHIRK16	98	LHISK16	79		16		26		37	

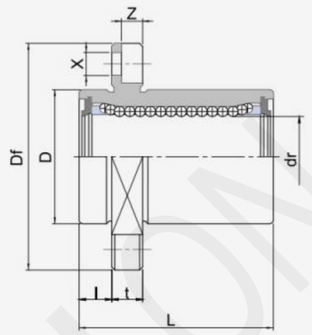
Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange											Dynamic C N	Static Co N
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm	R mm				
5	25	20	5	19	3.5	6	3.1	3	12	12	131	155
5	28	23	5	22	3.5	6	3.1	3			235	277
6	35	27	6	27	4.5	7.5	4.1	3.75			368	433
6	38	29	6	30	4.5	7.5	4.1	3.75			381	449
6	44	34	6	36	4.5	7.5	4.1	3.75			608	716

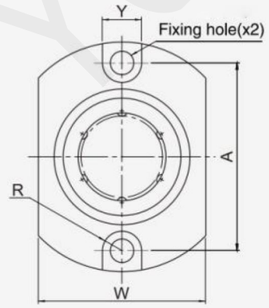
SIUNIT:1N≈0.102kgf

LHICK Series

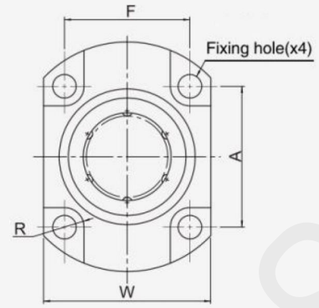
LHICK (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHICK





LHICK12 or Less



LHICK16 or More

Nominal shaft diameter mm	LHICK	Weight (g)	Ball circuit	Major dimensions and tolerance					
				dr		D		L	
				mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHICK6	12.9	6	6	0 -9	10	0 -13	19	±300
8	LHICK8	20.7		8		13		24	
10	LHICK10	41.9		10		17	0 -16	29	0 -200
12	LHICK12	47		12		19		30	
16	LHICK16	85		16		26		37	

Major dimensions and tolerance										Eccentricity μm	Squareness μm	Basic load rating	
Flange													
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm	R mm			Dynamic C N	Static Co N
5	25	16	5	19	——	3.5	6	3.1	3	12	12	131	155
5	28	19	5	22	——	3.5	6	3.1	3			235	277
6	35	23	6	27	——	4.5	7.5	4.1	3.75			368	433
6	38	25	6	30	——	4.5	7.5	4.1	3.75			381	449
6	44	32	6	27	24	4.5	7.5	4.1	3.75			608	716

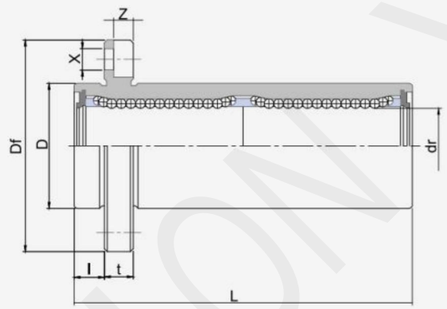
SIUNIT:1N≈0.102kgf

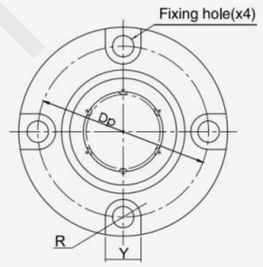
LHIR(S)KW Series

LHIR(S)KW (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

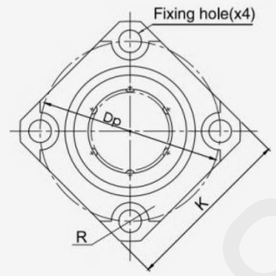
LHIRKW

LHISKW





LHIRKW



LHISKW

Nominal shaft diameter mm	LHIRKW	Weight (g)	LHISKW	Weight (g)	Ball circuit	Major dimensions and tolerance					
						dr		D		L	
						mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHIRKW6	19.3	LHISKW6	15.3	6	6	0 -10	10	0 -13	35	±300
8	LHIRKW8	30.9	LHISKW8	26.9		8		13		45	
10	LHIRKW10	69	LHISKW10	58		10		17	0 -16	55	
12	LHIRKW12	78	LHISKW12	65		12		19		57	0 -300
16	LHIRKW16	155	LHISKW16	136		16		26		70	

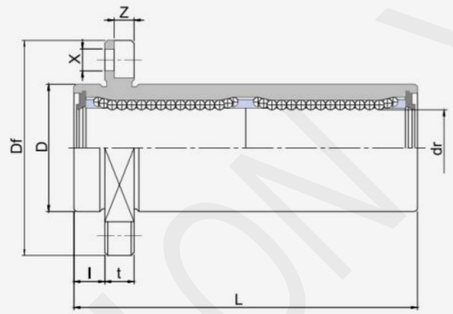
Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm	R mm			Dynamic C N	Static Co N
5	25	20	5	19	3.5	6	3.1	3	15	15	206	309
5	28	23	5	22	3.5	6	3.1	3			383	555
6	35	27	6	27	4.5	7.5	4.1	3.75			585	867
6	38	29	6	30	4.5	7.5	4.1	3.75			608	899
6	44	34	6	36	4.5	7.5	4.1	3.75			965	1431

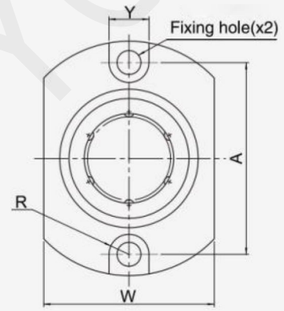
SIUNIT:1N≈0.102kgf

LHICKW Series

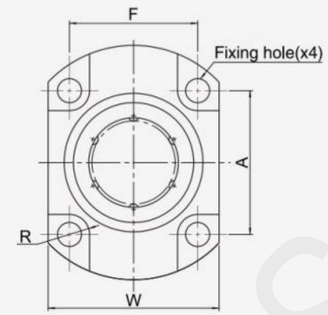
LHICKW (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHICKW





LHICKW12 or Less



LHICKW16 or More

Nominal shaft diameter mm	LHICKW	Weight (g)	Ball circuit	Major dimensions and tolerance					
				dr		D		L	
				mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHICKW6	16.3	6	6	0 -10	10	0 -13	35	±300
8	LHICKW8	27.9		8		13		45	
10	LHICKW10	63		10		17	0 -16	55	
12	LHICKW12	70		12		19		57	0 -300
16	LHICKW16	142		16		26		70	

