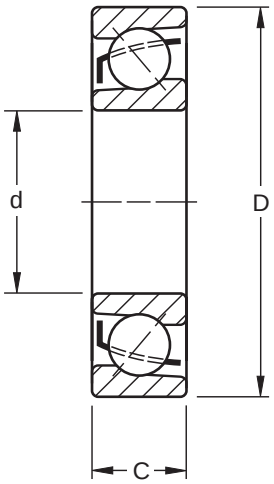
Light 7200WN Series

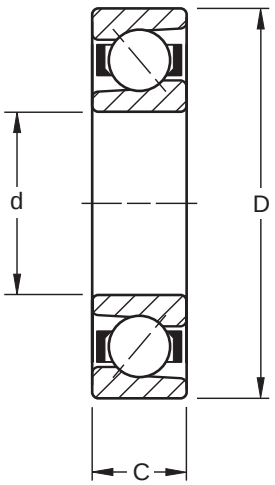
The angular contact light 7200WN series is dimensionally interchangeable with the radial 200 series. The features of the 7000WN series include a refined bore diameter.

A single bearing is recommended for applications in which the thrust load is in one direction or, in the case of combined loads, the thrust load is high in relation to the radial load. A duplex pair is recommended for application where thrust is present in both directions or where axial displacement of the shaft must be restricted. For exceptionally high thrust loads in one direction, a tandem pair can be utilized opposed by a third bearing.

Sizes 7201K through 7203WN have a 20° contact angle and a nylon cage. Sizes 7204WN through 7218WN have a 40° contact angle and a one-piece, ball piloted, pressed brass cage. Larger sizes 7219WN through 7230WN have a 40° contact angle and a one-piece, outer ring piloted high-strength machined bronze cage.



7207-7218WN
40° Contact Angle



7219-7230WN MBR
40° Contact Angle

DIMENSIONS – TOLERANCES

Bearing Number	Bore d tolerance +0.0000" +0.000 mm to minus				Outside Diameter D tolerance +0.0000" +0.000 mm to minus				Width C tolerance +0.0000" +0.000 mm to minus				Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	N	lbs.	N
7201K	0.4724	12	0.0003	0.008	1.2598	32	0.00045	0.011	0.3937	10	0.005	0.12	0.024	0.6	0.08	0.036	630	2790	1600	7100
7202W	0.5906	15	0.0003	0.008	1.3780	35	0.00045	0.011	0.4331	11	0.005	0.12	0.024	0.6	0.1	0.045	1060	4700	2320	10300
7203W	0.6693	17	0.0003	0.008	1.5748	40	0.00045	0.011	0.4727	12	0.005	0.12	0.024	0.6	0.15	0.068	1560	6930	3200	14200
7204WN(2) (3)	0.7874	20	0.0004	0.010	1.8504	47	0.00045	0.011	0.5512	14	0.005	0.12	0.039	1.0	0.23	0.104	1830	8100	3800	16800
7205WN(3)	0.9843	25	0.0004	0.010	2.0472	52	0.0005	0.013	0.5906	15	0.005	0.12	0.039	1.0	0.29	0.132	2120	9400	3750	16600
7206WN	1.1811	30	0.0004	0.010	2.4409	62	0.0005	0.013	0.6299	16	0.005	0.12	0.039	1.0	0.46	0.209	3050	13500	5200	23000
7207WN	1.3780	35	0.0004	0.010	2.8346	72	0.0005	0.013	0.6693	17	0.005	0.12	0.039	1.0	0.63	0.286	4150	18000	6950	30800
7208WN	1.5748	40	0.0004	0.010	3.1496	80	0.0005	0.013	0.7087	18	0.005	0.12	0.039	1.0	0.73	0.331	5200	23000	8150	36000
7209WN	1.7717	45	0.0004	0.010	3.3465	85	0.0006	0.015	0.7480	19	0.005	0.12	0.039	1.0	0.96	0.435	5850	25900	9150	40500
7210WN	1.9685	50	0.0004	0.010	3.5433	90	0.0006	0.015	0.7874	20	0.005	0.12	0.039	1.0	1.12	0.508	6400	28400	9500	42500
7211WN	2.1654	55	0.0004	0.010	3.9370	100	0.0006	0.015	0.8268	21	0.006	0.15	0.059	1.5	1.4	0.635	8150	36200	11800	52000
7212WN	2.3622	60	0.0004	0.010	4.3307	110	0.0006	0.015	0.8661	22	0.006	0.15	0.059	1.5	1.84	0.835	10000	44000	14300	63000
7213WN	2.5591	65	0.0004	0.010	4.7244	120	0.0006	0.015	0.9055	23	0.006	0.15	0.059	1.5	2.34	1.061	11800	52400	16300	72400
7214WN	2.7559	70	0.0004	0.010	4.9213	125	0.0007	0.018	0.9449	24	0.006	0.15	0.059	1.5	2.58	1.17	12900	57300	17600	78000
7215WN	2.9528	75	0.0004	0.010	5.1181	130	0.0007	0.018	0.9843	25	0.006	0.15	0.059	1.5	2.8	1.27	13200	58000	17600	78000
7216WN	3.1496	80	0.0004	0.010	5.5118	140	0.0007	0.018	1.0236	26	0.006	0.15	0.079	2.0	3.27	1.483	15600	65500	20400	91500
7217WN	3.3465	85	0.0005	0.013	5.9055	150	0.0007	0.018	1.1024	28	0.008	0.20	0.079	2.0	4.62	2.096	18300	76500	23600	106000
7218WN	3.5433	90	0.0005	0.013	6.2992	160	0.0010	0.025	1.1811	30	0.008	0.20	0.079	2.0	5.66	2.567	21200	88000	27000	119000
7219WN MBR	3.7402	95	0.0005	0.013	6.6929	170	0.0010	0.025	1.2600	32	0.008	0.20	0.079	2.0	6.67	3.025	22800	93000	30000	133000
7220WN MBR	3.9370	100	0.0005	0.013	7.0866	180	0.0010	0.025	1.3390	34	0.008	0.20	0.079	2.0	7.62	3.46	25500	106000	33500	146000
7222WN MBR	4.3307	110	0.0005	0.013	7.8740	200	0.0012	0.030	1.4960	38	0.008	0.20	0.079	2.0	11.38	5.162	32500	134000	39000	173000
7224WN MBR	4.7244	120	0.0005	0.013	8.4646	215	0.0012	0.030	1.5750	40	0.008	0.20	0.079	2.0	14.01	6.354	36500	160000	42500	188000
7226WN MBR	5.1181	130	0.0007	0.018	9.0551	230	0.0012	0.030	1.5750	40	0.010	0.25	0.098	2.5	16.63	7.543	43000	176000	47500	211000
7228WN MBR	5.5118	140	0.0007	0.018	9.8425	250	0.0012	0.030	1.6540	42	0.010	0.25	0.098	2.5	21.24	9.634	47500	200000	50000	224000
7230WN MBR	5.9055	150	0.0007	0.018	10.6299	270	0.0014	0.035	1.7720	45	0.010	0.25	0.098	2.5	25.84	11.72	56000	240000	56000	248000

