

# 61814-2RS1 Deep groove ball bearing



## Deep groove ball bearing

Single row deep groove ball bearings are the most widely used bearing type and are particularly versatile. They have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They can accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types.

- Simple, versatile and robust design
- Low friction
- High-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

## Overview

### Dimensions

Bore diameter	70 mm
Outside diameter	90 mm
Width	10 mm

### Performance

Basic dynamic load rating	12.4 kN
Basic static load rating	13.2 kN
Limiting speed	4 300 r/min

### Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Matched arrangement	No
Radial internal clearance	CN
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Seal on both sides
Sealing type	Contact
Lubricant	Grease
Relubrication feature	Without

## Technical Specification



### Dimensions

d	70 mm	Bore diameter
D	90 mm	Outside diameter
B	10 mm	Width
$d_1$	≈ 76.4 mm	Shoulder diameter
$D_2$	≈ 85.5 mm	Recess diameter
$r_{1,2}$	min. 0.6 mm	Chamfer dimension

### Abutment dimensions

$d_a$	min. 73.2 mm	Diameter of shaft abutment
$d_a$	max. 76.5 mm	Diameter of shaft abutment
$D_a$	max. 86.8 mm	Diameter of housing abutment
$r_a$	max. 0.6 mm	Radius of shaft or housing fillet



### Calculation data

Basic dynamic load rating	C	12.4 kN
Basic static load rating	$C_0$	13.2 kN
Fatigue load limit	$P_u$	0.56 kN
Limiting speed		4 300 r/min
Minimum load factor	$k_r$	0.015
Calculation factor	$f_0$	17.2

## Mass

Mass bearing	0.14 kg
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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