Ball Bearings
Product Overview

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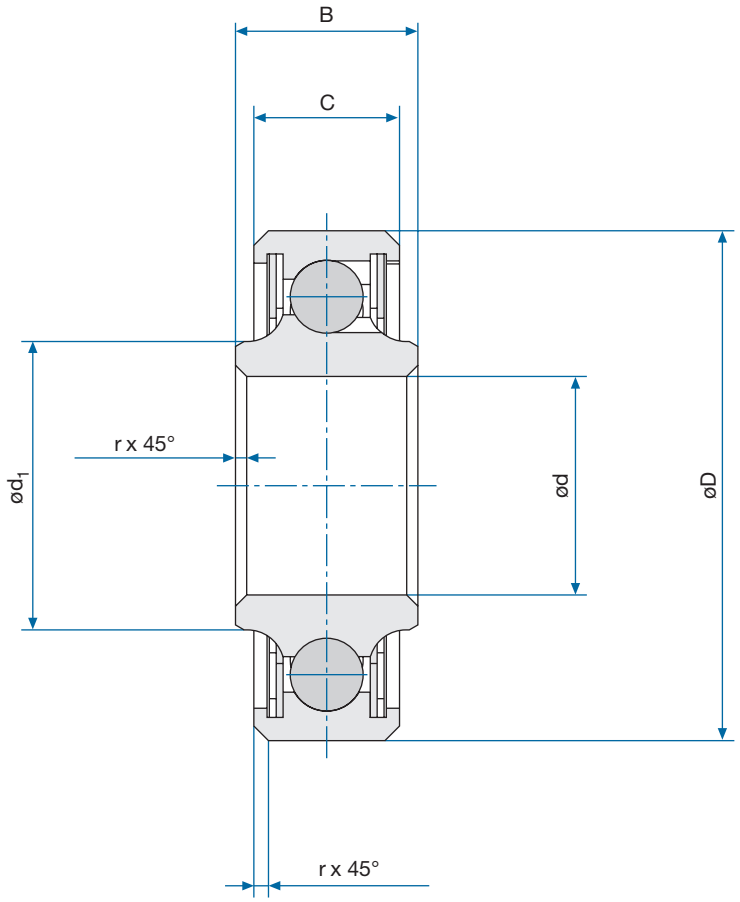
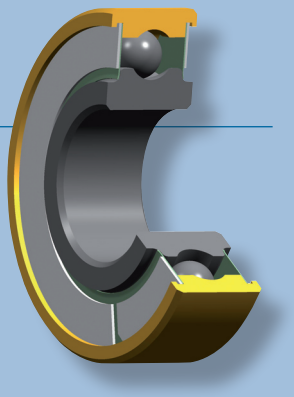
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
05	5,0	-0,008	16,0	-0,008	7,0	-0,12	5,0	-0,12	7,6	0,50	-0,20 to +0,30
06	6,0	-0,008	19,0	-0,009	8,0	-0,12	6,0	-0,12	8,6	0,50	-0,20 to +0,30
08	8,0	-0,008	22,0	-0,009	9,0	-0,12	7,0	-0,12	10,6	0,50	-0,20 to +0,30
10	10,0	-0,008	26,0	-0,009	10,0	-0,12	8,0	-0,12	12,6	0,50	-0,20 to +0,30
12	12,0	-0,008	28,0	-0,009	10,0	-0,12	8,0	-0,12	14,7	0,50	-0,20 to +0,30
15	15,0	-0,008	32,0	-0,011	11,0	-0,12	9,0	-0,12	17,7	0,50	-0,20 to +0,30
17	17,0	-0,008	35,0	-0,011	12,0	-0,12	10,0	-0,12	20,2	0,50	-0,20 to +0,30
20	20,0	-0,010	42,0	-0,011	14,0	-0,12	12,0	-0,12	23,5	0,50	-0,20 to +0,30
25	25,0	-0,010	47,0	-0,011	14,0	-0,12	12,0	-0,12	28,6	0,50	-0,20 to +0,30
30	30,0	-0,010	55,0	-0,013	15,0	-0,12	13,0	-0,12	34,1	0,50	-0,20 to +0,50

Diameter Code	Starting Torque max. Code P	Starting Torque max. Code E	Radial Play	Axial Play max.	Static Radial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]
05	0,40	2,0	0,002 to 0,009	0,08	6,8	4
06	0,50	2,5	0,002 to 0,009	0,08	9,2	9
08	0,65	3,0	0,002 to 0,009	0,08	11,8	12
10	0,75	4,0	0,002 to 0,009	0,08	17,0	21
12	0,85	5,0	0,003 to 0,011	0,10	19,5	24
15	1,00	6,0	0,003 to 0,011	0,10	23,3	32
17	1,20	8,0	0,003 to 0,011	0,10	26,9	42
20	1,50	10,5	0,005 to 0,013	0,12	41,2	72
25	1,80	13,5	0,005 to 0,013	0,12	46,6	85
30	2,50	19,0	0,005 to 0,013	0,12	62,6	123



EN3045
EN3046
EN3047

> Single Row
> Full Complement

Designation

EN3045 A 20 E

Protection

E: Sealed
P: Shielded (CRES)

Diameter Code

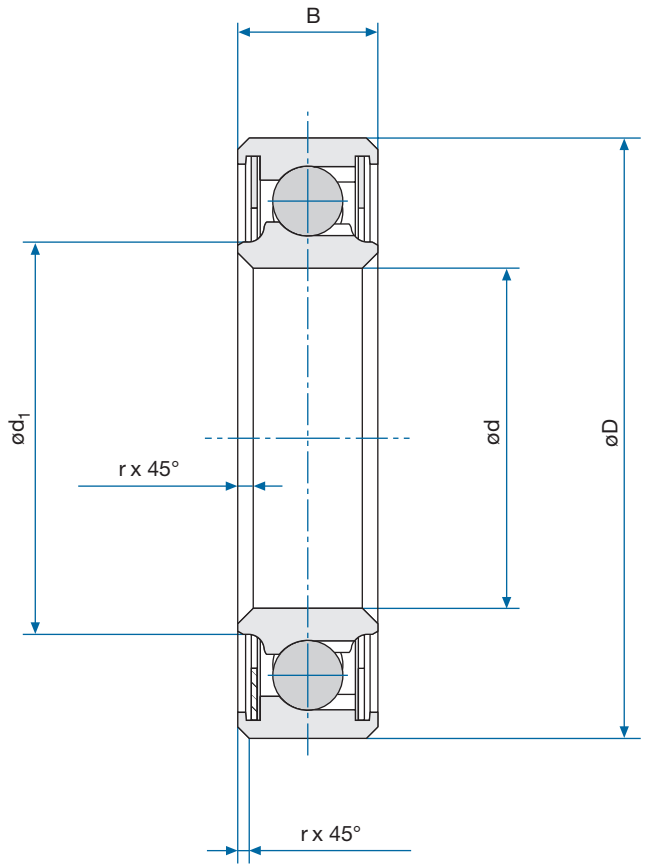
Grease Type

A: NATO G 354 / MIL-PRF-23 827
B: NATO G 395 / MIL-PRF-81 322

Number of EN Standard

Series	Material
EN3045	EN2031 / 1.3505.9 / AISI E52100
EN3046	EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore
EN3047	EN2030 / 1.3544.9 / AISI 440 C
Technical Specification: EN3280	

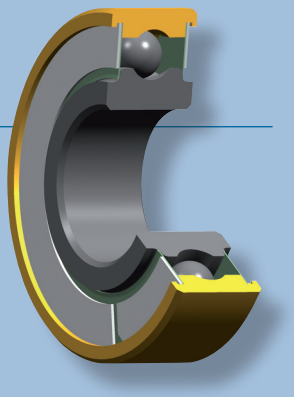
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
10	10,0	-0,008	22,0	-0,009	6,0	-0,12	13,0	0,50	-0,20 to +0,30
12	12,0	-0,008	24,0	-0,009	6,0	-0,12	15,0	0,50	-0,20 to +0,30
15	15,0	-0,008	28,0	-0,009	7,0	-0,12	17,6	0,50	-0,20 to +0,30
17	17,0	-0,008	30,0	-0,009	7,0	-0,12	19,6	0,50	-0,20 to +0,30
20	20,0	-0,010	32,0	-0,011	7,0	-0,12	23,0	0,50	-0,20 to +0,30
25	25,0	-0,010	37,0	-0,011	7,0	-0,12	28,1	0,50	-0,20 to +0,30
30	30,0	-0,010	42,0	-0,011	7,0	-0,12	33,1	0,50	-0,20 to +0,30
35	35,0	-0,012	47,0	-0,011	7,0	-0,12	38,3	0,50	-0,20 to +0,30
40	40,0	-0,012	52,0	-0,013	7,0	-0,12	43,3	0,50	-0,20 to +0,30
50	50,0	-0,012	65,0	-0,013	7,0	-0,12	53,0	0,50	-0,20 to +0,30
60	60,0	-0,015	78,0	-0,013	10,0	-0,12	63,5	0,50	-0,20 to +0,30

Diameter Code	Starting Torque max. Code E	Starting Torque max. Code P	Radial Play	Axial Play max.	Static Radial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]
10	1,20	0,45	0,002 to 0,013	0,10	10,60	11
12	1,30	0,50	0,003 to 0,018	0,10	12,30	13
15	1,40	0,55	0,003 to 0,018	0,10	16,20	16
17	1,50	0,60	0,003 to 0,018	0,10	17,60	18
20	1,60	0,65	0,005 to 0,020	0,10	17,30	20
25	1,80	0,85	0,005 to 0,020	0,10	21,50	23
30	2,00	1,40	0,005 to 0,020	0,10	24,50	26
35	2,30	1,80	0,006 to 0,020	0,10	28,40	30
40	2,90	2,20	0,006 to 0,020	0,10	31,80	38
50	4,70	3,20	0,006 to 0,023	0,12	43,10	55
60	7,70	5,50	0,008 to 0,028	0,15	70,00	100



EN3281
EN3282
EN3283

> Single Row
> Full Complement

Designation

EN3281 A 20 E

Protection
- E: Sealed
- P: Shielded (CRES)

Diameter Code

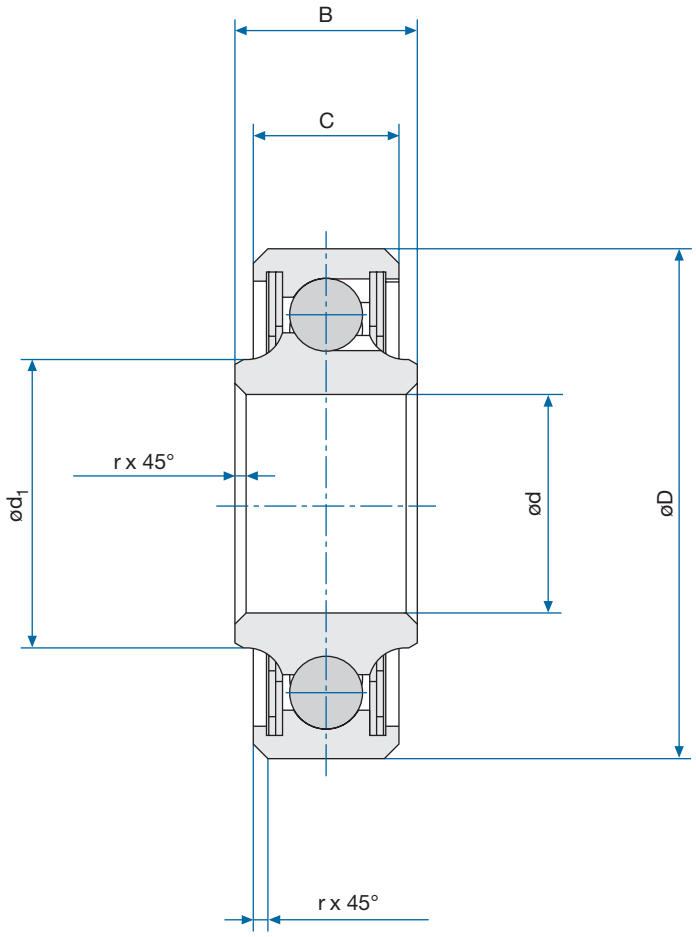
Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322

Number of EN Standard

Series	Material
EN3281	EN2031 / AISI E52100
EN3282	EN2031 / AISI E52100 Cadmium Plated Except Bore
EN3283	EN2030 / AISI 440 C

Technical Specification: EN3280

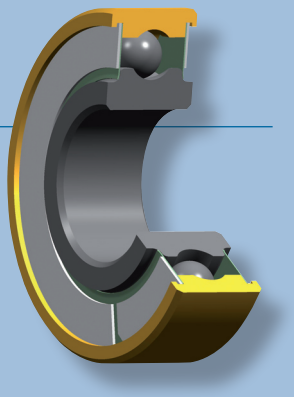
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
05	5,0	-0,008	16,0	-0,008	7,0	-0,12	5,0	-0,12	7,6	0,50	-0,20 to +0,30
06	6,0	-0,008	19,0	-0,009	8,0	-0,12	6,0	-0,12	8,6	0,50	-0,20 to +0,30
08	8,0	-0,008	22,0	-0,009	9,0	-0,12	7,0	-0,12	10,6	0,50	-0,20 to +0,30
10	10,0	-0,008	26,0	-0,009	10,0	-0,12	8,0	-0,12	12,6	0,50	-0,20 to +0,30
12	12,0	-0,008	28,0	-0,009	10,0	-0,12	8,0	-0,12	14,7	0,50	-0,20 to +0,30
15	15,0	-0,008	32,0	-0,011	11,0	-0,12	9,0	-0,12	17,7	0,50	-0,20 to +0,30
17	17,0	-0,008	35,0	-0,011	12,0	-0,12	10,0	-0,12	20,2	0,50	-0,20 to +0,30
20	20,0	-0,010	42,0	-0,011	14,0	-0,12	12,0	-0,12	23,5	0,50	-0,20 to +0,30
25	25,0	-0,010	47,0	-0,011	14,0	-0,12	12,0	-0,12	28,6	0,50	-0,20 to +0,30
30	30,0	-0,010	55,0	-0,013	15,0	-0,12	13,0	-0,12	34,1	0,50	-0,20 to +0,50

Diameter Code	Starting Torque max. Code E	Starting Torque max. Code P	Radial Play	Axial Play max.	Static Radial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]
05	0,40	0,20	0,002 to 0,013	0,10	6,80	4
06	0,50	0,25	0,002 to 0,013	0,10	9,20	9
08	0,65	0,30	0,002 to 0,013	0,10	11,80	12
10	0,75	0,40	0,002 to 0,013	0,10	17,00	21
12	0,85	0,50	0,003 to 0,018	0,12	19,50	24
15	1,00	0,60	0,003 to 0,018	0,12	23,30	32
17	1,20	0,80	0,003 to 0,018	0,12	26,90	42
20	1,50	1,05	0,005 to 0,020	0,12	41,20	72
25	1,80	1,35	0,005 to 0,020	0,12	46,60	85
30	2,50	1,90	0,005 to 0,020	0,15	62,60	123



EN3284
EN3285
EN3286

> Single Row
> Full Complement

Designation

EN3284 A 20 E

Protection
- E: Sealed
- P: Shielded (CRES)

Diameter Code

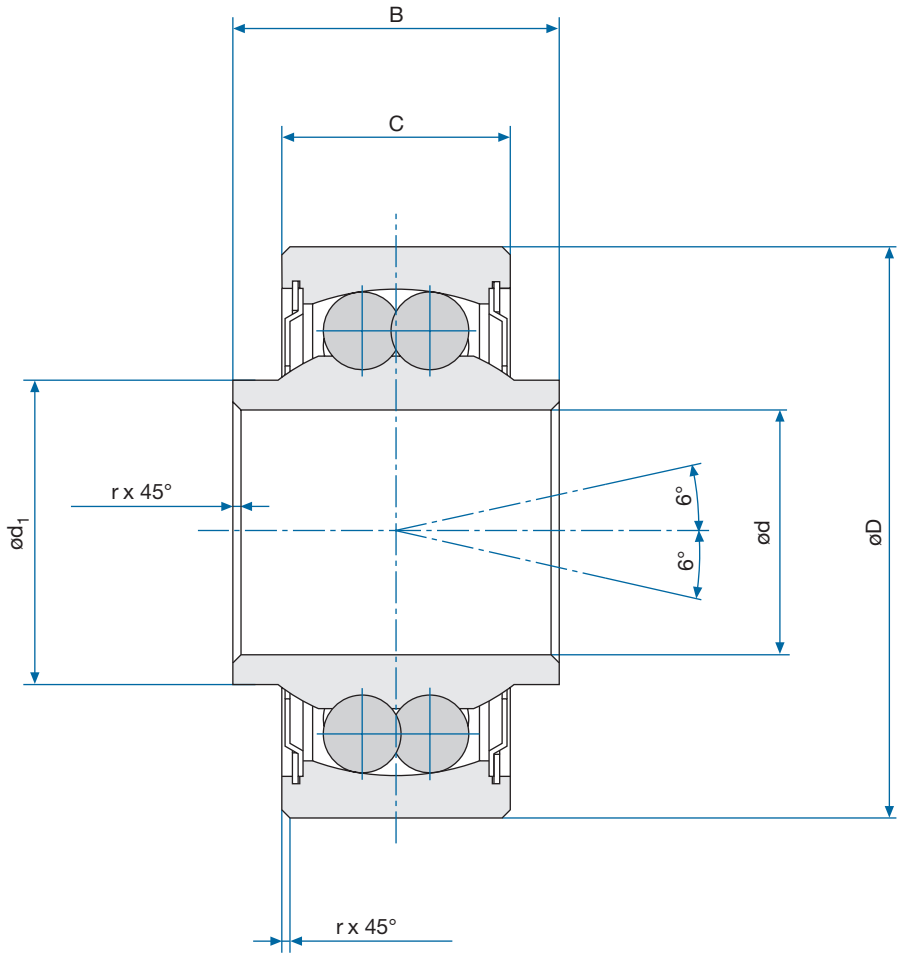
Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322

Number of EN Standard

Series	Material
EN3284	EN2031 / AISI E52100
EN3285	EN2031 / AISI E52100 Cadmium Plated Except Bore
EN3286	EN2030 / AISI 440 C

Technical Specification: EN3280

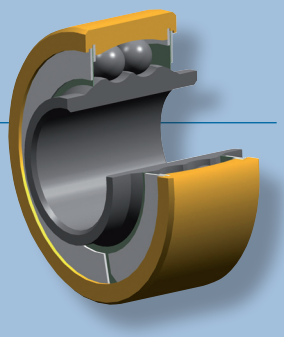
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
05	5,0	-0,008	16,0	-0,008	12,0	-0,12	8,0	-0,12	7,60	0,50	-0,20 to +0,30
06	6,0	-0,008	19,0	-0,009	14,0	-0,12	10,0	-0,12	8,60	0,50	-0,20 to +0,30
08	8,0	-0,008	24,0	-0,009	15,0	-0,12	10,0	-0,12	11,10	0,50	-0,20 to +0,30
10	10,0	-0,008	30,0	-0,009	20,0	-0,12	14,0	-0,12	13,60	0,50	-0,20 to +0,30
12	12,0	-0,008	32,0	-0,011	20,0	-0,12	14,0	-0,12	15,40	0,50	-0,20 to +0,30
15	15,0	-0,008	35,0	-0,011	20,0	-0,12	14,0	-0,12	18,50	0,50	-0,20 to +0,30
17	17,0	-0,008	40,0	-0,011	22,0	-0,12	16,0	-0,12	21,20	0,50	-0,20 to +0,30
20	20,0	-0,010	47,0	-0,011	24,0	-0,12	18,0	-0,12	23,60	0,50	-0,20 to +0,30

Diameter Code	Starting Torque max. Code E	Torque max. Code P	Radial Play Code R	Radial Play Code N	Radial Play Code L	Axial Play max. Code R	Axial Play max. Code N/L	Static Radial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[g]
05	0,80	0,40	0,002 to 0,006	0,002 to 0,013	0,010 to 0,020	0,07	0,10	3,7	9
06	0,90	0,45	0,002 to 0,006	0,002 to 0,013	0,010 to 0,020	0,07	0,10	5,7	14
08	1,00	0,55	0,002 to 0,007	0,002 to 0,013	0,010 to 0,020	0,08	0,10	9,1	30
10	1,20	0,75	0,002 to 0,007	0,002 to 0,013	0,010 to 0,020	0,08	0,12	14,1	57
12	1,40	0,90	0,003 to 0,009	0,003 to 0,018	0,013 to 0,023	0,08	0,12	16,1	62
15	1,80	1,20	0,003 to 0,009	0,003 to 0,018	0,013 to 0,023	0,08	0,12	18,8	75
17	2,50	1,80	0,003 to 0,009	0,003 to 0,018	0,013 to 0,023	0,08	0,16	24,3	110
20	3,50	2,30	0,005 to 0,010	0,005 to 0,020	0,015 to 0,025	0,08	0,18	32,6	170



Designation

EN3287 A N 20 E

Protection
- **E:** Sealed
- **P:** Shielded (CRES)

Diameter Code

Radial / Axial Play
- **N:** Normal
- **L:** Group 3
- **R:** Special

Grease Type
- **A:** NATO G 354 / MIL-PRF-23 827
- **B:** NATO G 395 / MIL-PRF-81 322

Number of EN Standard

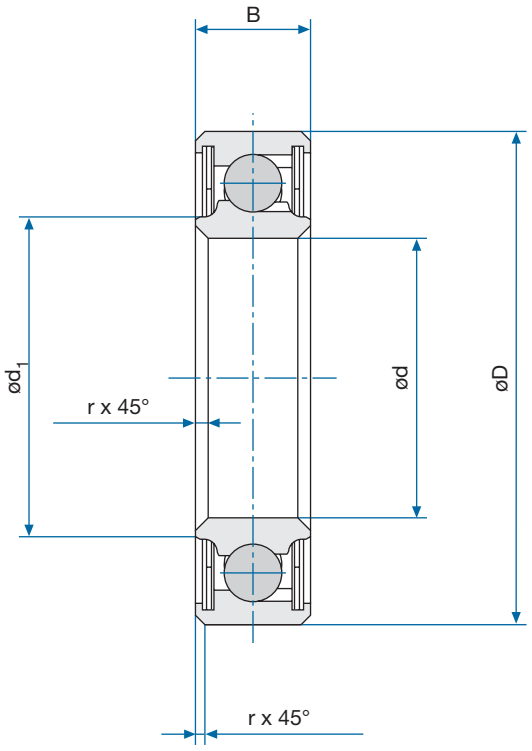
Series	Material
EN3287	EN2031 / AISI E52100
EN3288	EN2031 / AISI E52100 Cadmium Plated Except Bore
EN3289	EN2030 / AISI 440 C

Technical Specification: EN3280

EN3287
EN3288
EN3289

- > Self Aligning
- > Full Complement
- > Double Row

Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
10	10,0	-0,008	22,0	-0,009	6,0	-0,12	13,0	0,50	-0,20 to +0,30
12	12,0	-0,008	24,0	-0,009	6,0	-0,12	15,0	0,50	-0,20 to +0,30
15	15,0	-0,008	28,0	-0,009	7,0	-0,12	17,6	0,50	-0,20 to +0,30
17	17,0	-0,008	30,0	-0,009	7,0	-0,12	19,6	0,50	-0,20 to +0,30
20	20,0	-0,010	32,0	-0,011	7,0	-0,12	23,0	0,50	-0,20 to +0,30
25	25,0	-0,010	37,0	-0,011	7,0	-0,12	28,1	0,50	-0,20 to +0,30
30	30,0	-0,010	42,0	-0,011	7,0	-0,12	33,1	0,50	-0,20 to +0,30
35	35,0	-0,012	47,0	-0,011	7,0	-0,12	38,3	0,50	-0,20 to +0,30
40	40,0	-0,012	52,0	-0,013	7,0	-0,12	43,3	0,50	-0,20 to +0,30
50	50,0	-0,012	65,0	-0,013	7,0	-0,12	53,0	0,50	-0,20 to +0,30
60	60,0	-0,015	78,0	-0,013	10,0	-0,12	63,5	0,50	-0,20 to +0,30