(1) Maximum shaft or housing fillet radius which bearing corners will clear.

(2) Also available as W design.

(3) Also available with 20° contact angle and nylon cage.

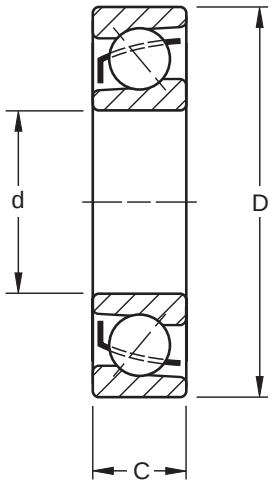
Note: 7208WN-7212WN also available with a one piece, high strength machined bronze retainer (MBR).
This cage can be quoted on the other sizes by request.

Medium 7300WN Series

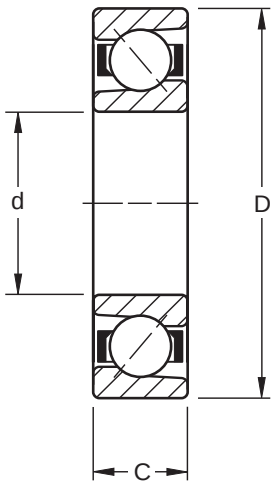
The angular contact medium 7300WN series is dimensionally interchangeable with the radial 300 series. The features of the 7000WN series include a refined bore diameter.

The 7300WN series can sustain heavier thrust and combined loads than the 7200WN series. A single bearing is recommended for applications in which the thrust load is in one direction or, in the case of combined loads, the thrust load is high in relation to the radial load. A duplex pair is recommended for application where thrust is present in both directions or where axial displacement of the shaft must be restricted. For exceptionally high thrust loads in one direction, a tandem pair can be utilized opposed by a third bearing.

Size 7303W have a 20° contact angle and a steel cage. Sizes 7304WN through 7318WN have a 40° contact angle and a one-piece, ball piloted, pressed brass cage. Larger sizes 7319WN through 7330WN have a 40° contact angle and a one-piece, outer ring piloted high-strength machined bronze cage. Sizes 7306WN to 7318WN also available with a one piece, high strength, machined bronze retainer (MBR).



