



Our Technologies Realize Your Dreams

Radial Bearings



Miniature bearings (radial bearings) are typically the single row deep groove type, and are widely used in all types of precision rotating mechanisms. They are able to bear load in the radial direction with a small load in the thrust direction, and are suitable for medium speed and low friction torque applications. Various types including open, shield, and flange types are available, allowing you to freely choose the rotation performance and shape that best suit the surrounding environmental conditions. (Full ball and extended inner rings types are also available as special specifications. Please consult with us for details)

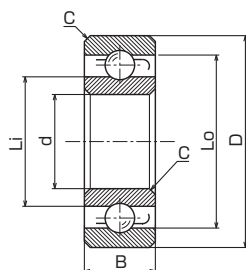


01 Specifications for the Standard Models

Naming and auxiliary symbols

Bearing numbers				Auxiliary code	
Material codes	Bearing type codes	Size codes	Features codes	Tolerance codes	Radial clearance codes
SS		4–8	ZZ	P6	S0
SS = Martensite stainless steel CR =SUJ-2 High chrome bearing steel	• No notation Radial bearing • F Flanged bearing	Bore – Outside dia. (mm)	• No notation Non-shielded • Z Single shield • ZZ Double shield	• No notation =The 0th class of JIS. • P6=The 6th class of JIS. • P5=The 5th class of JIS. • P4=The 4th class of JIS.	Radial clearance • No notation =Standard • S0=Minimal • S1=Small • S2=Moderate • S3=Large

Radial Retainer Open Bearings

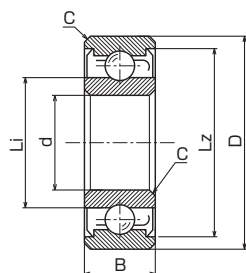


SS–, CR–

1. When there is no special remarks, standard oil* is infused as lubricant.
2. Please consult us for a full ball type and special applications.
3. Please be careful of dirt in the case of an open type, and maintain clean environment when are installed.

*Refer to Technical Data

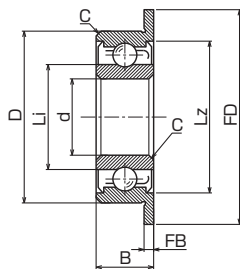
Radial Retainer Shielded Bearings



SS–ZZ, CR–ZZ

1. When there is no special remarks, standard oil is infused as lubricant.
2. Please consult us for special applications.

Radial Flanged Bearings



SSF–ZZ, CRF–ZZ

1. When there is no special remarks, standard oil is infused as lubricant.
2. Please consult us for special applications.

Radial Retainer Open Bearings

Unit=mm

Nominal Number	Dimensions				Land dia.		Basic rated load		JIS Nominal Number
	Bore d	Outside dia. D	Width B	Chamfer (c)	Inner ring (Li)	Outer ring (Lo)	Dynamic load C (N)	Static load Co (N)	
1.5-4	1.5	4	1.8	0.15	2.1	3.2	114	34	68/1.5
1.5-5		5	2.0	0.15	2.6	3.7	127	34	69/1.5
2-5	2	5	2.0	0.15	2.9	4.0	160	49	682
2-6		6	2.5	0.2	3.2	4.6	235	73	692
2-7		7	2.5	0.2	3.8	5.5	318	103	602
2.5-6	2.5	6	2.5	0.15	3.2	4.6	235	73	68/2.5
2.5-7		7	2.5	0.2	3.8	5.5	318	103	69/2.5
2.5-8		8	2.5	0.2	4.1	5.8	318	103	60/2.5
3-6	3	6	2.0	0.15	3.8	5.05	242	74	673
3-7		7	2.0	0.2	4.1	5.8	318	103	683
3-8		8	2.5	0.25	4.1	5.8	318	103	693
3-9		9	2.5	0.25	4.8	7.2	542	186	603
3-10		10	4.0	0.25	5.2	7.5	542	186	623
4-7	4	7	2.0	0.15	4.8	6.05	242	74	674
4-8		8	2.0	0.2	5.2	6.9	356	118	
4-9		9	2.5	0.25	5.2	7.55	542	186	684
4-10		10	3.0	0.3	6.0	8.3	606	211	
4-11		11	4.0	0.3	6.4	8.7	606	211	694
4-12		12	4.0	0.3	7.0	9.9	834	294	604
4-13		13	5.0	0.3	7.0	9.9	834	294	624
4-16		16	5.0	0.4	8.5	12.7	1478	564	634
5-8	5	8	2.0	0.15	6.0	7.05	178	59	675
5-9		9	2.5	0.2	6.0	7.7	389	132	
5-10		10	3.0	0.25	6.4	8.7	606	211	
5-11		11	3.0	0.3	7.0	9.3	650	216	685
5-13		13	4.0	0.3	7.0	9.9	834	294	695
5-16		16	5.0	0.4	8.5	12.7	1478	564	625
6-10	6	10	2.5	0.2	7.0	8.7	382	132	676
6-12		12	3.0	0.3	7.8	10.2	650	235	
6-13		13	3.5	0.3	7.8	10.2	650	235	686
6-15		15	5.0	0.4	8.5	12.7	1478	564	696
6-16		16	5.0	0.4	8.5	12.7	1478	564	
7-11	7	11	2.5	0.25	8.1	9.8	376	132	677
7-13		13	3.0	0.3	8.8	11.2	650	235	
7-14		14	3.5	0.3	8.8	11.2	650	235	687
8-12	8	12	2.5	0.25	9.0	10.7	369	132	678
8-14		14	3.5	0.3	9.6	12.0	701	265	
8-16		16	4.0	0.4	10.2	13.9	1351	529	688
10-15	10	15	3.0	0.2	11.2	13.6	733	289	
10-19		19	5.0	0.4	12.4	16.76	1790	725	