Diameter Code	Starting Torque max. Code E	Starting Torque max. Code P	Radial Play	Axial Play max.	Static Radial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]
10	1,20	0,45	0,002 to 0,007	0,10	10,60	11
12	1,30	0,50	0,002 to 0,007	0,10	12,30	13
15	1,40	0,55	0,002 to 0,007	0,10	16,20	16
17	1,50	0,60	0,002 to 0,007	0,10	17,60	18
20	1,60	0,65	0,002 to 0,009	0,10	17,30	20
25	1,80	0,85	0,002 to 0,009	0,10	21,50	23
30	2,00	1,40	0,002 to 0,009	0,10	24,50	26
35	2,30	1,80	0,002 to 0,009	0,10	28,40	30
40	2,90	2,20	0,002 to 0,009	0,10	31,80	38
50	4,70	3,20	0,002 to 0,009	0,12	43,10	55
60	7,70	5,50	0,002 to 0,009	0,15	70,00	100

Designation

EN4033 A 20 E T

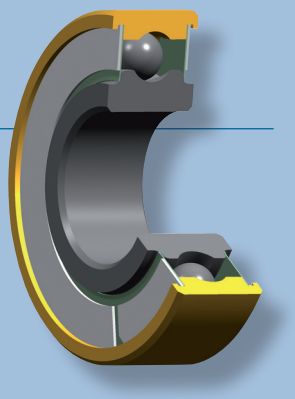
Surface Treatment
- No Code: Non
- T: Passivated

Protection
- E: Sealed
- P: Shielded (CRES)

Diameter Code

Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322

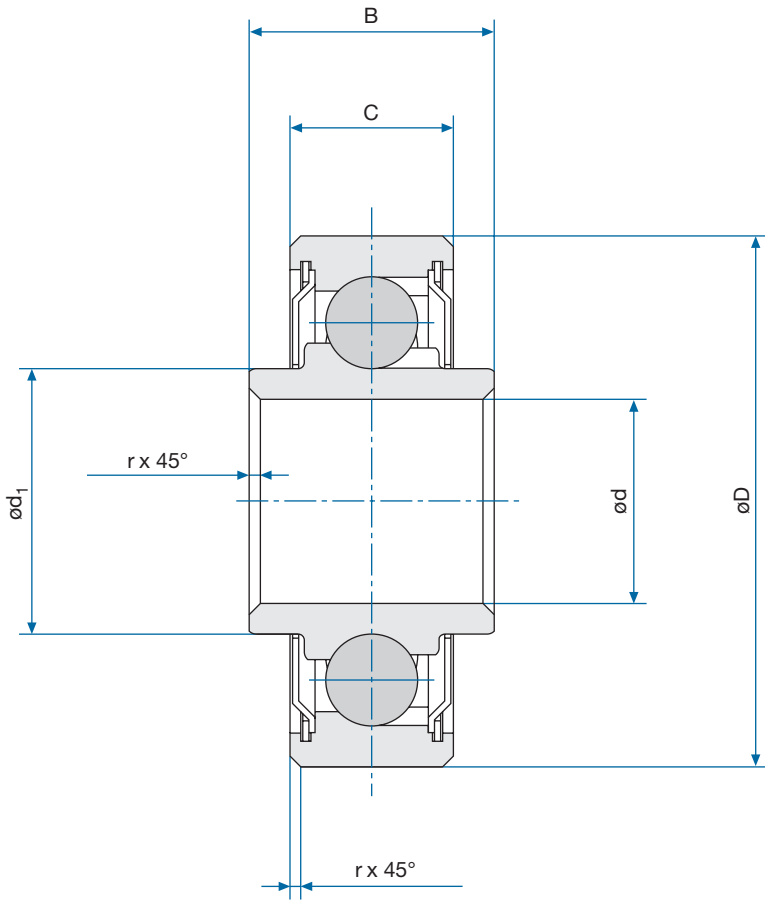
Number of EN Standard
- Material: EN2030 / AISI 440 C
- Technical Specification: EN3280



EN4033

> Single Row
> Full Complement

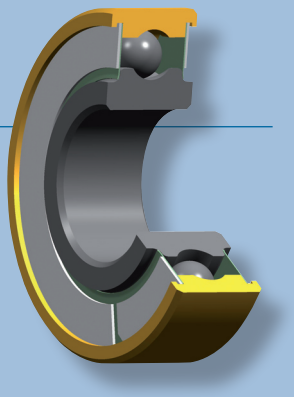
Schematic drawing



Specifications

Type	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
FJN5	5,0	-0,008	16,0	-0,008	7,0	-0,12	5,0	-0,12	7,20
FJN6	6,0	-0,008	19,0	-0,009	8,0	-0,12	6,0	-0,12	8,80
FJN8	8,0	-0,008	22,0	-0,009	11,0	-0,12	7,0	-0,12	10,40
FJN10	10,0	-0,008	26,0	-0,009	12,0	-0,12	8,0	-0,12	13,00
FJN12	12,0	-0,008	28,0	-0,009	12,0	-0,12	8,0	-0,12	15,15
FJN15	15,0	-0,008	32,0	-0,011	13,0	-0,12	9,0	-0,12	18,20
FJN17	17,0	-0,008	35,0	-0,011	14,0	-0,12	10,0	-0,12	20,50
FJN20	20,0	-0,010	42,0	-0,011	16,0	-0,12	12,0	-0,12	23,35
FJN25	25,0	-0,010	47,0	-0,011	16,0	-0,12	12,0	-0,12	29,40
FJN30	30,0	-0,010	55,0	-0,013	19,0	-0,12	13,0	-0,12	35,20

Type	r x 45°	Tol.	Starting Torque max. No Code	Starting Torque max. Code E	Radial Play	Static Radial Limit Load	Weight
	[mm]	[mm]	[Ncm]	[Ncm]	[mm]	[kN]	[g]
FJN5	0,50	-0,20 to +0,30	0,20	0,40	0,002 to 0,009	7,00	4
FJN6	0,50	-0,20 to +0,30	0,25	0,40	0,002 to 0,009	10,00	9
FJN8	0,50	-0,20 to +0,30	0,30	0,50	0,003 to 0,011	12,00	13
FJN10	0,50	-0,20 to +0,30	0,40	0,60	0,003 to 0,011	17,20	23
FJN12	0,50	-0,20 to +0,30	0,50	0,70	0,003 to 0,011	20,20	26
FJN15	0,50	-0,20 to +0,30	0,60	0,80	0,003 to 0,011	23,50	36
FJN17	0,50	-0,20 to +0,30	0,80	1,10	0,003 to 0,011	26,90	45
FJN20	0,50	-0,20 to +0,30	1,10	1,40	0,005 to 0,013	41,50	75
FJN25	0,50	-0,20 to +0,30	1,30	1,70	0,005 to 0,013	49,00	88
FJN30	0,50	-0,20 to +0,30	1,90	2,40	0,005 to 0,013	62,90	133



FJN

> Single Row
> Full Complement

Designation

FJN 15 A E 1.3544.9

Material
- Non: EN2031 / 1.3505.9 / AISI E52100
- 1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
- Technical Specification: EN2063

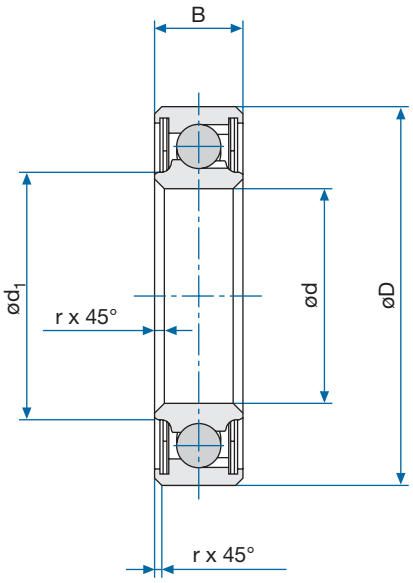
Protection
- E: Sealed
- Non: Shielded

Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322

Diameter Code

Number of Standard

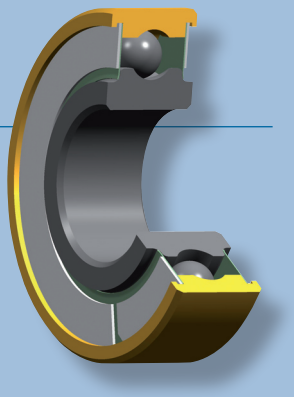
Schematic drawing



Specifications

Type	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
FT10	10,0	-0,008	22,0	-0,009	6,0	-0,12	14,50	0,50	-0,20 to +0,30
FT12	12,0	-0,008	24,0	-0,009	6,0	-0,12	16,50	0,50	-0,20 to +0,30
FT15	15,0	-0,008	28,0	-0,009	6,0	-0,12	17,65	0,50	-0,20 to +0,30
FT16	16,0	-0,008	30,0	-0,009	6,0	-0,12	18,60	0,50	-0,20 to +0,30
FT20	20,0	-0,010	35,0	-0,011	7,0	-0,12	24,50	0,50	-0,20 to +0,30
FT25	25,0	-0,010	40,0	-0,011	7,0	-0,12	29,50	0,50	-0,20 to +0,30
FT28	28,0	-0,010	43,0	-0,011	7,0	-0,12	33,50	0,50	-0,20 to +0,30
FT32	32,0	-0,012	48,0	-0,011	7,0	-0,12	36,80	0,50	-0,20 to +0,30
FT35	35,0	-0,012	51,0	-0,013	7,0	-0,12	40,95	0,50	-0,20 to +0,30
FT40	40,0	-0,012	57,0	-0,013	8,0	-0,12	45,80	0,50	-0,20 to +0,30
FT45	45,0	-0,012	62,0	-0,013	8,0	-0,12	50,80	0,50	-0,20 to +0,30
FT50	50,0	-0,012	68,0	-0,013	8,0	-0,12	53,30	0,50	-0,20 to +0,30
FT55	55,0	-0,015	73,0	-0,013	8,0	-0,12	61,20	0,50	-0,20 to +0,30
FT63	63,0	-0,015	82,0	-0,013	9,0	-0,12	69,70	0,50	-0,20 to +0,30
FT80	80,0	-0,015	100,0	-0,015	9,0	-0,12	87,00	0,50	-0,20 to +0,30
FT90	90,0	-0,020	115,0	-0,015	9,0	-0,12	96,90	0,50	-0,20 to +0,30

Type	Starting Torque max. No Code	Starting Torque max. Code E	Radial Play	Static Radial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[kN]	[g]
FT10	0,30	0,50	0,003 to 0,011	10,6	11
FT12	0,35	0,60	0,003 to 0,011	12,3	13
FT15	0,40	0,70	0,003 to 0,011	14,5	15
FT16	0,50	0,80	0,003 to 0,011	15,2	17
FT20	0,60	0,90	0,005 to 0,013	18,6	25
FT25	0,80	1,40	0,005 to 0,013	22,2	29
FT28	1,10	1,60	0,005 to 0,013	24,2	32
FT32	1,40	2,00	0,005 to 0,013	27,0	39
FT35	1,80	2,30	0,005 to 0,013	29,0	42
FT40	2,20	2,90	0,005 to 0,013	33,2	56
FT45	2,60	3,50	0,005 to 0,013	36,7	60
FT50	3,20	4,50	0,005 to 0,013	40,2	67
FT55	3,90	6,00	0,005 to 0,013	43,6	76
FT63	5,50	7,50	0,005 to 0,013	61,7	110
FT80	7,50	12,00	0,005 to 0,013	75,7	132
FT90	11,00	16,00	0,005 to 0,013	86,5	223



Designation

FT 40 A E 1.3544.9

Material
- Non: EN2031 / 1.3505.9 / AISI E52100
- 1.3544.9: EN2030 / 1.3544.9 / AISI 440 C

Protection
- E: Sealed
- Non: Shielded (CRES)

Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322
- G 350: NATO G 350 / MIL-G-3278

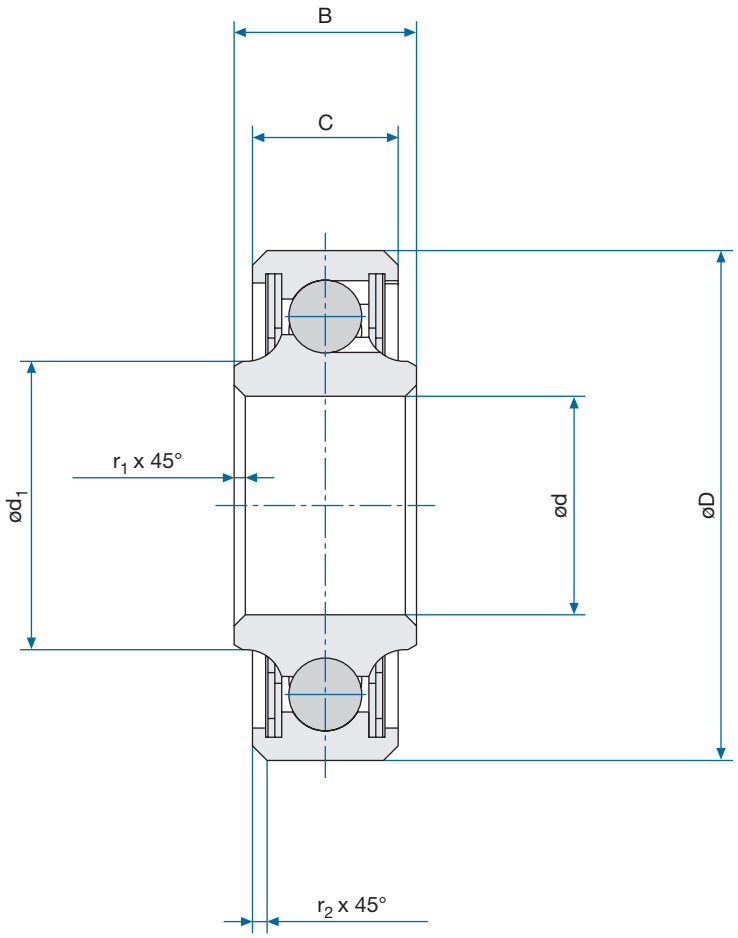
Diameter Code

Number of Standard

FT

> Single Row
> Full Complement

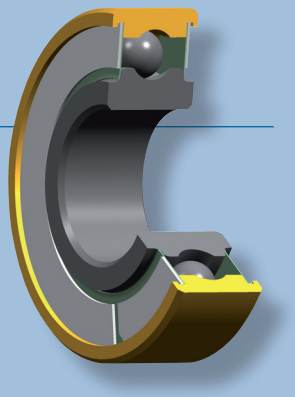
Schematic drawing



Specifications

Diameter Code	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	C	Δ_{Cmp}	d_1	r_1 x 45°	Tol.	r_2 x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03A	4,826	-0,013	15,875	-0,013	6,223	-0,127	5,156	-0,127	7,112	0,13	+0,38	0,25	+0,38
03	4,826	-0,013	19,746	-0,013	7,544	-0,127	6,858	-0,127	8,407	0,13	+0,38	0,56	+0,38
04	6,350	-0,013	22,896	-0,013	12,294	-0,127	8,509	-0,127	9,906	0,13	+0,38	0,81	+0,38
05	7,938	-0,013	31,750	-0,013	14,173	-0,127	9,525	-0,127	11,913	0,38	+0,38	0,81	+0,38
06	9,525	-0,013	36,513	-0,013	15,748	-0,127	11,913	-0,127	15,011	0,38	+0,38	0,81	+0,38
08	12,700	-0,013	42,863	-0,013	15,748	-0,127	12,700	-0,127	19,507	0,38	+0,38	1,12	+0,38
10	15,875	-0,013	49,213	-0,013	15,748	-0,127	12,700	-0,127	21,590	0,38	+0,38	1,12	+0,38

Diameter Code	Starting Torque max. ABS 0131	Starting Torque max. ABS 0342	Radial Play Code N	Radial Play Code R	Axial Play max. Code N	Axial Play max. Code R	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
03A	0,47	0,70	0,01 to 0,025	0,005 to 0,013	0,18	0,10	6,94	3,11	5
03	0,53	0,80	0,01 to 0,025	0,005 to 0,013	0,18	0,10	8,36	4,00	14
04	0,63	0,95	0,01 to 0,025	0,005 to 0,013	0,18	0,10	11,92	5,34	18
05	0,73	1,10	0,01 to 0,025	0,005 to 0,013	0,18	0,10	25,00	11,12	41
06	0,86	1,30	0,01 to 0,025	0,005 to 0,013	0,23	0,16	35,19	15,57	68
08	1,10	1,60	0,01 to 0,025	0,005 to 0,013	0,23	0,16	52,49	23,13	95
10	1,33	2,00	0,01 to 0,025	0,005 to 0,013	0,23	0,16	62,72	27,58	127



ABS0131
ABS0342

- Single Row
- Full Complement
- Dimensions According to MS 27 640

Designation

ABS0131 - 03 N

Radial / Axial Play
- N: Normal
- R: Reduced

Diameter Code

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Shields: CRES
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949 / DAN446

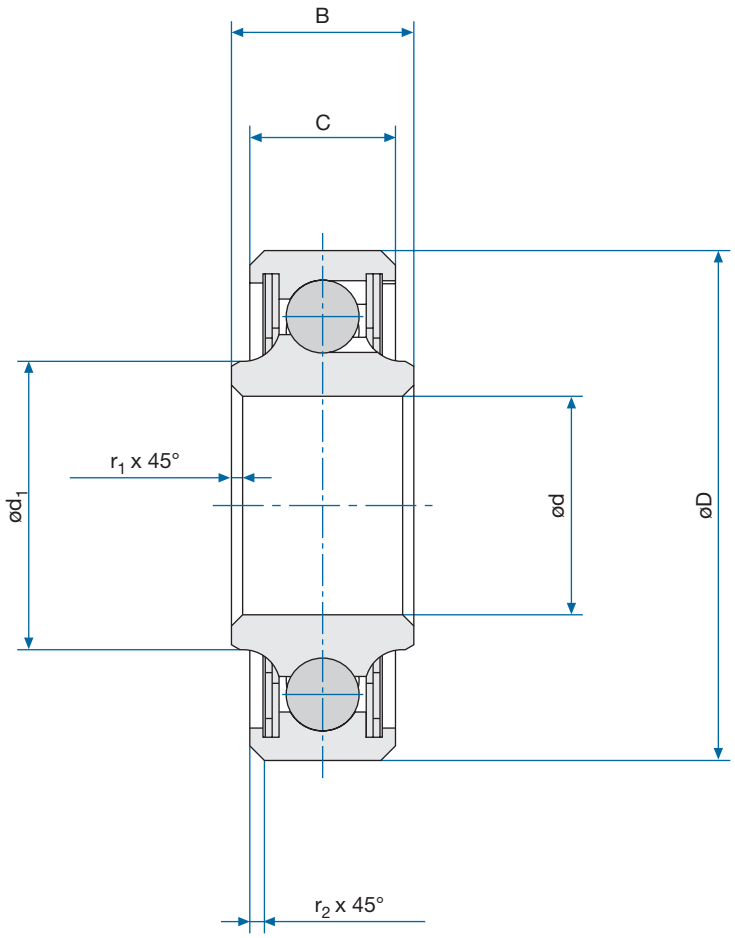
ABS0342 N 03

Diameter Code

Radial / Axial Play
- N: Normal
- R: Reduced

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Sealed Type: Seals (PTFE); Seal Retainers (CRES)
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949 / DAN446

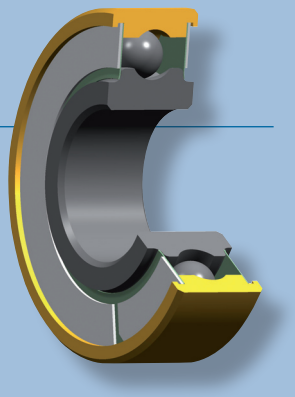
Schematic drawing



Specifications

Diameter Code	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	C	Δ_{Cmp}	d_1	r_1 x 45°	Tol.	r_2 x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,013	15,875	-0,013	7,543	-0,127	5,943	-0,127	7,54	0,12	+0,38	0,41	+0,38
04	6,350	-0,013	19,050	-0,013	7,137	-0,127	5,562	-0,127	9,65	0,12	+0,38	0,41	+0,38
05	7,937	-0,013	20,637	-0,013	7,543	-0,127	5,943	-0,127	10,54	0,38	+0,38	0,41	+0,38
06	9,525	-0,013	22,225	-0,013	7,950	-0,127	6,350	-0,127	12,57	0,38	+0,38	0,41	+0,38
08	12,700	-0,013	28,575	-0,013	9,525	-0,127	7,950	-0,127	15,65	0,38	+0,38	0,41	+0,38
10	15,875	-0,013	34,925	-0,013	10,312	-0,127	8,737	-0,127	19,51	0,38	+0,38	0,81	+0,38
12	19,050	-0,013	41,275	-0,013	11,100	-0,127	9,525	-0,127	23,34	0,38	+0,38	0,81	+0,38
16	25,400	-0,013	50,800	-0,013	12,700	-0,127	11,125	-0,127	31,52	0,38	+0,38	0,81	+0,38
20	31,750	-0,013	57,150	-0,013	12,700	-0,127	11,125	-0,127	37,54	0,38	+0,38	0,81	+0,38

Diameter Code	Starting Torque max. ABS0132	max. ABS0343	Radial Play Code N	Radial Play Code R	Axial Play max. Code N	Axial Play max. Code R	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
03	0,47	0,70	0,010 to 0,025	0,005 to 0,013	0,12	0,10	6,94	3,11	5
04	0,53	0,80	0,010 to 0,025	0,005 to 0,013	0,12	0,10	8,36	4,00	9
05	0,63	0,95	0,010 to 0,025	0,005 to 0,013	0,12	0,10	9,74	4,45	9
06	0,70	1,05	0,010 to 0,025	0,005 to 0,013	0,12	0,10	11,12	4,89	14
08	0,76	1,15	0,010 to 0,025	0,005 to 0,013	0,18	0,13	17,39	7,56	23
10	0,93	1,40	0,010 to 0,025	0,005 to 0,013	0,18	0,13	29,80	13,34	36
12	1,20	1,80	0,010 to 0,025	0,005 to 0,013	0,18	0,13	39,10	17,35	59
16	1,87	2,80	0,010 to 0,025	0,005 to 0,013	0,18	0,13	52,93	23,13	100
20	2,60	3,90	0,010 to 0,025	0,005 to 0,013	0,18	0,13	61,38	27,13	118



ABS0132
ABS0343

- Single Row
- Full Complement
- Dimensions According to MS 27 641

Designation

ABS0132 - 03 N

Radial / Axial Play
- N: Normal
- R: Reduced

Diameter Code

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Shields: CRES
- Lubrication: NATO G 395 / MIL-G-81 322
- Technical Specification: SAE AS7949 / DAN446