7304-7318WN
40° Contact Angle



7319-7330WN MBR
40° Contact Angle

DIMENSIONS – TOLERANCES

Bearing Number	Bore d				Outside Diameter D				Width C				Fillet Radius(1)		Wt.		Static Load Rating C_O		Extended Dynamic Load Rating C_E	
	tolerance +0.0000" +0.000 mm to minus				tolerance +0.0000" +0.000 mm to minus				tolerance +0.0000" +0.000 mm to minus											
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	N	lbs.	N
7303W	0.6693	17	0.0003	0.008	1.8504	47	0.00045	0.011	0.5512	14	0.005	0.12	0.039	1.0	0.26	0.118	2080	9200	4550	20200
7304WN	0.7874	20	0.0004	0.010	2.0472	52	0.0005	0.013	0.5906	15	0.005	0.12	0.039	1.0	0.33	0.15	2160	9590	4400	19500
7305WN	0.9843	25	0.0004	0.010	2.4409	62	0.0005	0.013	0.6693	17	0.005	0.12	0.039	1.0	0.53	0.24	3000	13300	5850	26500
7306WN	1.1811	30	0.0004	0.010	2.8346	72	0.0005	0.013	0.7480	19	0.005	0.12	0.039	1.0	0.8	0.363	4650	20800	7800	34600
7307WN	1.3780	35	0.0004	0.010	3.1496	80	0.0005	0.013	0.8268	21	0.005	0.12	0.059	1.5	0.9	0.408	5400	23900	9300	41300
7308WN	1.5748	40	0.0004	0.010	3.5433	90	0.0006	0.015	0.9055	23	0.005	0.12	0.059	1.5	1.47	0.667	6800	30200	11400	50600
7309WN	1.7717	45	0.0004	0.010	3.9370	100	0.0006	0.015	0.9843	25	0.005	0.12	0.059	1.5	1.95	0.885	9000	39900	15000	66600
7310WN	1.9685	50	0.0004	0.010	4.3307	110	0.0006	0.015	1.0630	27	0.005	0.12	0.079	2.0	2.51	1.139	10800	47900	17300	76800
7311WN	2.1654	55	0.0004	0.010	4.7244	120	0.0006	0.015	1.1417	29	0.006	0.15	0.079	2.0	3.51	1.592	12700	56400	20000	88800
7312WN	2.3622	60	0.0004	0.010	5.1181	130	0.0007	0.018	1.2205	31	0.006	0.15	0.079	2.0	4.34	1.969	14600	64800	22800	101000
7313WN	2.5591	65	0.0004	0.010	5.5118	140	0.0007	0.018	1.2992	33	0.006	0.15	0.079	2.0	5.46	2.477	17000	75500	26000	115000
7314WN	2.7559	70	0.0004	0.010	5.9055	150	0.0007	0.018	1.3780	35	0.006	0.15	0.079	2.0	5.9	2.676	19300	85700	29000	128000
7315WN	2.9528	75	0.0004	0.010	6.2992	160	0.0010	0.025	1.4567	37	0.006	0.15	0.079	2.0	7.61	3.452	22000	98000	32000	142000
7316WN	3.1496	80	0.0004	0.010	6.6929	170	0.0010	0.025	1.5354	39	0.006	0.15	0.079	2.0	9.92	4.5	24500	108000	34500	153000
7317WN	3.3465	85	0.0005	0.013	7.0866	180	0.0010	0.025	1.6124	41	0.008	0.20	0.098	2.5	10.88	4.936	27500	122000	37500	166000
7318WN	3.5433	90	0.0005	0.013	7.4803	190	0.0012	0.030	1.6929	43	0.008	0.20	0.098	2.5	13.76	6.242	30500	135000	40000	177000
7319WN MBR	3.7402	95	0.0005	0.013	7.8740	200	0.0012	0.030	1.7717	45	0.008	0.20	0.098	2.5	14.77	6.7	33500	148000	43000	191000
7320WN MBR	3.9370	100	0.0005	0.013	8.4646	215	0.0012	0.030	1.8504	47	0.008	0.20	0.098	2.5	18.12	8.22	40000	177000	49000	217000
7321WN MBR	4.1339	105	0.0005	0.013	8.8583	225	0.0012	0.030	1.9291	49	0.008	0.20	0.098	2.5	20.92	9.49	43000	191000	51000	226000
7322WN MBR	4.3307	110	0.0005	0.013	9.4488	240	0.0012	0.030	1.9685	50	0.008	0.20	0.098	2.5	23.99	10.88	51000	226000	57000	253000
7324WN MBR	4.7244	120	0.0005	0.013	10.2362	260	0.0014	0.035	2.1654	55	0.008	0.20	0.098	2.5	31.62	14.34	58500	259000	64000	284000
7326WN MBR	5.1181	130	0.0007	0.018	11.0236	280	0.0014	0.035	2.2835	58	0.010	0.25	0.118	3.0	38.19	17.32	68000	302000	71000	315000
7328WN MBR	5.5118	140	0.0007	0.018	11.8110	300	0.0014	0.035	2.4409	62	0.010	0.25	0.118	3.0	44.7	20.28	78000	346000	76500	339000
7330WN MBR	5.9055	150	0.0007	0.018	12.5984	320	0.0016	0.040	2.5591	65	0.010	0.25	0.118	3.0	54.86	24.88	88000	390000	83000	368000

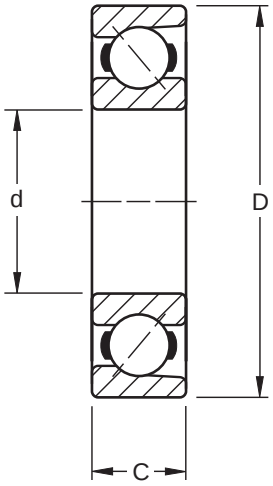
(1) Maximum shaft or housing fillet radius which bearing corners will clear.

Heavy 7400 Series

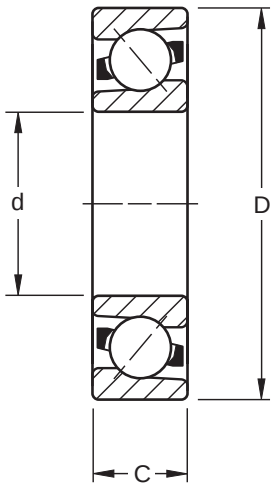
The angular contact Heavy 7400 series is dimensionally interchangeable with the radial 400 series. Those sizes with a “WN” suffix include a refined bore diameter tolerance.

The 7400 series can sustain heavier thrust and combined loads than the 7300WN series. A single bearing is recommended for applications in which the thrust load is in one direction or, in the case of combined loads, the thrust load is high in relation to the radial load. A duplex pair is recommended for application where thrust is present in both directions or where axial displacement of the shaft must be restricted. For exceptionally high thrust loads in one direction, a tandem pair can be utilized opposed by a third bearing.