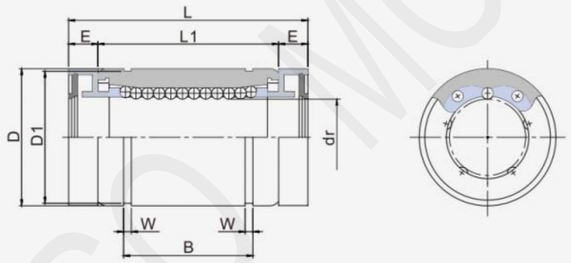
Major dimensions and tolerance										Eccentricity μm	Squareness μm	Basic load rating	
Flange													
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm	R mm			Dynamic C N	Static Co N
5	25	16	5	19	——	3.5	6	3.1	3	15	15	206	309
5	28	19	5	22	——	3.5	6	3.1	3			383	555
6	35	23	6	27	——	4.5	7.5	4.1	3.75			585	867
6	38	25	6	30	——	4.5	7.5	4.1	3.75			608	899
6	44	32	6	27	24	4.5	7.5	4.1	3.75			965	1431

SIUNIT:1N≈0.102kgf

LM···UUMX Series

LM···UUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LM···UUMX



Nominal shaft diameter mm	LM···UUMX	Ball circuit	Major dimensions and tolerance													Eccentricity µm	Basic load rating		Weight (g)
			dr		D		L	L1		E	B		W	D1					
			mm	Tolerance µm	mm	Tolerance µm	mm	mm	Tolerance µm	mm	mm	Tolerance µm	mm	mm			Dynamic C N	Static Co N	
10	LM10UUMX	4	10	0 -9	19	0 -13	39	29	0 -200	5	22	0 -200	1.3	18	12		372	549	35
12	LM12UUMX		12		21		41	30		5.5	23		1.3	20		12	510	784	45
16	LM16UUMX	5	16		28		49	37		6	26.5		1.6	27			774	1180	80
20	LM20UUMX		20	0 -10	32	0 -16	56	42		7	30.5		1.6	30.5	15		882	1370	109
25	LM25UUMX	6	25		40		77	59	0 -300	9	41	0 -300	1.85	38			980	1570	255
30	LM30UUMX		30		45		84	64		10	44.5		1.85	43			1570	2740	286
35	LM35UUMX		35	0 -12	52	0 -19	92	70		11	49.5		2.1	49	20		1670	3140	453
40	LM40UUMX		40		60		104	80		12	60.5		2.1	57			2160	4020	687
50	LM50UUMX		50		80		128	100		14	74		2.6	76.5			3820	7940	1763

Seal type:
LM20 A UUMX

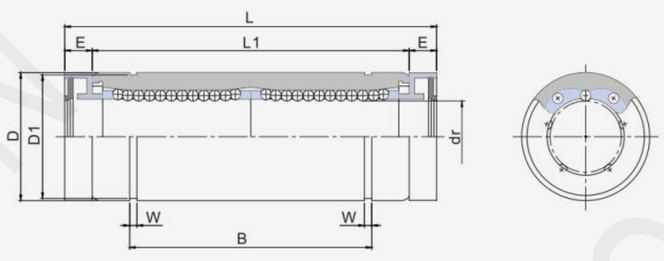
- UU — Seal on both sides
- A — Nickel plated

SIUNIT:1N≈0.102kgf

LM···LUUMX Series

LM···LUUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LM···LUUMX



Nominal shaft diameter mm	LM···LUUMX	Ball circuit	Major dimensions and tolerance													Eccentricity µm	Basic load rating		Weight (g)
			dr		D		L	L1		E	B		W	D1					
			mm	Tolerance µm	mm	Tolerance µm	mm	mm	Tolerance µm	mm	mm	Tolerance µm	mm	mm			Dynamic C N	Static Co N	
10	LM10LUUMX	4	10	0 -10	19	0 -16	65	55	0 -300	5	44	0 -300	1.3	18	15		588	1100	66
12	LM12LUUMX		12		21		68	57		5.5	46		1.3	20			813	1570	84
16	LM16LUUMX	5	16		28		82	70		6	53		1.6	27			1230	2350	152
20	LM20LUUMX		20	0 -12	32	0 -19	94	80		7	61		1.6	30.5	20		1400	2740	191
25	LM25LUUMX	6	25		40		130	112	0 -400	9	82	0 -400	1.85	38			1560	3140	459
30	LM30LUUMX		30		45		143	123		10	89		1.85	43			2490	5490	504
35	LM35LUUMX		35	0 -15	52	0 -22	157	135		11	99		2.1	49	25		2650	6270	823
40	LM40LUUMX		40		60		175	151		12	121		2.1	57			3430	8040	1203
50	LM50LUUMX		50		80		220	192		14	148		2.6	76.5			6080	15900	3163

Seal type:
LM20L A UUMX

- UU — Seal on both sides
- A — Nickel plated

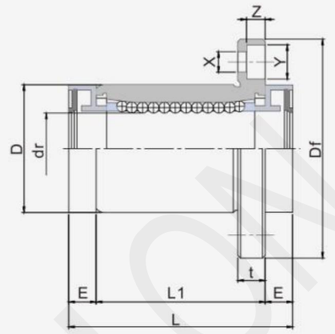
SIUNIT:1N≈0.102kgf

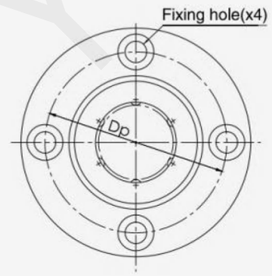
LMF(K)···UUMX Series

LMF(K)···UUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

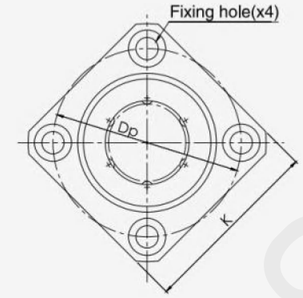
LMF···UUMX

LMK···UUMX





LMF···UUMX



LMK···UUMX

Nominal shaft diameter mm	LMF···UUMX	Weight (g)	LMK···UUMX	Weight (g)	Ball circuit	Major dimensions and tolerance								
						dr		D			L	L1		E
						mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	mm	Tolerance μm	mm
10	LMF10UUMX	76	LMK10UUMX	56	4	10	0 -9	19	0 -16	0 -21	39	29	±300	5
12	LMF12UUMX	80	LMK12UUMX	61		12		21			41	30	0 -200	5.5
16	LMF16UUMX	127	LMK16UUMX	111	5	16		28			49	37		6
20	LMF20UUMX	191	LMK20UUMX	156		20	0 -10	32	0 -19	0 -25	56	42		7
25	LMF25UUMX	359	LMK25UUMX	319	6	25		40			77	59		9
30	LMF30UUMX	494	LMK30UUMX	399		30		45			84	64	0 -300	10
35	LMF35UUMX	678	LMK35UUMX	588		35	0 -12	52	0 -22	0 -30	92	70		11
40	LMF40UUMX	1093	LMK40UUMX	913		40		60			104	80		12
50	LMF50UUMX	2263	LMK50UUMX	2063		50		80			128	100		14

Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
40	30	6	29	4.5	7.5	4.1	12	12	372	549
42	32	6	32	4.5	7.5	4.1			510	784
48	37	6	38	4.5	7.5	4.1			774	1180
54	42	8	43	5.5	9	5.1	15	15	882	1370
62	50	8	51	5.5	9	5.1			980	1570
74	58	10	60	6.6	11	6.1			1570	2740
82	64	10	67	6.6	11	6.1	20	20	1670	3140
96	75	13	78	9	14	8.1			2160	4020
116	92	13	98	9	14	8.1			3820	7940