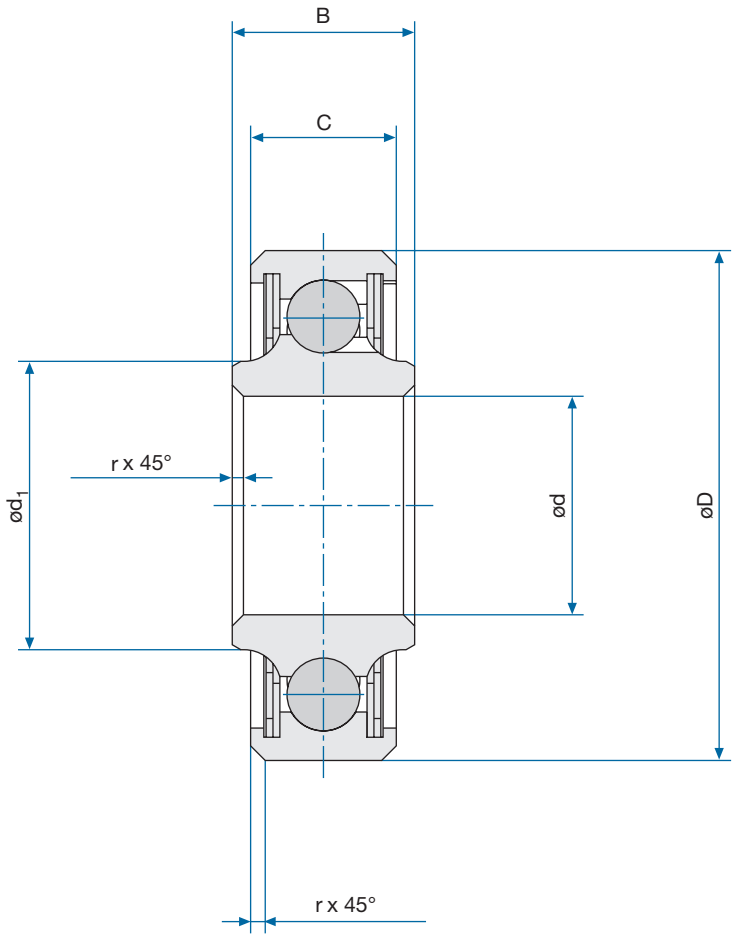
ABS0343 N 03

Diameter Code

Radial / Axial Play
- N: Normal
- R: Reduced

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Sealed Type: Seals (PTFE); Seal Retainers (CRES)
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949 / DAN446

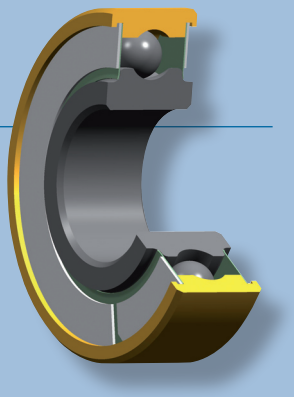
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Tol.	C	Tol.	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
16	25,400	-0,013	44,450	-0,025	11,10	-0,12	9,525	-0,12	29,181	0,61	+0,40
21	33,350	-0,025	52,388	-0,025	11,10	-0,12	9,525	-0,12	36,930	0,61	+0,40
23	36,525	-0,025	55,563	-0,025	11,10	-0,12	9,525	-0,12	39,98	0,61	+0,40
25	39,700	-0,025	58,738	-0,025	11,10	-0,12	9,525	-0,12	43,00	0,61	+0,40
29	46,050	-0,025	65,088	-0,025	11,10	-0,12	9,525	-0,12	49,05	0,61	+0,40
33	52,400	-0,025	71,438	-0,025	11,10	-0,12	9,525	-0,12	56,65	0,61	+0,40
37	58,750	-0,025	77,788	-0,025	11,10	-0,12	9,525	-0,12	62,69	0,61	+0,40
47	74,625	-0,025	98,425	-0,025	13,487	-0,12	11,912	-0,12	78,562	0,99	+0,40
49	77,800	-0,025	101,600	-0,025	13,487	-0,12	11,912	-0,12	82,8	0,99	+0,40

Diameter Code	Starting Torque max. ABS0344	Starting Torque max. ABS0133	Radial Play Code R	Radial Play Code N	Axial Play Code R	Axial Play Code N	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
16	2,5	1,67	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	35,96	16,01	64
21	3,2	2,13	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	43,77	19,57	73
23	3,8	2,53	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	46,70	20,91	77
25	4,3	2,86	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	50,26	22,24	86
29	5,9	3,90	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	56,49	24,91	95
33	6,8	4,53	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	64,05	28,47	104
37	9,1	6,06	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	70,28	31,14	118
47	9,7	6,46	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	109,87	48,48	222
49	10,2	6,80	0,003 to 0,013	0,008 to 0,025	0,130 max.	0,180 max.	122,32	53,83	240



ABS0133
ABS0344

- Single Row
- Full Complement
- Dimensions According to MS 27 642

Designation

ABS0133 - 25 N

Radial / Axial Play
- N: Normal
- R: Reduced

Diameter Code

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Shields: CRES
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949 / DAN446

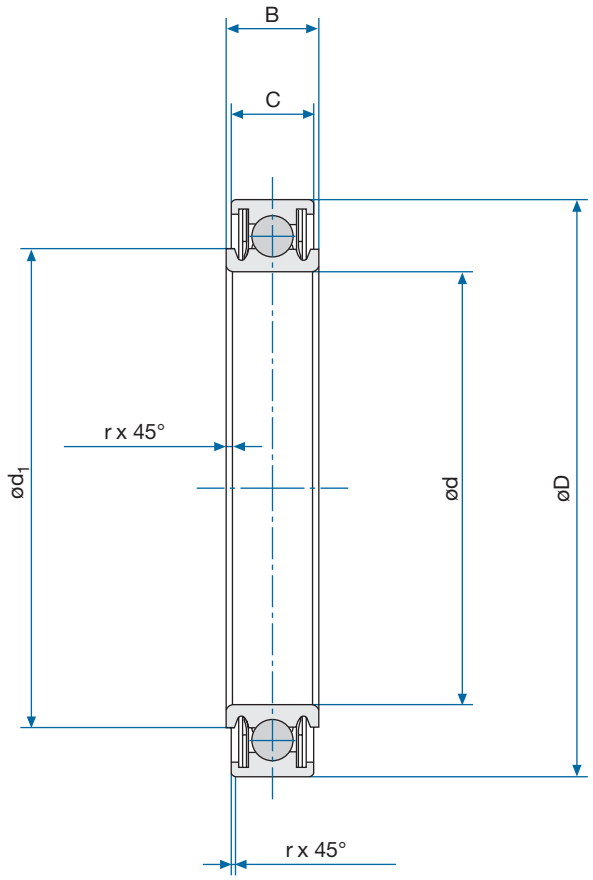
ABS0344 N 03

Diameter Code

Radial / Axial Play
- N: Normal
- R: Reduced

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Sealed Type: Seals (PTFE); Seal Retainers (CRES)
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949 / DAN446

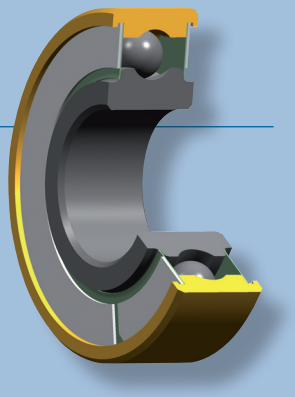
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	r	Tol.	d_1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
08	12,700	-0,013	23,813	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	16,13
10	18,875	-0,013	26,988	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	19,74
12	19,050	-0,013	30,162	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	22,73
14	22,225	-0,013	33,338	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	25,81
17	26,988	-0,013	38,100	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	30,89
21	33,338	-0,013	44,450	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	36,86
25	39,688	-0,013	50,800	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	43,23
29	46,038	-0,020	57,150	-0,018	7,137	-0,064	6,35	-0,127	0,38	+0,51	50,04
33	52,388	-0,020	66,675	-0,018	7,137	-0,064	6,35	-0,127	0,38	+0,51	58,06
37	58,738	-0,020	73,025	-0,018	7,137	-0,064	6,35	-0,127	0,38	+0,51	64,19

Diameter Code	Starting Torque max.	Radial Play	Axial Play	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[mm]	[mm]	[kN]	[kN]	[g]
08	1,00	0,003 to 0,013	0,10	12,54	0,560	13
10	1,10	0,003 to 0,013	0,10	14,59	0,667	14
12	1,20	0,003 to 0,013	0,10	16,68	0,756	18
14	1,40	0,003 to 0,013	0,10	18,77	0,845	23
17	1,60	0,003 to 0,013	0,10	22,24	0,979	27
21	2,00	0,003 to 0,013	0,10	26,47	1,201	41
25	2,50	0,003 to 0,013	0,10	30,60	1,423	45
29	3,60	0,003 to 0,013	0,10	35,41	1,601	50
33	4,70	0,003 to 0,013	0,10	41,01	1,779	68
37	7,00	0,003 to 0,013	0,10	45,15	1,957	77



ABS0348
NSA8154

- Single Row
- Full Complement
- Dimensions According to MS 21 428

Designation

ABS0348 R 10

Diameter Code

Radial Play

Number of ABS Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Sealed Type: Seals (PTFE); Seal Retainers (CRES)

Lubrication: NATO G 395 / MIL-PRF-81 322

Technical Specification: SAE AS7949 / DAN446

NSA8154 10 E

Sealed Type

E: Sealed

Non: Shielded (CRES)

Diameter Code

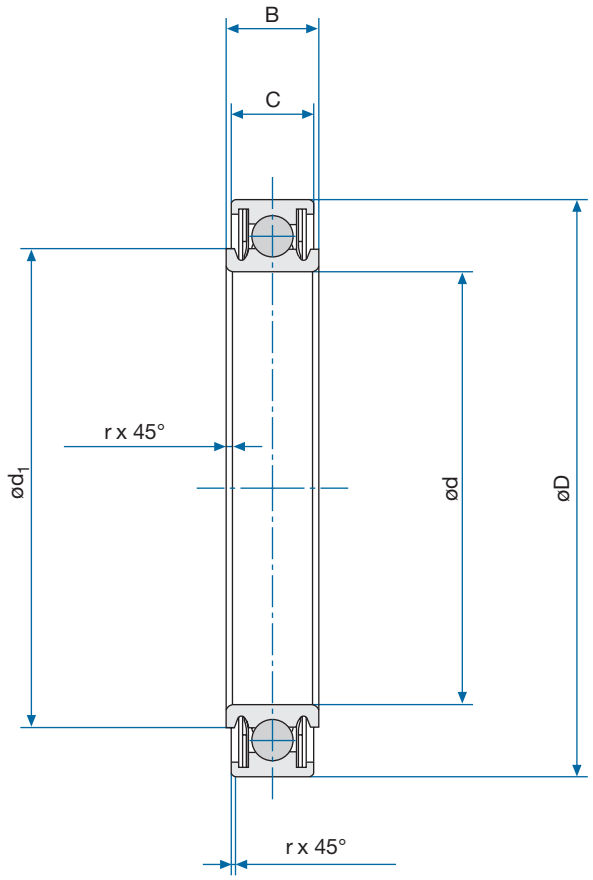
Number of NSA Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949 / DAN446

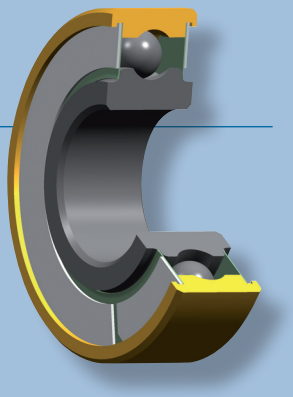
Schematic drawing



Specifications

Type	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
B 538	15,875	± 0,018	26,988	-0,025	7,137	-0,13	6,350	-0,13
B 539	19,050	± 0,018	30,162	-0,025	7,137	-0,13	6,350	-0,13
B 540	22,225	± 0,018	33,338	-0,025	7,137	-0,13	6,350	-0,13
B 541	26,988	± 0,018	38,100	-0,025	7,137	-0,13	6,350	-0,13
B 542	33,338	± 0,018	44,450	-0,025	7,137	-0,13	6,350	-0,13
B 543	39,688	± 0,018	50,800	-0,025	7,137	-0,13	6,350	-0,13
B 544	46,038	± 0,025	57,150	-0,038	7,137	-0,13	6,350	-0,13
B 545	52,388	± 0,025	66,675	-0,038	7,137	-0,13	6,350	-0,13
B 546	58,738	± 0,025	73,025	-0,038	7,137	-0,13	6,350	-0,13

Type	d_1	r x 45° +0,38	Radial Play	Static Radial Limit Load	Weight
	[mm]	[mm]	[mm]	[kN]	[g]
B 538	19,7	0,38	0,020 to 0,046	14,59	13
B 539	22,8	0,38	0,020 to 0,046	16,68	18
B 540	25,8	0,38	0,020 to 0,046	18,77	22
B 541	30,9	0,38	0,020 to 0,046	22,24	27
B 542	36,9	0,38	0,020 to 0,046	26,47	40
B 543	43,2	0,38	0,020 to 0,046	30,60	45
B 544	50,0	0,38	0,020 to 0,046	35,50	49
B 545	58,1	0,38	0,020 to 0,046	41,01	68
B 546	64,6	0,38	0,020 to 0,046	45,15	77



Designation

B 500 DD G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Technical Specification: SAE AS7949

Grease Type

G: NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Sealed Type

DD: Sealed

P: Shielded

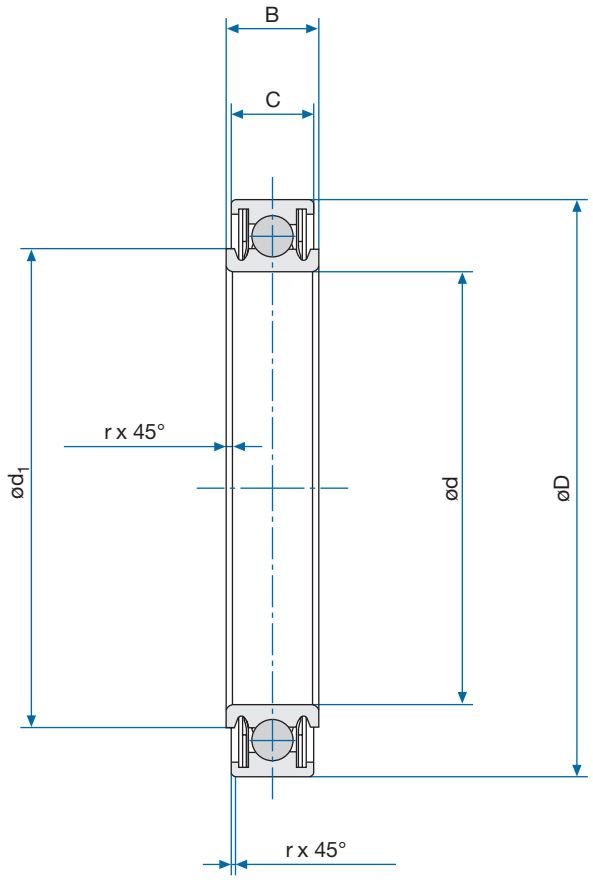
Diameter Code

Number of Standard

B500

- > Single Row
- > Full Complement
- > Dimensions According to MS 27 646

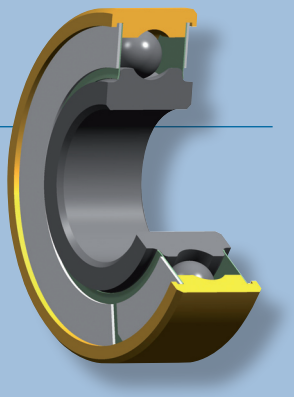
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	r	Tol.	d1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
538	15,875	-0,013	26,988	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	19,7
539	19,050	-0,013	30,162	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	22,8
540	22,225	-0,013	33,338	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	25,8
541	26,988	-0,013	38,100	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	30,9
542	33,338	-0,013	44,450	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	36,9
543	39,688	-0,013	50,800	-0,013	7,137	-0,064	6,35	-0,127	0,38	+0,51	43,2
544	46,038	-0,020	57,150	-0,018	7,137	-0,064	6,35	-0,127	0,38	+0,51	50,0
545	52,388	-0,020	66,675	-0,018	7,137	-0,064	6,35	-0,127	0,38	+0,51	58,1
546	58,738	-0,020	73,025	-0,018	7,137	-0,064	6,35	-0,127	0,38	+0,51	64,6

Diameter Code	Starting Torque max. Code DD	Radial Play	Axial Play	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[mm]	[mm]	[kN]	[kN]	[g]
538	1,4	0,003 to 0,013	0,10	14,59	6,67	14
539	1,4	0,003 to 0,013	0,10	16,68	7,56	18
540	2,1	0,003 to 0,013	0,10	18,77	8,45	23
541	2,6	0,003 to 0,013	0,10	22,24	9,79	27
542	2,8	0,003 to 0,013	0,10	26,47	12,01	41
543	3,5	0,003 to 0,013	0,10	30,60	14,23	45
544	3,5	0,003 to 0,013	0,10	35,41	16,01	50
545	4,2	0,003 to 0,013	0,10	41,01	17,79	68
546	4,2	0,003 to 0,013	0,10	45,15	19,57	77



Designation

MB 500 DD G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Technical Specification: SAE AS7949

Grease Type

G: NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Sealed Type

DD: Sealed

P: Shielded (CRES)

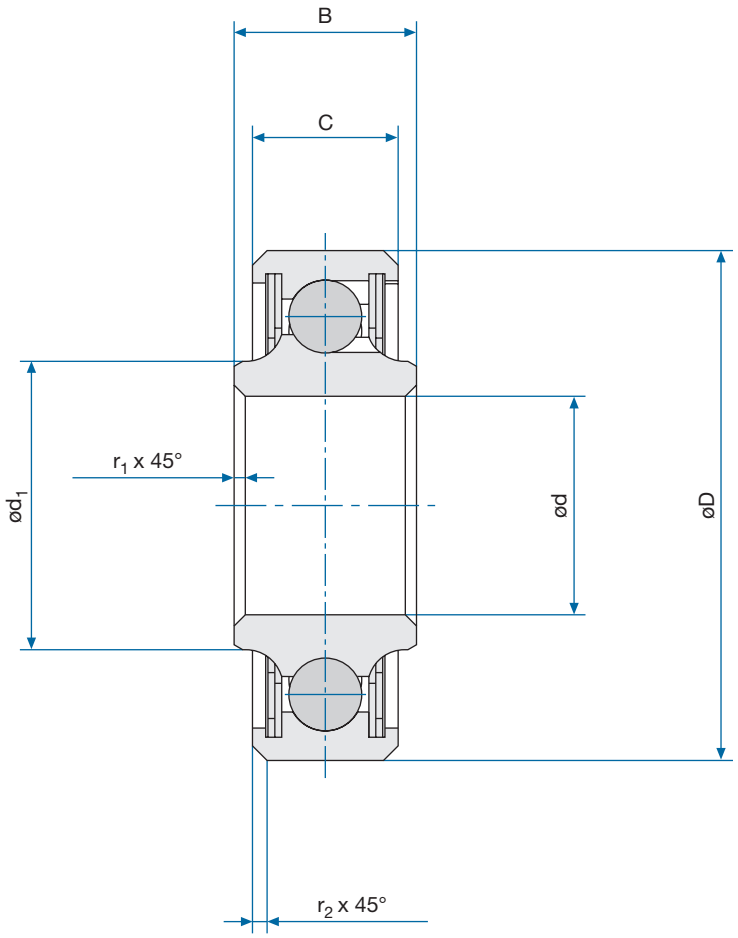
Diameter Code

Number of Standard

MB500

- > Single Row
- > Full Complement
- > Dimensions According to MS 21 428

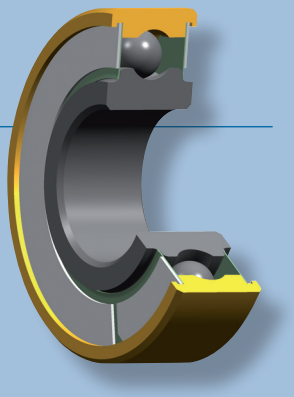
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d_1	r_1 x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,012	19,745	-0,012	7,543	-0,12	6,858	-0,12	8,407	0,12	+0,38
04	6,350	-0,012	22,895	-0,012	12,293	-0,12	8,509	-0,12	9,900	0,12	+0,38
05	7,937	-0,012	31,750	-0,012	14,173	-0,12	9,525	-0,12	11,910	0,38	+0,38
06	9,525	-0,012	36,512	-0,012	15,748	-0,12	11,912	-0,12	15,000	0,38	+0,38
08	12,700	-0,012	42,862	-0,012	15,748	-0,12	12,700	-0,12	19,500	0,38	+0,38
10	15,875	-0,012	49,212	-0,012	15,748	-0,12	12,700	-0,12	21,600	0,38	+0,38

Diameter Code	r_2 x 45°	Tol.	Radial Play No Code	Radial Play Code R	Axial Play max. for NSA only	Static Radial Limit Load	Weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[g]
03	0,55	+0,38	0,010 to 0,025	0,005 to 0,013	0,127	8,36	14
04	0,81	+0,38	0,010 to 0,025	0,005 to 0,013	0,152	11,92	18
05	0,81	+0,38	0,010 to 0,025	0,005 to 0,013	0,152	25,00	41
06	0,81	+0,38	0,010 to 0,025	0,005 to 0,013	0,152	35,18	68
08	1,12	+0,38	0,010 to 0,025	0,005 to 0,013	0,178	52,49	95
10	1,12	+0,38	0,010 to 0,025	0,005 to 0,013	0,178	62,72	127



Designation

NSA8111 03

Diameter Code

Number of NSA Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

NSA 8101: Sealed

NSA 8111: Shielded (CRES)

Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949

K P 15 R G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Technical Specification: SAE AS7949

Grease Type

G: NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Radial Play

R: Reduced

Non: Normal

Diameter Code

Protection

P: Sealed

Non: Shielded (CRES)