Those sizes with a suffix “W” have a 20° contact angle and a steel retainer. Those sizes with a suffix “PW” have a 35° contact angle and a steel retainer. Those sizes with a “WN” suffix have a 40° contact angle and a one-piece, high-strength machined bronze cage.



7405W-7409W
(20° Contact Angle)
7410PW-7420PW
(35° Contact Angle)



7412WN and 7415WN MBR
(40° Contact Angle)

Dimensions – Tolerances

Bearing Number	Bore d				Outside Diameter D				Width C				Fillet Radius(1)		Wt.		Static Load Rating C_O		Extended Dynamic Load Rating C_E	
			tolerance +0.0000"	+0.000 mm to minus			tolerance +0.0000"	+0.000 mm to minus			tolerance +0.0000"	+0.000 mm to minus								
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	N	lbs.	N
7405W	0.9843	25	0.0004	0.010	3.1496	80	0.0005	0.013	0.8268	21	0.005	0.12	0.060	1.5	2.04	0.925	5850	25900	12000	53300
7406W	1.1811	30	0.0004	0.010	3.5433	90	0.0006	0.015	0.9055	23	0.005	0.12	0.060	1.5	2.11	0.957	8000	35500	15600	69000
7407W	1.3780	35	0.00045	0.012	3.9370	100	0.0006	0.015	0.9843	25	0.005	0.12	0.060	1.5	2.21	1.002	9650	42800	18000	79900
7408W	1.5748	40	0.00045	0.012	4.3307	110	0.0006	0.015	1.0630	27	0.005	0.12	0.080	2.0	2.89	1.311	12700	56400	22400	99500
7409W	1.7717	45	0.00045	0.012	4.7244	120	0.0006	0.015	1.1417	29	0.005	0.12	0.080	2.0	3.63	1.647	14000	62000	24000	106000
7410WN	1.9685	50	0.00045	0.012	5.1181	130	0.0007	0.018	1.2205	31	0.005	0.12	0.080	2.0	4.84	2.195	15000	66600	26000	115000
7411PW	2.1654	55	0.0006	0.015	5.5118	140	0.0007	0.018	1.2992	33	0.006	0.15	0.080	2.0	5.91	2.681	16000	71000	27500	122000
7412WN	2.3622	60	0.0004	0.010	5.9055	150	0.0007	0.018	1.3780	35	0.006	0.15	0.080	2.0	7.18	3.257	19300	85700	30500	135000
7413WN	2.5591	65	0.0006	0.015	6.2992	160	0.0010	0.025	1.4567	37	0.006	0.15	0.080	2.0	8.59	3.896	20400	91500	32000	142000
7414WN	2.7559	70	0.0006	0.015	7.0866	180	0.0010	0.025	1.6535	42	0.006	0.15	0.100	2.5	12.54	5.688	26000	115500	39000	173000
7415WN	2.9528	75	0.0004	0.010	7.4803	190	0.0012	0.030	1.7717	45	0.006	0.15	0.100	2.5	14.87	6.745	33500	148000	45500	202000
7416WN	3.1496	80	0.0006	0.015	7.8740	200	0.0012	0.030	1.8898	48	0.006	0.15	0.100	2.5	17.08	7.747	34500	153000	46500	206000
7418PW	3.5433	90	0.0008	0.020	8.8583	225	0.0012	0.030	2.1268	54	0.008	0.20	0.120	3.0	24.6	11.159	45000	200000	53000	236000
7420PW	3.9370	100	0.0008	0.020	10.4331	265	0.0014	0.036	2.3622	60	0.008	0.20	0.120	3.0	41.1	18.643	63000	279000	71000	315000

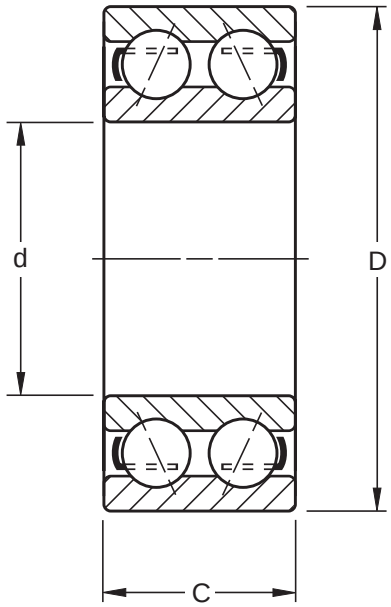
(1) Maximum shaft or housing fillet radius which bearing corners will clear.

Light 5200 Series

Light 5200 series ball bearings have the same bores and outside diameters as the corresponding bearings in the 200 series single row radial type.

Double row angular contact ball bearings meet the demand for increased axial and radial rigidity in applications where the design limits space.

These bearings are available in both conrad and maximum capacity types. Suffix K denotes conrad type i.e., 5203K. Suffix W or no suffix denotes maximum capacity type i.e., 5212W, 5213.



