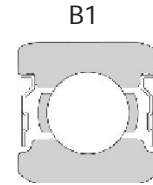
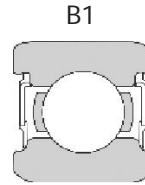
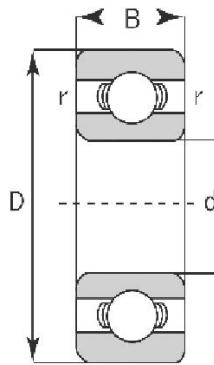


Miniature Ball Bearings

Metric Series



Miniature

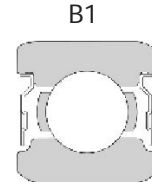
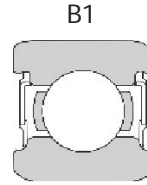
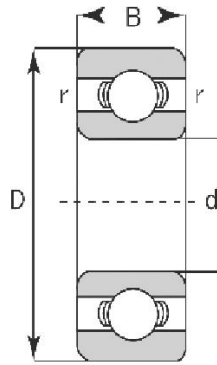
2RS

ZZ

Unit No.	Bore (mm) d	Outer Diameter (mm) D	Width (mm)		Radius (mm) r, r1	Basic Load Rating (lbs)		Weight (lbs)
			Open B	ZZ / 2RS B1		Dynamic Cr	Static COr	
681	1	3	1	-	0.05	18	5	0.001
MR31	1	3	1.5	-	0.05	18	5	0.001
691	1	4	1.6	-	0.1	24	8	0.001
MR41X	1.2	4	1.8	2.5	0.1	24	8	0.001
681X	1.5	4	1.2	2	0.05	20	7	0.001
691X	1.5	5	2	2.6	0.15	29	11	0.001
601X	1.5	6	2.5	3	0.15	55	22	0.001
682	2	5	1.5	2.3	0.08	29	11	0.001
MR52	2	5	2	2.5	0.1	37	11	0.001
692	2	6	2.3	3	0.15	55	22	0.001
MR62	2	6	2.5	2.5	0.15	60	22	0.001
MR72	2	7	2.5	3	0.15	65	26	0.001
602	2	7	2.8	3.5	0.15	66	29	0.001
682X	2.5	6	1.8	2.6	0.08	35	14	0.001
692X	2.5	7	2.5	3.5	0.15	66	29	0.001
MR82X	2.5	8	2.5	-	0.2	64	24	0.001
602X	2.5	8	2.8	4	0.15	64	24	0.001
MR63	3	6	2	2.5	0.1	35	14	0.001
683	3	7	2	3	0.1	66	29	0.001
MR83	3	8	2.5	3	0.15	64	24	0.001
693	3	8	3	4	0.15	64	24	0.001
MR93	3	9	2.5	4	0.2	70	30	0.001

Miniature Ball Bearings

Metric Series



Miniature

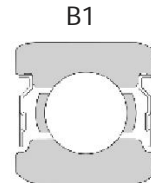
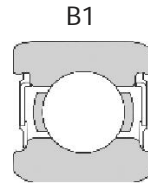
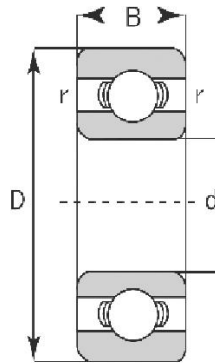
2RS

ZZ

Unit No.	Bore (mm) d	Outer Diameter (mm) D	Width (mm)		Radius (mm) r, r1	Basic Load Rating (lbs)		Weight (lbs)
			Open B	ZZ / 2RS B1		Dynamic Cr	Static COr	
633	3	13	5	5	0.2	266	98	0.005
MR74	4	7	2	2.5	0.1	58	25	0.001
MR84	4	8	2	3	0.15	88	33	0.001
684	4	9	2.5	4	0.1	99	42	0.001
MR104	4	10	3	4	0.2	99	42	0.002
694	4	11	4	4	0.15	123	57	0.004
604	4	12	4	4	0.2	167	77	0.005
624	4	13	5	5	0.2	224	108	0.007
634	4	16	5	5	0.3	300	140	0.013
MR85	5	8	2	2.5	0.1	62	31	0.001
MR95	5	9	2.5	3	0.15	112	46	0.001
MR105	5	10	3	4	0.15	115	55	0.002
MR115	5	11	3	4	0.15	123	57	0.002
685	5	11	3	5	0.15	123	57	0.003
695	5	13	4	4	0.2	187	90	0.005
605	5	14	5	5	0.2	229	110	0.007
625	5	16	5	5	0.3	300	140	0.01
635	5	19	6	6	0.3	400	190	0.017
MR106	6	10	2.5	3	0.15	123	57	0.001
MR126	6	12	3	4	0.2	187	82	0.002
686	6	13	3.5	5	0.15	187	90	0.004
696	6	15	5	5	0.2	300	140	0.009
606	6	17	6	6	0.3	300	140	0.013
626	6	19	6	6	0.3	400	190	0.017
636	6	22	7	7	0.3	670	280	0.03
MR117	7	11	2.5	3	0.15	101	46	0.001