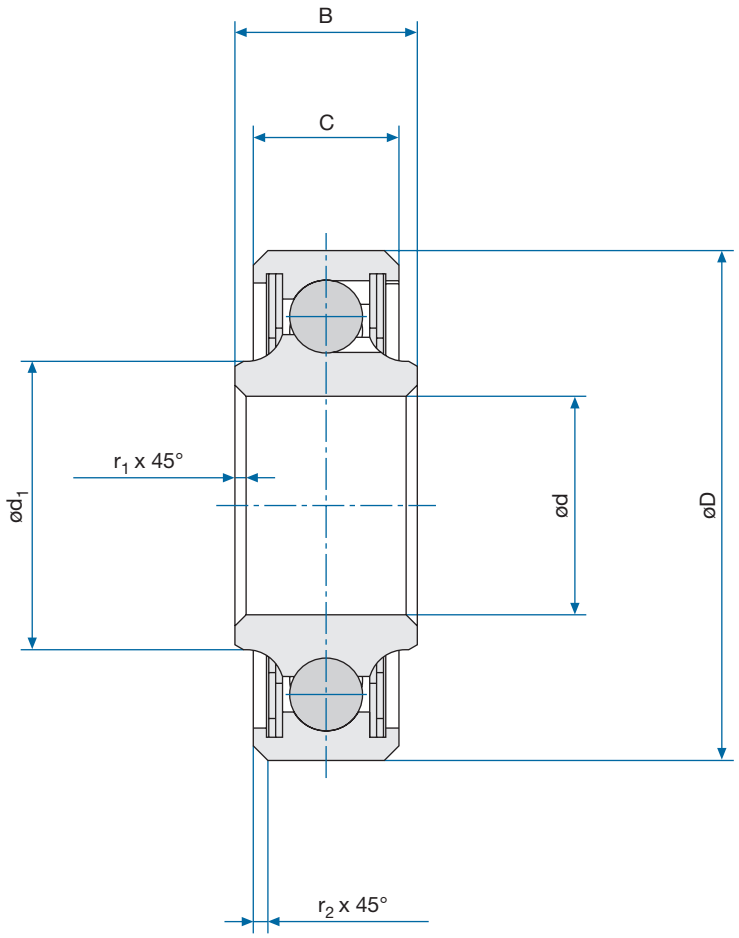
Number of Standard

K

NSA8101
NSA8111

- Single Row
- Full Complement
- Dimensions According to MS 27 640

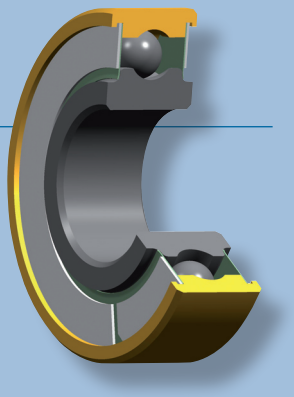
Schematic drawing



Specifications

Diameter Code	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	d_1	r_1 x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,012	15,875	-0,012	7,543	-0,12	7,550	0,12	+0,38
04	6,350	-0,012	19,050	-0,012	7,137	-0,12	9,650	0,12	+0,38
05	7,937	-0,012	20,637	-0,012	7,543	-0,12	10,540	0,38	+0,38
06	9,525	-0,012	22,225	-0,012	7,950	-0,12	12,570	0,38	+0,38
08	12,700	-0,012	28,575	-0,012	9,525	-0,12	15,650	0,38	+0,38
10	15,875	-0,012	34,925	-0,012	10,312	-0,12	19,507	0,38	+0,38
12	19,050	-0,012	41,275	-0,012	11,100	-0,12	23,300	0,38	+0,38
16	25,400	-0,012	50,800	-0,012	12,700	-0,12	31,520	0,38	+0,38
20	31,750	-0,012	57,150	-0,012	12,700	-0,12	37,540	0,38	+0,38

Diameter Code	r_2 x 45°	Tol.	Radial Play No Code	Radial Play Code R	Axial Play max. for NSA only	Static Radial Limit Load	Weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[g]
03	0,4	+0,38	0,010 to 0,025	0,005 to 0,013	0,127	6,94	5
04	0,4	+0,38	0,010 to 0,025	0,005 to 0,013	0,152	8,36	9
05	0,4	+0,38	0,010 to 0,025	0,005 to 0,013	0,152	9,74	9
06	0,4	+0,38	0,010 to 0,025	0,005 to 0,013	0,152	11,12	14
08	0,4	+0,38	0,010 to 0,025	0,005 to 0,013	0,178	17,39	23
10	0,81	+0,38	0,010 to 0,025	0,005 to 0,013	0,178	29,80	36
12	0,81	+0,38	0,010 to 0,025	0,005 to 0,013	0,178	39,10	59
16	0,81	+0,38	0,010 to 0,025	0,005 to 0,013	0,178	52,93	100
20	0,81	+0,38	0,010 to 0,025	0,005 to 0,013	0,178	61,38	118



K...A

NSA8102
NSA8112

- > Single Row
- > Full Complement
- > Dimensions According to MS 27 641

Designation

NSA8112 03

Diameter Code

Number of NSA Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

NSA 8102: Seals (PTFE); Seal Retainers (CRES)

NSA 8112: Shields (CRES)

Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949

K P 3 A R G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Technical Specification: SAE AS7949

Grease Type

G: NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Radial Play

R: Reduced

Non: Normal

Diameter Code

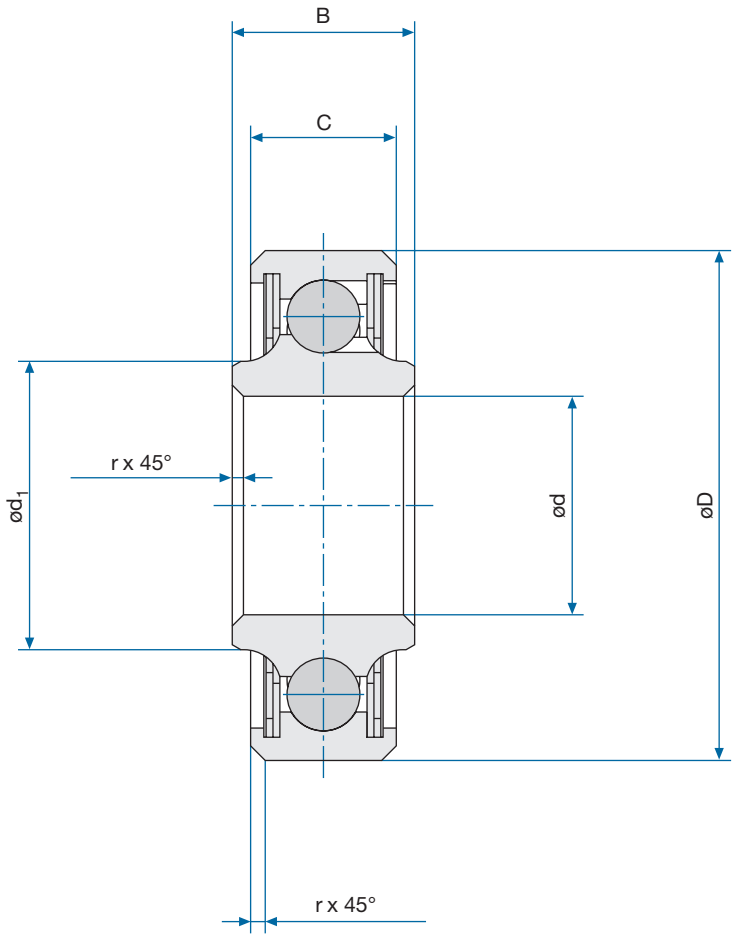
Protection

P: Sealed

Non: Shielded (CRES)

Number of Standard

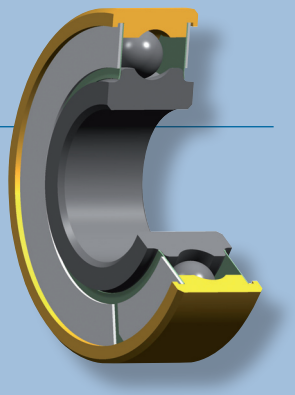
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Tol.	C	Tol.	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
16	25,400	-0,013	44,450	-0,025	11,10	-0,12	9,525	-0,12	29,181	0,61	+0,40
21	33,350	-0,025	52,388	-0,025	11,10	-0,12	9,525	-0,12	36,930	0,61	+0,40
23	36,525	-0,025	55,563	-0,025	11,10	-0,12	9,525	-0,12	39,98	0,61	+0,40
25	39,700	-0,025	58,738	-0,025	11,10	-0,12	9,525	-0,12	43,00	0,61	+0,40
29	46,050	-0,025	65,088	-0,025	11,10	-0,12	9,525	-0,12	49,05	0,61	+0,40
33	52,400	-0,025	71,438	-0,025	11,10	-0,12	9,525	-0,12	56,65	0,61	+0,40
37	58,750	-0,025	77,788	-0,025	11,10	-0,12	9,525	-0,12	62,69	0,61	+0,40
47	74,625	-0,025	98,425	-0,025	13,487	-0,12	11,912	-0,12	78,562	0,99	+0,40
49	77,800	-0,025	101,600	-0,025	13,487	-0,12	11,912	-0,12	82,8	0,99	+0,40

Diameter Code	Radial Play Code R	Radial Play Code N	Axial Play max. for NSA only	Static Radial Limit Load	Static Axial Limit Load	Weight
	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
16	0,003 to 0,013	0,008 to 0,025	0,178 max.	35,96	16,01	64
21	0,003 to 0,013	0,008 to 0,025	0,178 max.	43,77	19,57	73
23	0,003 to 0,013	0,008 to 0,025	0,178 max.	46,70	20,91	77
25	0,003 to 0,013	0,008 to 0,025	0,178 max.	50,26	22,24	86
29	0,003 to 0,013	0,008 to 0,025	0,178 max.	56,49	24,91	95
33	0,003 to 0,013	0,008 to 0,025	0,178 max.	64,05	28,47	104
37	0,003 to 0,013	0,008 to 0,025	0,178 max.	70,28	31,14	118
47	0,003 to 0,013	0,008 to 0,025	0,178 max.	109,87	48,48	222
49	0,003 to 0,013	0,008 to 0,025	0,178 max.	122,32	53,83	240



K...B
NSA8103
NSA8113

- Single Row
- Full Complement
- Dimensions According to MS 27 642

Designation

NSA8113 03

Diameter Code

Number of NSA Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

NSA8103: Seals (PTFE); Seal Retainers (CRES)

NSA8113: Shields (CRES)

Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949

K P 25 B R G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Technical Specification: SAE AS7949

Grease Type

G: NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Radial Play

R: Reduced

Non: Normal

Diameter Code

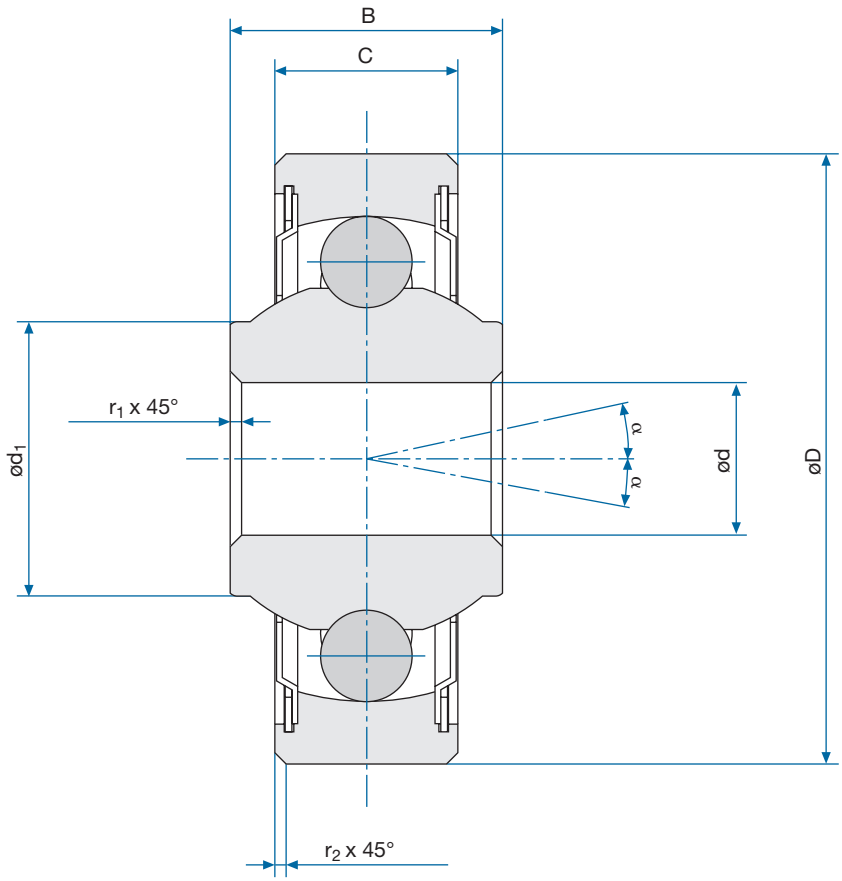
Protection

P: Sealed

Non: Shielded (CRES)

Bearing Number

Schematic drawing



Specifications

Type	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	C	Δ_{Cmp}	d_1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
KS3L	4,826	-0,012	15,875	-0,012	6,223	-0,12	5,156	-0,12	6,528
KS3	4,826	-0,012	19,746	-0,012	7,544	-0,12	6,858	-0,12	8,710
KS4	6,350	-0,012	22,895	-0,012	12,293	-0,12	8,509	-0,12	10,280
KS4A	6,350	-0,012	19,050	-0,012	7,137	-0,12	5,563	-0,12	9,300
KS5	7,937	-0,012	31,750	-0,012	14,173	-0,12	9,525	-0,12	14,275
KS5A	7,937	-0,012	20,637	-0,012	7,543	-0,12	5,943	-0,12	10,693
KS6	9,525	-0,012	36,512	-0,012	15,748	-0,12	11,912	-0,12	15,544
KS6A	9,525	-0,012	22,225	-0,012	7,950	-0,12	6,350	-0,12	12,065
KS8	12,700	-0,012	42,862	-0,012	15,748	-0,12	12,700	-0,12	20,210
KS10	15,750	-0,012	49,212	-0,012	20,650	-0,12	15,875	-0,12	23,418

Type	r_1 x 45° +0,38	r_2 x 45° +0,38	α	Radial Play	Code R	Axial Play max.	Static Radial Limit Load	Weight
	[mm]	[mm]		[mm]	[mm]	[mm]	[kN]	[g]
KS3L	0,12	0,40	10°	0,010 to 0,025	0,005 to 0,013	0,584	2,5	4,5
KS3	0,12	0,55	10°	0,010 to 0,025	0,005 to 0,013	0,584	4,1	14
KS4	0,12	0,81	10°	0,010 to 0,025	0,005 to 0,013	0,635	6,4	18
KS4A	0,12	0,40	8°	0,010 to 0,025	0,005 to 0,013	0,635	4,1	9,0
KS5	0,38	0,81	10°	0,010 to 0,025	0,005 to 0,013	0,711	9,9	45
KS5A	0,38	0,40	8°	0,010 to 0,025	0,005 to 0,013	0,635	4,5	9,0
KS6	0,38	0,81	10°	0,010 to 0,025	0,005 to 0,013	0,762	13,5	68
KS6A	0,38	0,40	8°	0,010 to 0,025	0,005 to 0,013	0,762	5,1	14
KS8	0,38	1,11	10°	0,010 to 0,025	0,005 to 0,013	0,711	16,7	104
KS10	0,38	1,11	10°	0,010 to 0,025	0,005 to 0,013	0,711	24,1	168

Designation

KS P 3 R G 1.3544.9

Material
- Non: EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore
- 1.3544.9: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Technical Specification: SAE AS7949

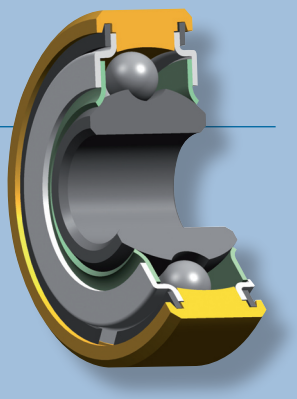
Grease Type
- G: NATO G 354 / MIL-PRF-23 827
- Non: NATO G 395 / MIL-PRF-81 322

Radial Play
- R: Reduced
- Non: Normal

Diameter Code

Protection
- P: Sealed
- Non: Shielded (CRES)

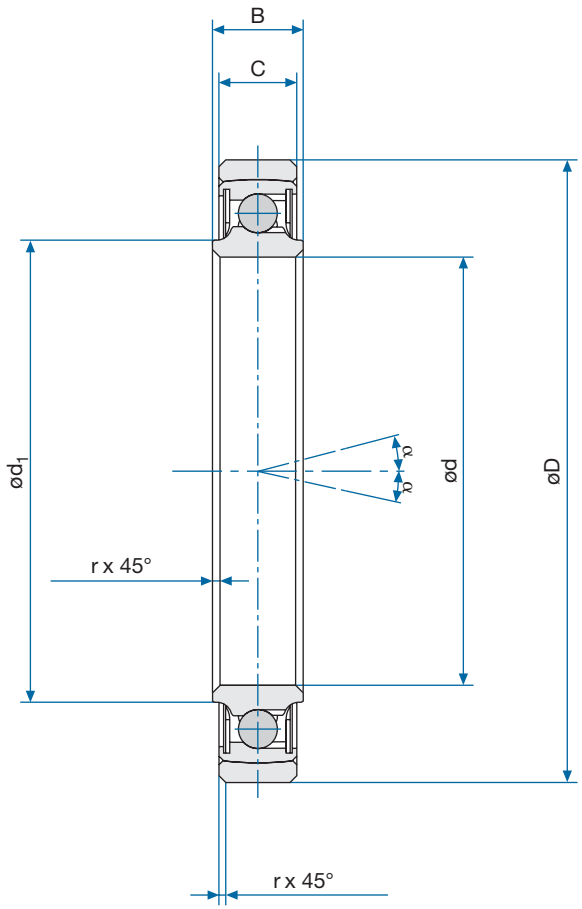
Number of Standard



KS

- > Self Aligning
- > Single Row
- > Full Complement
- > Dimensions According to MS 27 645

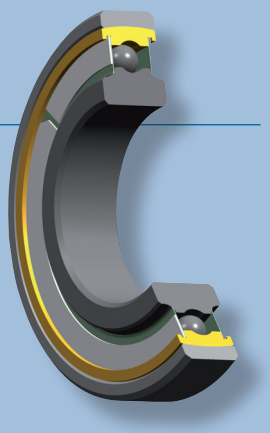
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Tol.	C	Tol.	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
16	**25,400**	-0,013	49,212	-0,025	**11,10**	-0,12	**9,525**	-0,12	**28,98**	**0,61**	+0,40
21	**33,350**	-0,025	57,150	-0,025	**11,10**	-0,12	**9,525**	-0,12	**36,93**	**0,61**	+0,40
23	**36,525**	-0,025	60,325	-0,025	**11,10**	-0,12	**9,525**	-0,12	**40,00**	**0,61**	+0,40
25	**39,700**	-0,025	63,500	-0,025	**11,10**	-0,12	**9,525**	-0,12	**43,00**	**0,61**	+0,40
29	**46,050**	-0,025	69,850	-0,025	**11,10**	-0,12	**9,525**	-0,12	**49,05**	**0,61**	+0,40
33	**52,400**	-0,025	76,200	-0,025	**11,10**	-0,12	**9,525**	-0,12	**56,65**	**0,61**	+0,40
37	**58,750**	-0,025	82,550	-0,025	**11,10**	-0,12	**9,525**	-0,12	**62,69**	**0,61**	+0,40
47	**74,625**	-0,025	104,775	-0,025	**13,487**	-0,12	**11,912**	-0,12	**78,56**	**0,99**	+0,40
49	**77,800**	-0,025	107,950	-0,025	**13,487**	-0,12	**11,912**	-0,12	**81,84**	**0,99**	+0,40

Diameter Code	α	Swivel Torque	Starting Torque max.		Radial Play	Axial Play max.	Static Radial Limit Load	Static Axial Limit Load	Weight
			ABS0136	ABS0347					
		[Nm]	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[kN]	[g]
16	7°25´	0,5 to 1,5	1,67	2,5	0,008 to 0,025	0,180	35,96	7,12	82
21	6°30´	0,5 to 1,5	2,13	3,2	0,008 to 0,025	0,180	43,77	8,90	91
23	6°	0,5 to 1,5	2,53	3,8	0,008 to 0,025	0,180	46,71	9,79	100
25	5°45´	0,5 to 1,5	2,86	4,3	0,008 to 0,025	0,180	50,26	10,23	113
29	5°	0,5 to 1,5	3,93	5,9	0,008 to 0,025	0,180	56,49	11,57	123
33	5°	1,0 to 2,5	4,53	6,8	0,008 to 0,025	0,180	64,05	12,90	136
37	4°30´	1,0 to 2,5	6,06	9,1	0,008 to 0,025	0,180	70,28	14,23	150
47	4°30´	1,0 to 2,5	6,46	9,7	0,008 to 0,025	0,180	109,87	22,24	290
49	4°	1,0 to 2,5	6,80	10,2	0,008 to 0,025	0,180	122,32	24,47	313



ABS0136
ABS0347

- > Single Row
- > Self Aligning
- > Full Complement
- > Dimensions According to MS 27 648

Designation

ABS0136 - 25 N

Radial / Axial Play
N: Normal

Diameter Code

Number of ABS Standard
Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore
Shields: CRES
Lubrication: NATO G 395 / MIL-PRF-81 322
Technical Specification: SAE AS7949 / DAN446

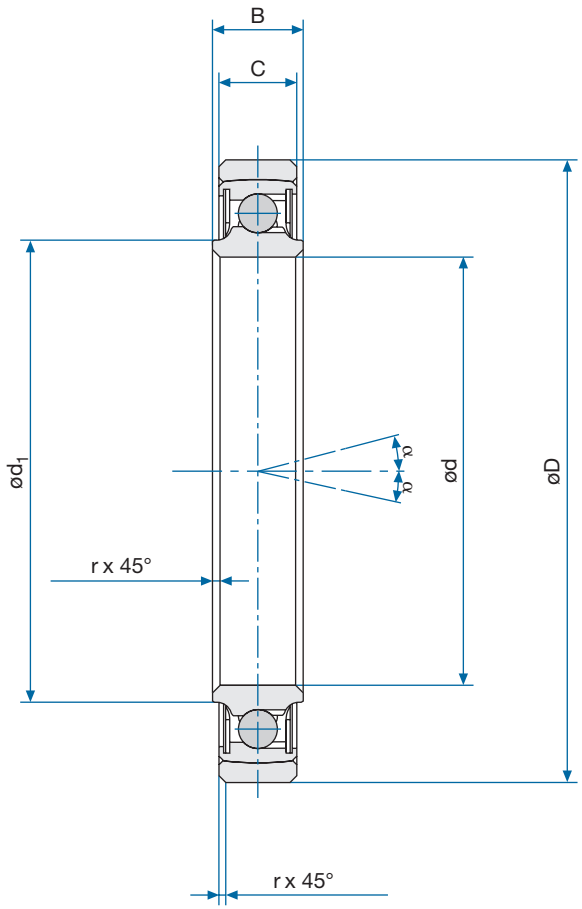
ABS0347 N 25

Diameter Code

Radial / Axial Play
N: Normal

Number of ABS Standard
Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore
Sealed Type: Seals (PTFE); Seal Retainers (CRES)
Lubrication: NATO G 395 / MIL-PRF-81 322
Technical Specification: SAE AS7949 / DAN446

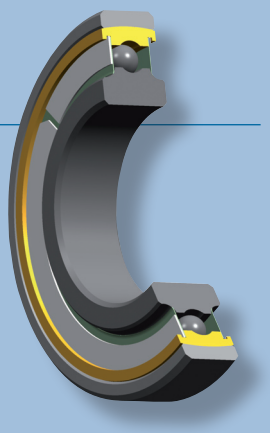
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Tol.	C	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
16	25,400	-0,013	49,212	-0,025	11,10	-0,12	9,525	-0,12
21	33,350	-0,025	57,150	-0,025	11,10	-0,12	9,525	-0,12
23	36,525	-0,025	60,325	-0,025	11,10	-0,12	9,525	-0,12
25	39,700	-0,025	63,500	-0,025	11,10	-0,12	9,525	-0,12
29	46,050	-0,025	69,850	-0,025	11,10	-0,12	9,525	-0,12
33	52,400	-0,025	76,200	-0,025	11,10	-0,12	9,525	-0,12
37	58,750	-0,025	82,550	-0,025	11,10	-0,12	9,525	-0,12
47	74,625	-0,025	104,775	-0,025	13,487	-0,12	11,912	-0,12
48	76,200	-0,025	107,950	-0,025	13,487	-0,12	11,912	-0,12
49	77,800	-0,025	107,950	-0,025	13,487	-0,12	11,912	-0,12

