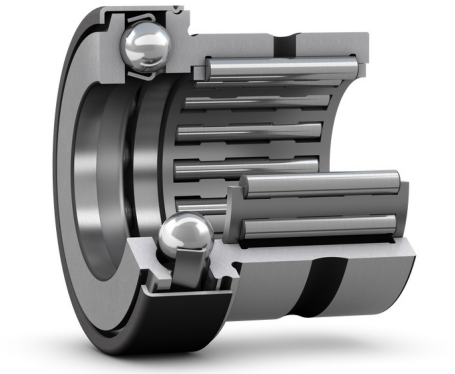


# NKX 10 ZTNCombined needle roller / thrust ball bearing with a cover

## Combined needle roller / thrust ball bearing with a cover

These bearings consist of a radial needle roller bearing combined with a thrust ball bearing. Together they can accommodate both radial loads and axial loads in one direction. In addition, they can operate at relatively 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. The thrust part is capped with a cover that forms a gap-type seal to retain the grease in the bearings.

- Accommodate radial and axial loads in one direction
- High load carrying capacity
- Relatively high-speed capability
- Low cross section
- Non-separable design

## Overview

### Dimensions

| | |
|---|---|
| Bore diameter | 10 mm |
| Outside diameter | 19 mm |
| Width | 23 mm |

### Performance

| | |
|---|---|
| Reference speed | 9 500 r/min |
| Limiting speed | 8 000 r/min |

### Properties

| | |
|---|---|
| Rolling bearing type | Needle roller / thrust ball bearing |
| Bearing part | Radial part without inner ring |
| Thrust part | With cage |
| Radial part | With cage |
| Rolling element (thrust part) | Balls |
| Axial load capability | Single-direction |

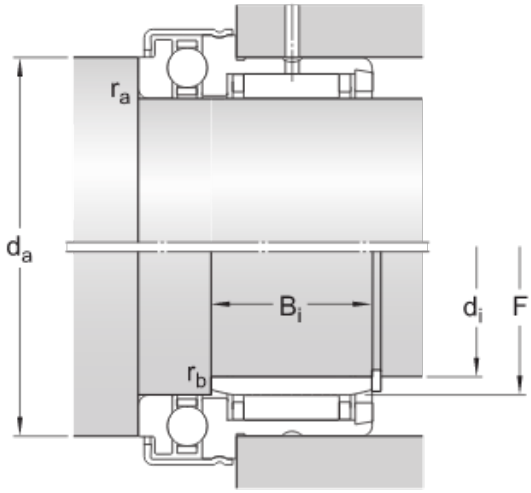
| | |
|---|---|
| Tolerance class | Other |
| Material, bearing | Bearing steel |
| Coating | Without |
| Special feature | Thrust part with stamped steel cover without lubrication holes |
| Lubricant (thrust part) | Grease |

# Technical Specification

NOT FOUND

## Dimensions

| | | |
|---|---|---|
| $F_w$ | 10 mm | Diameter under rollers |
| D | 19 mm | Outside diameter |
| C | 23 mm | Width |
| $C_1$ | 9 mm | Width of thrust part |
| $C_1$ | 6.5 mm | Distance side face to lubrication hole |
| d | 10 mm | Bore diameter of thrust part |
| $D_2$ | 25.2 mm | Diameter of stamped steel cover |
| $r_{1,2}$ | min. 0.3 mm | Chamfer dimension |




## Abutment dimensions

| | | |
|---|---|---|
| $d_a$ | min. 19.7 mm | Diameter of shaft abutment |
| $r_a$ | max. 0.3 mm | Radius of fillet |
| $r_b$ | max. 0.3 mm | Radius of fillet |
| $d_i$ | 7 mm | Bore diameter of associated inner ring |
| F | 10 mm | Diameter of inner ring raceway |
| $B_i$ | 16 mm | Width of associated inner ring |

## Calculation data

| | | |
|---|---|---|
| Basic dynamic load rating, radial | C | 5.94 kN |
| Basic static load rating, radial | $C_0$ | 8 kN |
| Basic dynamic load rating, axial | C | 9.95 kN |
| Basic static load rating, axial | $C_0$ | 15.3 kN |
| Fatigue load limit, radial | $P_u$ | 0.9 kN |
| Fatigue load limit, axial | $P_u$ | 0.56 kN |
| Minimum axial load factor | A | 0.0012 |

| | |
|---|---|
| Reference speed | 9 500 r/min |
| Limiting speed | 8 000 r/min |

## Mass

| | |
|---|---|
| Mass | 0.036 kg |

## Associated products

| | |
|---|---|
| Inner ring | IR 7x10x16 |

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