



W 638/2.5-2Z

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	0.098 in
Outside diameter	0.236 in
Width	0.102 in

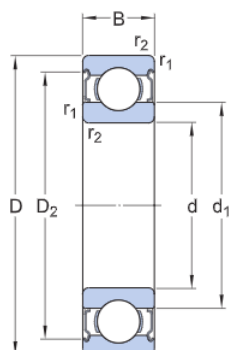
Performance

Basic dynamic load rating	26 lbf
Basic static load rating	8.1 lbf
Limiting speed	85 000 r/min
Reference speed	170 000 r/min

Properties

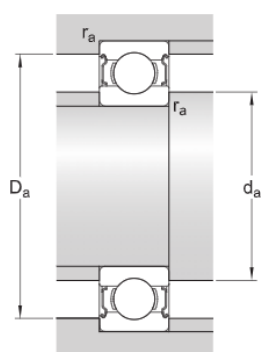
Bore type	Cylindrical
Cage	Sheet metal
Coating	Without
Filling slots	Without
Locating feature, bearing outer ring	None
Lubricant	Grease
Matched arrangement	No
Material, bearing	Stainless steel
Number of rows	1
Radial internal clearance	CN
Relubrication feature	Without
Sealing	Shield on both sides
Sealing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

Technical Specification



Dimensions

d	0.098 in	Bore diameter
D	0.236 in	Outside diameter
B	0.102 in	Width
d ₁	≈ 0.146 in	Shoulder diameter
d ₂	≈ 0.146 in	Recess diameter
D ₂	≈ 0.213 in	Recess diameter
r _{1,2}	min. 0.003 in	Chamfer dimension



Abutment dimensions

d _a	min. 0.122 in	Diameter of shaft abutment
d _a	max. 0.142 in	Diameter of shaft abutment
D _a	max. 0.217 in	Diameter of housing abutment
r _a	max. 0.003 in	Radius of shaft or housing fillet

Calculation data

Basic dynamic load rating	C	26 lbf
Basic static load rating	C ₀	8.1 lbf
Fatigue load limit	P _u	0.45 lbf
Reference speed		170 000 r/min
Limiting speed		85 000 r/min
Minimum load factor	k _r	0.02
Calculation factor	f ₀	7.1

Mass

Mass bearing	0.001 lb
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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