Diameter Code	d_1	r x 45°	Tol	α	Radial Play	Static Radial Limit Load	Static Axial Limit Load	Weight
	[mm]	[mm]	[mm]		[mm]	[kN]	[kN]	[g]
16	28,981	0,61	+0,40	7°25´	0,008 to 0,025	35,96	7,12	82
21	36,93	0,61	+0,40	6°30´	0,008 to 0,025	43,77	8,90	91
23	39,98	0,61	+0,40	6°	0,008 to 0,025	46,70	9,79	100
25	43,00	0,61	+0,40	5°45´	0,008 to 0,025	50,26	10,23	113
29	49,05	0,61	+0,40	5°	0,008 to 0,025	56,49	11,56	123
33	56,65	0,61	+0,40	5°	0,008 to 0,025	64,05	12,90	136
37	62,69	0,61	+0,40	4°30´	0,008 to 0,025	70,28	14,23	150
47	78,56	0,99	+0,40	4°30´	0,008 to 0,025	109,87	22,24	290
48	82,80	0,99	+0,40	4°	0,008 to 0,025	122,32	24,46	313
49	82,80	0,99	+0,40	4°	0,008 to 0,025	122,32	24,46	313



K...BS
NSA8106
NSA8116

- Single Row
- Self Aligning
- Full Complement
- Dimensions According to MS 27 648

Designation

NSA8116 25

Diameter Code

Number of NSA Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

NSA 8106: Seals (PTFE); Seal Retainers (CRES)

NSA 8116: Shields (CRES)

Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949

K P 25 BS G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Technical Specification: SAE AS7949

Grease Type

G: NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Diameter Code

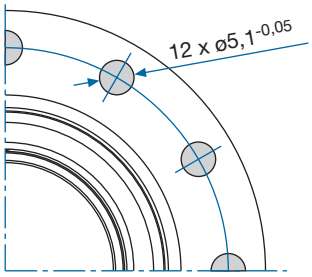
Protection

P: Sealed

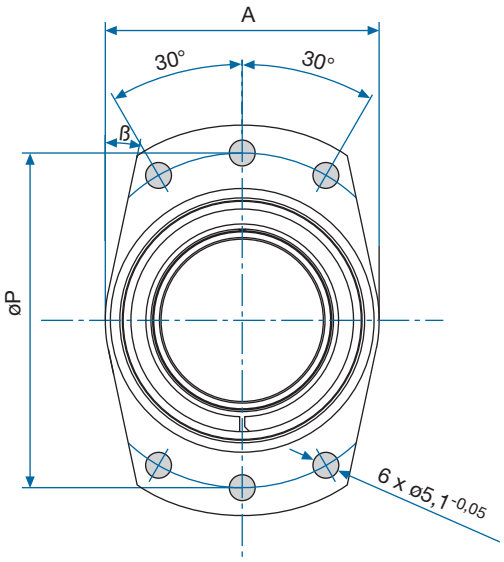
Non: Shielded (CRES)

Number of Standard

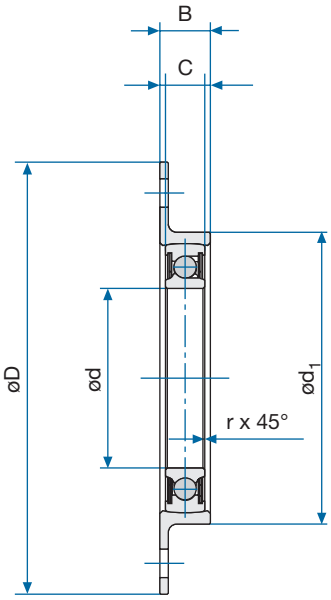
Schematic drawing



Flange Code C



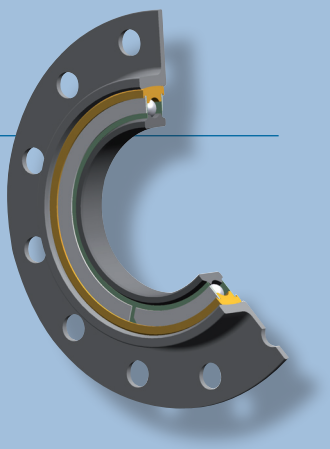
Flange Code D



Specifications

Diameter Code	d	Δ_{dmp}	D ±0,2	B ±0,15	C -0,12	d_1 ±0,05	A ±0,25	P ±0,1	r x 45°	β	Tilting Angle
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
16	16,0	-0,008	58,0	8	6	33	35	47	0,3 to 0,8	-	4°
20	20,0	-0,010	63,0	9	7	38	41	52	0,3 to 0,8	7°	3°30´
25	25,0	-0,010	68,0	9	7	43	46	57	0,3 to 0,8	7°	3°
32	32,0	-0,012	77,0	9	7	52	54	66	0,3 to 0,8	12°	2°30´
35	35,0	-0,012	80,0	9	7	55	58	69	0,3 to 0,8	15°	2°20´
40	40,0	-0,012	86,0	10	8	61	64	75	0,3 to 0,8	15°	2°
45	45,0	-0,012	91,0	10	8	66	68	80	0,3 to 0,8	15°	2°
50	50,0	-0,015	97,0	10	8	72	74	86	0,3 to 0,8	15°	1°40´
63	63,0	-0,015	111,0	11	9	86	90	100	0,3 to 0,8	22°	1°30´

Diameter Code	Tilting Torque	Starting Torque max. Code E	Starting Torque shielded	Radial Play	Axial Play max.	Static Radial Limit Load	Weight flange Code C	Weight flange Code D
	[Nm]	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]	[g]
16	0,8 to 3,0	1,2	0,8	0,003 to 0,011	0,12	15,2	47	38
20	0,8 to 3,0	1,4	0,9	0,005 to 0,013	0,12	18,7	62	50
25	0,8 to 3,0	2,1	1,2	0,005 to 0,013	0,12	20,6	70	58
32	1,0 to 4,0	3,0	2,1	0,005 to 0,013	0,12	24,5	94	78
35	1,0 to 4,0	3,5	2,7	0,005 to 0,013	0,12	25,5	100	86
40	1,3 to 4,5	4,4	3,3	0,005 to 0,013	0,12	29,5	125	104
45	1,3 to 4,5	5,3	3,9	0,005 to 0,013	0,12	32,4	137	114
50	1,5 to 5,0	6,8	4,8	0,005 to 0,013	0,12	35,3	155	129
63	2,0 to 6,0	11,3	8,3	0,005 to 0,013	0,12	39,2	210	178



EN3059
EN3060
EN3061

> Flanged Type
> Single Row
> Full Complement

Designation

EN3061 A 16 E D T

Surface Treatment
T: Passivated
No Code: Non

Flange Type (See Schematic Drawing)

Protection
E: Sealed
P: Shielded

Diameter Code

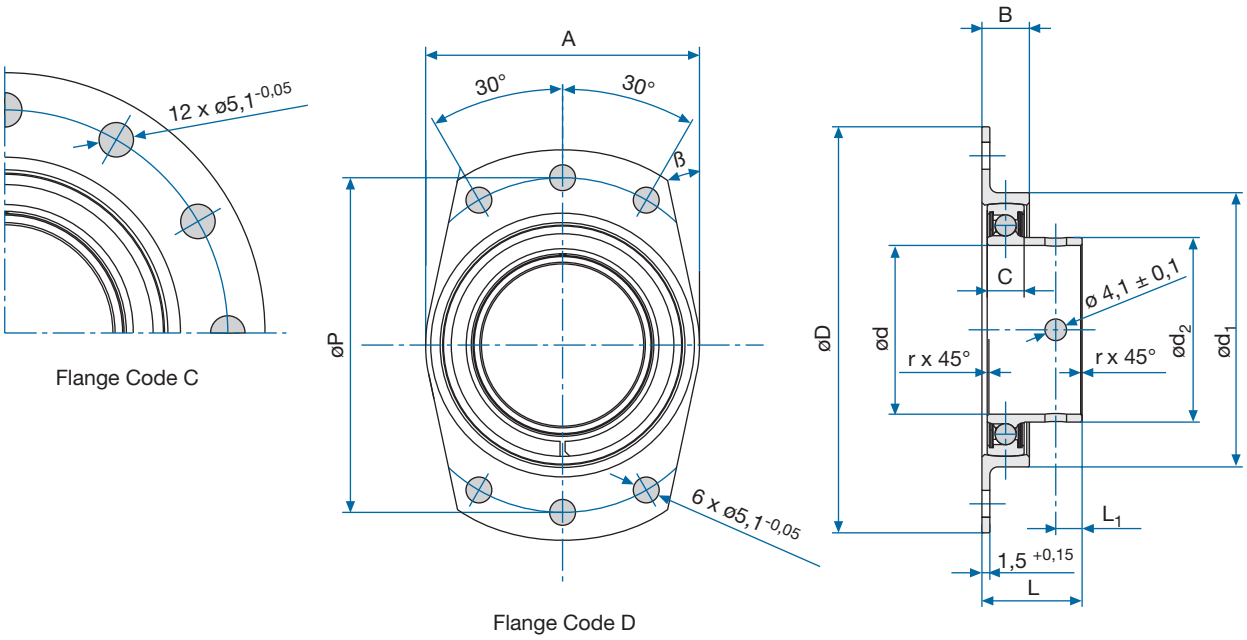
Grease Type
A: NATO G 354 / MIL-PRF-23 827
B: NATO G 395 / MIL-PRF-81 322

Number of EN Standard

Series	Bearing	Flange
EN3059	EN2031 / 1.3505.9 / AISI E52100	EN2213 / 1.7734.5 Cadmium Plated
EN3060	EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated	EN2213 / 1.7734.5 Cadmium Plated
EN3061	EN2030 / 1.3544.9 / AISI 440 C	EN2539 / 1.4548.3 / 17-4PH H1100

Technical Specification: EN3727

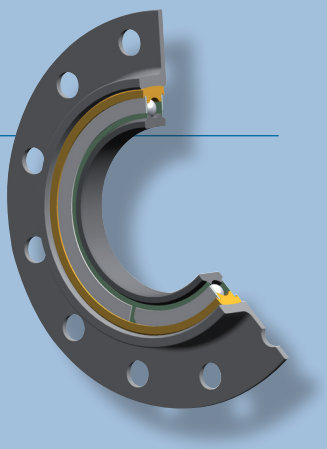
Schematic drawing



Specifications

Diameter Code	d	Δ_{dmp}	D ±0,2	B ±0,15	C -0,12	d_1 ±0,05	d_2 -0,1	A ±0,1	P ±0,1	L ±0,15	L_1 ±0,1	r x 45°	β	Tilting Angle
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
32	32,0	-0,012	77,0	9	7	52	35	55	66	19	5	0,3 to 0,8	12°	2°30´
35	35,0	-0,012	80,0	9	7	55	38	58	69	19	5	0,3 to 0,8	12°	2°20´
40	40,0	-0,012	86,0	10	8	61	43	64	75	20	5	0,3 to 0,8	15°	2°
45	45,0	-0,012	91,0	10	8	66	48	68	80	20	5	0,3 to 0,8	15°	2°
50	50,0	-0,012	97,0	10	8	72	53	74	86	20	5	0,3 to 0,8	15°	1°40´
63	63,0	-0,012	111,0	11	9	86	67	90	100	21	5	0,3 to 0,8	22°	1°30´

Diameter Code	Tilting Torque	Starting Torque max. Code E	Starting Torque max. Code P	Radial Play	Axial Play max.	Static Radial Limit Load	Weight flange Code D	Weight flange Code C
	[Nm]	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]	[g]
32	1,0 to 4,0	3,0	2,1	0,002 to 0,007	0,12	24,5	91	107
35	1,0 to 4,0	3,5	2,7	0,002 to 0,009	0,12	25,5	97	125
40	1,3 to 4,5	4,4	3,3	0,002 to 0,009	0,12	29,5	121	143
45	1,3 to 4,5	5,3	3,9	0,002 to 0,009	0,12	32,4	136	155
50	1,5 to 5,0	6,8	4,8	0,002 to 0,009	0,12	35,3	152	175
63	2,0 to 6,0	11,3	8,3	0,002 to 0,009	0,12	39,2	205	235



EN4041

- > Flanged Type
- > Single Row
- > Full Complement

Designation

EN4041 A 32 P C T

Surface Treatment
- C: Passivated
- No Code: Non

Flange Type (See Schematic Drawing)

Protection
- E: Sealed
- P: Shielded (CRES)

Diameter Code

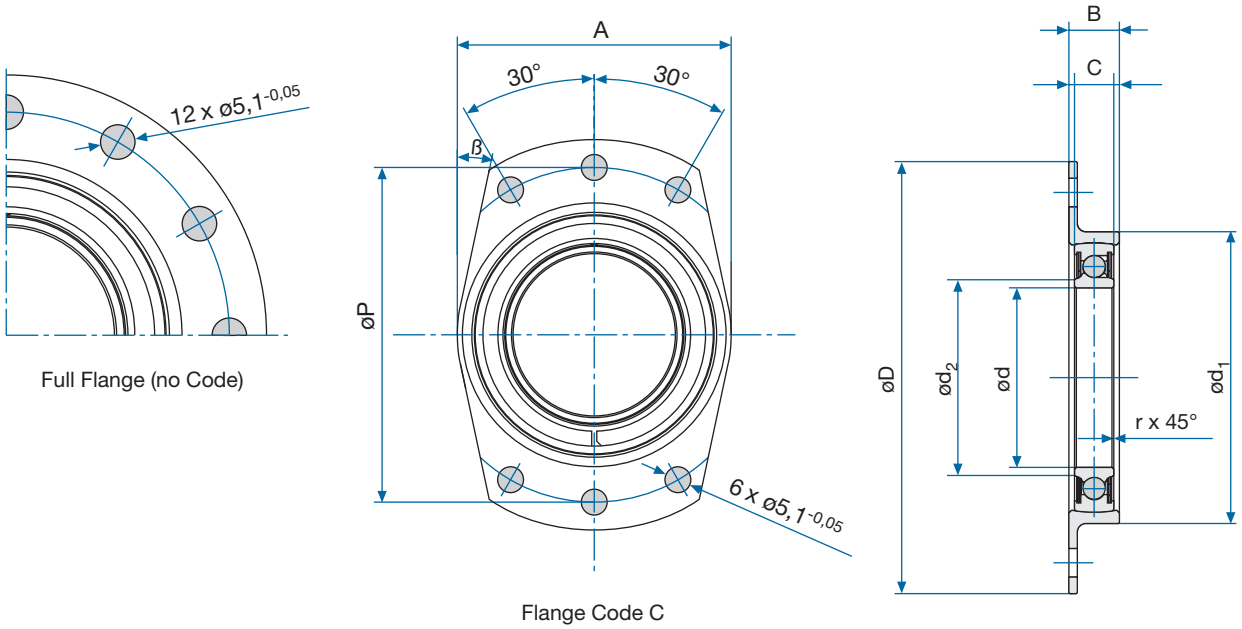
Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322

Number of Standard

Series	Material	Flange
EN4041	EN2031 / 1.3505.9 / AISI E52100	EN2539 / 1.4548.3 / 17-4PH H1100

Technical Specification: EN3727

Schematic drawing



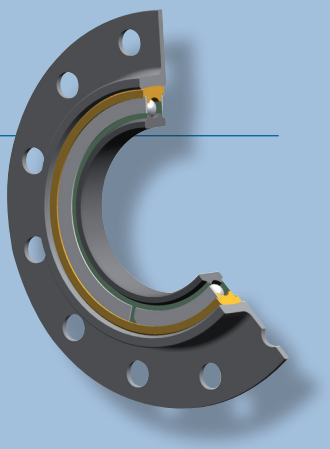
Full Flange (no Code)

Flange Code C

Specifications

Diameter Code	d	Δ_{dmp}	D -0,25	B ±0,15	C -0,1	d_1 ±0,05	d_2	A ±0,25	P ±0,1	r x 45°	β	Tilting Angle
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
16	16,0	-0,008	58,0	8	6	33	18,6	35	47	0,3 to 0,8	-	4°
20	20,0	-0,010	63,0	9	7	38	22,7	41	52	0,3 to 0,8	7°	3°30´
25	25,0	-0,010	68,0	9	7	43	27,7	46	57	0,3 to 0,8	7°	3°
32	32,0	-0,012	77,0	9	7	52	35,3	54	66	0,3 to 0,8	12°	2°30´
35	35,0	-0,012	80,0	9	7	55	39,05	58	69	0,3 to 0,8	15°	2°20´
40	40,0	-0,012	86,0	10	8	61	43	64	75	0,3 to 0,8	15°	2°
45	45,0	-0,012	91,0	10	8	66	48,35	68	80	0,3 to 0,8	15°	2°
50	50,0	-0,012	97,0	10	8	72	53,3	74	86	0,3 to 0,8	15°	1°40´
63	63,0	-0,015	111,0	11	9	86	67,6	90	100	0,3 to 0,8	22°	1°30´

Diameter Code	Tilting Torque	Starting Torque max. Code E	Starting Torque max. No Code	Radial Play	Axial Play max.	Static Radial Limit Load	Weight full flange No Code	Weight flange Code C
	[Nm]	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]	[g]
16	0,8 to 3,0	1,15	0,8	0,003 to 0,011	0,12	15,2	47	31
20	0,8 to 3,0	1,35	0,9	0,005 to 0,013	0,12	18,7	62	52
25	0,8 to 3,0	2,10	1,2	0,005 to 0,013	0,12	20,6	70	60
32	1,0 to 4,0	3,00	2,1	0,005 to 0,013	0,12	24,5	94	80
35	1,0 to 4,0	3,45	2,7	0,005 to 0,013	0,12	25,5	100	85
40	1,3 to 4,5	4,35	3,3	0,005 to 0,013	0,12	29,5	125	110
45	1,3 to 4,5	5,25	3,9	0,005 to 0,013	0,12	32,4	137	120
50	1,5 to 5,0	6,75	4,8	0,005 to 0,013	0,12	35,3	155	135
63	2,0 to 6,0	11,25	8,3	0,005 to 0,013	0,12	39,2	210	185



FTRCE

- > Flanged Type
- > Single Row
- > Full Complement

Designation

FTRCE 40 A E C 1.3544.9

Material
- Non: Flange: EN 2213 / 1.7734.5 Cadmium Plated Rings + Balls: EN2031 / 1.3505.9 / AISI E52100
- 1.3544.9: Flange: EN2136 / 1.4044.6 / AISI 431 Cadmium Plated Rings + Balls: EN2030 / 1.3544.9 / AISI 440 C

Flange Type (See Schematic Drawing)

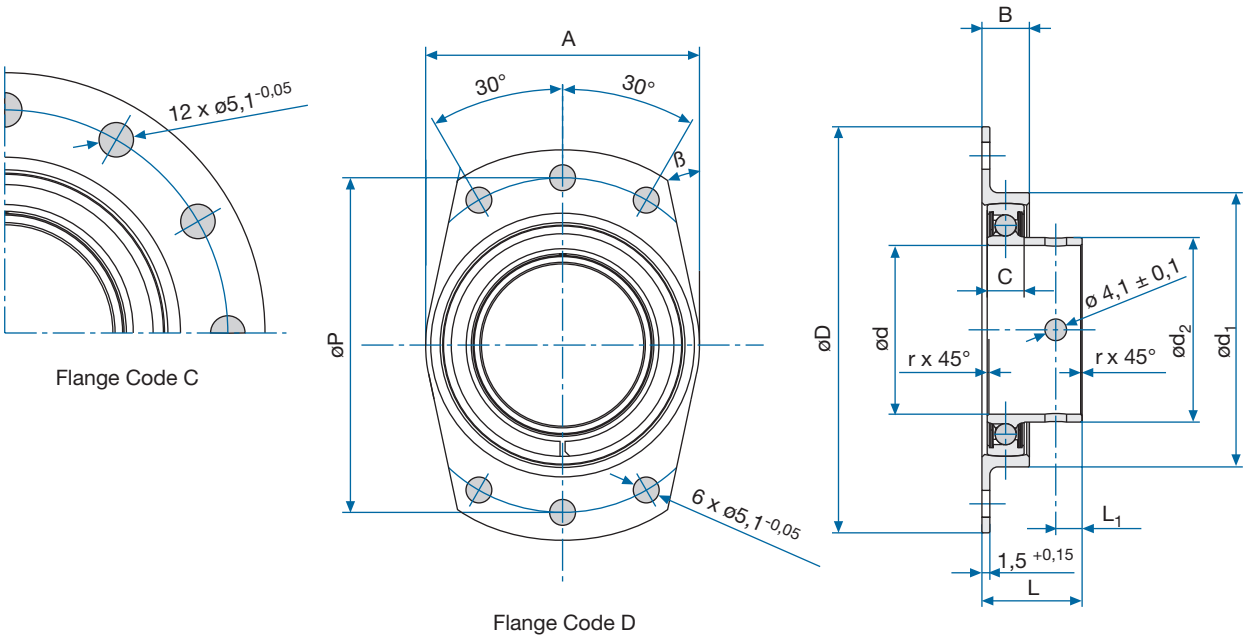
Protection
- Non: Shielded
- E: Sealed

Grease Type
- A: NATO G 354 / MIL-PRF-23827
- B: NATO G 394 / MIL-PRF-81322

Diameter Code

Number of Standard

Schematic drawing



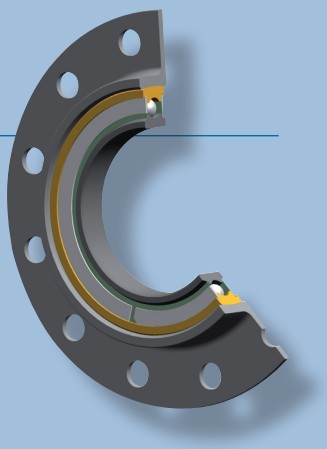
Flange Code C

Flange Code D

Specifications

Diameter Code	d	Δ_{dmp}	D -0,25	B ±0,15	C -0,1	d_1 ±0,05	d_2 -0,1	A ±0,25	P ±0,1	L ±0,15	L_1 ±0,1	r x 45°	β	Tilting Angle
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
32	32,0	-0,011 to + 0,003	77,0	9	7	52	35	54	66	19	5	0,3 to 0,8	12°	2°30´
35	35,0	-0,011 to + 0,003	80,0	9	7	55	38	58	69	19	5	0,3 to 0,8	15°	2°20´
40	40,0	-0,011 to + 0,003	86,0	10	8	61	43	64	75	20	5	0,3 to 0,8	15°	2°
45	45,0	-0,011 to + 0,003	91,0	10	8	66	48	68	80	20	5	0,3 to 0,8	15°	2°
50	50,0	-0,011 to + 0,003	97,0	10	8	72	53	74	86	20	5	0,3 to 0,8	15°	1°40´
63	63,0	-0,012 to + 0,003	111,0	11	9	86	67	90	100	21	5	0,3 to 0,8	22°	1°30´

Diameter Code	Tilting Torque	Starting Torque max. Code E	Starting Torque max. No Code	Radial Play	Axial Play max.	Static Radial Limit Load	Weight flange Code D	Weight flange Code C
	[Nm]	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[g]	[g]
32	5 to 10	3,00	2,10	0,005 to 0,013	0,12	25	91	107
35	5 to 11	3,45	2,70	0,005 to 0,013	0,12	27	97	125
40	8 to 14	4,35	3,30	0,005 to 0,013	0,12	30	121	143
45	9 to 15	5,25	3,90	0,005 to 0,013	0,12	33	136	155
50	9 to 18	6,75	4,80	0,005 to 0,013	0,12	36	152	175
63	10 to 20	11,25	8,25	0,005 to 0,013	0,12	40	205	235



FTRCEI

- > Flanged Type
- > Single Row
- > Full Complement

FTRCEI 32 A E C 1.3544.9

Material

Non: Flange: EN2213 / 1.7734.5 Cadmium Plated
Rings + Balls: EN2031 / 1.3505.9 / AISI E52100

