

2210 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 | 1.969 in |
| Outside diameter | 3.543 in |
| Width | 0.906 in |

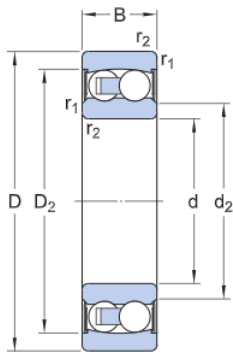
Properties

| | |
|--------------------------------------|--------------------|
| 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

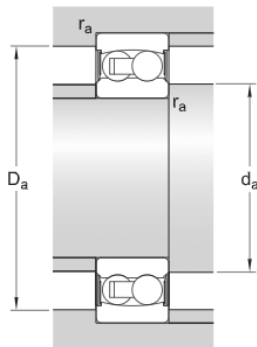
Bore type

Cylindrical



Dimensions

| | | |
|------------------|---------------|----------------------------|
| d | 1.969 in | Bore diameter |
| D | 3.543 in | Outside diameter |
| B | 0.906 in | Width |
| d ₂ | ≈ 2.272 in | Recess diameter inner ring |
| D ₂ | ≈ 3.126 in | Recess diameter outer ring |
| r _{1,2} | min. 0.043 in | Chamfer dimension |



Abutment dimensions

| | | |
|----------------|---------------|---------------------------|
| d _a | min. 2.244 in | Abutment diameter shaft |
| d _a | max. 2.283 in | Abutment diameter shaft |
| D _a | max. 3.268 in | Abutment diameter housing |
| r _a | max. 0.043 in | Fillet radius |

Calculation data

| | | |
|---------------------------|----------------|-------------|
| Basic dynamic load rating | C | 5 148 lbf |
| Basic static load rating | C ₀ | 1 832 lbf |
| Fatigue load limit | P _u | 93 lbf |
| Limiting speed | | 4 800 r/min |

| | | |
|----------------------------------|----------|-------|
| Permissible angular misalignment | α | 1.5 ° |
| Calculation factor | k_r | 0.045 |
| Limiting value | e | 0.2 |
| Calculation factor | Y_0 | 3.2 |
| Calculation factor | Y_1 | 3.2 |
| Calculation factor | Y_2 | 4.9 |

Mass

| | |
|--------------|----------|
| Mass bearing | 1.257 lb |
|--------------|----------|

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