

Sealed & Shielded Type Double Row Angular Contact Ball Bearings

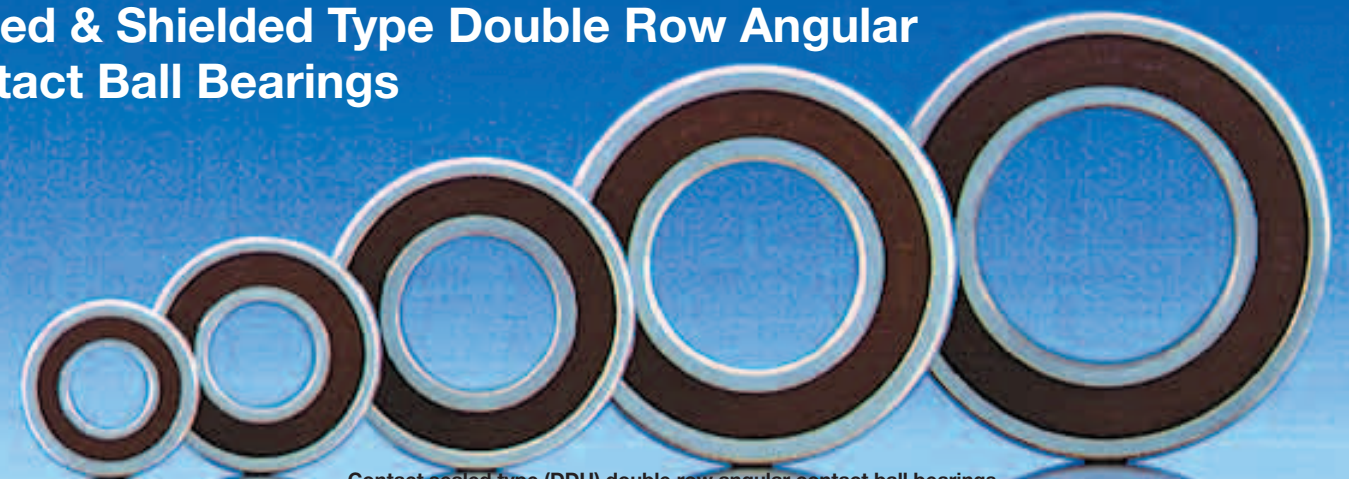
In addition to the quality and compactness customers already enjoy, NSK now offers sealed and shielded types for greater convenience and protection.



Sealed & Shielded Type Double Row Angular Contact Ball Bearings



Shielded type (ZZ) double row angular contact ball bearings



Contact sealed type (DDU) double row angular contact ball bearings

Features of the Sealed & Shielded Type Double Row Angular Contact Ball Bearings:

- Availability of sealed or shielded types in addition to our conventional open-type products
- No need to replace or refill grease since the lubricant is sealed into the bearings
- Compact and narrower than back-to-back duplex (DB) products
- Capable of accommodating heavy radial loads, axial loads in either direction
- High capacity for momentary loads

Bearing Nomenclature

5202□DDU	NS7S
Internal configuration	Grease type
5202□ZZ	NS7S

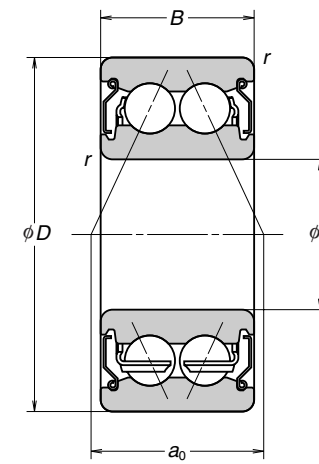


High-carbon chromium bearing steel

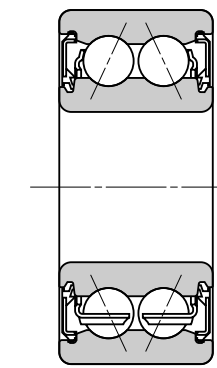
Low-carbon steel and others

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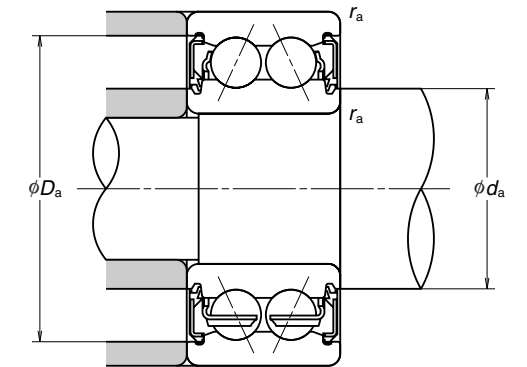
Vulcanized rubber such as nitrile rubber



