



# RNU 304 Single row cylindrical roller bearing, NU design, without inner ring

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Single row cylindrical roller bearings of the NU design without an inner ring consist of an outer ring with a roller and cage assembly. They are typically used in applications where hardened and ground raceways are provided on the shaft. Without the inner ring, a larger shaft diameter can be used to provide a stronger, stiffer shaft. The bearings can accommodate axial displacement in both directions, limited only by the width of the raceway on the shaft.

- High radial load carrying capacity
- Enable a stronger, stiffer shaft
- Low friction
- Long service life
- Accommodate axial displacement in both directions

## Overview

### Dimensions

Bore diameter	28.5 mm
Outside diameter	52 mm
Width	15 mm

### Performance

Basic dynamic load rating	20.5 kN
Basic static load rating	16.6 kN
Reference speed	15 000 r/min
Limiting speed	18 000 r/min

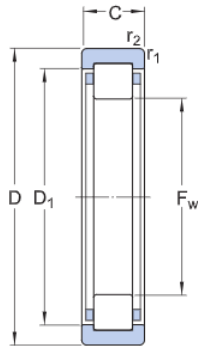
### Properties

Bearing part	Bearing without inner ring
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Number of flanges, outer ring	2
Loose flange	None
Coating	Without
Sealing	Without

Lubricant	None
Relubrication feature	Without

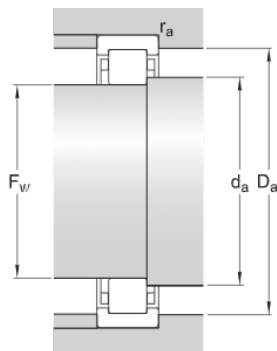
# Technical Specification

## Dimensions



$F_w$	28.5 mm	Diameter under rollers
$D$	52 mm	Outside diameter
$C$	15 mm	Width
$D_1$	$\approx 40.55$ mm	Shoulder diameter outer ring
$r_{1,2}$	min. 1.1 mm	Corner radius

## Abutment dimensions



$d_a$	max. 31.8 mm	Abutment diameter shaft
$D_a$	max. 45.5 mm	Abutment diameter housing
$r_a$	max. 1 mm	Fillet radius

## Calculation data

Basic dynamic load rating	$C$	20.5 kN
Basic static load rating	$C_0$	16.6 kN
Fatigue load limit	$P_u$	2.08 kN
Reference speed		15 000 r/min
Limiting speed		18 000 r/min
Calculation factor	$k_r$	0.15
Limiting value	$e$	0.2
Calculation factor	$Y$	0.6

## Mass

Mass bearing

0.11 kg

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