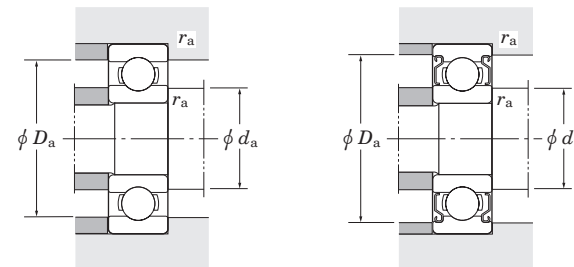
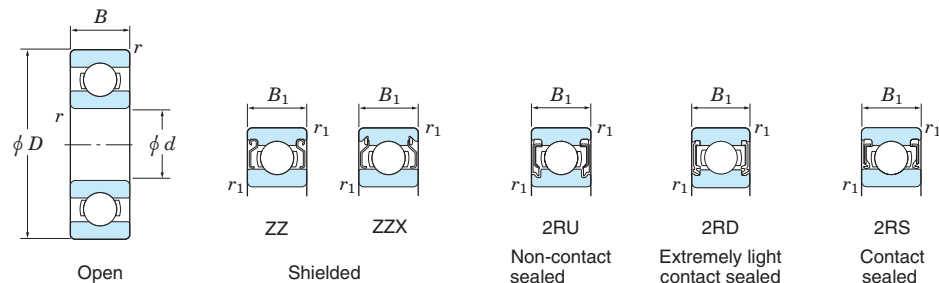


