



# W 638/4-2Z Stainless steel deep groove ball bearing with integral sealing

## Stainless steel deep groove ball bearing with integral sealing

Stainless steel single row deep groove ball bearing with seals or shields on both sides, provide greater chemical and corrosion resistance. As with deep groove ball bearings generally, they 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 other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Greater chemical and corrosion resistance
- Integral sealing prolongs bearing service life
- Typical benefits of single row deep groove ball bearings

## Overview

### Dimensions

Bore diameter	4 mm
Outside diameter	9 mm
Width	4 mm

### Performance

Basic dynamic load rating	0.364 kN
Basic static load rating	0.114 kN
Reference speed	140 000 r/min
Limiting speed	70 000 r/min

### Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	CN
Tolerance class	Normal
Material, bearing	Stainless steel
Coating	Without

Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without

# Technical Specification



## Dimensions

d	4 mm	Bore diameter
D	9 mm	Outside diameter
B	4 mm	Width
d <sub>1</sub>	≈ 5.2 mm	Shoulder diameter
d <sub>2</sub>	≈ 5.2 mm	Recess diameter
D <sub>2</sub>	≈ 8.1 mm	Recess diameter
r <sub>1,2</sub>	min. 0.1 mm	Chamfer dimension

## Abutment dimensions

d <sub>a</sub>	min. 4.8 mm	Diameter of shaft abutment
d <sub>a</sub>	max. 5.1 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 8.2 mm	Diameter of housing abutment
r <sub>a</sub>	max. 0.1 mm	Radius of shaft or housing fillet



## Calculation data

Basic dynamic load rating	C	0.364 kN
Basic static load rating	C <sub>0</sub>	0.114 kN
Fatigue load limit	P <sub>u</sub>	0.005 kN
Reference speed		140 000 r/min
Limiting speed		70 000 r/min
Minimum load factor	k <sub>r</sub>	0.02
Calculation factor	f <sub>0</sub>	6.5

## Mass

Mass bearing	0.000925 kg
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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