DIMENSIONS – TOLERANCES

Bearing Number	Bore d tolerance +0.0000" +0.000 mm to minus				Outside Diameter D tolerance +0.0000" +0.000 mm to minus				Width C +0.000",-0.005" +0.00 mm,-0.12 mm			Fillet Radius[1]		Contact Angle	Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E	
									frac.	in.	decimal mm	in.	mm		lbs.	kg	lbs.	N	lbs.	N
5200K[2]	0.3937	10	0.0003	0.008	1.1811	30	0.00035	0.009	9/16	0.562	14.27	0.024	0.6	20°	0.12	0.054	1140	5060	2400	10600
5201K[2]	0.4724	12	0.0003	0.008	1.2598	32	0.00045	0.012	5/8	0.625	15.88	0.024	0.6	20°	0.15	0.068	1060	4700	2040	9060
5202K[2]	0.5906	15	0.0003	0.008	1.3780	35	0.00045	0.012	5/8	0.625	15.88	0.024	0.6	20°	0.16	0.073	1600	7100	3050	13500
5203K[2]	0.6693	17	0.0003	0.008	1.5748	40	0.00045	0.012	11/16	0.688	17.48	0.024	0.6	20°	0.23	0.104	2080	9200	3800	16800
5204K[2]	0.7874	20	0.0004	0.010	1.8504	47	0.00045	0.012	13/16	0.812	20.62	0.039	1.0	20°	0.36	0.163	2850	12600	5100	22600
5205K[2]	0.9843	25	0.0004	0.010	2.0472	52	0.0005	0.013	13/16	0.812	20.62	0.039	1.0	20°	0.41	0.186	3400	15100	5600	24800
5206K	1.1811	30	0.0004	0.010	2.4409	62	0.0005	0.013	15/16	0.938	23.83	0.039	1.0	20°	0.65	0.295	4900	21700	7800	34600
5206W	1.1811	30	0.0004	0.010	2.4409	62	0.0005	0.013	15/16	0.938	23.83	0.039	1.0	30°	0.65	0.295	6100	27000	8800	39000
5207K	1.3780	35	0.00045	0.012	2.8346	72	0.0005	0.013	1 1/16	1.062	26.97	0.039	1.0	20°	1.06	0.481	6550	29000	10200	45000
5207W	1.3780	35	0.00045	0.012	2.8346	72	0.0005	0.013	1 1/16	1.062	26.97	0.039	1.0	30°	1.06	0.481	8300	36800	11600	51500
5208K	1.5748	40	0.00045	0.012	3.1496	80	0.0005	0.013	1 3/16	1.188	30.17	0.039	1.0	20°	1.32	0.566	7650	33900	11600	51500
5208W	1.5748	40	0.00045	0.012	3.1496	80	0.0005	0.013	1 3/16	1.188	30.17	0.039	1.0	30°	1.32	0.599	10600	47000	14000	62000
5209K	1.7717	45	0.00045	0.012	3.3456	85	0.0006	0.015	1 3/16	1.188	30.17	0.039	1.0	20°	1.54	0.699	8800	39000	12900	57000
5209W	1.7717	45	0.00045	0.012	3.3456	85	0.0006	0.015	1 3/16	1.188	30.17	0.039	1.0	30°	1.54	0.699	11600	51500	14600	64800
5210K	1.9685	50	0.00045	0.012	3.5433	90	0.0006	0.015	1 3/16	1.188	30.17	0.039	1.0	20°	1.66	0.753	10000	44400	14000	62000
5210W	1.9685	50	0.00045	0.012	3.5433	90	0.0006	0.015	1 3/16	1.188	30.17	0.039	1.0	30°	1.66	0.753	12700	56000	15000	66600
5211K	2.1654	55	0.0006	0.015	3.9370	100	0.0006	0.015	1 5/16	1.312[4]	33.32	0.059	1.5	20°	2.29	1.039	12700	71000	17300	76000
5211W	2.1654	55	0.0006	0.015	3.9370	100	0.0006	0.015	1 5/16	1.312[4]	33.32	0.059	1.5	30°	2.29	1.039	16000	62000	19000	84000
5212K	2.3622	60	0.0006	0.015	4.3307	110	0.0006	0.015	1 7/16	1.438[4]	36.53	0.059	1.5	20°	3.06	1.388	14000	88800	19300	85000
5212W	2.3622	60	0.0006	0.015	4.3307	110	0.0006	0.015	1 7/16	1.438[4]	36.53	0.059	1.5	30°	3.06	1.388	20000	72000	23800	103000
5213K	2.5591	65	0.0006	0.015	4.7244	120	0.0006	0.015	1 1/2	1.500[4]	38.10	0.059	1.5	20°	4.24	1.923	17300	76800	22800	101000
5213[3]	2.5591	65	0.0006	0.015	4.7244	120	0.0006	0.015	1 1/2	1.500[4]	38.10	0.059	1.5	30°	4.24	1.923	20800	92000	22400	99500
5214K	2.7559	70	0.0006	0.015	4.9213	125	0.0007	0.018	1 9/16	1.562[4]	39.67	0.059	1.5	20°	4.62	2.096	19000	84000	24500	108000
5214[3]	2.7559	70	0.0006	0.015	4.9213	125	0.0007	0.018	1 9/16	1.562[4]	39.67	0.059	1.5	30°	4.62	2.096	28500	126000	31500	139000
5215K	2.9528	75	0.0006	0.015	5.1181	130	0.0007	0.018	1 5/8	1.625[4]	41.28	0.059	1.5	20°	5.15	2.336	19300	85700	24500	108000
5215[3]	2.9528	75	0.0006	0.015	5.1181	130	0.0007	0.018	1 5/8	1.625[4]	41.28	0.059	1.5	30°	5.15	2.336	31000	137000	32500	144000
5216[3]	3.1496	80	0.0006	0.015	5.5118	140	0.0007	0.018	1 3/4	1.750[4]	44.45	0.079	2.0	30°	6.32	2.867	36500	162000	38000	168000
5217[3]	3.3456	85	0.0008	0.020	5.9055	150	0.0007	0.018	1 15/16	1.938[5]	49.23	0.079	2.0	30°	8	3.629	40000	177000	42500	188000
5218W	3.5433	90	0.0008	0.020	6.2992	160	0.0010	0.025	2 1/16	2.062[5]	52.37	0.079	2.0	20°	9.96	4.518	43000	191000	45500	202000
5219[3]	3.7402	95	0.0008	0.020	6.6929	170	0.0010	0.025	2 3/16	2.188[5]	55.58	0.079	2.0	30°	11.93	5.411	53000	235000	55000	244000
5220W	3.9370	100	0.0008	0.020	7.0866	180	0.0010	0.025	2 3/8	2.375[5]	60.32	0.079	2.0	20°	14.42	6.541	57000	253000	58500	259000
5222	4.3307	110	0.0008	0.020	7.8740	200	0.0012	0.030	2 3/4	2.750[5]	69.85	0.079	2.0	30°	20.95	9.503	76500	339000	73500	326000