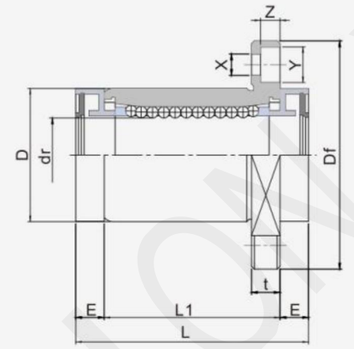
SIUNIT:1N≈0.102kgf

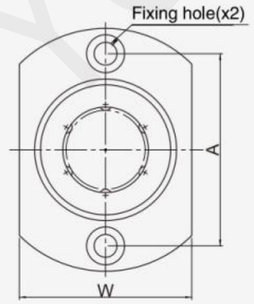
Seal type:
LMF20 A UUMX
UU Seal on both sides
A Nickel plated

LMH···UUMX Series

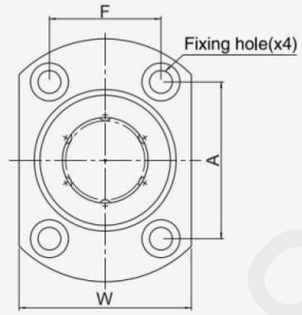
LMH···UUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMH···UUMX





LMH12UUMX or Less



LMH16UUMX or More

Nominal shaft diameter mm	LMH···UUMX	Weight (g)	Ball circuit	Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
				dr		D			L mm	L1		E mm			Dynamic C N	Static Co N
				mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm		mm	Tolerance μm					
10	LMH10UUMX	68	4	10	0 -9	19	0 -16	0 -21	39	29	±300	5			372	549
12	LMH12UUMX	72		12		21			41	30	0 -200	5.5			510	784
16	LMH16UUMX	119	5	16		28			49	37		6			774	1180
20	LMH20UUMX	178		20	0 -10	32	0 -19	0 -25	56	42		7			882	1370
25	LMH25UUMX	344	6	25		40			77	59	0 -300	9			980	1570
30	LMH30UUMX	412		30		45			84	64		10			1570	2740
35	LMH35UUMX	603		35	0 -12	52	0 -22	0 -30	92	70		11			1670	3140
40	LMH40UUMX	946		40		60			104	80		12			2160	4020
50	LMH50UUMX	2100		50		80			128	100		14			3820	7940

Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
40	25	6	29	——	4.5	7.5	4.1	12	12	372	549
42	27	6	32	——	4.5	7.5	4.1			510	784
48	34	6	31	22	4.5	7.5	4.1			774	1180
54	38	8	36	24	5.5	9	5.1	15	15	882	1370
62	46	8	40	32	5.5	9	5.1			980	1570
74	51	10	49	35	6.6	11	6.1			1570	2740
82	60	10	55	38	6.6	11	6.1	20	20	1670	3140
96	70	13	64	45	9	14	8.1			2160	4020
116	90	13	80	56	9	14	8.1			3820	7940

SIUNIT:1N≈0.102kgf

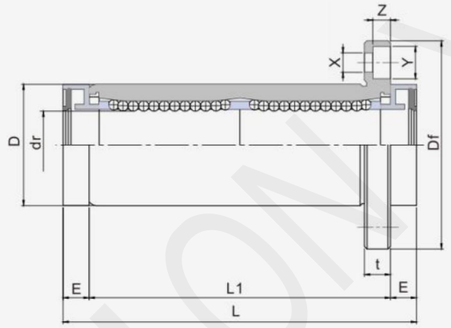
Seal type:
LMH20 A UUMX
- UU Seal on both sides
- A Nickel plated

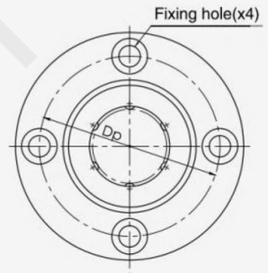
LMF(K)···LUUMX Series

LMF(K)···LUUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

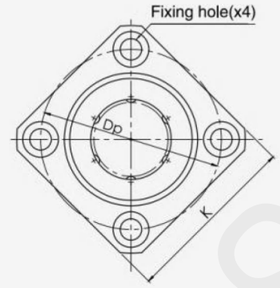
LMF···LUUMX

LMK···LUUMX





LMF···LUUMX



LMK···LUUMX

Nominal shaft diameter mm	LMF···LUUMX	Weight (g)	LMK···LUUMX	Weight (g)	Ball circuit	Major dimensions and tolerance								
						dr		D			L	L1		E
						mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm	mm	mm	Tolerance μm	mm
10	LMF10LUUMX	102	LMK10LUUMX	82	4	10	0 -10	19	0 -16	0 -21	65	55	±300	5
12	LMF12LUUMX	114	LMK12LUUMX	94		12		21			68	57	0 -300	5.5
16	LMF16LUUMX	197	LMK16LUUMX	172	5	16		28			82	70		6
20	LMF20LUUMX	271	LMK20LUUMX	236		20	0 -12	32	0 -19	0 -25	94	80		7
25	LMF25LUUMX	559	LMK25LUUMX	519	6	25		40			130	112		9
30	LMF30LUUMX	704	LMK30LUUMX	614		30		45			143	123	0 -400	10
35	LMF35LUUMX	1048	LMK35LUUMX	958		35	0 -15	52	0 -22	0 -30	157	135		11
40	LMF40LUUMX	1603	LMK40LUUMX	1413		40		60			175	151		12
50	LMF50LUUMX	3663	LMK50LUUMX	3463		50		80			220	192		14

Seal type:
LMF20LA UUMX

UU Seal on both sides
A Nickel plated

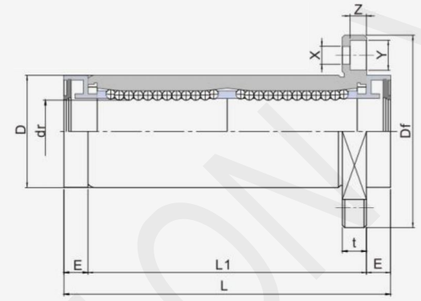
Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
40	30	6	29	4.5	7.5	4.1	15	15	588	1100
42	32	6	32	4.5	7.5	4.1			813	1570
48	37	6	38	4.5	7.5	4.1			1230	2350
54	42	8	43	5.5	9	5.1	20	20	1400	2740
62	50	8	51	5.5	9	5.1			1560	3140
74	58	10	60	6.6	11	6.1			2490	5490
82	64	10	67	6.6	11	6.1	25	25	2650	6270
96	75	13	78	9	14	8.1			3430	8040
116	92	13	98	9	14	8.1			6080	15900

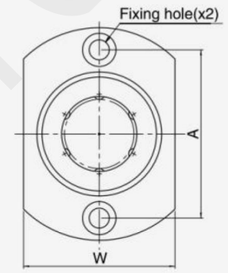
SIUNIT:1N≈0.102kgf

LMH···LUUMX Series

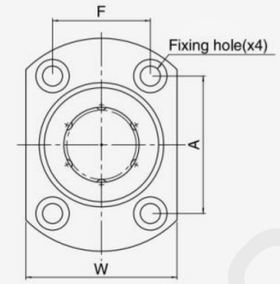
LMH···LUUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMH···LUUMX





