

Angular Contact Ball Bearings

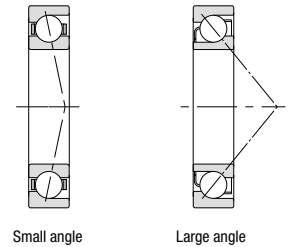


Angular contact ball bearings are similar to deep groove ball bearings but can handle radial and axial loading applications, because the line of contact between the balls and raceway is at an angle in the radial plane. These bearings are suitable for low, medium and high-speed applications.

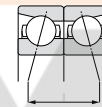
Single row angular contact ball bearings can accommodate axial loading in only one direction. These ball bearings have one high and low shoulder and are non-separable. Bearings are typically mounted against a second bearing; this gives them very high load capacity. Standard cage material is steel sheet.

There are three different contact angle classifications:

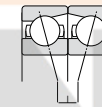
Contact Angle symbol	58-64 HRC
A	25° -30°
B	40°
C	15°



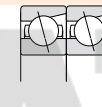
To counteract the axial load, these bearings must be fitted in pairs or more; the options are:



Back to back arrangement

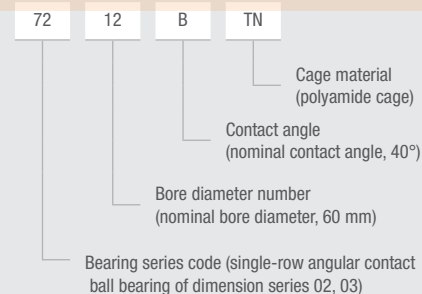


Face to face arrangement



Tandem arrangement

NOMENCLATURE:



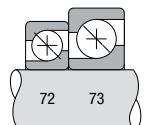
SHIELD CODE:

No symbol Open type
 2RS double side rubber seal

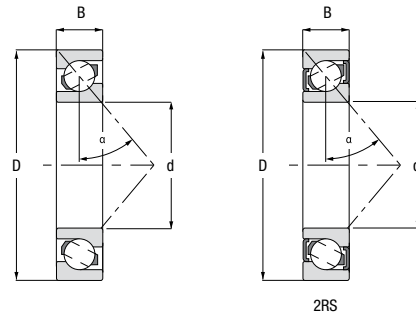
PREFIX/SUFFIX:

TN polyamide cage
 A Contact angle of 25° -30°
 B Contact angle of 40°
 C Contact angle of 15°

CODEX BASIC TYPES & SERIES



Single row angular contact ball bearings



Double row angular contact ball bearings

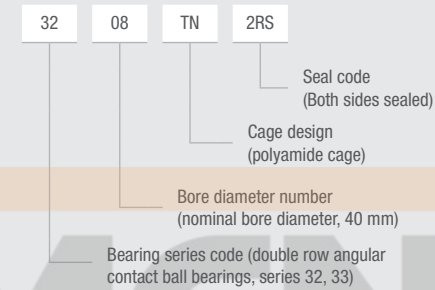
Double row angular contact ball bearings have two rows of balls arranged back-to-back. Basically, they correspond to two single row angular contact ball bearings arranged back to back. The main difference is they can take a bi-directional axial load in one bearing, but otherwise it would take a matched pair of bearings.

Standard cage material is steel sheet. Contact angle is 30°.

Main dimensions (mm)			Load ratings (kN)		Limiting speeds * (rpm)	Weight (kg)	Designation
d	D	B	Dynamic (Cr)	Static (Cor)			
10	30	9	5.45	2.75	28000	0.029	7200
	35	11	9.5	4.6	22000	0.04	7300
12	32	10	7.2	3.65	24000	0.035	7201
	37	12	10.5	4.95	19000	0.045	7301
15	35	11	8,35	4,35	18000	0,046	7202
	42	13	12,5	6,65	18000	0,057	7302
17	40	12	9,4	5,2	16000	0,069	7203
	47	14	16	8,3	25000	0,121	7303
20	47	14	13,3	7,6	13000	0,11	7204
	52	15	18,5	9,7	23000	0,156	7304
25	52	15	13,9	8,7	15000	0,13	7205
	62	17	22,9	13,3	10000	0,248	7305
30	62	16	19,5	12,6	10000	0,217	7206
	72	19	31	19,5	8700	0,381	7306
35	72	17	28	18,4	11000	0,313	7207
	80	21	36,3	24,3	7700	0,512	7307
40	80	18	32	23,5	7500	0,402	7208
	90	23	41,1	27	7000	0,63	7308
45	85	19	33,2	24	7000	0,46	7209
	100	25	53,8	36,1	6200	0,85	7309
50	90	20	36,5	27,9	6400	0,51	7210
	110	27	66,2	45,6	5600	1,23	7310
55	100	21	45,5	34,8	5800	0,68	7211
	120	29	76,5	58	5000	1,57	7311
60	110	22	54	42,6	5100	1,02	7212
	130	31	83,5	58,6	4600	1,696	7312
65	120	23	62,1	50,8	4800	1,09	7213
	140	33	100,2	76,4	4000	2,38	7313
70	125	24	67,4	53,5	4700	1,18	7214
	150	36	113,3	84	4300	2,89	7314
75	130	25	68	57,8	4300	1,32	7215
	160	37	120,5	96,3	3800	3,47	7315
80	140	26	78	67,4	4000	1,57	7216
	170	39	130,8	105,6	3500	4,13	7316

