

# 81104 TN

## Single row cylindrical roller thrust bearing, single direction



Single row cylindrical roller thrust bearings are designed to accommodate heavy axial loads and peak loads in one direction, but not radial loads. They provide a high degree of stiffness and require little axial space. They are mainly used in applications where thrust ball bearings do not have sufficient load carrying capacity. An important feature is the separable design, which facilitates mounting and enables the bearing components to be interchanged.

- High axial load carrying capacity
- High stiffness
- Long service life
- Require little axial space
- Separable design

## Overview

### Dimensions

|                  |       |
|------------------|-------|
| Bore diameter    | 20 mm |
| Outside diameter | 35 mm |
| Height           | 10 mm |

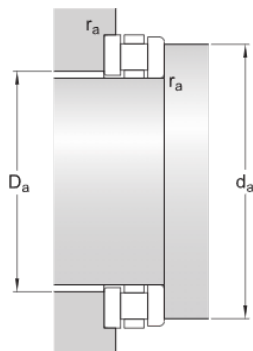
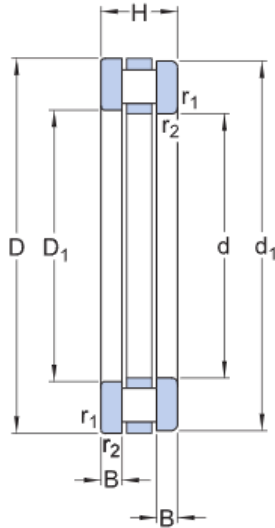
### Performance

|                           |             |
|---------------------------|-------------|
| Basic dynamic load rating | 18.6 kN     |
| Basic static load rating  | 48 kN       |
| Reference speed           | 3 800 r/min |
| Limiting speed            | 7 500 r/min |

### Properties

|                       |                  |
|-----------------------|------------------|
| Bearing part          | Complete bearing |
| Axial load capability | Single-direction |
| Number of rows        | 1                |
| Cage                  | Non-metallic     |
| Tolerance class       | Normal           |
| Material, bearing     | Bearing steel    |
| Coating               | Without          |

# Technical Specification



## Dimensions

|                  |             |                                  |
|------------------|-------------|----------------------------------|
| d                | 20 mm       | Bore diameter                    |
| D                | 35 mm       | Outside diameter                 |
| H                | 10 mm       | Height                           |
| d <sub>1</sub>   | 35 mm       | Outside diameter shaft washer    |
| D <sub>1</sub>   | 21 mm       | Bore diameter housing washer     |
| B                | 2.75 mm     | Height shaft washer              |
| r <sub>1,2</sub> | min. 0.3 mm | Chamfer dimension housing washer |

## Abutment dimensions

|                |             |                           |
|----------------|-------------|---------------------------|
| d <sub>a</sub> | min. 34 mm  | Abutment diameter shaft   |
| D <sub>a</sub> | max. 21 mm  | Abutment diameter housing |
| r <sub>a</sub> | max. 0.3 mm | Fillet radius             |

## Calculation data

|                           |                |             |
|---------------------------|----------------|-------------|
| Basic dynamic load rating | C              | 18.6 kN     |
| Basic static load rating  | C <sub>0</sub> | 48 kN       |
| Fatigue load limit        | P <sub>u</sub> | 4.65 kN     |
| Reference speed           |                | 3 800 r/min |
| Limiting speed            |                | 7 500 r/min |
| Minimum axial load factor | A              | 0.000184    |

## Mass

|              |          |
|--------------|----------|
| Mass bearing | 0.037 kg |
|--------------|----------|

## Included products

|                                 |            |
|---------------------------------|------------|
| Roller and cage thrust assembly | K 81104 TN |
| Shaft washer                    | WS 81104   |
| Housing washer                  | GS 81104   |

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