LMH12LUUMX or Less



LMH16LUUMX or More

Nominal shaft diameter mm	LMH···LUUMX	Weight (g)	Ball circuit	Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
				dr		D			L mm	L1		E mm			Dynamic C N	Static Co N
				mm	Tolerance μm	mm	No surface treatment μm	Surface treatment μm		mm	Tolerance μm					
10	LMH10LUUMX	94	4	10	0 -10	19	0 -16	0 -21	65	55	±300	5			588	1100
12	LMH12LUUMX	106		12		21			68	57	0 -200	5.5			813	1570
16	LMH16LUUMX	189	5	16		28			82	70		6			1230	2350
20	LMH20LUUMX	258		20	0 -12	32	0 -19	0 -25	94	80		7			1400	2740
25	LMH25LUUMX	544	6	25		40			130	112	0 -300	9			1560	3140
30	LMH30LUUMX	669		30		45			143	123		10			2490	5490
35	LMH35LUUMX	973		35	0 -15	52	0 -22	0 -30	157	135		11			2650	6270
40	LMH40LUUMX	1456		40		60			175	151		12			3430	8040
50	LMH50LUUMX	3500		50		80			220	192		14			6080	15900

Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
40	25	6	29	——	4.5	7.5	4.1	15	15	588	1100
42	27	6	32	——	4.5	7.5	4.1			813	1570
48	34	6	31	22	4.5	7.5	4.1			1230	2350
54	38	8	36	24	5.5	9	5.1	20	20	1400	2740
62	46	8	40	32	5.5	9	5.1			1560	3140
74	51	10	49	35	6.6	11	6.1			2490	5490
82	60	10	55	38	6.6	11	6.1	25	25	2650	6270
96	70	13	64	45	9	14	8.1			3430	8040
116	90	13	80	56	9	14	8.1			6080	15900

SIUNIT:1N≈0.102kgf

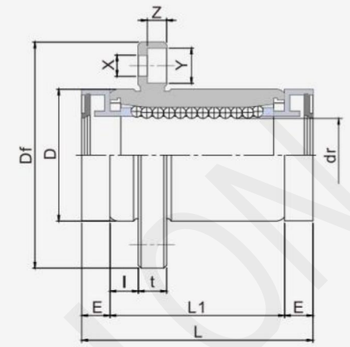
Seal type:
LMH20LA UUMX
UU Seal on both sides
A Nickel plated

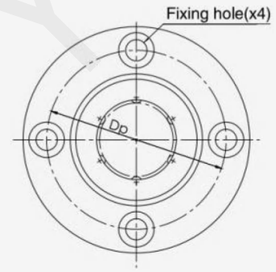
LMF(K)P···UUMX Series

LMF(K)P···UUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

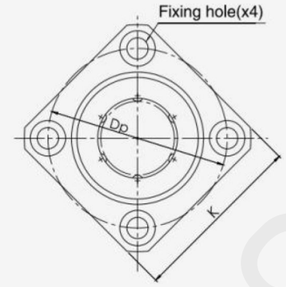
LMFP···UUMX

LMKP···UUMX





LMFP···UUMX



LMKP···UUMX

Nominal shaft diameter mm	LMFP···UUMX	Weight (g)	LMKP···UUMX	Weight (g)	Ball circuit	Major dimensions and tolerance							
						dr		D		L mm	L1		E mm
						mm	Tolerance μm	mm	Tolerance μm		mm	Tolerance μm	
10	LMFP10UUMX	76	LMKP10UUMX	56	4	10	0 -9	19	0 -16	39	29	±300	5
12	LMFP12UUMX	80	LMKP12UUMX	61		12		21		41	30	0 -200	5.5
16	LMFP16UUMX	127	LMKP16UUMX	111	5	16		28		49	37		6
20	LMFP20UUMX	191	LMKP20UUMX	156		20	0 -10	32	0 -19	56	42		7
25	LMFP25UUMX	359	LMKP25UUMX	319	6	25		40		77	59		9
30	LMFP30UUMX	494	LMKP30UUMX	399		30		45		84	64		10
35	LMFP35UUMX	678	LMKP35UUMX	588		35	0 -12	52	0 -22	92	70	0 -300	11
40	LMFP40UUMX	1093	LMKP40UUMX	913		40		60		104	80		12
50	LMFP50UUMX	2263	LMKP50UUMX	2063		50		80		128	100		14

Seal type:
LMFP20A UUMX

UU Seal on both sides
A Nickel plated

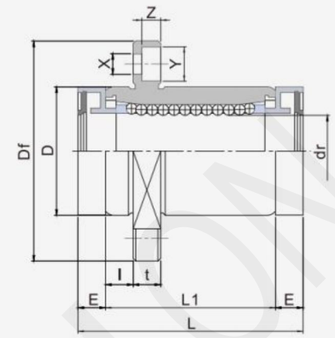
Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
I mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
6	40	30	6	29	4.5	7.5	4.1	12	12	372	549
6	42	32	6	32	4.5	7.5	4.1			510	784
6	48	37	6	38	4.5	7.5	4.1			774	1180
8	54	42	8	43	5.5	9	5.1	15	15	882	1370
8	62	50	8	51	5.5	9	5.1			980	1570
10	74	58	10	60	6.6	11	6.1			1570	2740
10	82	64	10	67	6.6	11	6.1	20	20	1670	3140
13	96	75	13	78	9	14	8.1			2160	4020
13	116	92	13	98	9	14	8.1			3820	7940

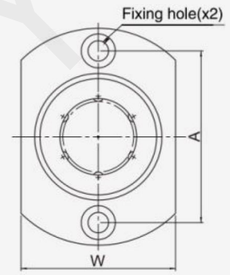
SIUNIT:1N≈0.102kgf

LMHP···UUMX Series

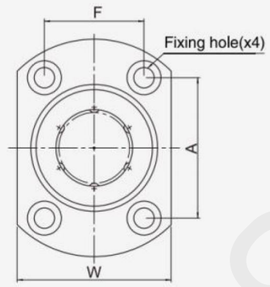
LMHP···UUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHP···UUMX





LMHP12UUMX or Less



LMHP16UUMX or More

Nominal shaft diameter mm	LMHP···UUMX	Weight (g)	Ball circuit	Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
				dr		D		L mm	L1		E mm			Dynamic C N	Static Co N
				mm	Tolerance μm	mm	Tolerance μm		mm	Tolerance μm					
10	LMHP10UUMX	68	4	10	0 -9	19	0 -16	39	29	±300	5			372	549
12	LMHP12UUMX	72		12		21		41	30	0 -200	5.5			510	784
16	LMHP16UUMX	119	5	16		28		49	37		6			774	1180
20	LMHP20UUMX	178		20	0 -10	32	0 -19	56	42		7			882	1370
25	LMHP25UUMX	344	6	25		40		77	59	0 -300	9			980	1570
30	LMHP30UUMX	412		30		45		84	64		10			1570	2740
35	LMHP35UUMX	603		35	0 -12	52	0 -22	92	70		11			1670	3140
40	LMHP40UUMX	946		40		60		104	80		12			2160	4020
50	LMHP50UUMX	2100		50		80		128	100		14			3820	7940

