

71901 ACE/P4AH

Angular contact ball bearings,
super-precision

Product details

[Tolerances,](#)

P4A, P4B, P4, PA9A, P2, D design,

E design, B design,

[direct oil-air lubrication](#)

Principles of bearing

selection and application

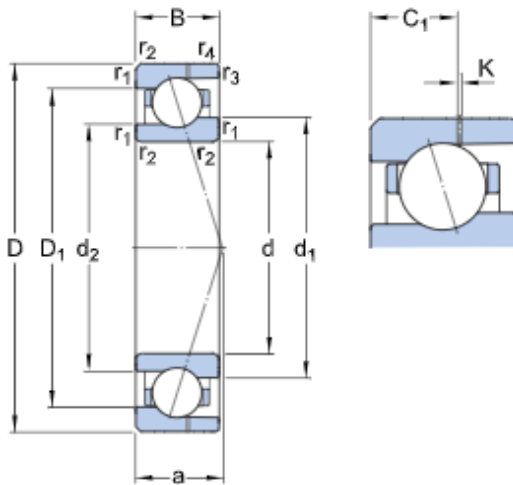
[Chamfer dimensions,](#)

[Seat tolerances for standard conditions,](#)

shafts, housings, shafts, housings,

[Initial grease fill](#)

Technical specification

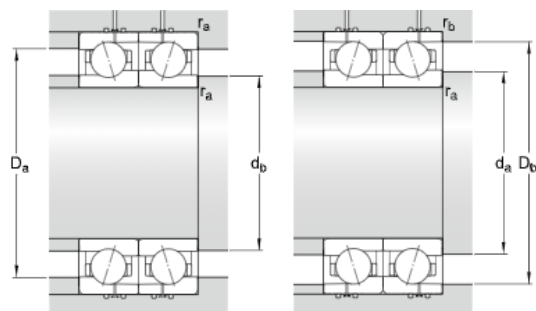


DIMENSIONS

d	12 mm
D	24 mm
B	6 mm
d ₁	16 mm
d ₂	15.26 mm
D ₁	19.95 mm
K	0.5 mm
C ₁	3.65 mm
r _{1,2}	min. 0.3 mm
r _{3,4}	min. 0.15 mm
a	7.7 mm

ABUTMENT DIMENSIONS

d _a	min. 14 mm
d _b	min. 14 mm



D_a	max. 22 mm
D_b	max. 23.2 mm
r_a	max. 0.3 mm
r_b	max. 0.15 mm
d_n	16.8 mm

CALCULATION DATA

Basic dynamic load rating	C	2.03 kN
Basic static load rating	C_0	0.865 kN
Fatigue load limit	P_u	0.036 kN
Attainable speed for grease lubrication		83000 r/min
Attainable speed for oil-air lubrication		123000 r/min
Contact angle	α	25 °
Ball diameter	D_w	3.175 mm
Number of balls	z	12
Reference grease quantity	G_{ref}	0.1 cm

PRELOAD AND STIFFNESS (BACK-TO-BACK, FACE-TO-FACE)

Preload class A	G_A	18 N
Static axial stiffness, preload class A		27 N/ μ m
Preload class B	G_B	55 N
Static axial stiffness, preload class B		41 N/ μ m
Preload class C	G_C	110 N
Static axial stiffness, preload class C		53 N/ μ m

CALCULATION FACTORS

Calculation factor	f	1.04
Calculation factor	f_1	0.99

Calculation factor	f_{2A}	1
Calculation factor	f_{2B}	1.04
Calculation factor	f_{2C}	1.07
Calculation factor	f_{HC}	1
Calculation factor	e	0.68
Calculation factor (single, tandem)	Y_2	0.87
Calculation factor (single, tandem)	Y_0	0.38
Calculation factor (single, tandem)	X_2	0.41
Calculation factor (back-to-back, face-to-face)	Y_1	0.92
Calculation factor (back-to-back, face-to-face)	Y_2	1.41
Calculation factor (back-to-back, face-to-face)	Y_0	0.76
Calculation factor (back-to-back, face-to-face)	X_2	0.67

MASS

Mass bearing	0.01 kg
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More information

Product details

[Designs and variants](#)[Markings on bearings and bearing sets](#)[Bearing data](#)[Preload, clearance, and stiffness](#)[Loads](#)[Attainable speeds](#)[Mounting](#)[Designation system](#)

Engineering information

[Principles of bearing selection and application](#)[General bearing knowledge](#)[Bearing selection process](#)[Bearing failure and how to prevent it](#)

Tools

[SimPro Quick](#)[SimPro Spindle](#)[Engineering Calculator](#)[LubeSelect for SKF greases](#)[Heater selection tool](#)

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