

628/7-2Z

Deep groove ball bearing with seals or shields

Single row deep groove ball bearings with seals or shields are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Integral sealing prolongs bearing service life
- Simple, versatile and robust design
- Low friction and high-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	7 mm
Outside diameter	14 mm
Width	5 mm

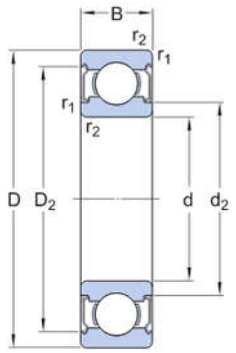
Performance

Basic dynamic load rating	0.78 kN
Basic static load rating	0.26 kN
Limiting speed	50 000 r/min
Reference speed	100 000 r/min

Properties

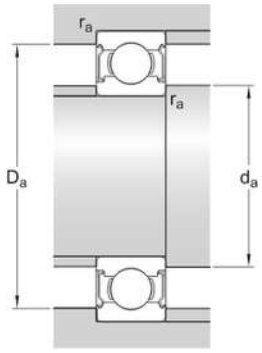
Bore type	Cylindrical
Coating	Without
Filling slots	Without
Locating feature, bearing outer ring	None
Lubricant	Grease
Matched arrangement	No
Material, bearing	Bearing steel
Number of rows	1
Radial internal clearance	CN
Relubrication feature	Without
Sealing	Shield on both sides
Sealing type	Non-contact

Technical Specification



Dimensions

d	7 mm	Bore diameter
D	14 mm	Outside diameter
B	5 mm	Width
d_2	≈ 8.5 mm	Recess diameter
D_2	≈ 12.7 mm	Recess diameter
$r_{1,2}$	min. 0.15 mm	Chamfer dimension



Abutment dimensions

d_a	min. 7.8 mm	Diameter of shaft abutment
d_a	max. 8 mm	Diameter of shaft abutment
D_a	max. 13.2 mm	Diameter of housing abutment
r_a	max. 0.1 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	0.78 kN
Basic static load rating	C_0	0.26 kN
Fatigue load limit	P_u	0.011 kN
Reference speed		100 000 r/min
Limiting speed		50 000 r/min
Minimum load factor	k_r	0.015
Calculation factor	f_0	7.2

Mass

Mass bearing	0.0031 kg

Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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