Miniature Ball Bearings

Metric Series



Miniature

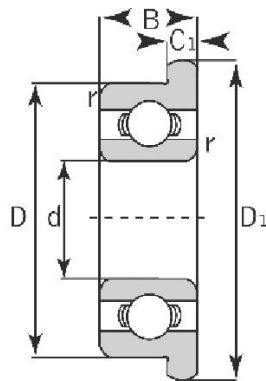
2RS

ZZ

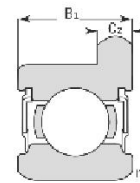
Unit No.	Bore (mm) d	Outer Diameter (mm) D	Width (mm)		Radius (mm) r, r1	Basic Load Rating (lbs)		Weight (lbs)
			Open	ZZ / 2RS		Dynamic	Static	
			B	B1		Cr	COr	
697	7	17	5	5	0.3	235	120	0.012
607	7	19	6	6	0.3	385	190	0.018
627	7	22	7	7	0.3	580	290	0.024
637	7	26	9	9	0.3	820	330	0.053
MR128	8	12	2.5	3.5	0.15	115	57	0.001
MR148	8	14	3.5	4	0.2	198	88	0.003
688	8	16	4	5	0.2	310	160	0.007
698	8	19	6	6	0.3	285	145	0.014
X117	8	22	6	6	0.3	580	290	0.02
608	8	22	7	7	0.3	580	290	0.024
628	8	24	8	8	0.3	690	350	0.026
638	8	28	9	9	0.3	1012	440	0.056
689	9	17	4	5	0.2	310	143	0.013
699	9	20	6	6	0.3	528	231	0.017
609	9	24	7	7	0.3	580	280	0.026
629	9	26	8	8	0.3	790	400	0.04
639	9	30	10	10	0.6	1045	462	0.07