1.3544.9: Flange: EN2136 / 1.4044.6 / AISI 431 Cadmium Plated
Rings + Balls: EN2030 / 1.3544.9 / AISI 440 C

Flange Type (See Schematic Drawing)

Protection

Non: Shielded

E: Sealed

Grease Type

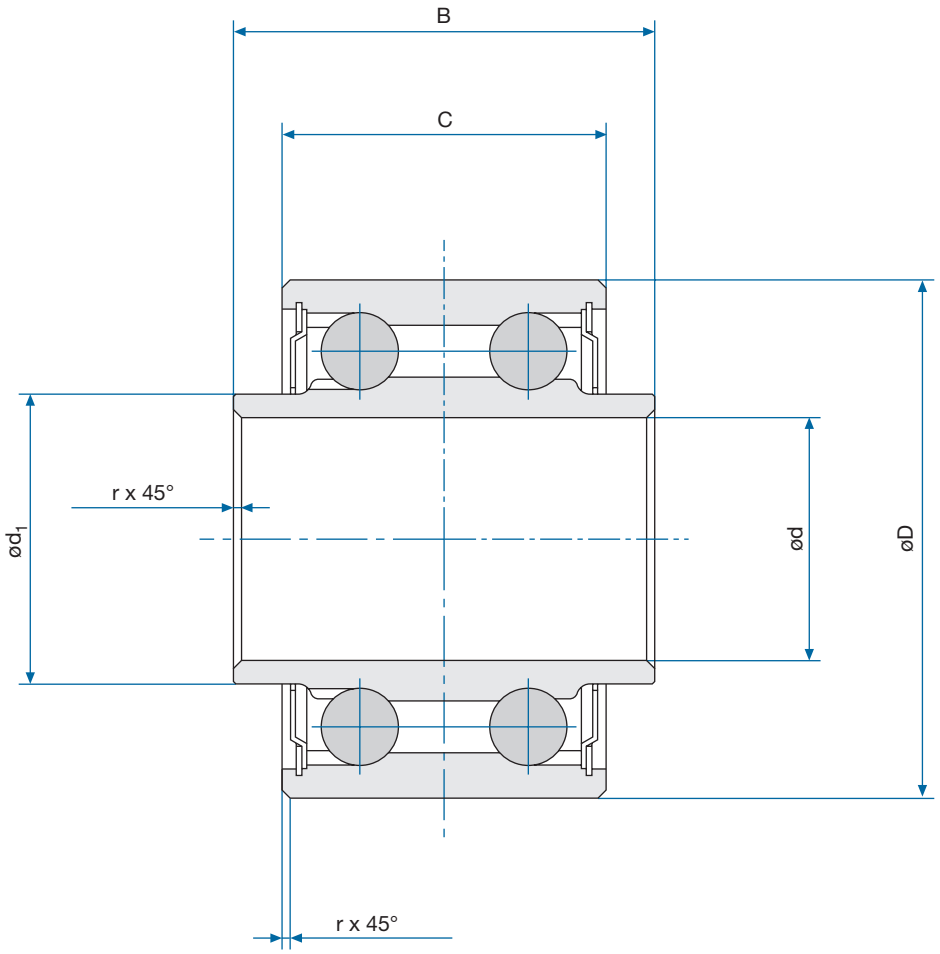
A: NATO G 354 / MIL-PRF-23827

B: NATO G 395 / MIL-PRF-81322

Diameter Code

Number of Standard

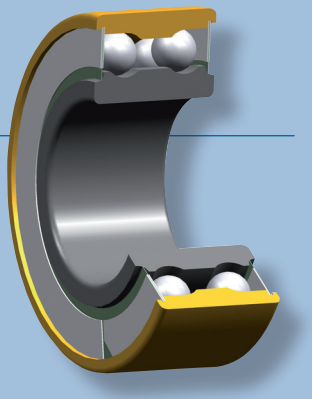
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
6	6,0	-0,007 to +0,008	19,00	-0,008	17,00	-0,12	12,00	-0,12	8,40
8	8,0	-0,007 to +0,008	22,00	-0,008	23,00	-0,12	17,00	-0,12	10,70
10	10,0	-0,007 to +0,008	24,00	-0,008	23,00	-0,12	17,00	-0,12	14,10
12	12,0	-0,008 to +0,010	26,00	-0,008	23,00	-0,12	17,00	-0,12	15,30
16	16,0	-0,008 to +0,010	30,00	-0,008	23,00	-0,12	17,00	-0,12	19,00

Diameter Code	r x 45°	Tol.	Starting Torque max. Code E	Starting Torque max. No Code	Diagonal Play	Static Radial Limit Load	Weight
	[mm]	[mm]	[Ncm]	[Ncm]	[mm]	[kN]	[g]
6	0,50	-0,20 to +0,30	0,50	0,30	0,05 to 0,25	16,6	22
8	0,50	-0,20 to +0,30	0,60	0,40	0,05 to 0,25	20,8	34
10	0,50	-0,20 to +0,30	0,90	0,60	0,05 to 0,25	24,0	42
12	0,50	-0,20 to +0,30	1,10	0,70	0,05 to 0,25	26,3	46
16	0,50	-0,20 to +0,30	1,40	0,90	0,05 to 0,25	31,8	57



AGF

> Double Row
> Full Complement

Designation

AGF 8 A C E 1.3544.9

Material
Non: EN2031 / 1.3505.9 / AISI E52100
1.3544.9: EN2030 / 1.3544.9 / AISI 440 C

Protection
E: Sealed
Non: Shielded (CRES)

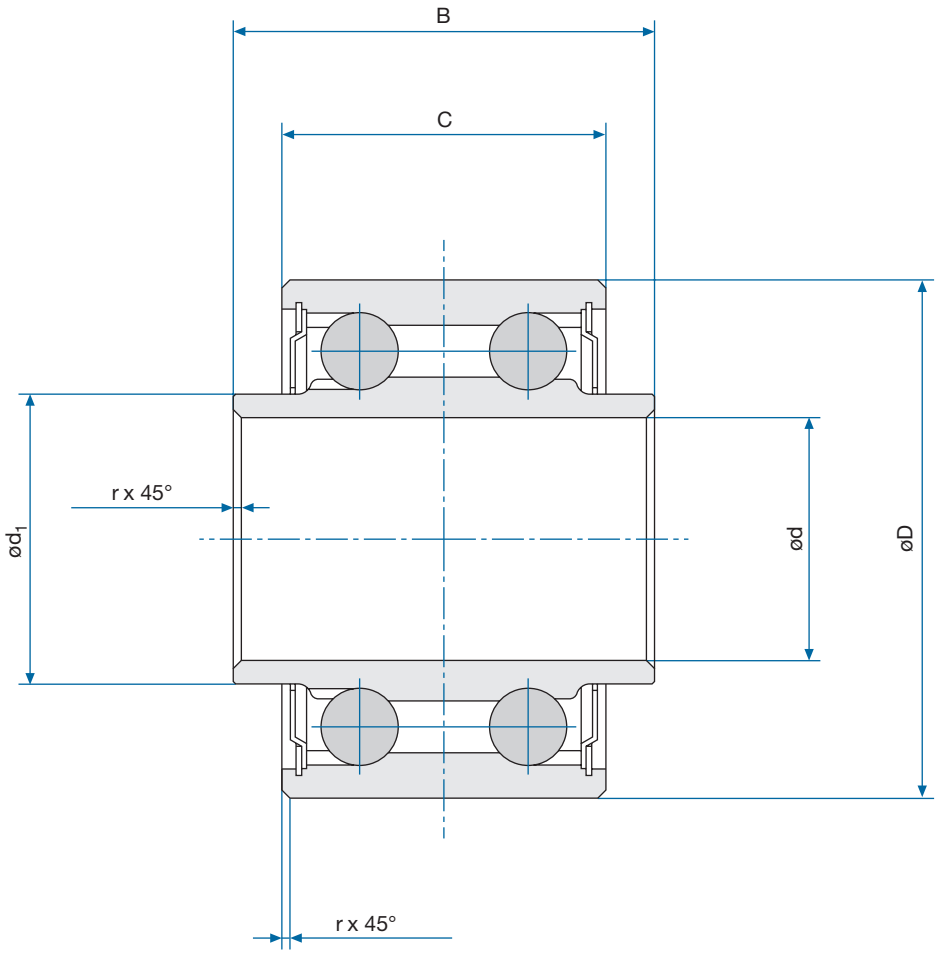
Surface Treatment
No Code: Non
C: Cadmium Plated Except Bore

Grease Type
A: NATO G 354 / MIL-PRF-23 827
B: NATO G 395 / MIL-PRF-81 322

Diameter Code

Number of Standard

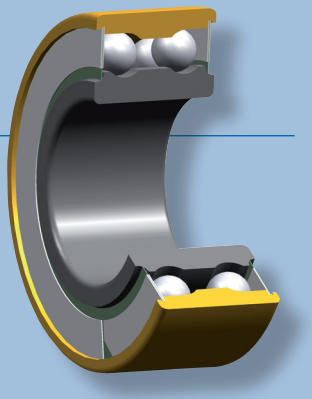
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
08	8,0	-0,007 to +0,008	22,0	-0,008	22,0	-0,12	17,0	-0,12	10,6
10	10,0	-0,007 to +0,008	26,0	-0,008	24,0	-0,12	18,0	-0,12	12,6
12	12,0	-0,008 to +0,010	28,0	-0,008	24,0	-0,12	18,0	-0,12	14,7
15	15,0	-0,008 to +0,010	32,0	-0,009	26,0	-0,12	20,0	-0,12	17,7
17	17,0	-0,008 to +0,010	35,0	-0,009	28,0	-0,12	22,0	-0,12	20,2
20	20,0	-0,009 to +0,012	42,0	-0,009	32,0	-0,12	26,0	-0,12	23,5

Diameter Code	r x 45°	Tol.	Starting Torque max. Code E	Starting Torque max. Code P	Diagonal Play	Static Radial Limit Load	Static Axial Limit Load	Weight
	[mm]	[mm]	[Ncm]	[Ncm]	[mm]	[kN]	[kN]	[g]
08	0,50	-0,20 to +0,30	0,60	0,4	0,05 to 0,25	24,0	10,9	30
10	0,50	-0,20 to +0,30	0,90	0,6	0,05 to 0,25	34,4	15,6	52
12	0,50	-0,20 to +0,30	1,10	0,7	0,05 to 0,25	40,4	18,4	60
15	0,50	-0,20 to +0,30	1,40	0,9	0,05 to 0,25	47,0	21,4	80
17	0,50	-0,20 to +0,30	1,70	1,1	0,05 to 0,25	53,8	24,5	100
20	0,50	-0,20 to +0,50	2,30	1,5	0,05 to 0,25	83,0	37,7	165



EN3056
EN3057
EN3058

> Double Row
> Full Complement

Designation

EN3056 A 10 P

Protection
- E: Sealed
- P: Shielded (CRES)

Diameter Code

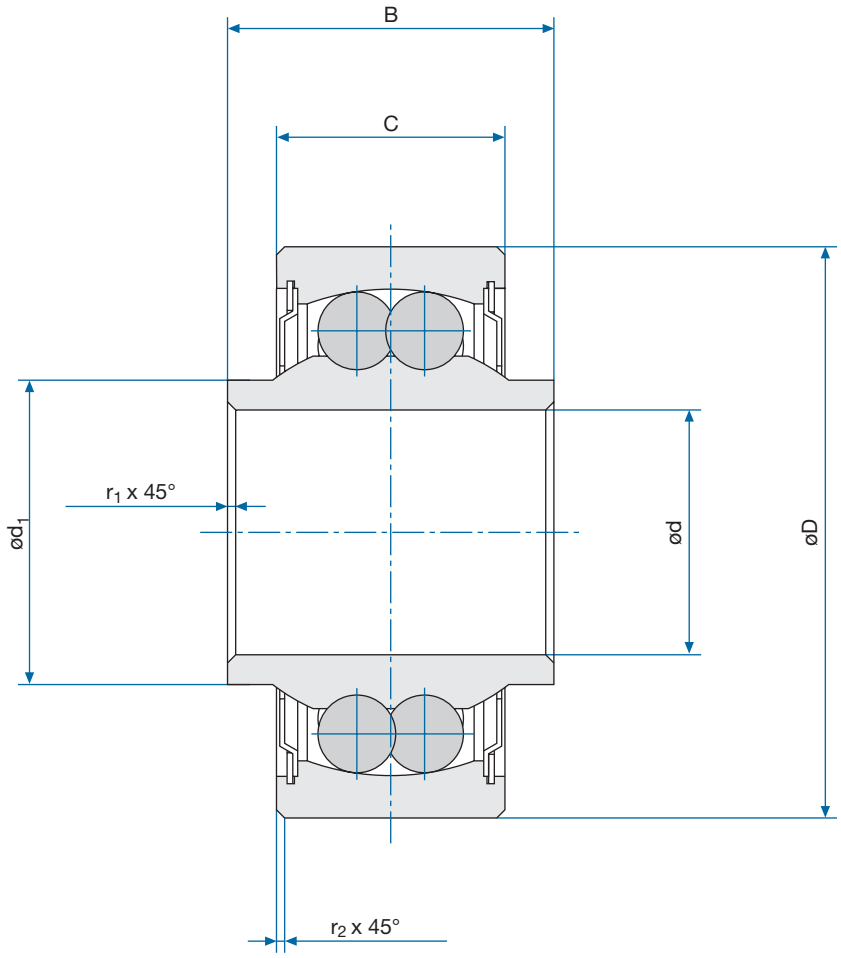
Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322

Number of EN Standard

Series	Material
EN3056	EN2031 / 1.3505.9 / AISI E52100
EN3057	EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore
EN3058	EN2030 / 1.3544.9 / AISI 440 C

Technical Specification: EN3280

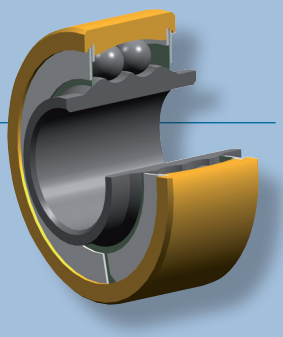
Schematic drawing



Specifications

Diameter Code	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	C	Δ_{Cmp}	d_1	r_1 x 45° +0,38	r_2 x 45° +0,38
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,012	19,745	-0,012	12,700	-0,12	9,956	-0,12	7,700	0,12	0,55
04	6,350	-0,012	22,895	-0,012	17,449	-0,12	11,785	-0,12	10,922	0,12	0,81
05	7,937	-0,012	31,750	-0,012	20,624	-0,12	16,662	-0,12	13,081	0,38	0,81
06	9,525	-0,012	36,512	-0,012	23,798	-0,12	19,050	-0,12	14,326	0,38	0,81
08	12,700	-0,012	42,862	-0,012	25,400	-0,12	20,624	-0,12	19,650	0,38	1,11
10	15,875	-0,012	49,212	-0,012	26,575	-0,12	23,790	-0,12	22,072	0,38	1,11

Diameter Code	Starting Torque max. ABS0134	Starting Torque max. ABS0345	Radial Play Code N	Radial Play Code R	Axial Play max.	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
03	0,60	0,9	0 to 0,025	0,005 to 0,013	0,140	6,32	0,89	18
04	0,67	1,0	0 to 0,025	0,005 to 0,013	0,140	7,92	1,33	27
05	0,87	1,3	0 to 0,025	0,005 to 0,013	0,152	16,64	2,67	73
06	1,07	1,6	0 to 0,025	0,005 to 0,013	0,152	22,69	3,56	109
08	1,53	2,3	0 to 0,025	0,005 to 0,013	0,152	31,87	4,45	163
10	2,00	3,0	0 to 0,025	0,005 to 0,013	0,178	40,03	5,78	240



ABS0134
ABS0345

- > Self Aligning
- > Double Row
- > Full Complement
- > Dimensions According to MS 27 643

Designation

ABS0134 - 03 N

Radial Play
- N: Normal
- R: Reduced

Diameter Code

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Shields: CRES
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949 / DAN446

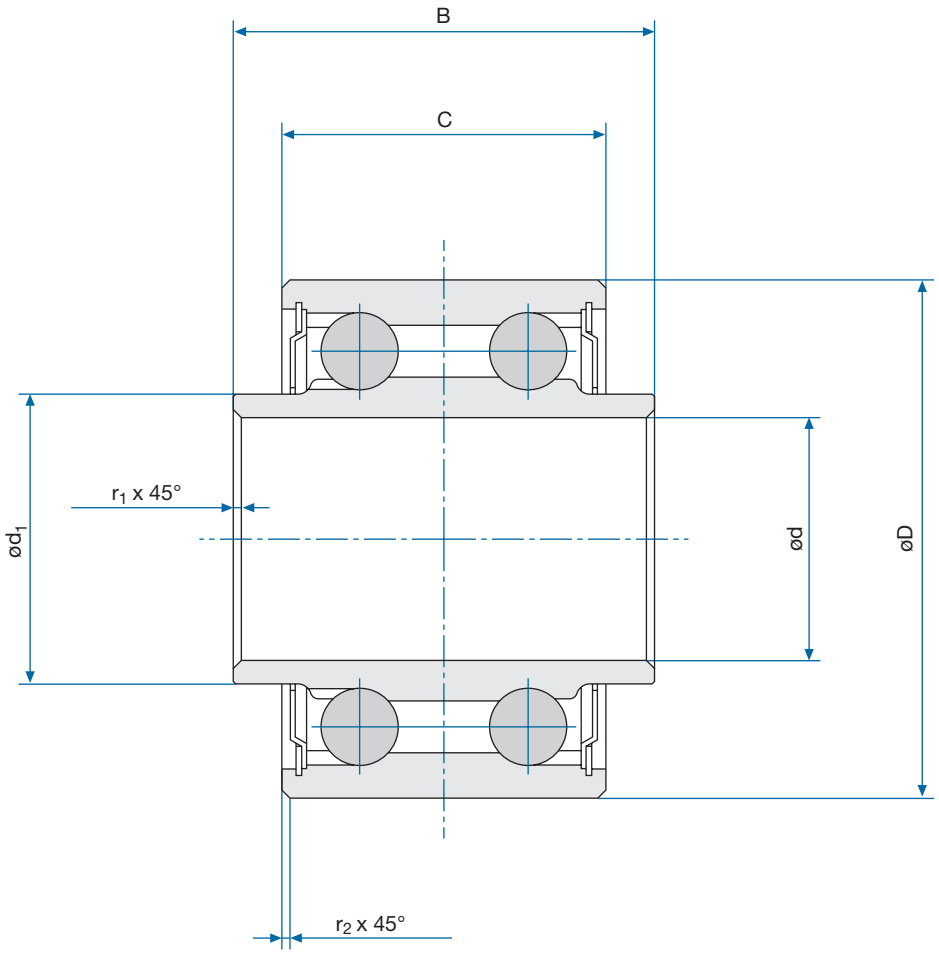
ABS0345 N 03

Diameter Code

Radial Play
- N: Normal
- R: Reduced

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Sealed Type: Seals (PTFE); Seal Retainers (CRES)
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949 / DAN446

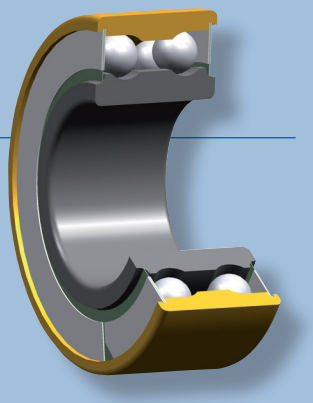
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d_1	r_1 x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,013	19,746	-0,013	12,573	-0,127	12,014	-0,127	7,67	0,13	+0,38
04	6,350	-0,013	22,896	-0,013	15,748	-0,127	12,471	-0,127	10,41	0,13	+0,38
05	7,938	-0,013	31,750	-0,013	18,923	-0,127	17,450	-0,127	11,91	0,38	+0,38
06	9,525	-0,013	36,513	-0,013	22,098	-0,127	20,168	-0,127	14,00	0,38	+0,38
08	12,700	-0,013	42,863	-0,013	23,673	-0,127	21,742	-0,127	18,67	0,38	+0,38
10	15,875	-0,013	49,213	-0,013	25,273	-0,127	23,368	-0,127	22,61	0,38	+0,38

Diameter Code	r_2 x 45°	Tol.	Starting Torque max. ABS0346	Starting Torque max. ABS0135	Radial Play Code N	Axial Play max.	Static Radial Limit Load	Static Axial Limit Load	Weight
	[mm]	[mm]	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[kN]	[g]
03	0,46	+0,38	0,50	0,33	0,010 to 0,025	0,127	13,12	7,56	18
04	0,81	+0,38	0,65	0,43	0,010 to 0,025	0,127	23,89	8,01	27
05	0,81	+0,38	0,96	0,64	0,010 to 0,025	0,152	48,93	17,79	77
06	0,81	+0,38	1,32	0,88	0,010 to 0,025	0,152	70,10	23,58	118
08	1,12	+0,38	1,68	1,12	0,010 to 0,025	0,178	104,97	34,70	172
10	1,12	+0,38	2,04	1,36	0,010 to 0,025	0,178	126,33	41,81	240



ABS0135
ABS0346

- Double Row
- Full Complement
- Dimensions According to MS 27 644

Designation

ABS0135 - 03 N

Radial / Axial Play
- N: Radial Play
- Non: Axial Play

Diameter Code

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Shields: CRES
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949

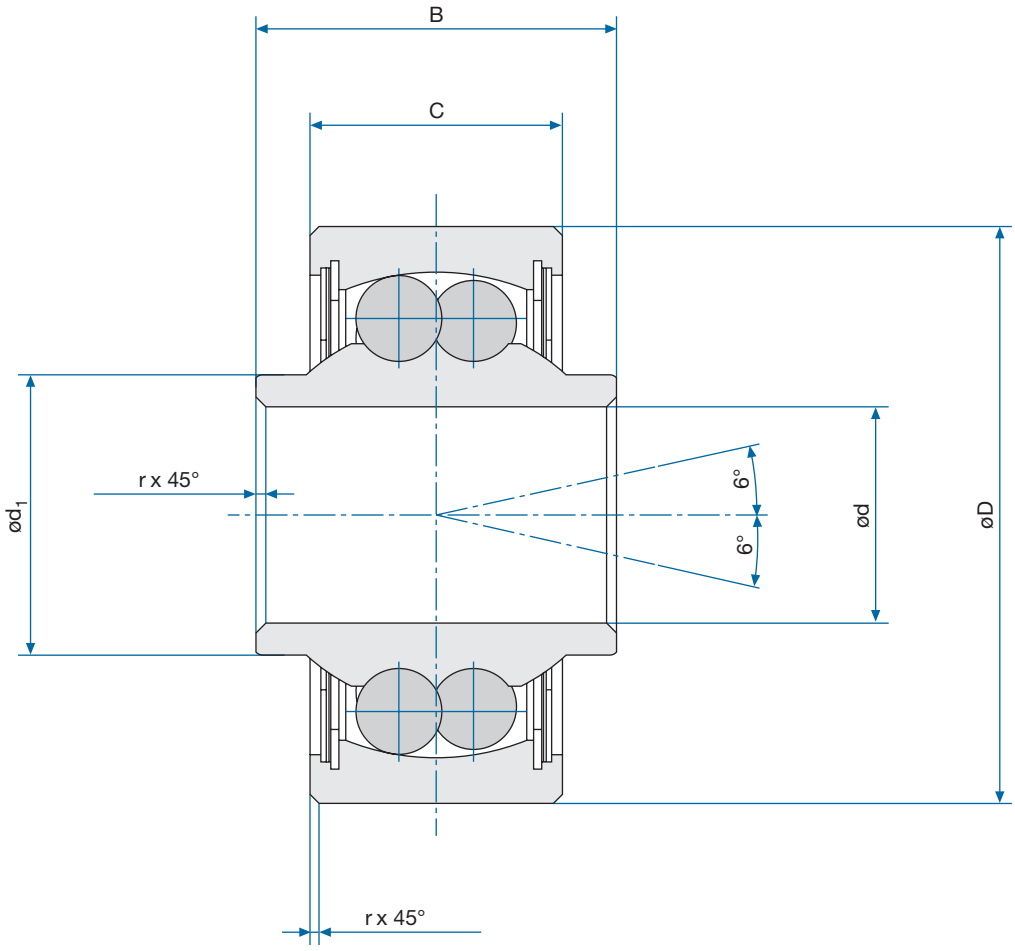
ABS0346 N 03

Diameter Code

Radial / Axial Play
- N: Radial Play
- Non: Axial Play

Number of ABS Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Sealed Type: Seals (PTFE); Seal Retainers (CRES)
- Lubrication: NATO G 395 / MIL-PRF-81 322
- Technical Specification: SAE AS7949