[1] Maximum shaft or housing fillet radius which bearing corners will clear.
[2] Sizes have PRB molded nylon retainers.
[3] These sizes have contact angle converging inside the bearing.
[4] Width tolerance is +.000 to -.006" (+.00mm to -.15mm).
[5] Width tolerance is +.000 to -.008" (+.00mm to -.20mm).

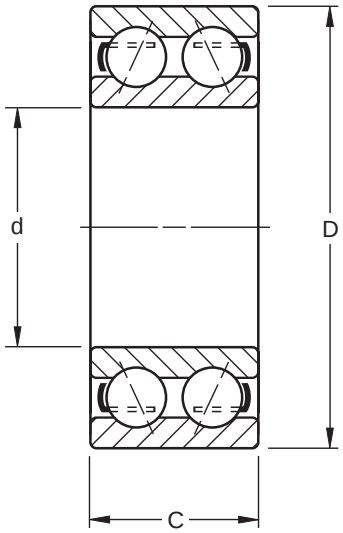
Note: See page 53 for Shield and Snap Ring Combinations.

Medium 5300 Series

Medium 5300 series ball bearings have the same bores and outside diameters as the corresponding bearings in the 300 series single row radial type.

Double row angular contact ball bearings meet the demand for increased axial and radial rigidity in applications where the design limits space.

These bearings are available in both conrad and maximum capacity types. Suffix K denotes conrad type i.e., 5303K. Suffix W or no suffix denotes maximum capacity type i.e., 5312W, 5319.



