

# NKIB 5904

Combined needle roller / angular contact ball bearing for axial loads in both directions

These bearings consist of a radial needle roller bearing combined with an angular contact ball bearing. Together they can accommodate both heavy radial loads and light axial loads in both directions. In addition, they can operate at high speeds. Their low cross-sectional height makes the bearings particularly suitable for applications where other types of locating bearing arrangements occupy too much space.

- Accommodate both radial and axial loads
- High load carrying capacity
- High-speed capability
- Low cross section
- Separable design



## Overview

### Dimensions

Bore diameter	20 mm
Outside diameter	37 mm
Width	25 mm

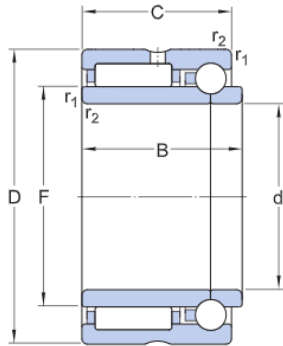
### Performance

Limiting speed	17 000 r/min
Reference speed	15 000 r/min

### Properties

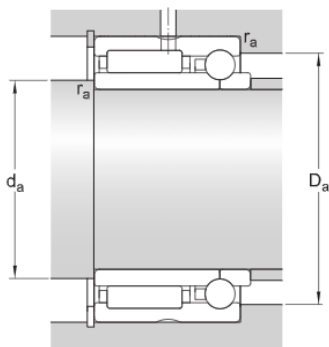
Axial load capability	Double-direction
Bearing part	Complete bearing
Coating	Without
Lubricant (thrust part)	None
Material, bearing	Bearing steel
Radial internal clearance	CN
Radial part	With cage
Rolling element (thrust part)	Balls
Thrust part	With cage
Tolerance class	Other

# Technical Specification



## Dimensions

d	20 mm	Bore diameter
D	37 mm	Outside diameter
B	25 mm	Width
C	23 mm	Width of outer ring
F	25 mm	Diameter of inner ring raceway
r <sub>1,2</sub>	min. 0.3 mm	Chamfer dimension



## Abutment dimensions

d <sub>a</sub>	min. 22 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 35 mm	Diameter of housing abutment
r <sub>a</sub>	max. 0.3 mm	Radius of fillet

## Calculation data

Basic dynamic load rating, radial	C	21.6 kN
Basic static load rating, radial	C <sub>0</sub>	28 kN
Basic dynamic load rating, axial	C	3.79 kN
Basic static load rating, axial	C <sub>0</sub>	4.21 kN
Fatigue load limit, radial	P <sub>u</sub>	3.35 kN
Fatigue load limit, axial	P <sub>u</sub>	0.176 kN
Reference speed		15 000 r/min
Limiting speed		17 000 r/min

Mass

Mass	0.11 kg
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