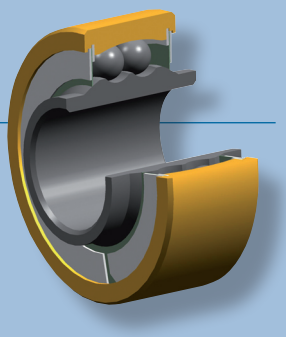
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1	r x 45°	Tol
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,013	16,0	-0,008	12,0	-0,13	8,0	-0,13	7,60	0,13	+0,38
04	6,350	-0,013	19,0	-0,009	14,0	-0,13	10,0	-0,13	8,60	0,13	+0,38
05	7,938	-0,013	24,0	-0,009	15,0	-0,13	10,0	-0,13	11,10	0,38	+0,38
06	9,525	-0,013	30,0	-0,009	20,0	-0,13	14,0	-0,13	13,60	0,38	+0,38
08	12,700	-0,013	32,0	-0,011	20,0	-0,13	14,0	-0,13	15,40	0,38	+0,38
10	15,875	-0,013	35,0	-0,011	20,0	-0,13	14,0	-0,13	18,50	0,38	+0,38
11	17,463	-0,013	40,0	-0,011	22,0	-0,13	16,0	-0,13	21,2	0,38	+0,38
12	19,050	-0,013	47,0	-0,011	24,0	-0,13	18,0	-0,13	23,6	0,38	+0,38

Diameter Code	Starting Torque max.	Radial Play Code N	Radial Play Code R	Axial Play max.	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[kN]	[g]
03	0,80	0,002 to 0,013	0,002 to 0,006	0,070	3,92	1,22	9
04	0,90	0,002 to 0,013	0,002 to 0,006	0,070	5,88	1,83	15
05	1,30	0,002 to 0,013	0,002 to 0,007	0,080	9,80	3,05	27
06	1,60	0,002 to 0,013	0,002 to 0,007	0,080	14,11	4,44	57
08	2,00	0,003 to 0,018	0,003 to 0,009	0,080	16,66	5,20	62
10	2,50	0,003 to 0,018	0,003 to 0,009	0,080	19,01	5,94	75
11	3,00	0,003 to 0,018	0,003 to 0,009	0,080	24,5	7,70	110
12	4,00	0,003 to 0,018	0,003 to 0,009	0,080	34,3	10,7	170



Designation

ABS0363 N 06

Diameter Code

Radial Play

- **N:** Normal
- **R:** Reduced

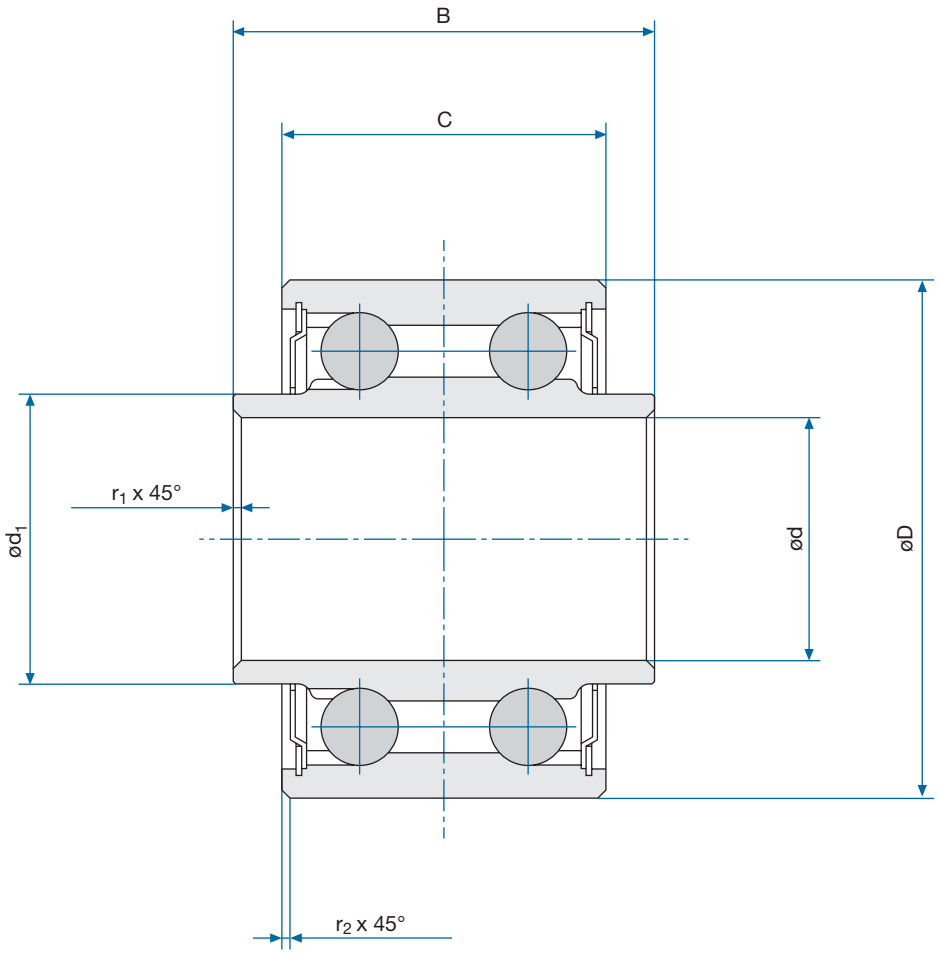
Number of ABS Standard

- **Sealed Type:** Seals (PTFE); Seal Retainers (CRES)
- **Material:** EN2030 / 1.3544.9 / AISI 440 C
  Cadmium Plated Except Bore
- **Lubrication:** NATO G 395 / MIL-PRF-81 322
- **Technical Specification:** SAE AS57949 / DAN446

ABS0363

- > Self Aligning
- > Full Complement
- > Double Row

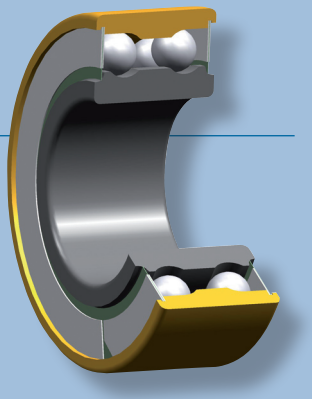
Schematic drawing



Specifications

Diameter Code	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	C	Δ_{Cmp}	d_1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,012	19,745	-0,012	12,573	-0,12	12,014	-0,12	7,670
04	6,350	-0,012	22,895	-0,012	15,748	-0,12	12,471	-0,12	10,414
05	7,937	-0,012	31,750	-0,012	18,923	-0,12	17,449	-0,12	11,912
06	9,525	-0,012	36,512	-0,012	22,098	-0,12	20,167	-0,12	13,995
08	12,700	-0,012	42,862	-0,012	23,672	-0,12	21,742	-0,12	18,670
10	15,875	-0,012	49,212	-0,012	25,273	-0,12	23,368	-0,12	22,606

Diameter Code	r_1 x 45°	r_2 x 45°	Radial Play	Axial Play max.	Static Radial Limit Load	Static Axial Limit Load	Weight
	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
03	0,12 to 0,50	0,46 to 0,83	0,010 to 0,025	0,127	13,20	6,80	18
04	0,12 to 0,50	0,81 to 1,19	0,010 to 0,025	0,152	24,00	7,21	27
05	0,38 to 0,76	0,81 to 1,19	0,010 to 0,025	0,152	49,00	16,01	77
06	0,38 to 0,76	0,81 to 1,19	0,010 to 0,025	0,152	69,50	21,21	118
08	0,38 to 0,76	1,11 to 1,49	0,010 to 0,025	0,178	104,00	31,23	172
10	0,38 to 0,76	1,11 to 1,49	0,010 to 0,025	0,178	127,00	37,63	240



DP
NSA8105
NSA8115

- Double Row
- Full Complement
- Dimensions According to MS 27 644

Designation

NSA8115 03

Diameter Code

Number of NSA Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

NSA 8105: Seals (PTFE); Seal Retainers (CRES)

NSA 8115: Shields (CRES)

Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949

DP P 3 G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

Technical Specification: SAE AS7949

Grease Type

G: Grease NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Diameter Code

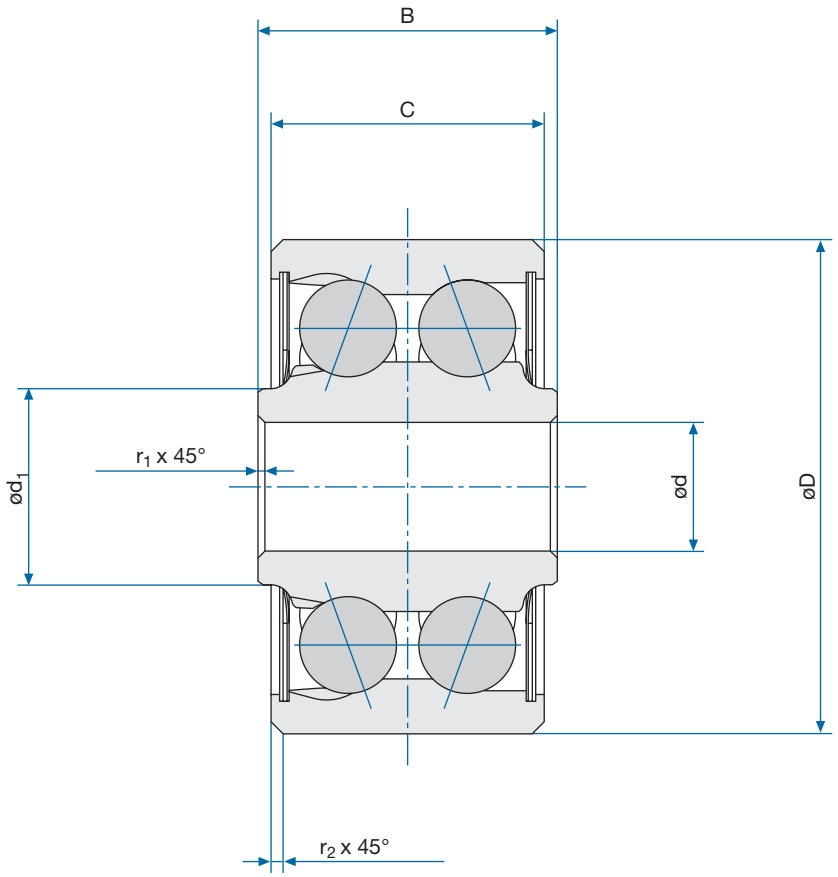
Protection

P: Sealed

Non: Shielded (CRES)

Number of Standard

Schematic drawing



Specifications

Type	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
DPP 3 W	4,826	-0,013	19,746	-0,013	12,573	-0,13	12,014	-0,13	7,670
DPP 4 W	6,350	-0,013	22,895	-0,013	15,748	-0,13	12,471	-0,13	10,414
DPP 5 W	7,937	-0,013	31,750	-0,013	18,923	-0,13	17,449	-0,13	11,912
DPP 6 W	9,525	-0,013	36,512	-0,013	22,098	-0,13	20,167	-0,13	14,50
DPP 8 W	12,700	-0,013	42,862	-0,013	23,672	-0,13	21,742	-0,13	18,67

Type	r1 x 45°	Tol.	r2 x 45°	Tol.	Radial Play	Axial Play max.	Static Radial Limit Load	Weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[g]
DPP 3 W	0,12	+0,38	0,46	+0,38	0,010 to 0,025	0,127	13,12	18
DPP 4 W	0,12	+0,38	0,81	+0,38	0,010 to 0,025	0,152	23,98	27
DPP 5 W	0,38	+0,38	0,81	+0,38	0,010 to 0,025	0,152	48,93	77
DPP 6 W	0,38	+0,38	0,81	+0,38	0,010 to 0,025	0,152	69,50	118
DPP 8 W	0,38	+0,38	1,11	+0,38	0,010 to 0,025	0,178	104,00	172

Designation

DP P 3 W G 1.3544.9

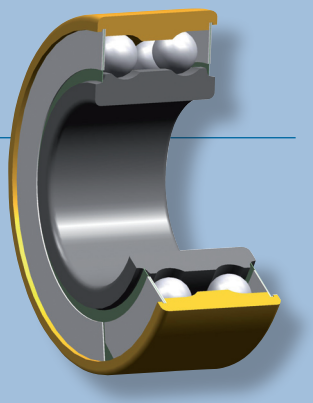
Material
- Non: EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore
- 1.3544.9: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Technical Specification: SAE AS7949

Grease Type
- G: NATO G 354 / MIL-PRF-23 827
- Non: NATO G 395 / MIL-G-81 322

Diameter Code

Protection
- P: Sealed
- Non: Shielded (CRES)

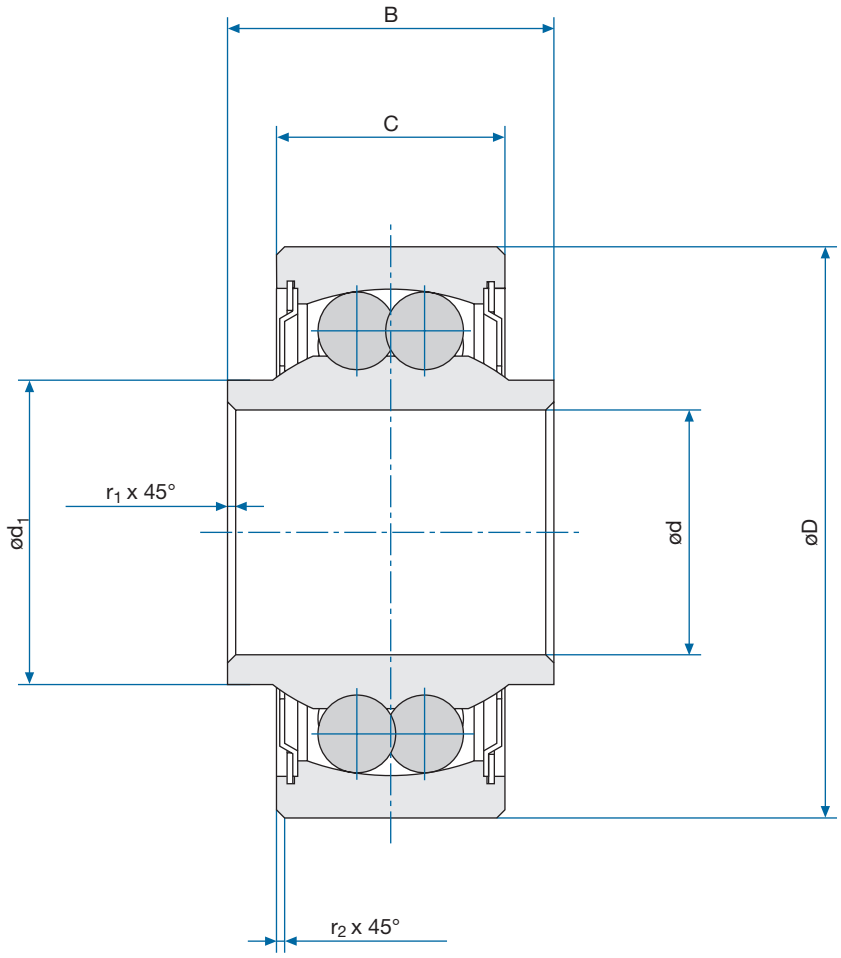
Number of Standard
Contact Angle: 20°



DP...W

- > Double Row
- > Angular Contact
- > Full Complement

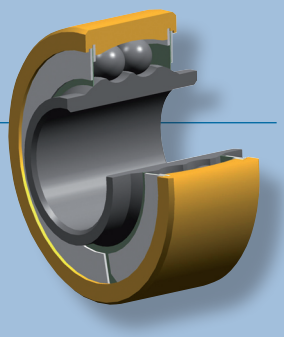
Schematic drawing



Specifications

Diameter Code	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	C	Δ_{Cmp}	d_1	r_1 x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,012	19,745	-0,012	12,700	-0,12	9,956	-0,12	7,700	0,12	+0,38
04	6,350	-0,012	22,895	-0,012	17,449	-0,12	11,785	-0,12	10,922	0,12	+0,38
05	7,937	-0,012	31,750	-0,012	20,624	-0,12	16,662	-0,12	13,081	0,38	+0,38
06	9,525	-0,012	36,512	-0,012	23,798	-0,12	19,050	-0,12	14,326	0,38	+0,38
08	12,700	-0,012	42,862	-0,012	25,400	-0,12	20,624	-0,12	19,650	0,38	+0,38
10	15,875	-0,012	49,212	-0,012	26,575	-0,12	23,799	-0,12	22,072	0,38	+0,38

Diameter Code	r_2 x 45°	Tol.	Radial Play Code N	Radial Play Code R	Axial Play max.	Static Radial Limit Load	Static Axial Limit Load	Weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
03	0,55	+0,38	0 to 0,025	0,005 to 0,013	0,127	6,32	0,89	18
04	0,81	+0,38	0 to 0,025	0,005 to 0,013	0,152	7,92	1,33	27
05	0,81	+0,38	0 to 0,025	0,005 to 0,013	0,152	16,64	2,67	73
06	0,81	+0,38	0 to 0,025	0,005 to 0,013	0,152	22,69	3,56	109
08	1,11	+0,38	0 to 0,025	0,005 to 0,013	0,178	31,87	4,45	163
10	1,11	+0,38	0 to 0,025	0,005 to 0,013	0,178	40,03	5,78	240



DS
NSA8104
NSA8114

- Self Aligning
- Double Row
- Full Complement
- Dimensions According to MS 27 643

Designation

NSA8114 03

Diameter Code

Number of NSA Standard

Material: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore

NSA 8104: Seals (PTFE); Seal Retainers (CRES)

NSA 8114: Shields (CRES)

Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949

DS P 3 R G 1.3544.9

Material

Non: EN2031 / 1.3505.9 / AISI E52100
Cadmium Plated Except Bore

1.3544.9: EN2030 / 1.3544.9 / AISI 440 C
Cadmium Plated Except Bore; Bright Passivated

Technical Specification: SAE AS7949

Grease Type

G: NATO G 354 / MIL-PRF-23 827

Non: NATO G 395 / MIL-PRF-81 322

Radial Play

R: Reduced

Non: Normal

Diameter Code

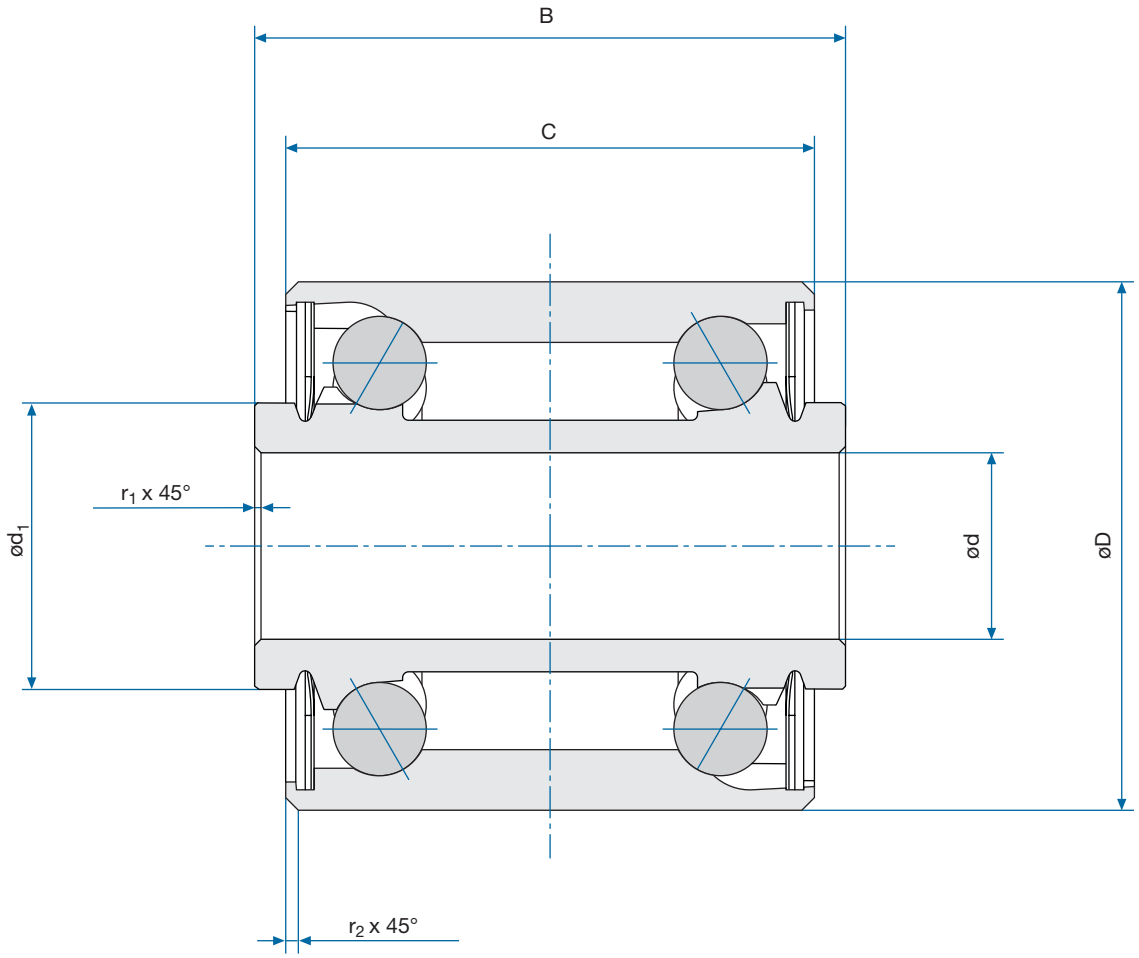
Protection

P: Sealed

Non: Shielded (CRES)

Number of Standard

Schematic drawing



Specifications

Type	d	Δ_{dmp}	D	Δ_{Dmp}	B	Δ_{Bmp}	C	Δ_{Cmp}	d_1	r_1 x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
DW4 K2	6,350	-0,012	15,875	-0,012	14,274	-0,12	12,70	-0,12	8,80	0,12	+0,38
DW4 K	6,350	-0,012	19,050	-0,012	22,225	-0,12	19,05	-0,12	11,10	0,12	+0,38
DW4	6,350	-0,012	19,050	-0,012	22,225	-0,12	19,05	-0,12	11,10	0,12	+0,38
DW5	7,937	-0,012	22,225	-0,012	23,825	-0,12	20,65	-0,12	12,00	0,12	+0,38
DW6	9,525	-0,012	26,987	-0,012	30,175	-0,12	27,00	-0,12	14,65	0,12	+0,38
DW8	12,700	-0,012	36,512	-0,012	38,100	-0,12	34,925	-0,12	18,20	0,12	+0,38