Miniature Ball Bearings

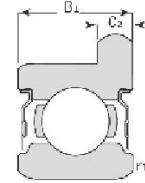
Metric Flanged Series



Miniature Flanged



2RS



ZZ

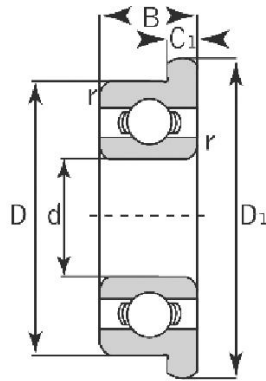
Unit No.	Bore	Outer Diameter		Flange Width		Width		Radius	Basic Load Rating		Weight (lbs)
	(mm)	(mm)		(mm)		(mm)		(mm)	(lbs)		
	d	D	D1	C1	C2	Open B	Shielded B1	r, r1	Dynamic Cr	Static Cor	
F681	1	3	3.8	0.3	-	1	-	0.05	18	5	0.001
F691	1	4	5	0.5	-	1.6	-	0.1	24	9	0.001
MF41X	1.2	4	4.8	0.4	-	1.8	2.5	0.1	24	9	0.001
F681X	1.5	4	5	0.4	-	1.2	2	0.05	20	7	0.001
F691X	1.5	5	6.5	0.6	0.8	2	2.6	0.15	29	11	0.001
F601X	1.5	6	7.5	0.6	0.8	2.5	3	0.15	55	22	0.001
F682	2	5	6.1	0.5	0.6	1.5	2.3	0.08	29	11	0.001
MF52	2	5	6.2	0.6	0.6	2	2.5	0.1	29	11	0.001
F692	2	6	7.5	0.6	0.8	2.3	3	0.15	55	22	0.001
MF62	2	6	7.2	0.6	-	2.5	2.5	0.15	55	22	0.001
MF72	2	7	8.2	0.6	0.6	2.5	3	0.15	66	29	0.001
F602	2	7	8.5	0.7	0.9	2.8	3.5	0.15	66	29	0.001
F682X	2.5	6	7.1	0.5	0.8	1.8	2.6	0.08	35	14	0.001
F692X	2.5	7	8.5	0.7	0.9	2.5	3.5	0.15	66	29	0.001
MF82X	2.5	8	9.2	0.6	-	2.5	-	0.2	46	17	0.001
F602X	2.5	8	9.5	0.7	0.9	2.8	4	0.15	64	24	0.001
MF63	3	6	7.2	0.6	0.6	2	2.5	0.1	34	14	0.001
F683	3	7	8.1	0.5	0.8	2	3	0.1	66	29	0.001
MF83	3	8	9.2	0.6	-	2.5	-	0.15	64	24	0.001
F693	3	8	9.5	0.7	0.9	3	4	0.15	64	24	0.001
MF93	3	9	10.2*	0.6	0.8	2.5	4	0.2	99	42	0.001
F603	3	9	10.5	0.7	-	3	-	0.15	99	42	0.002
F623	3	10	11.5	1	1	4	4	0.15	99	42	0.004
MF74	4	7	8.2	0.6	0.6	2	2.5	0.1	58	25	0.001
MF84	4	8	9.2	0.6	0.6	2	3	0.15	88	33	0.001
F684	4	9	10.3	0.6	1	2.5	4	0.1	99	42	0.001
MF104	4	10	11.2*	0.6	0.8	3	4	0.2	99	42	0.002
F694	4	11	12.5	1	1	4	4	0.15	123	57	0.004
F604	4	12	13.5	1	1	4	4	0.2	167	77	0.005
F624	4	13	15	1	1	5	5	0.2	224	108	0.006
F634	4	16	18	1	1	5	5	0.3	300	140	0.012

Other sizes could be available upon request. Minimum quantity may apply. *Flange Diameter 0.4mm greater for shielded bearings.

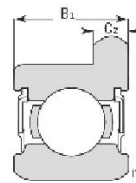
2RS stands for "Double Rubber Seals". ZZ stands for "Shielded".

Miniature Ball Bearings

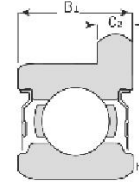
Metric Flanged Series



Miniature Flanged



2RS

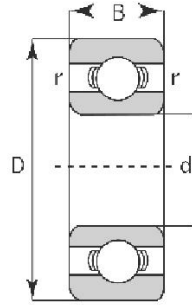


ZZ

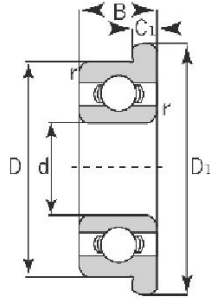
Unit No.	Bore	Outer Diameter		Flange Width		Width		Radius	Basic Load Rating		Weight (lbs)
	(mm)	(mm)		(mm)		(mm)		(mm)	(lbs)		
	d	D	D1	C1	C2	Open B	Shielded B1	r, r1	Dynamic Cr	Static Cor	
MF105	5	10	11.2*	0.6	0.8	3	4	0.15	115	55	0.002
MF115	5	11	12.6	-	0.8	-	4	0.15	123	57	0.002
F685	5	11	12.5	0.8	1	3	5	0.15	123	57	0.002
F695	5	13	15	1	1	4	4	0.2	187	90	0.005
F605	5	14	16	1	1	5	5	0.2	229	110	0.007
F625	5	16	18	1	1	5	5	0.3	300	140	0.017
F635	5	19	22	1.5	1.5	6	6	0.3	400	190	0.018
MF106	6	10	11.2	0.6	0.6	2.5	3	0.15	123	57	0.001
MF126	6	12	13.2*	0.6	0.8	3	4	0.2	187	82	0.002
F686	6	13	15	1	1.1	3.5	5	0.15	187	90	0.004
F696	6	15	17	1.2	1.2	5	5	0.2	300	140	0.009
F606	6	17	19	1.2	1.2	6	6	0.3	300	140	0.013
F626	6	19	22	1.5	1.5	6	6	0.3	400	190	0.018
MF117	7	11	12.2	0.6	0.06	2.5	3	0.15	101	46	0.001
MF137	7	13	14.2*	0.6	0.8	3	4	0.2	198	88	0.003
F687	7	14	16	1	1.1	3.5	5	0.15	202	103	0.005
F697	7	17	19	1.2	1.2	5	5	0.3	235	120	0.011
F607	7	19	22	1.5	1.5	6	6	0.3	385	180	0.017
F627	7	22	25	1.5	1.5	7	7	0.3	580	290	0.028
MF128	8	12	13.2*	0.6	0.8	2.5	3.5	0.15	115	57	0.001
MF148	8	14	15.6	0.8	0.8	3.5	4	0.2	198	88	0.004
F688	8	16	18	1	1.1	4	5	0.2	310	160	0.007
F698	8	19	22	1.5	1.5	6	6	0.3	285	145	0.016
F608	8	22	25	1.5	1.5	7	7	0.3	580	290	0.026
F689	9	17	19	1	1.1	4	5	0.2	310	143	0.007
F699	9	20	23	1.5	1.5	6	6	0.3	528	231	0.018
F609	9	24	27	1.5	1.5	7	7	0.3	580	290	0.02

