

# NKIA 5901 Combined needle roller / angular contact ball bearing for axial loads in one direction

Combined needle roller / angular contact ball bearing for axial loads in one direction

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 one direction. 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 radial loads and axial loads in one direction
- High load carrying capacity
- High-speed capability
- Low cross section
- Separable design

## Overview

### Dimensions

Bore diameter	12 mm
Outside diameter	24 mm
Width	16 mm

### Performance

Reference speed	22 000 r/min
Limiting speed	26 000 r/min

### Properties

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

# Technical Specification

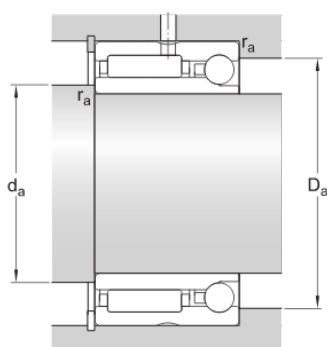


## Dimensions

d	12 mm	Bore diameter
D	24 mm	Outside diameter
B	16 mm	Width
F	16 mm	Diameter of inner ring raceway
r <sub>1,2</sub>	min. 0.3 mm	Chamfer dimension

## Abutment dimensions

d <sub>a</sub>	min. 14 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 22 mm	Diameter of housing abutment
r <sub>a</sub>	max. 0.3 mm	Radius of fillet



## Calculation data

Basic dynamic load rating, radial	C	8.09 kN
Basic static load rating, radial	C <sub>0</sub>	9.65 kN
Basic dynamic load rating, axial	C	2.07 kN
Basic static load rating, axial	C <sub>0</sub>	1.92 kN
Fatigue load limit, radial	P <sub>u</sub>	1.14 kN
Fatigue load limit, axial	P <sub>u</sub>	0.083 kN
Reference speed		22 000 r/min
Limiting speed		26 000 r/min

## Mass

Mass

0.04 kg

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