Radial Retainer Shielded Bearings

Unit=mm

Nominal Number	Dimensions				Land dia.		Basic rated load		JIS Nominal Number
	Bore d	Outside dia. D	Width B	Chamfer (c)	Inner ring (Li)	Outer ring (Lo)	Dynamic load C (N)	Static load Co (N)	
1.5-4ZZ	1.5	4	2.5	0.15	2.1	3.4	114	34	68/1.5
1.5-5ZZ		5	2.5	0.15	2.6	4.2	127	34	69/1.5
2-5ZZ	2	5	2.5	0.15	2.9	4.4	160	49	682
2-6ZZ		6	3.0	0.2	3.2	5.2	235	73	692
2-7ZZ		7	3.0	0.2	3.8	5.95	318	103	602
2.5-6ZZ	2.5	6	2.6	0.15	3.2	5.2	235	73	68/2.5
2.5-7ZZ		7	3.0	0.2	3.8	5.9	318	103	69/2.5
2.5-8ZZ		8	4.0	0.2	4.1	6.9	472	186	60/2.5
3-6ZZ	3	6	2.5	0.2	3.8	5.45	160	49	673
3-7ZZ		7	3.0	0.2	4.1	6.2	318	103	683
3-8ZZ		8	4.0	0.25	4.1	6.9	472	186	693
3-9ZZ		9	4.0	0.25	4.8	7.75	542	186	603
3-10ZZ		10	4.0	0.25	5.2	8.3	542	186	623
4-7ZZ	4	7	2.5	0.15	4.8	6.25	160	49	674
4-8ZZ		8	3.0	0.2	5.2	7.25	356	118	
4-9ZZ		9	4.0	0.25	5.2	8.0	542	186	684
4-10ZZ		10	4.0	0.3	6.0	9.1	606	211	
4-11ZZ		11	4.0	0.3	6.4	9.2	606	211	694
4-12ZZ		12	4.0	0.3	7.0	10.65	834	294	604
4-13ZZ		13	5.0	0.3	7.0	10.65	834	294	624
4-16ZZ		16	5.0	0.4	8.5	14.0	1478	564	634
5-8ZZ	5	8	2.5	0.15	6.0	7.25	178	59	675
5-9ZZ		9	3.0	0.2	6.0	8.1	389	132	
5-10ZZ		10	4.0	0.25	6.4	9.2	606	211	
5-11ZZ		11	4.0	0.3	7.0	10.1	650	216	685
5-13ZZ		13	5.0	0.3	7.0	10.65	834	294	695
5-16ZZ		16	5.0	0.4	8.5	14.0	1478	564	625
6-10ZZ	6	10	3.0	0.2	7.0	9.1	382	132	676
6-12ZZ		12	4.0	0.3	7.8	10.9	650	235	
6-13ZZ		13	5.0	0.3	7.8	10.9	650	235	686
6-15ZZ		15	5.0	0.4	8.5	14.0	1478	564	696
6-16ZZ		16	5.0	0.4	8.5	14.0	1478	564	
7-11ZZ	7	11	3.0	0.25	8.1	10.0	376	132	677
7-13ZZ		13	4.0	0.3	8.8	11.9	650	235	
7-14ZZ		14	5.0	0.3	8.8	11.9	650	235	687
8-12ZZ	8	12	3.0	0.25	9.0	11.05	369	132	678
8-14ZZ		14	4.0	0.3	9.6	12.95	701	265	
8-16ZZ		16	5.0	0.4	10.2	14.9	1351	529	688
10-15ZZ	10	15	4.0	0.2	11.2	14.25	733	289	
10-19ZZ		19	7.0	0.4	12.4	17.6	1790	725	