Miniature Ball Bearings

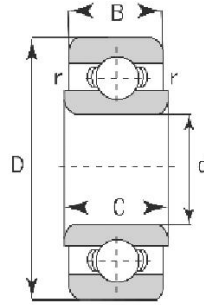
Inch Series



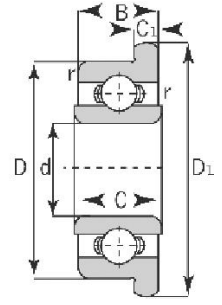
R



FR



R-EE

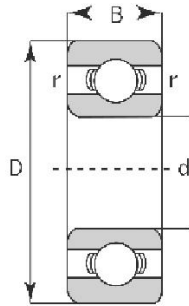


FR-EE

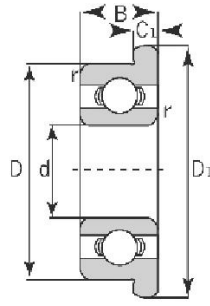
Unit No.	Bore		Outer Diameter		Width				Flange Dimensions		Radius	Basic Load Rating (lbs)		Weight (lbs)
	fract.	(inch)	fract.	(inch)	Open	ZZ / 2RS	Open	ZZ / 2RS	Open		(inch)	Dynamic	Static	
	d		D		B		C		d1	c1	r	Cr	CO _r	
R09	1/25	0.0400	1/8	0.2500	0.0469	-	-	-	-	-	0.004	22	6	0.001
R0	3/64	0.0469	5/32	0.1562	0.0625	0.0937	0.0937	0.125	0.203	0.013	0.004	36	10	0.001
R1	-	0.055	3/16	0.1875	0.0781	0.1094	0.1094	0.1406	0.234	0.023	0.004	42	13	0.001
R1-4	5/64	0.0781	1/4	0.25	0.0937	0.1406	0.125	0.1719	0.296	0.023	0.004	63	20	0.001
R133	3/32	0.0937	3/16	0.1875	0.0625	0.0937	0.0937	0.125	0.234	0.018	0.004	28	9.5	0.001
R1-5	3/32	0.0937	5/16	0.3125	0.1094	0.1406	0.1406	0.1719	0.359	0.023	0.006	96	34	0.001
R144	1/8	0.125	1/4	0.25	0.0937	0.1094	0.125	0.1406	0.296	0.023	0.004	64	22	0.001
R2-5	1/8	0.125	5/16	0.3125	0.1094	0.1406	0.1406	0.1719	0.359	0.023	0.004	26	40	0.002
R2-6	1/8	0.125	3/8	0.375	0.1094	0.1406	0.1406	0.1719	0.422	0.023	0.006	44	50	0.002
R2	1/8	0.125	3/8	0.375	0.1562	0.1562	0.1875	0.1875	0.44	0.03	0.012	44	50	0.003
R2A	1/8	0.125	1/2	0.5	0.1719	0.1719	-	-	-	-	0.012	58	89	0.007
R155	5/32	0.1562	5/16	0.3125	0.1094	0.125	0.1406	0.1562	0.359	0.023	0.004	76	30	0.001
R156	3/16	0.1875	5/16	0.3125	0.1094	0.125	0.1406	0.1562	0.359	0.023	0.004	89	32	0.001
R166	3/16	0.1875	3/8	0.375	0.1250	0.125	0.1562	0.1562	0.422	0.023	0.004	160	60	0.002
R3	3/16	0.1875	1/2	0.5	0.1562	0.196	0.2272	0.2272	0.565	0.042	0.012	295	110	0.005
R3A	3/16	0.1875	1/2	0.5	0.196	0.196	-	-	-	-	0.012	295	110	0.006
R168	1/4	0.25	3/8	0.375	0.125	0.125	0.1562	0.1562	0.422	0.023	0.004	60	31	0.001
R188	1/4	0.25	1/2	0.5	0.125	0.1875	0.1562	0.2188	0.547	0.023	0.006	186	84	0.004
R4	1/4	0.25	5/8	0.625	0.196	0.196	0.2272	0.2272	0.69	0.042	0.012	235	139	0.01
R4A	1/4	0.25	3/4	0.75	0.2188	0.2812	-	-	-	-	0.016	525	199	0.017

