

# 2205 E-2RS1KTN9



## Self-aligning ball bearing with tapered bore and seals on both sides

Self-aligning ball bearings, with a tapered bore and 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 tapered bore facilitates ease of mounting via adapter/withdrawal sleeves. The integral sealing can prolong bearing service life by keeping lubricant in the bearings and contaminants out.

- Ease of mounting via adapter/withdrawal sleeves
- Accommodate static and dynamic misalignment
- Excellent high-speed and light load performance
- Low friction
- Integral sealing results in reduced maintenance requirements and prolonged bearing service life

## Overview

### Dimensions

Bore diameter	0.984 in
Outside diameter	2.047 in
Width	0.709 in

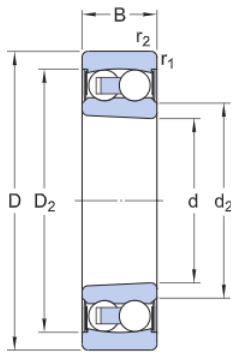
## Properties

Bore type	Tapered 1:12
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

Tapered 1:12

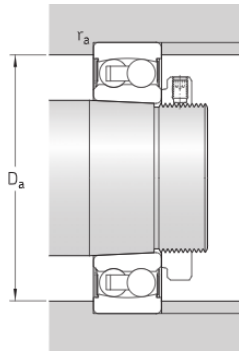


## Dimensions

d	0.984 in	Bore diameter
D	2.047 in	Outside diameter
B	0.709 in	Width
d <sub>2</sub>	≈ 1.22 in	Recess diameter inner ring
D <sub>2</sub>	≈ 1.819 in	Recess diameter outer ring
r <sub>1,2</sub>	min. 0.039 in	Chamfer dimension

## Abutment dimensions

D <sub>a</sub>	max. 1.827 in	Abutment diameter housing
r <sub>a</sub>	max. 0.039 in	Fillet radius



## Calculation data

Basic dynamic load rating	C	3 215 lbf
Basic static load rating	C <sub>0</sub>	899 lbf
Fatigue load limit	P <sub>u</sub>	46 lbf
Limiting speed		9 000 r/min

Permissible angular misalignment	$\alpha$	1.5 °
Calculation factor	$k_r$	0.045
Limiting value	$e$	0.28
Calculation factor	$Y_0$	2.5
Calculation factor	$Y_1$	2.2
Calculation factor	$Y_2$	3.5

## Mass

Mass bearing	0.353 lb
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