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange											Dynamic C N	Static Co N
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm				
6	40	25	6	29	——	4.5	7.5	4.1	12	12	372	549
6	42	27	6	32	——	4.5	7.5	4.1			510	784
6	48	34	6	31	22	4.5	7.5	4.1			774	1180
8	54	38	8	36	24	5.5	9	5.1	15	15	882	1370
8	62	46	8	40	32	5.5	9	5.1			980	1570
10	74	51	10	49	35	6.6	11	6.1			1570	2740
10	82	60	10	55	38	6.6	11	6.1	20	20	1670	3140
13	96	70	13	64	45	9	14	8.1			2160	4020
13	116	90	13	80	56	9	14	8.1			3820	7940

SIUNIT:1N≈0.102kgf

Seal type:
LMHP20A UUMX

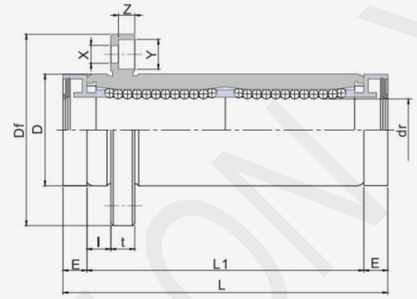
- UU Seal on both sides
- A Nickel plated

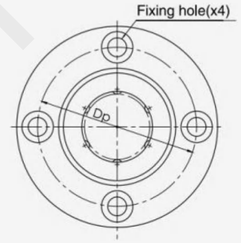
LMF(K)P···LUUMX Series

LMF(K)P···LUUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

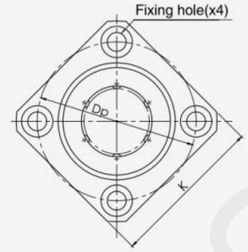
LMFP···LUUMX

LMKP···LUUMX





LMFP···LUUMX



LMKP···LUUMX

Nominal shaft diameter mm	LMFP···LUUMX	Weight (g)	LMKP···LUUMX	Weight (g)	Ball circuit	Major dimensions and tolerance							
						dr		D		L mm	L1		E mm
						mm	Tolerance μm	mm	Tolerance μm		mm	Tolerance μm	
10	LMFP10LUUMX	102	LMKP10LUUMX	82	4	10	0 -10	19	0 -16	65	55	±300	5
12	LMFP12LUUMX	114	LMKP12LUUMX	94		12		21		68	57	0 -300	5.5
16	LMFP16LUUMX	197	LMKP16LUUMX	172	5	16		28		82	70		6
20	LMFP20LUUMX	271	LMKP20LUUMX	236		20	0 -12	32	0 -19	94	80		7
25	LMFP25LUUMX	559	LMKP25LUUMX	519	6	25		40		130	112	0 -400	9
30	LMFP30LUUMX	704	LMKP30LUUMX	614		30		45		143	123		10
35	LMFP35LUUMX	1048	LMKP35LUUMX	958		35	0 -15	52	0 -22	157	135		11
40	LMFP40LUUMX	1603	LMKP40LUUMX	1413		40		60		175	151		12
50	LMFP50LUUMX	3663	LMKP50LUUMX	3463		50		80		220	192		14

Seal type:
LMFP20LA UUMX

UU Seal on both sides
A Nickel plated

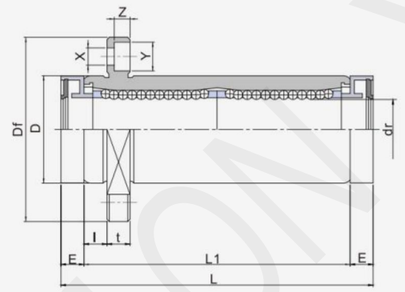
Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
I mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
6	40	30	6	29	4.5	7.5	4.1		15	15	588	1100
6	42	32	6	32	4.5	7.5	4.1				813	1570
6	48	37	6	38	4.5	7.5	4.1				1230	2350
8	54	42	8	43	5.5	9	5.1		20	20	1400	2740
8	62	50	8	51	5.5	9	5.1				1560	3140
10	74	58	10	60	6.6	11	6.1				2490	5490
10	82	64	10	67	6.6	11	6.1		25	25	2650	6270
13	96	75	13	78	9	14	8.1				3430	8040
13	116	92	13	98	9	14	8.1				6080	15900

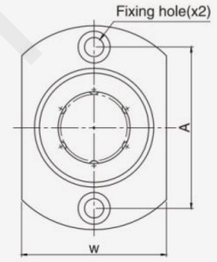
SIUNIT:1N≈0.102kgf

LMHP···LUUMX Series

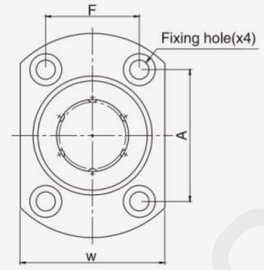
LMHP···LUUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHP···LUUMX





LMHP12LUUMX or Less



LMHP16LUUMX or More

Nominal shaft diameter mm	LMHP···LUUMX	Weight (g)	Ball circuit	Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
				dr		D		L mm	L1		E mm			Dynamic C N	Static Co N
				mm	Tolerance μm	mm	Tolerance μm		mm	Tolerance μm					
10	LMHP10LUUMX	94	4	10	0 -10	19	0 -16	65	55	±300	5			588	1100
12	LMHP12LUUMX	106		12		21		68	57	0 -300	5.5			813	1570
16	LMHP16LUUMX	189	5	16		28		82	70		6			1230	2350
20	LMHP20LUUMX	258		20	0 -12	32	0 -19	94	80		7			1400	2740
25	LMHP25LUUMX	544	6	25		40		130	112	0 -400	9			1560	3140
30	LMHP30LUUMX	669		30		45		143	123		10			2490	5490
35	LMHP35LUUMX	973		35	0 -15	52	0 -22	157	135		11			2650	6270
40	LMHP40LUUMX	1456		40		60		175	151		12			3430	8040
50	LMHP50LUUMX	3500		50		80		220	192		14			6080	15900

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
6	40	25	6	29	——	4.5	7.5	4.1	15	15	588	1100
6	42	27	6	32	——	4.5	7.5	4.1			813	1570
6	48	34	6	31	22	4.5	7.5	4.1			1230	2350
8	54	38	8	36	24	5.5	9	5.1	20	20	1400	2740
8	62	46	8	40	32	5.5	9	5.1			1560	3140
10	74	51	10	49	35	6.6	11	6.1			2490	5490
10	82	60	10	55	38	6.6	11	6.1	25	25	2650	6270
13	96	70	13	64	45	9	14	8.1			3430	8040
13	116	90	13	80	56	9	14	8.1			6080	15900