Shielded type (ZZ)



Contact sealed type (DDU)



Dynamic Equivalent Load:
 $P = XF_r + YF_a$

e	$F_a / F_r \leq e$		$F_a / F_r > e$	
	X	Y	X	Y
0.68	1	0.92	0.67	1.41

Static Equivalent Load:
 $P_0 = F_r + 0.76F_a$

Bearing Numbers ⁽¹⁾	Boundary Dimensions (mm)		Basic Load Ratings				Limiting Speeds (min ⁻¹)		Abutment and Fillet Dimensions (mm)				Load Center Spacings (mm)				
	Shielded Type	Sealed Type	d	D	B	r (Minimum)	C _r (N)	C _{or} (kgf)	C _r (N)	C _{or} (kgf)	ZZ	DDU	d _a (Minimum)	d _a (Maximum)	D _a (Minimum)	r _a (Maximum)	a ₀
5200	ZZ	DDU	10	30	14.3	0.6	7 150	3 900	730	400	17 000	15 000	14	15.5	26	0.6	14.5
5201	ZZ	DDU	12	32	15.9	0.6	8 500	5 300	865	540	15 000	12 000	16	19.0	28	0.6	16.3
5202	ZZ	DDU	15	35	15.9	0.6	8 500	5 300	865	540	13 000	12 000	19	19.0	31	0.6	16.3
5302	ZZ	DDU		42	19.0	1	14 700	9 100	1 500	930	11 000	10 000	21	22.5	36	1	21.0
5203	ZZ	DDU	17	40	17.5	0.6	12 700	8 300	1 290	850	11 000	10 000	21	23.5	36	0.6	20.1
5303	ZZ	DDU		47	22.2	1	19 600	12 400	2 000	1 270	10 000	9 500	23	25.5	41	1	24.3
5204	ZZ	DDU	20	47	20.6	1	15 900	10 700	1 620	1 090	10 000	9 000	26	26.5	41	1	23.0
5304	ZZ	DDU		52	22.2	1.1	19 700	12 800	2 010	1 300	9 000	8 500	27	28.0	45	1	25.4
5205	ZZ	DDU	25	52	20.6	1	16 900	12 300	1 730	1 260	8 500	7 500	31	32.0	46	1	25.4
5305	ZZ	DDU		62	25.4	1.1	25 200	18 200	2 570	1 850	7 500	6 300	32	38.5	55	1	30.9
5206	ZZ	DDU	30	62	23.8	1	25 200	18 200	2 570	1 850	7 100	6 300	36	38.5	56	1	30.9
5306	ZZ	DDU		72	30.2	1.1	39 000	28 700	4 000	2 920	6 300	5 300	37	44.5	65	1	36.6
5207	ZZ	DDU	35	72	27.0	1.1	34 000	25 300	3 500	2 580	6 300	5 300	42	45.0	65	1	36.3
5307	ZZ	DDU		80	34.9	1.5	44 000	33 500	4 500	3 400	5 600	4 800	44	50.5	71	1.5	41.5
5208	ZZ	DDU	40	80	30.2	1.1	36 500	29 000	3 700	2 960	5 600	4 800	47	50.5	73	1	39.4
5308	ZZ	DDU		90	36.5	1.5	49 500	38 000	5 050	3 900	5 300	4 500	49	53.0	81	1.5	43.8
5209	ZZ	DDU	45	85	30.2	1.1	41 500	33 500	4 250	3 450	5 000	4 300	52	55.5	78	1	42.5
5309	ZZ	DDU		100	39.7	1.5	61 500	48 500	6 250	4 950	4 500	3 900	54	61.5	91	1.5	50.4
5210	ZZ	DDU	50	90	30.2	1.1	40 500	36 000	4 100	3 700	4 800	4 000	57	60.0	83	1	44.0
5310	ZZ	DDU		110	44.4	2.5	74 000	59 500	7 550	6 050	4 300	3 600	62	67.0	98	2.5	54.8
5211	ZZ	DDU	55	100	33.3	1.5	49 500	43 500	5 050	4 450	4 300	3 600	64	66.5	91	1.5	49.2
5311	ZZ	DDU		120	49.2	2.5	88 000	71 500	8 950	7 300	3 800	3 200	67	73.5	108	2.5	60.0

Note: (1) These bearing numbers are for the double-shielded and double-sealed types. Single-shielded and single-sealed types are also available.

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