Type	r_2 x 45°	Tol.	Contact Angle	Radial Play No Code	Radial Play Code R	Static Radial Limit Load	Weight
	[mm]	[mm]		[mm]	[mm]	[kN]	[g]
DW4 K2	0,41	+0,38	20°	0 to 0,025	0,005 to 0,013	6,23	11
DW4 K	0,41	+0,38	25°	0 to 0,025	0,005 to 0,013	12,01	18
DW4	0,41	+0,38	26°	0 to 0,025	0,005 to 0,013	16,60	27
DW5	0,41	+0,38	25°	0 to 0,025	0,005 to 0,013	22,86	32
DW6	0,41	+0,38	20°	0 to 0,025	0,005 to 0,013	37,54	54
DW8	0,81	+0,38	20°	0 to 0,025	0,005 to 0,013	69,03	132

Designation

G DW 5 R L 1.3544.9

Material

Non	1.3544.9
EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore	EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
Sealed Type: Seals (PTFE); Seal Retainers (CRES);	**Sealed Type:** Seals (PTFE); Seal Retainers (CRES);
Technical Specification: SAE AS7949	

Grease Type

- **L:** NATO G 354 / MIL-PRF-23 827
- **Non:** NATO G 395 / MIL-PRF-81 322

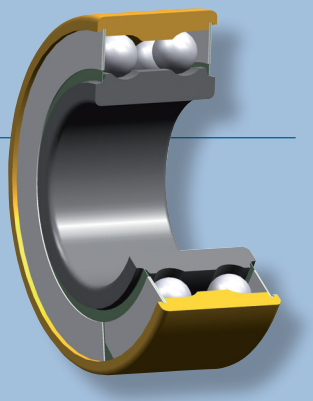
Radial Play

- **R:** Reduced
- **Non:** Normal

Diameter Code

Number of Standard DW4K, DW4K2 are with Cage

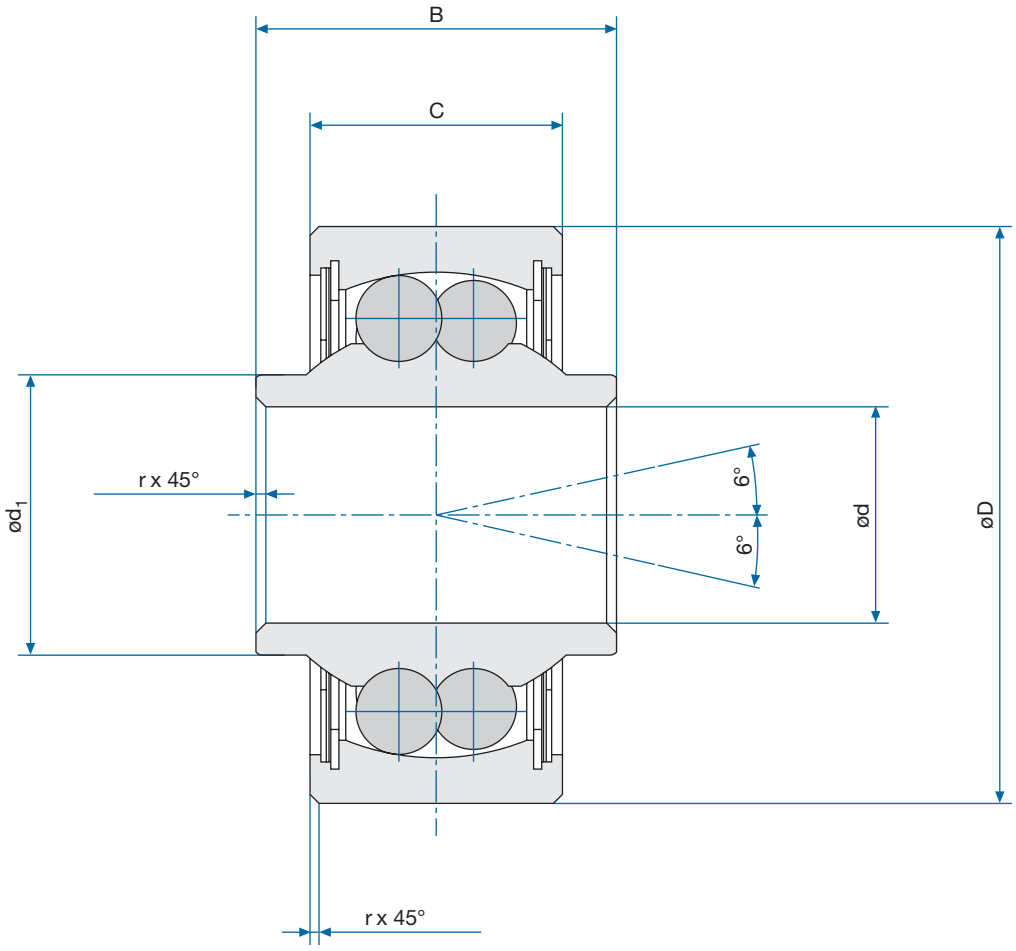
With Lubrication Grooves and Holes



DW

- > Extra Wide
- > Double Row
- > Angular Contact
- > Dimensions According to MS 27 647

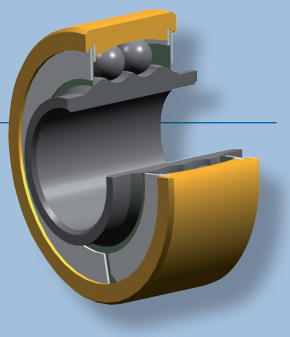
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
03	4,826	-0,013	16,0	-0,010 to +0,002	12,0	-0,10	8,0	-0,10	7,60	0,50	-0,10 to +0,3
04	6,350	-0,013	19,0	-0,011 to +0,002	14,0	-0,10	10,0	-0,10	8,60	0,50	-0,10 to +0,3
05	7,937	-0,013	24,0	-0,011 to +0,002	15,0	-0,10	10,0	-0,10	11,10	0,50	-0,10 to +0,3
06	9,525	-0,013	30,0	-0,011 to +0,002	20,0	-0,10	14,0	-0,10	13,60	0,50	-0,10 to +0,3
08	12,700	-0,013	32,0	-0,014 to +0,003	20,0	-0,10	14,0	-0,10	15,40	0,50	-0,10 to +0,3
10	15,875	-0,013	35,0	-0,014 to +0,003	20,0	-0,10	14,0	-0,10	18,50	0,50	-0,10 to +0,3

Diameter Code	Starting Torque max.	Swivelling Torque max.	Radial Play	Axial Play max.	Static Radial Limit Load	Static Axial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[kN]	[kN]	[g]
03	0,55	0,1	0,002 to 0,006	0,070	3,90	1,20	9
04	0,60	0,1	0,002 to 0,006	0,070	5,90	1,80	15
05	1,30	0,1	0,002 to 0,007	0,080	9,80	3,00	27
06	1,60	0,1	0,002 to 0,007	0,080	14,20	4,50	57
08	2,00	0,1	0,003 to 0,009	0,080	16,70	5,20	62
10	2,50	0,1	0,003 to 0,009	0,080	19,00	5,90	75



Designation

NSA8124 C 04

Diameter Code

Material Code

Non: EN2031 / AISI E52100
Cadmium Plated Except Bore

C: EN2030 / AISI 440 C
Cadmium Plated Except Bore

Number of NSA Standard

Sealed Type

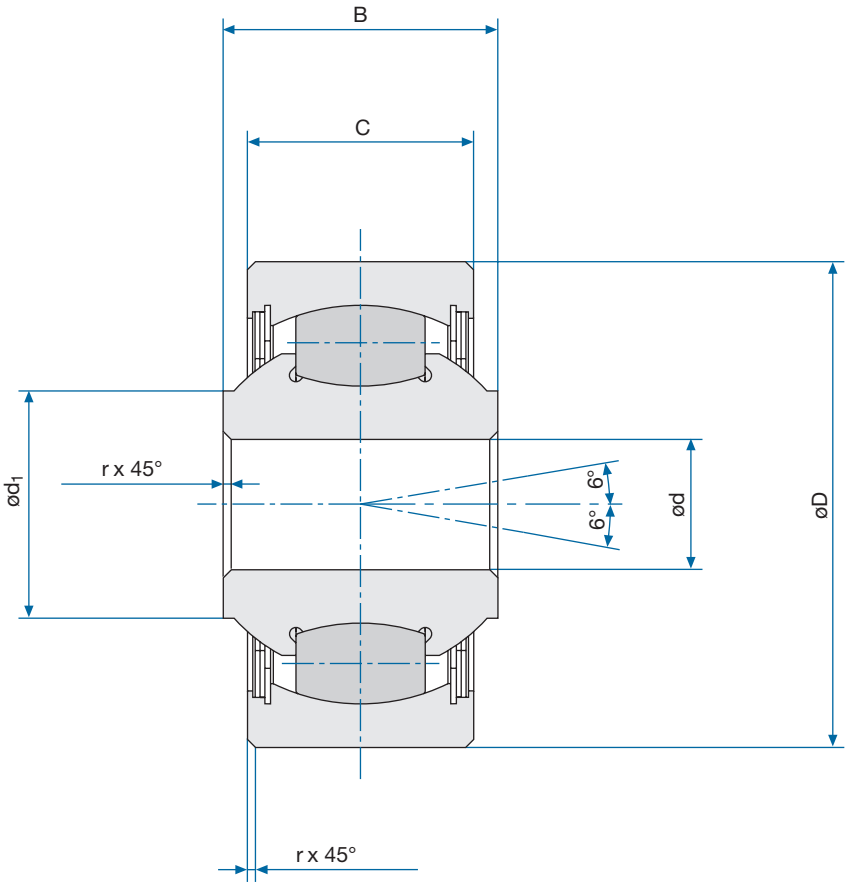
Lubrication: NATO G 354 / MIL-PRF-23 827

Technical Specification: SAE AS7949

NSA8124

- > Self Aligning
- > Full Complement
- > Double Row

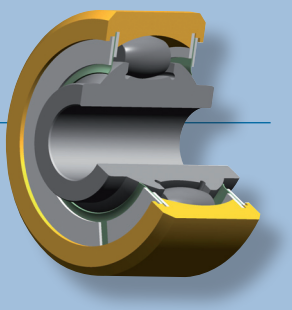
Schematic drawing



Specifications

Type	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
06P	6,0	-0,008	24,0	-0,009	12,0	-0,12	8,0	-0,12	11,9
08P	8,0	-0,008	26,0	-0,009	15,0	-0,12	10,0	-0,12	12,3
08P1	8,0	-0,008	30,0	-0,011	15,0	-0,12	10,0	-0,12	14,3
10P	10,0	-0,008	35,0	-0,011	16,0	-0,12	12,0	-0,12	16,9
10P1	10,0	-0,008	35,0	-0,011	20,0	-0,12	12,0	-0,12	16,9
12P	12,0	-0,008	40,0	-0,011	20,0	-0,12	13,0	-0,12	19,9
15P	15,0	-0,008	47,0	-0,011	24,0	-0,12	14,0	-0,12	23,9
17P	17,0	-0,008	47,0	-0,011	24,0	-0,12	15,0	-0,12	25,9

Type	r x 45°	Tol.	Starting Torque max.	Radial Play	Static Radial Limit Load	Weight
	[mm]	[mm]	[Ncm]	[mm]	[mm]	[g]
06P	0,50	-0,20 to +0,30	0,60	0,002 to 0,006	15,9	21
08P	0,50	-0,20 to +0,30	0,80	0,002 to 0,007	22,8	37
08P1	0,50	-0,20 to +0,30	1,20	0,002 to 0,007	27,8	49
10P	0,50	-0,20 to +0,30	1,60	0,002 to 0,007	32,9	70
10P1	0,50	-0,20 to +0,30	1,60	0,002 to 0,007	32,9	72
12P	0,50	-0,20 to +0,30	2,00	0,003 to 0,009	45,0	108
15P	0,50	-0,20 to +0,30	2,50	0,003 to 0,009	54,2	153
17P	0,50	-0,20 to +0,30	3,00	0,003 to 0,009	69,4	163



Designation

EN3053 A 12 P 1

Protection
Shielded (CRES)

Diameter Code

Grease Type
A: NATO G 354 / MIL-PRF-23 827
B: NATO G 395 / MIL-PRF-81 322

Number of EN Standard

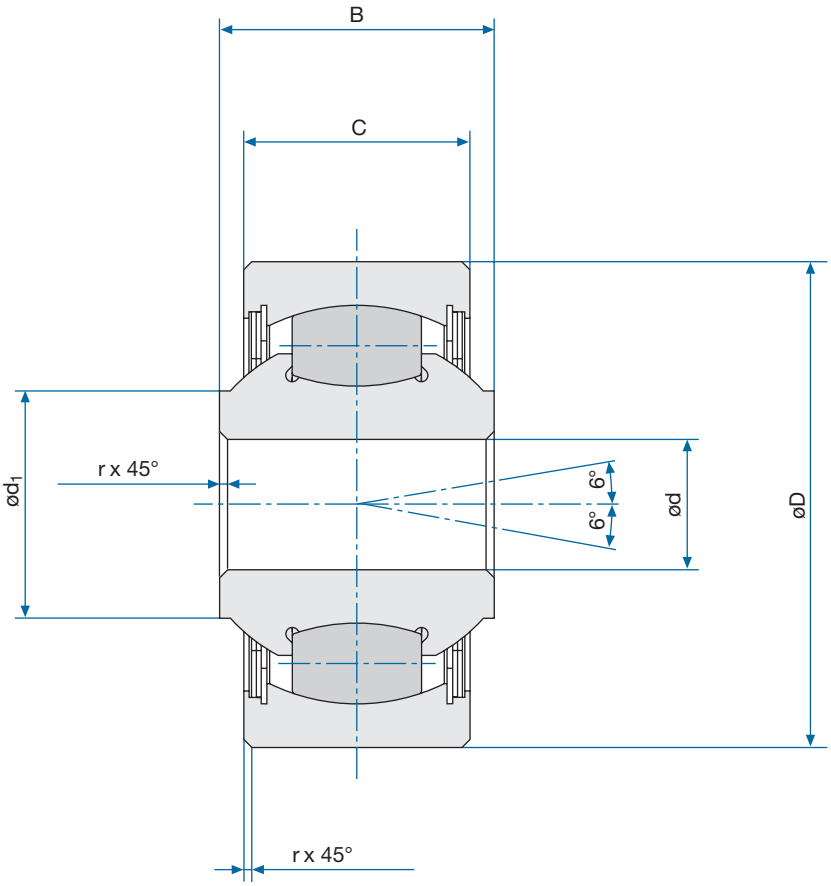
Series	Material
EN3053	EN2031 / 1.3505.9 / AISI E52100
EN3054	EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore
EN3055	EN2030 / 1.3544.9 / AISI 440 C

Technical Specification: EN3280

EN3053
EN3054
EN3055

- > Self Aligning
- > Single Row
- > Full Complement
- > Spherical Rollers

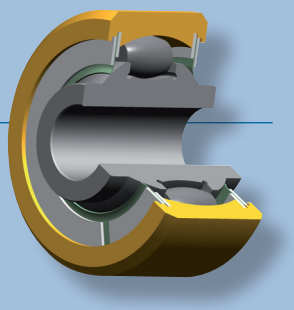
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d_1	r x 45°	Tol.
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
08	8,0	-0,008	30,0	-0,009	17,0	-0,12	14,0	-0,12	14,0	0,50	-0,20 to +0,30
10	10,0	-0,008	35,0	-0,011	21,0	-0,12	17,0	-0,12	15,7	0,50	-0,20 to +0,30
12	12,0	-0,008	37,0	-0,011	21,0	-0,12	17,0	-0,12	18,0	0,50	-0,20 to +0,30
15	15,0	-0,008	42,0	-0,011	21,0	-0,12	17,0	-0,12	21,8	0,50	-0,20 to +0,30
17	17,0	-0,008	47,0	-0,011	23,0	-0,12	19,0	-0,12	25,1	0,50	-0,20 to +0,30
20	20,0	-0,010	52,0	-0,013	26,0	-0,12	21,0	-0,12	28,0	0,50	-0,20 to +0,50
25	25,0	-0,010	62,0	-0,013	29,0	-0,12	24,0	-0,12	34,5	0,50	-0,20 to +0,50
30	30,0	-0,010	72,0	-0,013	34,0	-0,12	27,0	-0,12	41,3	0,50	-0,20 to +0,50

Diameter Code	Starting Torque Code E	Torque Code P	Radial Play Code R	Radial Play Code K	Axial Play max. Code R	Axial Play max. Code K	Static Axial Limit Load	Static Radial Limit Load	Weight
	[Ncm]	[Ncm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[g]
08	1,10	0,7	0,002 to 0,007	0,010 to 0,020	0,19	0,23	11,1	36,70	58
10	1,55	1,0	0,002 to 0,007	0,010 to 0,020	0,19	0,23	16,3	53,90	91
12	2,30	1,5	0,003 to 0,009	0,010 to 0,020	0,20	0,24	18,2	60,20	106
15	3,00	2,0	0,003 to 0,009	0,010 to 0,020	0,20	0,24	21,1	69,60	132
17	3,80	2,5	0,003 to 0,009	0,010 to 0,020	0,20	0,24	28,6	94,50	186
20	4,50	3,0	0,003 to 0,010	0,010 to 0,020	0,22	0,25	34,3	113,20	246
25	5,20	3,5	0,003 to 0,010	0,015 to 0,025	0,24	0,29	49,0	161,70	397
30	6,00	4,0	0,003 to 0,010	0,015 to 0,025	0,24	0,29	65,3	215,60	610



Designation

EN3290 A K 20 E

Protection
- E: Sealed
- P: Shielded (CRES)

Diameter Code

Radial / Axial Play
- K: Normal
- R: Reduced

Grease Type
- A: NATO G 354 / MIL-PRF-23 827
- B: NATO G 395 / MIL-PRF-81 322

Number of EN Standard

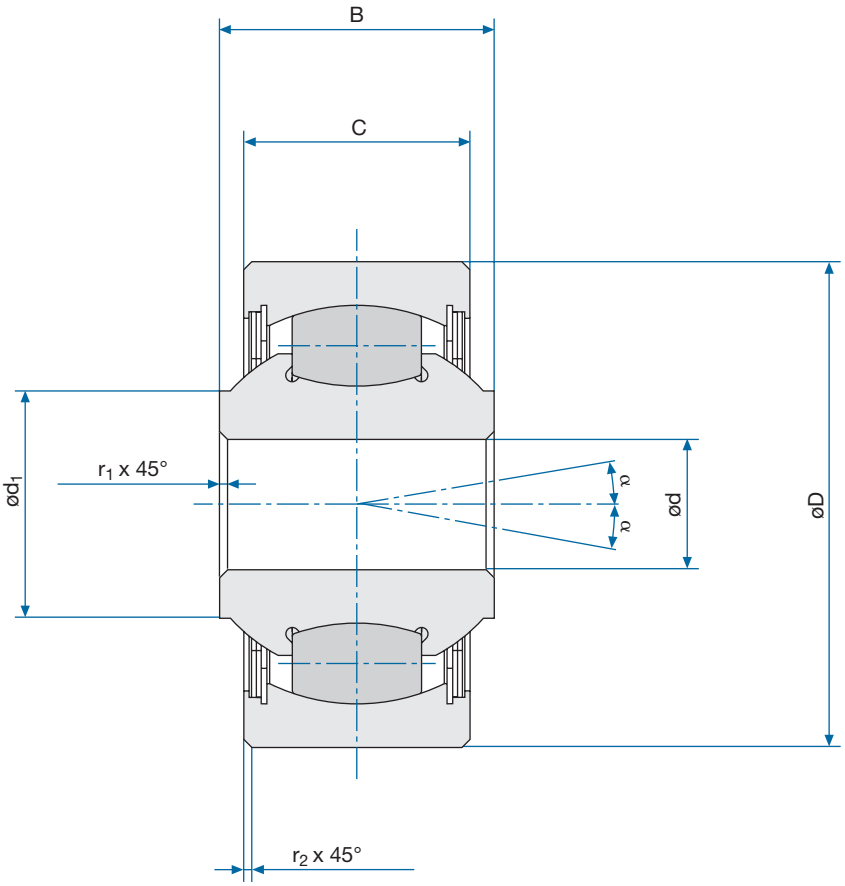
Series	Material
EN3290	EN2031 / 1.3505.9 / AISI E52100
EN3291	EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore
EN3292	EN2030 / 1.3544.9 / AISI 440 C

Technical Specification: EN3280 / EN2063

EN3290
EN3291
EN3292

- > Self Aligning
- > Full Complement
- > Single Row
- > Spherical Rollers

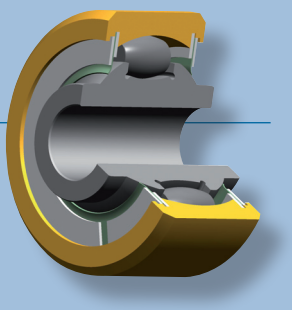
Schematic drawing



Specifications

Diameter Code	d	Δ dmp	D	Δ Dmp	B	Δ Bmp	C	Δ Cmp	d1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
04	6,350	-0,012	22,895	-0,012	15,875	-0,12	11,785	-0,12	10,261
05	7,937	-0,012	31,750	-0,012	20,624	-0,12	16,662	-0,12	13,081
06	9,525	-0,012	36,512	-0,012	23,799	-0,12	19,050	-0,12	14,325
08	12,700	-0,012	42,862	-0,012	25,400	-0,12	20,624	-0,12	19,685
10	15,875	-0,012	49,212	-0,012	28,575	-0,12	23,799	-0,12	22,072
12	19,050	-0,012	60,325	-0,012	33,324	-0,12	28,575	-0,12	29,210

Type	r1 x 45° +0,38	r2 x 45° +0,38	α	Starting Torque max. Sealed	Radial Play max.	Static Radial Limit Load	Weight
	[mm]	[mm]		[Ncm]	[mm]	[kN]	[g]
04	0,12	0,81	10°	1,0	0,025	13,40	27
05	0,38	0,81	10°	1,1	0,025	32,50	73
06	0,38	0,81	10°	1,5	0,025	42,50	109
08	0,38	1,11	10°	3,0	0,025	56,00	163
10	0,38	1,11	10°	4,5	0,025	78,00	250
12	0,38	1,11	10°	5,2	0,025	120,00	476



Designation

DSR P 4 G 1.3544.9

Material
- Non: EN2031 / 1.3505.9 / AISI E52100 Cadmium Plated Except Bore
- 1.3544.9: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Technical Specification: SAE AS7949

Grease Type
- G: NATO G 354 / MIL-PRF-23 827
- Non: NATO G 395 / MIL-PRF-81 322

Diameter Code

Protection
- P: Sealed
- Non: Shielded (CRES)

Number of Standard

NSA8110 - 04

Diameter Code

Number of NSA Standard
- Material: EN2030 / 1.3544.9 / AISI 440 C Cadmium Plated Except Bore
- Sealed Type: Seals (PTFE); Seal Retainers (CRES)
- Lubrication: NATO G 354 / MIL-PRF-23 827
- Technical Specification: SAE AS7949

DSR

NSA8110

- > Self Aligning
- > Single Row
- > Spherical Rollers