SIUNIT:1N≈0.102kgf

Seal type:
LMHP20LA UUMX

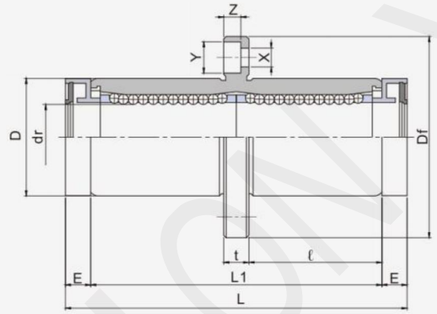
UU Seal on both sides
A Nickel plated

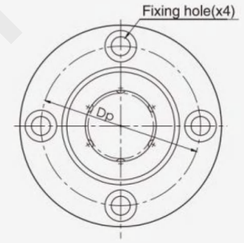
LMF(K)M···LUUMX Series

LMF(K)M···LUUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

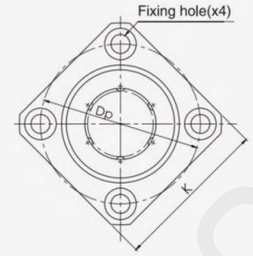
LMFM···LUUMX

LMKM···LUUMX





LMFM···LUUMX



LMKM···LUUMX

Nominal shaft diameter mm	LMFM···LUUMX	Weight (g)	LMKM···LUUMX	Weight (g)	Ball circuit	Major dimensions and tolerance							
						dr		D		L mm	L1		E mm
						mm	Tolerance μm	mm	Tolerance μm		mm	Tolerance μm	
10	LMFM10LUUMX	102	LMKM10LUUMX	82	4	10	0 -10	19	0 -16	65	55	±300	5
12	LMFM12LUUMX	114	LMKM12LUUMX	94		12		21		68	57	0 -300	5.5
16	LMFM16LUUMX	197	LMKM16LUUMX	172	5	16		28		82	70		6
20	LMFM20LUUMX	271	LMKM20LUUMX	236		20	0 -12	32	0 -19	94	80		7
25	LMFM25LUUMX	559	LMKM25LUUMX	519	6	25		40		130	112	0 -400	9
30	LMFM30LUUMX	704	LMKM30LUUMX	614		30		45		143	123		10
35	LMFM35LUUMX	1048	LMKM35LUUMX	958		35	0 -15	52	0 -22	157	135		11
40	LMFM40LUUMX	1603	LMKM40LUUMX	1413		40		60		175	151		12
50	LMFM50LUUMX	3663	LMKM50LUUMX	3463		50		80		220	192		14

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
ℓ mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				Dynamic C N	Static Co N
24.5	40	30	6	29	4.5	7.5	4.1		15	15	588	1100
25.5	42	32	6	32	4.5	7.5	4.1				813	1570
32	48	37	6	38	4.5	7.5	4.1				1230	2350
36	54	42	8	43	5.5	9	5.1		20	20	1400	2740
52	62	50	8	51	5.5	9	5.1				1560	3140
56.5	74	58	10	60	6.6	11	6.1				2490	5490
62.5	82	64	10	67	6.6	11	6.1		25	25	2650	6270
69	96	75	13	78	9	14	8.1				3430	8040
89.5	116	92	13	98	9	14	8.1				6080	15900

SIUNIT:1N≈0.102kgf

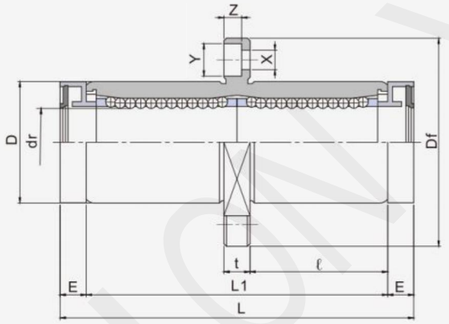
Seal type:
LMFM20LA UUMX

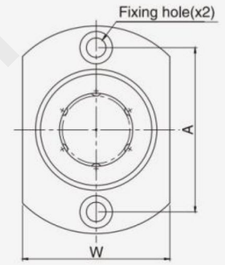
UU Seal on both sides
A Nickel plated

LMHM···LUUMX Series

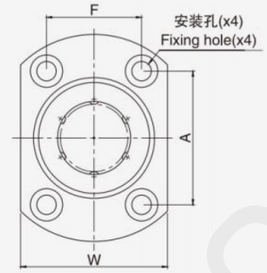
LMHM···LUUMX (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LMHM···LUUMX





LMHM12LUUMX or Less



LMHM16LUUMX or More

Nominal shaft diameter mm	LMHM···LUUMX	Weight (g)	Ball circuit	Major dimensions and tolerance							
				dr		D		L mm	L1		E mm
				mm	Tolerance μm	mm	Tolerance μm		mm	Tolerance μm	
10	LMHM10LUUMX	94	4	10	0 -10	19	0 -16	65	55	±300	5
12	LMHM12LUUMX	106		12		21		68	57	0 -300	5.5
16	LMHM16LUUMX	189	5	16		28		82	70		6
20	LMHM20LUUMX	258		20	0 -12	32	0 -19	94	80		7
25	LMHM25LUUMX	544	6	25		40		130	112	0 -400	9
30	LMHM30LUUMX	669		30		45		143	123		10
35	LMHM35LUUMX	973		35	0 -15	52	0 -22	157	135		11
40	LMHM40LUUMX	1456		40		60		175	151		12
50	LMHM50LUUMX	3500		50		80		220	192		14

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
ℓ mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
24.5	40	25	6	29	——	4.5	7.5	4.1	15	15	588	1100
25.5	42	27	6	32	——	4.5	7.5	4.1			813	1570
32	48	34	6	31	22	4.5	7.5	4.1			1230	2350
36	54	38	8	36	24	5.5	9	5.1	20	20	1400	2740
52	62	46	8	40	32	5.5	9	5.1			1560	3140
56.5	74	51	10	49	35	6.6	11	6.1			2490	5490
62.5	82	60	10	55	38	6.6	11	6.1	25	25	2650	6270
69	96	70	13	64	45	9	14	8.1			3430	8040
89.5	116	90	13	80	56	9	14	8.1			6080	15900