*For applications close to the limiting speeds please contact Codex QA department.

NOMENCLATURE:



SHIELD CODE:

- No symbol Open type
- ZZ non-contact double side steel shield
- 2RS double side rubber seal

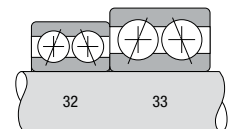
INTERNAL CLEARANCE CODE:

- C2 Less than standard clearance
- CN Normal clearance. No symbol. Standard if not otherwise indicated.
- C3 Greater than standard clearance

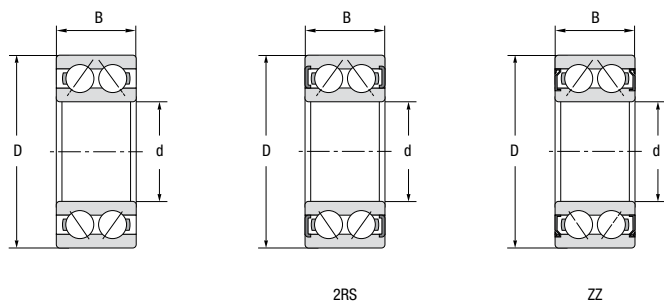
PREFIX/SUFFIX:

- TN polyamide cage
- N snap ring groove on outer ring
- NR snap ring groove on outer ring, snap ring included

CODEX BASIC TYPES & SERIES



Double row angular contact ball bearing



Main dimensions (mm)		Load ratings (kN)		Limiting speeds * (rpm)	Weight (kg)	Designation	
d	D	B	Dynamic (Cr)	Static (Cor)			
70	125	39,7	94	83	2900	1,85	3214
	150	63,5	154	125	3100	4,9	3314
75	130	41,3	94	84	2900	2,1	3215
	160	68,3	186	159	2400	5,7	3315
80	140	44,4	109	102	2500	2,65	3216
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* For applications close to the limiting speeds please contact Codex QA department.

Main dimensions (mm)		Load ratings (kN)		Limiting speeds * (rpm)	Weight (kg)	Designation	
d	D	B	Dynamic (Cr)	Static (Cor)			
10	30	14,3	7,61	4,3	24000	0,051	3200
12	32	15,9	9,4	5,2	15000	0,058	3201
	37	19	14,6	8,3	14000	0,093	3301
15	35	15,9	9,4	5,2	18000	0,066	3202
	42	19	14,2	8,7	10000	0,13	3302
17	40	17,5	12,75	8,4	10000	0,096	3203
	47	22,2	15,8	10	9500	0,18	3303
20	47	20,6	15,3	10,4	9000	0,16	3204
	52	22,2	22,6	14,7	8500	0,22	3304
25	52	20,6	16,3	12	8000	0,18	3205
	62	25,4	28,9	19,4	7500	0,35	3305
30	62	23,8	28,6	20,6	7000	0,29	3206
	72	30,2	39,5	29,2	6500	0,53	3306
35	72	27	30,5	23,7	6000	0,44	3207
	80	34,9	49,5	35,3	5500	0,73	3307
40	80	30,2	40,2	32,3	5500	0,59	3208
	90	36,5	60,5	44,2	5000	0,95	3308
45	85	30,2	40	32,6	5000	0,63	3209
	100	39,7	66,4	49,6	4500	1,4	3309
50	90	30,2	43,9	39,9	4800	0,66	3210
	110	44,4	78,9	60,1	4000	1,95	3310
55	100	33,3	56,9	47,9	4300	1,05	3211
	120	49,2	92,2	71	3800	2,55	3311
60	110	36,5	59,9	53,6	3800	1,4	3212
	130	54	121,5	95,3	3400	3,25	3312
65	120	38,1	73,5	66,6	3600	1,75	3213
	140	58,7	129,6	103,6	2700	4	3313