

# 2200 E-2RS1TN9

## Self-aligning ball bearing with seals on both sides



Self-aligning ball bearings, with seals on both sides, have two rows of balls, a common sphered raceway in the outer ring and two deep uninterrupted raceway grooves in the inner ring. They are insensitive to angular misalignment of the shaft relative to the housing. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance
- Low friction
- Integral sealing results in reduced maintenance requirements and prolonged bearing service life

## Overview

### Dimensions

Bore diameter	0.394 in
Outside diameter	1.181 in
Width	0.551 in

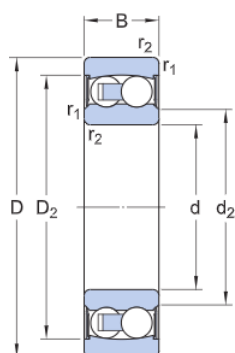
## Properties

Bore type	Cylindrical
Cage	Non-metallic
Coating	Without
Locating feature, bearing outer ring	None
Lubricant	Grease
Material, bearing	Bearing steel
Radial internal clearance	CN
Relubrication feature	Without
Retaining feature, inner ring	None
Sealing	Seal on both sides
Sealing type	Contact
Tolerance class	Normal

# Technical Specification

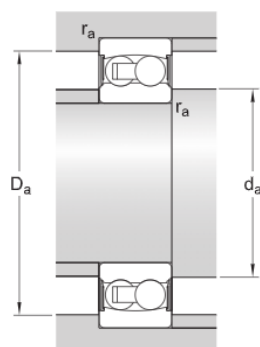
Bore type

Cylindrical



## Dimensions

d	0.394 in	Bore diameter
D	1.181 in	Outside diameter
B	0.551 in	Width
d <sub>2</sub>	≈ 0.575 in	Recess diameter inner ring
D <sub>2</sub>	≈ 0.973 in	Recess diameter outer ring
r <sub>1,2</sub>	min. 0.024 in	Chamfer dimension



## Abutment dimensions

d <sub>a</sub>	min. 0.551 in	Abutment diameter shaft
d <sub>a</sub>	max. 0.551 in	Abutment diameter shaft
D <sub>a</sub>	max. 1.016 in	Abutment diameter housing
r <sub>a</sub>	max. 0.024 in	Fillet radius

## Calculation data

Basic dynamic load rating	C	1 243 lbf
Basic static load rating	C <sub>0</sub>	265 lbf
Fatigue load limit	P <sub>u</sub>	14 lbf
Limiting speed		17 000 r/min

Permissible angular misalignment	$\alpha$	1.5 °
Calculation factor	$k_r$	0.045
Limiting value	$e$	0.33
Calculation factor	$Y_0$	2
Calculation factor	$Y_1$	1.9
Calculation factor	$Y_2$	3

## Mass

Mass bearing		0.106 lb
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