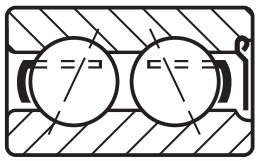
Dimensions – Tolerances

Bearing Number	Bore d tolerance +0.0000" +0.000 mm to minus				Outside Diameter D tolerance +0.0000" +0.000 mm to minus				Width C +0.000",-0.005" +0.00 mm,-0.12 mm			Fillet Radius(1)		Contact Angle	Wt.		Static Load Rating C_O		Extended Dynamic Load Rating C_E	
									frac.	in.	mm									
	in.	mm	in.	mm	in.	mm	in.	mm				in.	mm		lbs.	kg	lbs.	N	lbs.	N
5302	0.5906	15	0.0003	0.008	1.6535	42	0.00045	0.012	¾	0.750	19.05	0.039	1.0	20°	0.31	0.141	2080	9200	3800	16800
5303K	0.6693	17	0.0003	0.008	1.8504	47	0.00045	0.012	⅞	0.875	22.22	0.039	1.0	20°	0.42	0.191	2850	12600	5100	22600
5304K(2)	0.7874	20	0.0004	0.010	2.0472	52	0.0005	0.013	⅞	0.875	22.22	0.039	1.0	20°	0.49	0.222	3450	15300	6400	28400
5305K(2)	0.9843	25	0.0004	0.010	2.4409	62	0.0005	0.013	1	1.000	25.40	0.039	1.0	20°	0.81	0.367	4750	21100	8500	37700
5306K	1.1811	30	0.0004	0.010	2.8346	72	0.0005	0.013	1 3/16	1.188	30.17	0.039	1.0	20°	1.35	0.612	6550	29000	10600	47000
5306W	1.1811	30	0.0004	0.010	2.8346	72	0.0005	0.013	1 3/16	1.188	30.17	0.039	1.0	30°	1.35	0.612	9300	41000	14000	62000
5307K	1.3780	35	0.00045	0.012	3.1496	80	0.0005	0.013	1 3/8	1.375	34.93	0.059	1.5	20°	1.92	0.871	8300	36000	13400	59500
5307W	1.3780	35	0.00045	0.012	3.1496	80	0.0005	0.013	1 3/8	1.375	34.93	0.059	1.5	30°	1.92	0.871	10800	47900	15600	69200
5308K	1.5748	40	0.00045	0.012	3.5433	90	0.0006	0.015	1 7/16	1.438	36.53	0.059	1.5	20°	2.51	1.139	10400	46000	16300	72400
5308W	1.5748	40	0.00045	0.012	3.5433	90	0.0006	0.015	1 7/16	1.438	36.53	0.059	1.5	30°	2.51	1.139	15000	66600	20400	90600
5309K	1.7717	45	0.00045	0.012	3.9370	100	0.0006	0.015	1 9/16	1.562	39.67	0.059	1.5	20°	3.16	1.433	12700	56400	19600	87000
5309W	1.7717	45	0.00045	0.012	3.9370	100	0.0006	0.015	1 9/16	1.562	39.67	0.059	1.5	30°	3.16	1.433	18300	81000	24000	106000
5310K	1.9685	50	0.00045	0.012	4.3307	110	0.0006	0.015	1 ¾	1.750	44.45	0.079	2.0	20°	4.61	2.091	16600	73000	25000	111000
5310W	1.9685	50	0.00045	0.012	4.3307	110	0.0006	0.015	1 ¾	1.750	44.45	0.079	2.0	30°	4.61	2.091	22000	97000	28500	126000
5311W	2.1654	55	0.0006	0.015	4.7244	120	0.0006	0.015	1 15/16	1.938(3)	49.22	0.079	2.0	20°	6	2.722	25500	113000	32500	144000
5312W	2.3622	60	0.0006	0.015	5.1181	130	0.0007	0.018	2 1/8	2.125(3)	53.98	0.079	2.0	20°	7.54	3.420	34000	151000	43000	191000
5313W	2.5591	65	0.0006	0.015	5.5118	140	0.0007	0.018	2 5/16	2.312(3)	58.72	0.079	2.0	20°	9.17	4.160	39000	173000	48000	213000
5314W	2.7559	70	0.0006	0.015	5.9055	150	0.0007	0.018	2 ½	2.500(3)	63.50	0.079	2.0	20°	11.82	5.362	44000	195000	54000	239000
5315W	2.9528	75	0.0006	0.015	6.2992	160	0.0010	0.025	2 11/16	2.689(3)	68.30	0.079	2.0	20°	14.17	6.428	50000	222000	60000	266000
5316W	3.1496	80	0.0006	0.015	6.6929	170	0.0010	0.025	2 11/16	2.688(3)	68.28	0.079	2.0	20°	16.24	7.366	56000	248000	64000	284000
5317W	3.3465	85	0.0008	0.020	7.0866	180	0.0010	0.025	2 ⅞	2.875(4)	73.02	0.098	2.5	20°	19.46	8.827	63000	279000	69500	308000
5318W	3.5433	90	0.0008	0.020	7.4803	190	0.0012	0.030	2 ⅞	2.875(4)	73.02	0.098	2.5	20°	21.2	9.616	69500	308000	75000	333000
5319	3.7402	95	0.0008	0.020	7.8740	200	0.0012	0.030	3 3/16	3.062(4)	77.77	0.098	2.5	30°	25.49	11.562	72000	319000	75000	333000
5320W	3.9370	100	0.0008	0.020	8.4646	215	0.0012	0.030	3 ¼	3.250(4)	82.55	0.098	2.5	20°	31.57	14.320	85000	377000	85000	377000
5322W	4.3307	110	0.0008	0.020	9.4488	240	0.0012	0.030	3 ⅝	3.625(4)	92.08	0.098	2.5	20°	44.43	20.153	108000	479000	102000	453000
5324W	4.7244	120	0.0008	0.020	10.2362	260	0.0014	0.035	4 ⅛	4.125(4)	104.78	0.098	2.5	20°	62.37	28.291	125000	555000	112000	497000
5328W	5.5118	140	0.0010	0.025	11.8110	300	0.0014	0.035	4 ½	4.500(5)	114.30	0.118	3.0	20°	84	38.102	140000	630000	129000	570000

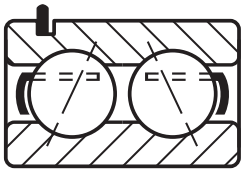
(1) Maximum shaft or housing fillet radius which bearing corners will clear.
(2) Sizes have PRB molded nylon retainers.
(3) Width tolerance is +.000 to -.006" (+.00mm to -.15mm).
(4) Width tolerance is +.000 to 0-.008" (+.00mm to -.20mm).
(5) Width tolerance is +.000 to -.010" (+.00mm to -.25 mm)

Note: See opposite page for Shield and Snap Ring Combinations.