Radial Flanged Bearings

Unit=mm

Nominal Number	Dimensions						Land dia.		Basic rated load		JIS Nominal Number
	Bore d	Outside dia. D	Width B	Chamfer (c)	Flange		Inner ring (Li)	Outer ring (Lz)	Dynamic load C (N)	Static load Co (N)	
					Outside dia. FD	Width FB					
F 2-5 Z Z	2	5	2.3	0.1	6.1	0.6	2.9	4.25	114	29	682
F 3-6 Z Z	3	6	2.5	0.15	7.2	0.6	3.8	5.45	160	49	673
F 3-9 Z Z		9	4	0.25	10.6	0.8	4.8	7.75	542	186	603
F 3-10 Z Z		10	4	0.3	11.5	1.0	5.2	8.3	542	186	623
F 4-7 Z Z	4	7	2.5	0.15	8.2	0.6	4.8	6.25	160	49	674
F 4-8 Z Z		8	3	0.2	9.2	0.6	5.2	7.25	356	118	
F 4-9 Z Z		9	4	0.25	10.3	1.0	5.2	8.0	542	186	684
F 4-10 Z Z		10	4	0.3	11.6	0.8	6.0	9.1	606	211	
F 4-11 Z Z		11	4	0.3	12.5	1.0	6.4	9.2	606	211	694
F 4-12 Z Z		12	4	0.3	13.5	1.0	7.0	10.65	834	294	604
F 4-13 Z Z		13	5	0.3	15.0	1.0	7.0	10.65	834	294	624
F 5-8 Z Z	5	8	2.5	0.15	9.2	0.6	6.0	7.25	178	59	675
F 5-9 Z Z		9	3	0.2	10.2	0.6	6.0	8.1	389	132	
F 5-10 Z Z		10	4	0.25	11.6	0.8	6.4	9.2	606	211	
F 5-11 Z Z		11	5	0.3	12.5	1.0	7.0	10.15	650	216	685
F 5-13 Z Z		13	5	0.3	15.0	1.0	7.0	10.6	834	294	695
F 6-10 Z Z	6	10	3	0.2	11.2	0.6	7.0	9.1	382	132	676
F 6-12 Z Z		12	4	0.3	13.6	0.8	7.8	10.9	650	235	
F 6-13 Z Z		13	5	0.3	15.0	1.1	7.8	10.9	650	235	686
F 6-15 Z Z		15	5	0.3	17.0	1.2	8.5	14.0	1478	564	696
F 7-13 Z Z	7	13	4	0.3	14.6	0.8	8.8	11.9	650	235	
F 8-12 Z Z	8	12	3.5	0.25	13.6	0.8	9.0	11.05	369	132	678
F 8-14 Z Z		14	4	0.3	15.6	0.8	9.6	12.95	701	265	
F 8-16 Z Z		16	5	0.3	18.0	1.1	10.2	14.9	1351	529	688

02 Special Applications

Please consult us when using the special applications in the figure below.

Radial Full Ball Bearings

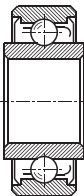
SS-f, SS-fZZ

Radial Full Ball Bearing has no retainer inside, and is suitable for the applications where medium speed as well as large load and ultra-fast-speed with minimum load are required.

It is also utilized in the mechanism where loads tend to be fluctuated.

Radial Extended Inner Bearings

Naming and auxiliary numbers

	Bearing numbers			
	Material codes	Bearing type codes	Size codes	Features codes
	SS		4-9	EE ZZ
	SS=Martensite stainless steel	• No notation Radial bearing	Bore – Outside dia. (mm)	• EE=Extended inner ring • ZZ=Double shield



Origin Co., Ltd.

<http://www.origin.co.jp/eng>

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Origin Electric Co., Ltd. Taiwan Branch Office	99F., No.110, Fuxing Rd., Taoyuan Dist, Taoyuan City 33066, Taiwan(R.O.C.)	Tel:+886-3-332-6665 Fax:+886-3-332-8609
Origin Electric Co., Ltd. Kowloon Office	Unit 1706-7, 17/F, Saxon Tower, 7 Cheung Shun Street, Kln, H.K.	Tel:+852-2314-8811 Fax:+852-2314-8823
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Safety
Warning

The data presented in this catalog are for general application purposes. Do not use this product in such a way that may be harmful to people or exceed its performance.

Safety
Precaution

To avoid accidents and/or failures as well as to ensure safety , do not use this product exceeding the specifications noted in this catalog and ignoring the precautions.

*Specifications are subject to change without a notice for future development.