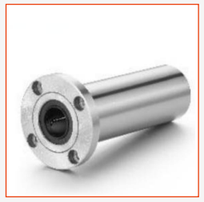
SIUNIT:1N≈0.102kgf

Seal type:
LMHM20LA UUMX

UU Seal on both sides
A Nickel plated

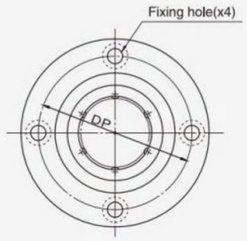
LHKR(S)NL Series

LHKR(S)NL (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

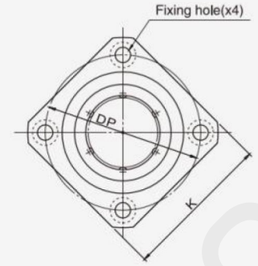


LHKRNL

LHKSNL



LHKRNL



LHKSNL

Nominal shaft diameter mm	LHKRNL	Weight (g)	LHKSNL	Weight (g)	Major dimensions and tolerance						Eccentricity μm	Squareness μm	Basic load rating	
					dr		D		L1					
					mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm			Dynamic C N	Static Co N
6	LHKRNL6	66	LHKSNL6	58	6	0 -12	15	0 -18	49	±300				
8	LHKRNL8	135	LHKSNL8	117	8		19		68					
10	LHKRNL10	205	LHKSNL10	189	10		23	0 -21	82					
12	LHKRNL12	248	LHKSNL12	228	12	0 -15	26		86					
13	LHKRNL13	308	LHKSNL13	286	13		28		92					
16	LHKRNL16	412	LHKSNL16	376	16		32	0 -25	105					
20	LHKRNL20	752	LHKSNL20	714	20	0 -18	40		120					
25	LHKRNL25	1244	LHKSNL25	1163	25		45		167					
30	LHKRNL30	1636	LHKSNL30	1543	30		52	0 -30	184					
35	LHKRNL35	2580	LHKSNL35	2400	35	0 -21	60		200					
40	LHKRNL40	2950	LHKSNL40	2510	40		65		230					

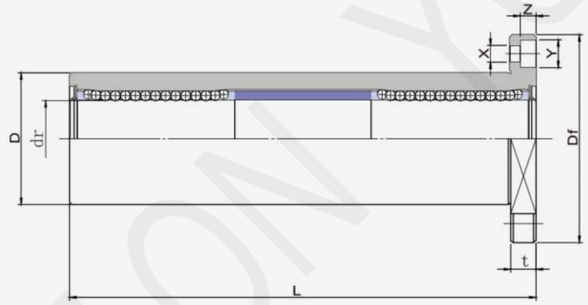
Major dimensions and tolerance							Eccentricity μm	Squareness μm	Basic load rating	
Flange										
Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
32	25	5	24	3.5	6	3.1	20	20	324	529
40	30	6	29	4.5	7.5	4.1			431	784
43	34	6	33	4.5	7.5	4.1			588	1100
46	35	6	36	4.5	7.5	4.1			657	1200
48	37	6	38	4.5	7.5	4.1			813	1570
54	42	8	43	5.5	9	5.1	25	25	1230	2350
62	50	8	51	5.5	9	5.1			1400	2740
74	58	10	60	6.6	11	6.1			1560	3140
82	64	10	67	6.6	11	6.1			2490	5490
96	75	13	78	9	14	8.1	30	30	2650	6270
101	80	13	83	9	14	8.1			3430	8040

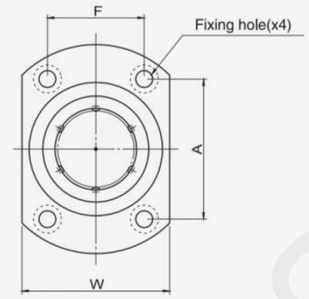
SIUNIT:1N≈0.102kgf

LHKCNL Series

LHKCNL (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHKCNL





LHKCNL

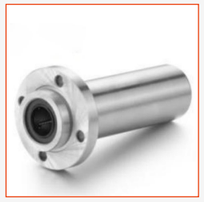
Nominal shaft diameter mm	LHKCNL	Weight (g)	Major dimensions and tolerance						Eccentricity μm	Squareness μm	Basic load rating	
			dr		D		L					
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm			Dynamic C N	Static Co N
16	LHKCNL16	386	16	0 -15	32	0 -25	105	±300	25	25	1230	2350
20	LHKCNL20	724	20	0 -18	40		120				1400	2740
25	LHKCNL25	1178	25		45		167				1560	3140
30	LHKCNL30	1567	30		52	0 -30	184				2490	5490
35	LHKCNL35	2433	35	0 -21	60		200		30	30	2650	6270
40	LHKCNL40	2798	40		65		230				3430	8040

Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
54	38	8	36	24	5.5	9	5.1	25	25	1230	2350
62	46	8	40	32	5.5	9	5.1			1400	2740
74	51	10	49	35	6.6	11	6.1			1560	3140
82	58	10	55	38	6.6	11	6.1			2490	5490
96	66	13	64	45	9	14	8.1	30	30	2650	6270
101	71	13	68	48	9	14	8.1			3430	8040

SIUNIT:1N≈0.102kgf

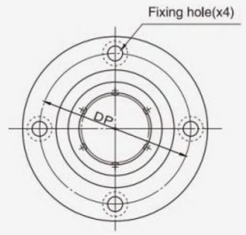
LHKIR(S)NL Series

LHKIR(S)NL (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

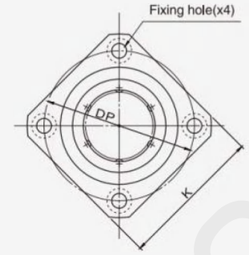


LHKIRNL

LHKISNL



LHKIRNL



LHKISNL

Nominal shaft diameter mm	LHKIRNL	Weight (g)	LHKISNL	Weight (g)	Major dimensions and tolerance					
					dr		D		L1	
					mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHKIRNL6	66	LHKISNL6	58	6	0 -12	15	0 -18	49	±300
8	LHKIRNL8	135	LHKISNL8	117	8		19	0 -21	68	
10	LHKIRNL10	205	LHKISNL10	189	10		23		82	
12	LHKIRNL12	248	LHKISNL12	228	12	0 -15	26		86	
13	LHKIRNL13	308	LHKISNL13	286	13		28		92	
16	LHKIRNL16	412	LHKISNL16	376	16		32	0 -25	105	
20	LHKIRNL20	752	LHKISNL20	714	20	0 -18	40		120	
25	LHKIRNL25	1244	LHKISNL25	1163	25		45		167	
30	LHKIRNL30	1636	LHKISNL30	1543	30		52	0 -30	184	
35	LHKIRNL35	2580	LHKISNL35	2400	35	0 -21	60		200	
40	LHKIRNL40	2950	LHKISNL40	2510	40		65		230	

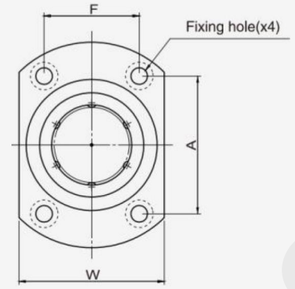
Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange										Dynamic C N	Static Co N
l mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm				
5	32	25	5	24	3.5	6	3.1	20	20	324	529
6	40	30	6	29	4.5	7.5	4.1			431	784
6	43	34	6	33	4.5	7.5	4.1			588	1100
6	46	35	6	36	4.5	7.5	4.1			657	1200
6	48	37	6	38	4.5	7.5	4.1			813	1570
8	54	42	8	43	5.5	9	5.1	25	25	1230	2350
8	62	50	8	51	5.5	9	5.1			1400	2740
10	74	58	10	60	6.6	11	6.1			1560	3140
10	82	64	10	67	6.6	11	6.1			2490	5490
13	96	75	13	78	9	14	8.1	30	30	2650	6270
13	101	80	13	83	9	14	8.1			3430	8040

