



Image may differ from product. See technical specification for details.

211-2ZNR

Deep groove ball bearing with filling slots and integral sealing

Single row deep groove ball bearings with filling slots, a snap ring, and shields on one or both sides, accommodate more balls than standard deep groove ball bearings. They are of a simple, yet versatile, design and are robust in operation, requiring little maintenance. They can accommodate radial and axial loads in both directions. They have a higher radial load carrying capacity than the corresponding bearings without filling slots but have a limited axial load carrying capacity due to the filling slots. The snap ring, fitted in an annular groove in the outer ring, facilitates axial location of the bearings within their housings. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Snap ring facilitates axial location within housing
- Integral sealing prolongs bearing service life
- Simple, versatile and robust design
- Accommodate higher radial loads than corresponding bearings without filling slots, with limited axial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	55 mm
Outside diameter	100 mm
Width	21 mm

Performance

Basic dynamic load rating	48.4 kN
Basic static load rating	44 kN
Reference speed	12 000 r/min
Limiting speed	5 600 r/min

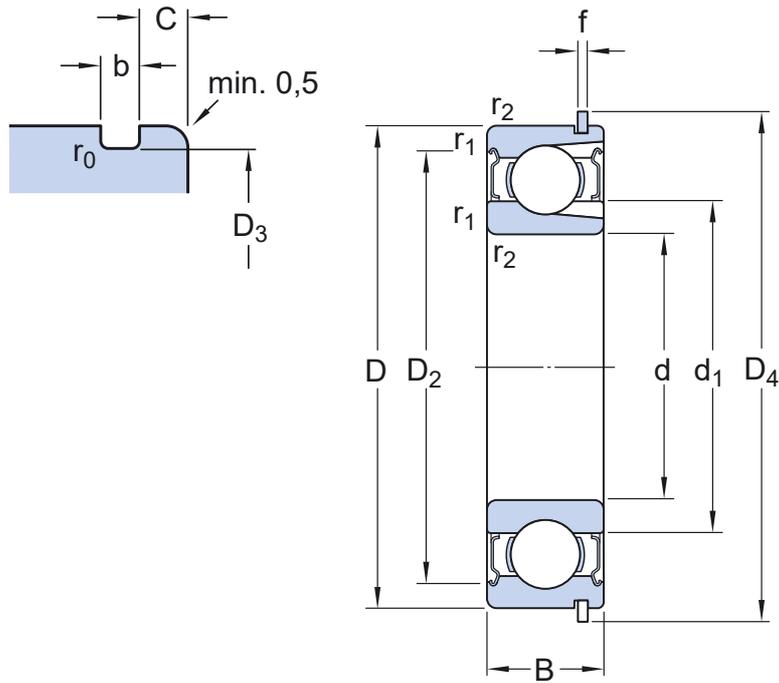
Properties

Filling slots	With
Number of rows	1
Locating feature, bearing outer ring	Snap ring (fitted)
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without

Logistics

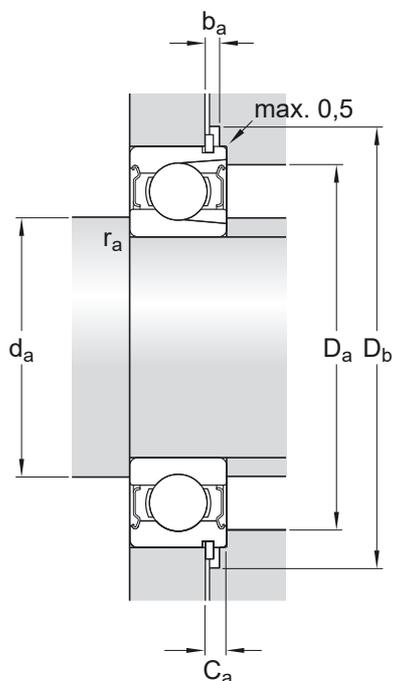
Product net weight	0.701 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	55 mm	Bore diameter
D	100 mm	Outside diameter
B	21 mm	Width
d ₁	≈ 69.06 mm	Shoulder diameter
D ₂	≈ 89.4 mm	Recess diameter
D ₃	96.8 mm	Diameter of snap ring groove
D ₄	106.5 mm	Outside diameter of snap ring
b	2.7 mm	Width of snap ring groove
C	3.28 mm	Distance from outer ring side face to snap ring groove
f	2.46 mm	Width of snap ring
r ₀	max. 0.6 mm	Bottom radius of snap ring groove
r _{1,2}	min. 1.5 mm	Chamfer dimension



Abutment dimensions

d_a	min. 64 mm	Diameter of shaft abutment
d_a	max. 68.9 mm	Diameter of shaft abutment
D_a	max. 91 mm	Diameter of housing abutment
D_b	min. 108 mm	Diameter of snap ring recess in the housing
b_a	min. 3 mm	Width of snap ring recess in the housing
C_a	max. 5.74 mm	Distance from outer ring side face to snap ring back face
r_a	max. 1.5 mm	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	48.4 kN
Basic static load rating	C_0	44 kN
Fatigue load limit	P_u	1.86 kN
Reference speed		12 000 r/min
Limiting speed		5 600 r/min
Minimum load factor	k_r	0.04

Included products

Snap ring

SP 100

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Radial internal clearance: Classes C2 to C5

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fits

More Information

Product details

[Single row deep groove ball bearings](#)

[Stainless steel deep groove ball bearings](#)

[Single row deep groove ball bearings with filling slots](#)

[Double row deep groove ball bearings](#)

[General bearing specifications](#)

[Loads](#)

[Temperature limits](#)

[Permissible speed](#)

[Designation system](#)

Engineering information

[Principles of rolling bearing selection](#)

[General bearing knowledge](#)

[Bearing selection process](#)

[Bearing interfaces](#)

[Seat tolerances for standard conditions](#)

[Selecting internal clearance](#)

[Lubrication](#)

[Sealing, mounting and dismounting](#)

[Bearing failure and how to prevent it](#)

Tools

[SKF Product select](#)

[SimPro Quick](#)

[Bearing Frequency Calculator](#)

[LubeSelect for SKF greases](#)

[Heater selection tool](#)

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