Miniature Ball Bearings

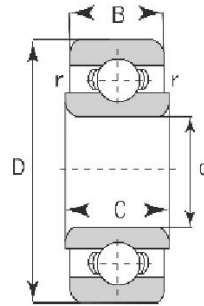
Inch series



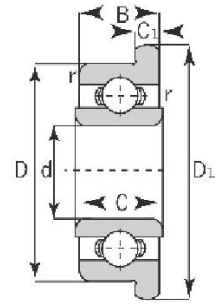
R



FR



R-EE



FR-EE

Unit No.	Bore		Outer Diameter		Width				Flange Dimensions		Radius	Basic Load Rating (lbs)		Weight (lbs)
	fract.	(inch)	fract.	(inch)	Open	ZZ / 2RS	Open	ZZ / 2RS	Open		(inch)	Dynamic	Static	
	d		D		B		C		d1	c1	r	Cr	COr	
R1238	3/8	0.375	3/4	0.75	0.196	0.196	-	-	-	-	0.01	385	189	0.001
R6	3/8	0.375	7/8	0.875	0.2188	0.2812	-	-	0.969	0.062	0.016	745	315	0.024
R1212	1/2	0.5	3/4	0.75	0.1562	0.1562	-	-	-	-	0.01	200	114	0.001
R1412	1/2	0.5	7/8	0.875	0.196	0.196	-	-	-	-	0.01	422	222	0.001
R8	1/2	0.5	1-1/8	1.125	0.25	0.3125	-	-	1.225	0.062	0.016	1148	535	0.039
R1458	5/8	0.625	7/8	0.875	0.1562	0.1562	-	-	-	-	0.01	202	130	0.001
R1658	5/8	0.625	1	1	0.196	0.196	-	-	-	-	0.01	462	295	0.001
R10	5/8	0.625	1-3/8	1.375	0.2812	0.3438	-	-	-	-	0.031	1347	734	0.081
R1634	3/4	0.75	1	1	0.1562	0.1562	-	-	-	-	0.01	216	139	0.001
R1834	3/4	0.75	1-1/8	1.125	0.2812	0.2812	-	-	-	-	0.016	225	154	0.001
R12	3/4	0.75	1-5/8	1.625	0.3125	0.4375	-	-	-	-	0.031	1770	1018	0.104
R14	7/8	0.875	1-7/8	1.875	0.375	0.5	-	-	-	-	0.031	2261	1316	0.157
R16	1	1	2	2	0.375	0.5	-	-	-	-	0.031	2261	1316	0.187
R18	1-1/8	1.125	2-1/8	2.125	0.375	0.5	-	-	-	-	0.031	2150	1407	0.198
R20	1-1/4	1.25	2-1/4	2.25	0.375	0.5	-	-	-	-	0.031	2973	1858	0.209
R22	1-3/8	1.375	2-1/2	2.5	0.4375	0.5625	-	-	-	-	0.031	2756	1910	0.232
R24	1-1/2	1.5	2-5/8	2.625	0.4375	0.5626	-	-	-	-	0.031	2906	2084	0.309