Extra-small ball bearings, miniature ball bearings

d (4) ~ (7) mm



Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Factor	Limiting speeds (min ⁻¹)				Bearing No.					Mounting dimensions (mm)			(Refer.)
d	D	B	B_1	$r_{\min.}$	$r_{1\min.}$	C_r	C_{0r}	C_u	f_0	[Open ZZ, 2RU]	(2RD)	(2RS)	[Open Z]	Open	Shielded	Non-contact sealed	Extremely light shielded	Contact sealed	d_a min.	D_a max.	r_a max.	Mass (g)
4	10	3	4	0.15	0.1	0.810	0.23	0.006	13.3	56 000	—	—	67 000	ML4010	WML4010 ZZ	—	—	—	5.2	8.8	0.1	1.0
	11	4	4	0.15	0.15	1.20	0.35	0.009	12.4	54 000	—	44 000	65 000	694	694 ZZ	694 2RU	—	694 2RS	5.2	9.8	0.15	1.8
	12	4	4	0.2	0.2	1.20	0.35	0.009	12.4	53 000	—	—	63 000	604	604 ZZ	—	—	—	5.6	10.4	0.2	2.1
	13	5	5	0.2	0.2	1.65	0.48	0.010	12.3	44 000	—	39 000	54 000	624	624 ZZ	624 2RU	—	624 2RS	5.6	11.4	0.2	2.9
	16	5	5	0.3	0.3	1.70	0.52	0.010	12.4	40 000	—	—	49 000	634	634 ZZ	—	—	—	6	14	0.3	5.3
5	8	2	2.5	0.08	0.05	0.270	0.09	0.002	15.7	59 000	—	—	70 000	ML5008	WML5008 ZZ	—	—	—	5.6	7.4	0.05	0.3
	9	2.5	3	0.1	0.08	0.540	0.17	0.004	15.3	56 000	—	—	67 000	ML5009	WML5009 ZZ	—	—	—	5.8	8.2	0.08	0.5
	10	3	4	0.1	0.1	0.540	0.17	0.005	14.8	55 000	—	—	65 000	ML5010	WML5010 ZZ	—	—	—	5.8	9	0.1	0.9
	11	3	5	0.15	0.15	0.890	0.28	0.007	12.8	53 000	—	—	63 000	685	W685 ZZ	—	—	—	6.2	9.8	0.15	1.0
	13	4	4	0.2	0.2	1.35	0.43	0.010	12.3	50 000	45 000	42 000	60 000	695	695 ZZ	695 2RU	695 2RD	695 2RS	6.6	11.4	0.2	2.2
	14	5	5	0.2	0.2	1.65	0.49	0.010	12.3	50 000	—	—	60 000	605	605 ZZ	—	—	—	6.6	12.4	0.2	3.5
	16	5	5	0.3	0.3	2.15	0.67	0.030	12.4	40 000	36 000	33 000	49 000	625	625 ZZ	625 2RU	—	625 2RS	7	14	0.3	5.0
	19	6	6	0.3	0.3	2.90	0.89	0.040	12.3	35 000	32 000	27 000	43 000	635	635 ZZ	635 2RU	—	635 2RS	7	17	0.3	8.5
6	10	2.5	3	0.1	0.08	0.620	0.22	0.006	15.7	53 000	—	—	63 000	ML6010	WML6010 ZZ	—	—	—	6.8	9.2	0.08	0.6
	12	3	4	0.15	0.1	0.890	0.29	0.008	14.5	49 000	—	37 000	59 000	ML6012	WML6012 ZZ	—	—	WML6012 2RS	7.2	10.8	0.1	1.3
	13	3.5	5	0.15	0.15	1.35	0.44	0.010	13.7	48 000	43 000	36 000	57 000	686	W686 ZZ	—	—	W686 2RS	7.2	11.8	0.15	1.8
	15	5	5	0.2	0.2	1.70	0.52	0.010	12.4	45 000	41 000	32 000	54 000	696	696 ZZ	696 2RU	696 2RD	696 2RS	7.6	13.4	0.2	3.9
	17	6	6	0.3	0.3	2.45	0.74	0.030	12.2	43 000	39 000	—	51 000	606	606 ZZ	606 2RU	606 2RD	—	8	15	0.3	5.8
	19	6	6	0.3	0.3	2.90	0.89	0.040	12.3	35 000	32 000	27 000	43 000	626	626 ZZ	626 2RU	626 2RD	626 2RS	8	17	0.3	8.1
	19	8	8	0.3	0.3	3.25	1.05	0.04	12.3	40 000	—	—	47 000	ML6019	ML6019 ZZ	—	—	—	7	18	0.3	9.0
	22	7	7	0.3	0.3	4.10	1.35	0.060	12.4	31 000	—	23 000	37 000	636	636 ZZ	—	—	636 2RS	8	20	0.3	13
7	11	2.5	3	0.1	0.08	0.540	0.23	0.006	16.1	49 000	—	—	59 000	ML7011	WML7011 ZZX	—	—	—	7.8	10.2	0.08	0.7
	13	3	4	0.15	0.15	0.680	0.28	0.007	14.9	47 000	—	—	55 000	ML7013	WML7013 ZZ	—	—	—	8.2	11.8	0.15	1.4
	14	3.5	5	0.15	0.15	1.45	0.51	0.010	14.2	45 000	—	—	54 000	687	W687 ZZ	—	—	—	8.2	12.8	0.15	2.0
	17	5	5	0.3	0.3	2.00	0.71	0.02	14.0	42 000	—	28 000	50 000	697	697 ZZ	—	—	697 2RS	9	15	0.3	5.3
	19	6	6	0.3	0.3	2.95	0.89	0.040	12.3	40 000	36 000	27 000	47 000	607	607 ZZ	607 2RU	607 2RD	607 2RS	9	17	0.3	7.6
	22	7	7	0.3	0.3	4.10	1.35	0.060	12.4	31 000	28 000	23 000	37 000	627	627 ZZ	627 2RU	627 2RD	627 2RS	9	20	0.3	13
	22	8	8	0.3	0.3	4.10	1.35	0.06	12.4	34 000	—	—	41 000	ML7022	ML7022 ZZ	—	—	—	9	20	0.3	14