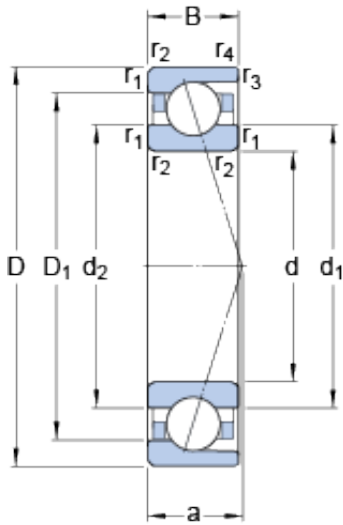




Off-the-shelf SKF shaft Co., Ltd



7010 CD/P4A Bearing 2D drawings and 3D CAD models

50 mm x 80 mm x 16 mm SKF 7010 CD/P4A TAC series for ball screw support

Bearing No. 7010 CD/P4A

Size	80x50x16 mm
Bore Diameter	80 mm
Outer Diameter	50 mm
Width	16 mm
d	50 mm
D	80 mm
B	16 mm
d ₁	59.2 mm
d ₂	59.2 mm
D ₁	70.8 mm
r _{1,2} - min.	1 mm
r _{3,4} - min.	0.3 mm
a	16.8 mm
d _a - min.	54.6 mm
d _b - min.	54.6 mm
D _a - max.	75.4 mm
D _b - max.	78 mm
r _a - max.	1 mm
r _b - max.	0.3 mm
d _n	61.2 mm
Basic dynamic load rating - C	29.6 kN
Basic static load rating - C ₀	24 kN
Fatigue load limit - P _u	1 kN
Limiting speed for grease	17000 r/min



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Lubrication	
Limiting speed for oil lubrication	28000 mm/min
Ball - D_w	9.525 mm
Ball - z	18
G_{ref}	3.6 cm ³
Calculation factor - f_0	15.4
Preload class A - G_A	110 N
Preload class B - G_B	220 N
Preload class C - G_C	440 N
Preload class D - G_D	880 N
Calculation factor - f	1.11
Calculation factor - f	1
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2D}	1.09
Calculation factor - f_{HC}	1
Preload class A	58 N/micron
Preload class B	79 N/micron
Preload class C	111 N/micron
Preload class D	161 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	0.26
Product Group	B04270
Enclosure	Open
Precision Class	ABEC 7 ISO P4



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Material - Ball	Steel
Number of Bearings	1 (Single)
Contact Angle	15 Degree
Preload	None
Raceway Style	1 Rib Outer Ring
Cage Material	Phenolic
Rolling Element	Ball Bearing
Flush Ground	No
Inch - Metric	Metric
Other Features	Single Row Angular Contact High Precision
Long Description	50MM Bore; 80MM Outside Diameter; 16MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 15 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Rac
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Angular Contact Ball
Manufacturer URL	http://www.skf.com
Manufacturer Item Number	7010 CD/P4A
Weight / LBS	0.578
Width	0.63 Inch 16 Millimeter
Bore	1.969 Inch 50 Millimeter
Outside Diameter	3.15 Inch 80 Millimeter
bore diameter:	50 mm
radial dynamic load capacity:	29.6 kN
outside diameter:	80 mm



Off-the-shelf SKF shaft Co., Ltd

radial static load capacity:	24 kN
overall width:	16 mm
bearing material:	Steel
contact angle:	15 °
maximum rpm:	28000 RPM
internal clearance:	C0
finish/coating:	Uncoated
ball screw application:	Not for Ball Screws
outer ring width:	16 mm
closure type:	Open
fillet radius:	1 mm
precision rating:	ABEC 7 (ISO Class 4)
series:	70
d_1	59.2 mm
d_2	59.2 mm
D_1	70.8 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
d_a min.	54.6 mm
d_b min.	54.6 mm
D_a max.	75.4 mm
D_b max.	78 mm
r_a max.	1 mm
r_b max.	0.3 mm
d_n	61.2 mm
Basic dynamic load rating C	29.6 kN
Basic static load rating C_0	24 kN
Fatigue load limit P_u	1.02 kN
Attainable speed for grease lubrication	17000 r/min
Attainable speed for oil-air lubrication	28000 r/min
Ball diameter D_w	9.525 mm



Off-the-shelf SKF shaft Co., Ltd

Number of balls z	18
Reference grease quantity G_{ref}	3.6 cm ³
Preload class A G_A	110 N
Static axial stiffness, preload class A	58 N/μm
Preload class B G_B	220 N
Static axial stiffness, preload class B	79 N/μm
Preload class C G_C	440 N
Static axial stiffness, preload class C	111 N/μm
Preload class D G_D	880 N
Static axial stiffness, preload class D	161 N/μm
Calculation factor f	1.11
Calculation factor f_1	1
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.02
Calculation factor f_{2C}	1.05
Calculation factor f_{2D}	1.09
Calculation factor f_{HC}	1
Calculation factor f_0	15.4
Mass bearing	0.25 kg