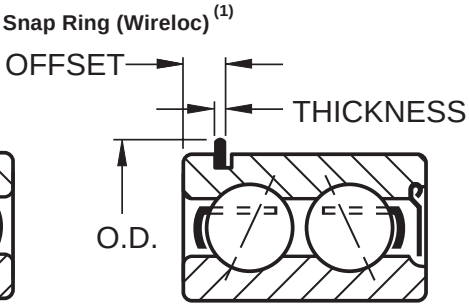
Shield and Snap Ring Combinations



One Shield D



Open Type G



One Shield DG

5200 SERIES

Bearing Number	Width +0.000",-.005" +0.00 mm,-.12mm fraction	Width decimal		Wt.		Bearing Number	Snap Ring(1) O.D.		Thickness		Offset		Wt.	
	in.	in	mm	lbs.	kg		in.	mm	in.	mm	in.	mm	lbs	kg
5200KDD2	5/8	0.625(3)	15.88	0.12	0.054	—	1 23/64	34.5	0.042	1.07	0.120	3.05	—	—
5201KD(DD)	5/8	0.625	15.88	0.14	0.064	—	1 7/16	36.5	0.042	1.07	0.120	3.05	—	—
—	—	—	—	—	—	—	1 35/64	39.3	0.042	1.07	0.120	3.05	—	—
5203KD(KDD3)	11/16	0.688	17.48	0.35	0.159	5203KDG	1 3/4	44.4	0.042	1.07	0.120	3.05	0.28	0.127
5204KD	13/16	0.812	20.62	0.26	0.118	5204KG	2 1/16	52.4	0.042	1.07	0.136	3.45	0.33	0.15
5205KD	7/8	0.875	22.22	0.45	0.204	5205KG	2 17/64	57.5	0.042	1.07	0.136	3.45	0.44	0.2
5206WD	1 1/16	1.062	26.97	0.74	0.336	5206WG	2 21/32	67.5	0.065	1.65	0.190	4.83	0.73	0.331
5207WD	1 3/16	1.188	30.17	1.21	0.546	—	3 5/64	78.2	0.065	1.65	0.190	4.83	—	—
5208WD	1 3/16	1.188	30.17	1.46	0.662	—	3 13/32	86.5	0.065	1.65	0.190	4.83	—	—
5209WD	1 3/16	1.188	30.17	1.57	0.712	5209WG	3 19/32	91.3	0.065	1.65	0.190	4.83	1.59	0.721
5210WD	1 5/16	1.312	33.32	1.8	0.816	5210WG	3 51/64	96.4	0.095	2.41	0.220	5.59	1.7	0.771
5211WD	1 5/16	1.312	33.32	2.3	1.043	5211WG	4 3/16	106.4	0.095	2.41	0.220	5.59	2.35	1.066
5212WD	1 5/16	1.562	39.67	3.3	1.497	5212WG	4 37/64	116.3	0.095	2.41	0.220	5.59	3.14	1.424
5213WD	—	—	—	—	—	—	5 3/32	129.4	0.109	2.77	0.265	6.73	—	—
5214D(2)	1 5/16	1.562	39.67	4.71	2.137	—	5 19/64	134.5	0.109	2.77	0.265	6.73	—	—
—	—	—	—	—	—	5215G(2)	5 1/2	139.7	0.109	2.77	0.265	6.73	5.13	2.327
5216DD(2)	1 7/8	1.875	47.62	6.75	3.062	5216G(2)	5 57/64	149.6	0.109	2.77	0.297	7.54	6.53	2.962
—	—	—	—	—	—	5217G(2)	6 9/32	159.5	0.109	2.77	0.297	7.54	8.21	3.724
5218WD	2 1/16	2.062	52.37	9.93	4.504	—	6 45/64	169.5	0.109	2.77	0.297	7.54	—	—
—	—	—	—	—	—	5219G(2)	7 5/16	182.6	0.12	3.05	0.339	8.61	12.12	5.498

5300 SERIES

Bearing Number	Width +0.000",-.005" +0.00 mm,-.12mm fraction	Width decimal		Wt.		Bearing Number(4)	Snap Ring(1) O.D.		Thickness		Offset		Wt.	
	in.	in	mm	lbs.	kg		in.	mm	in.	mm	in.	mm	lbs	kg
—	—	—	—	—	—	5303KG	2 1/16	52.4	0.042	1.07	0.136	3.45	0.5	0.227
—	—	—	—	—	—	5304KG	2 17/64	57.6	0.042	1.07	0.136	3.45	0.51	0.231
—	—	—	—	—	—	5305KG	2 21/32	67.5	0.065	1.65	0.190	4.83	0.83	0.376
5306WD	1 5/16	1.312	33.32	1.41	0.64	5306WG	3 5/64	78.2	0.065	1.65	0.190	4.83	1.34	0.608
5307WD	1 1/2	1.500	38.10	1.89	0.857	5307WG	3 13/32	86.5	0.065	1.65	0.190	4.83	1.78	0.807
5308WD	1 9/16	1.562	39.67	2.52	1.143	5308WG	3 51/64	96.4	0.095	2.41	0.220	5.59	2.43	1.102
5309WD	1 11/16	1.688	42.88	3.67	1.665	5309WG	4 3/16	106.4	0.095	2.41	0.220	5.59	3.22	1.461
5310WD	1 7/8	1.875	47.62	4.45	2.019	5310WG	4 37/64	116.3	0.095	2.41	0.220	5.59	4.26	1.932
5311D(4)	2 1/16	2.062	52.37	6.23	2.826	5311WG	5 3/32	129.4	0.109	2.77	0.265	6.73	6.15	2.789
5312D(4)	2 1/4	2.250	57.15	7.54	3.42	5312WG	5 1/2	139.7	0.109	2.77	0.265	6.73	7.7	3.493
5313D(4)	2 7/16	2.438	61.72	10.28	4.663	5313WG	5 57/64	149.6	0.109	2.77	0.297	7.54	9.46	4.291
—	—	—	—	—	—	5314WG	6 9/32	159.5	0.109	2.77	0.297	7.54	12.05	5.466

(1) The snap ring is normally packaged separately in the box with the bearing.
(2) These sizes have contact angle converging inside bearing.
(3) Inner ring width is .7500" (19.05mm).
(4) Ring widths are different for these parts. Contact Torrington Sales Engineer to validate size.