SIUNIT:1N≈0.102kgf

LHKICNL Series

LHKICNL (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHKICNL



LHKICNL

Nominal shaft diameter mm	LHKICNL	Weight (g)	Major dimensions and tolerance					
			dr		D		L	
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
16	LHKICNL16	386	16	0 -15	32	0 -25	105	±300
20	LHKICNL20	724	20	0 -18	40		120	
25	LHKICNL25	1178	25		45		167	
30	LHKICNL30	1567	30		52	0 -30	184	
35	LHKICNL35	2433	35	0 -21	60		200	
40	LHKICNL40	2798	40		65		230	

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
8	54	38	8	36	24	5.5	9	5.1	25	25	1230	2350
8	62	46	8	40	32	5.5	9	5.1			1400	2740
10	74	51	10	49	35	6.6	11	6.1			1560	3140
10	82	58	10	55	38	6.6	11	6.1			2490	5490
13	96	66	13	64	45	9	14	8.1	30	30	2650	6270
13	101	71	13	68	48	9	14	8.1			3430	8040

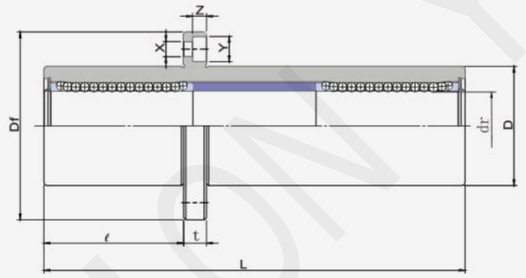
SIUNIT:1N≈0.102kgf

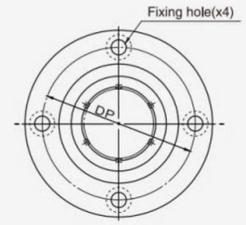
LHKMR(S)NL Series

LHKMR(S)NL (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

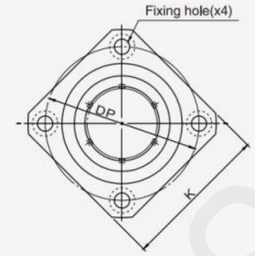
LHKMRNL

LHKMSNL





LHKMRNL



LHKMSNL

Nominal shaft diameter mm	LHKMRNL	Weight (g)	LHKMSNL	Weight (g)	Major dimensions and tolerance					
					dr		D		L1	
					mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm
6	LHKMRNL6	66	LHKMSNL6	58	6	0 -12	15	0 -18	49	±300
8	LHKMRNL8	135	LHKMSNL8	117	8		19	0 -21	68	
10	LHKMRNL10	205	LHKMSNL10	189	10		23		82	
12	LHKMRNL12	248	LHKMSNL12	228	12	0 -15	26		86	
13	LHKMRNL13	308	LHKMSNL13	286	13		28		92	
16	LHKMRNL16	412	LHKMSNL16	376	16		32	0 -25	105	
20	LHKMRNL20	752	LHKMSNL20	714	20	0 -18	40		120	
25	LHKMRNL25	1244	LHKMSNL25	1163	25		45		167	
30	LHKMRNL30	1636	LHKMSNL30	1543	30		52	0 -30	184	
35	LHKMRNL35	2580	LHKMSNL35	2400	35	0 -21	60		200	
40	LHKMRNL40	2950	LHKMSNL40	2510	40		65		230	

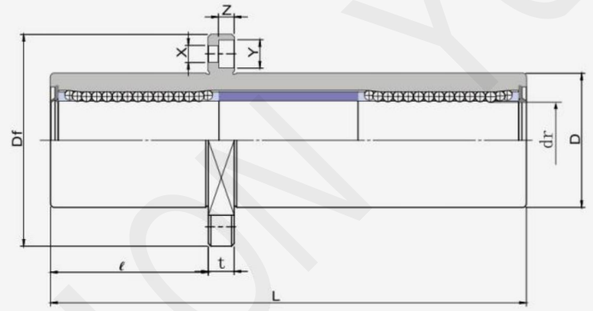
Major dimensions and tolerance								Eccentricity μm	Squareness μm	Basic load rating	
Flange											
I mm	Df mm	K mm	t mm	Dp mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
17	32	25	5	24	3.5	6	3.1	20	20	324	529
22	40	30	6	29	4.5	7.5	4.1			431	784
27	43	34	6	33	4.5	7.5	4.1			588	1100
28	46	35	6	36	4.5	7.5	4.1			657	1200
30	48	37	6	38	4.5	7.5	4.1			813	1570
35	54	42	8	43	5.5	9	5.1	25	25	1230	2350
40	62	50	8	51	5.5	9	5.1			1400	2740
55	74	58	10	60	6.6	11	6.1			1560	3140
61	82	64	10	67	6.6	11	6.1			2490	5490
67	96	75	13	78	9	14	8.1	30	30	2650	6270
77	101	80	13	83	9	14	8.1			3430	8040

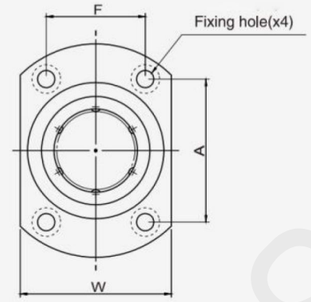
SIUNIT:1N≈0.102kgf

LHKMCNL Series

LHKMCNL (Resin retainer)
This type is a metric dimension series widely used in Asia and other countries.
All models can be done with nickel plated according to customers' requirements, with function of rust-proof.

LHKMCNL





LHKMCNL

Nominal shaft diameter mm	LHKMCNL	Weight (g)	Major dimensions and tolerance						Eccentricity μm	Squareness μm	Basic load rating	
			dr		D		L					
			mm	Tolerance μm	mm	Tolerance μm	mm	Tolerance μm			Dynamic C N	Static Co N
16	LHKMCNL16	386	16	0 -15	32	0 -25	105	±300	25	25	1230	2350
20	LHKMCNL20	724	20	0 -18	40		120				1400	2740
25	LHKMCNL25	1178	25		45		167				1560	3140
30	LHKMCNL30	1567	30		52	0 -30	184				2490	5490
35	LHKMCNL35	2433	35	0 -21	60		200		30	30	2650	6270
40	LHKMCNL40	2798	40		65		230				3430	8040

Major dimensions and tolerance									Eccentricity μm	Squareness μm	Basic load rating	
Flange												
l mm	Df mm	W mm	t mm	A mm	F mm	X mm	Y mm	Z mm			Dynamic C N	Static Co N
35	54	38	8	36	24	5.5	9	5.1	25	25	1230	2350
40	62	46	8	40	32	5.5	9	5.1			1400	2740
55	74	51	10	49	35	6.6	11	6.1			1560	3140
61	82	58	10	55	38	6.6	11	6.1			2490	5490
67	96	66	13	64	45	9	14	8.1	30	30	2650	6270
77	101	71	13	68	48	9	14	8.1			3430	8040

SIUNIT:1N≈0.102kgf