



BTW 50 CTN9/SP Double direction angular contact thrust ball bearing, super-precision, basic design

Double direction angular contact thrust ball bearing,
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Double direction angular contact thrust ball bearings are designed to locate spindle shafts axially in both directions. These bearings are intended for mounting in combination with cylindrical roller bearings, and consist of two single row angular contact thrust ball bearings arranged back-to-back. The large number of balls enables these bearings to accommodate high axial loads in both directions and provides a high degree of system rigidity.

- Accommodate high axial loads in both directions
- Offer maximum load carrying capacity and maximum system rigidity
- Available for shaft diameters from 35 to 200 mm
- Available with either steel or ceramic balls
- Separable

Technical Specification

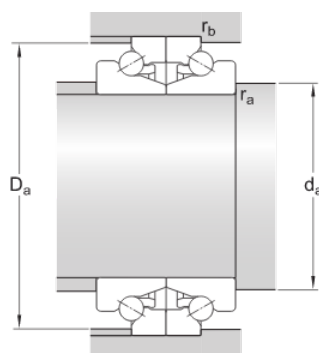


Dimensions

d	50 mm	Bore diameter
D	80 mm	Outside diameter
H	38 mm	Height
d ₁	67.5 mm	Shoulder diameter shaft washer (high shoulder)
2C	19 mm	Height of both housing washers
r _{1,2}	min. 1 mm	Shaft washer chamfer radius
r _{3,4}	min. 0.3 mm	Housing washer small chamfer radius

Abutment dimensions

d _a	min. 61 mm	Abutment diameter shaft
D _a	min. 74.9 mm	Abutment diameter shaft
D _a	max. 76 mm	Abutment diameter housing
r _a	max. 1 mm	Fillet radius
r _b	max. 0.3 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	22.5 kN
Basic static load rating	C ₀	60 kN
Fatigue load limit	P _u	2.85 kN
Attainable speed for grease lubrication		9 000 r/min
Attainable speed for oil-air lubrication		11 000 r/min
Contact angle	α	60 °
Preload		415 N

Static axial stiffness		559 N/ μ m
Reference grease quantity	G_{ref}	3.3 cm ³

Mass

Mass bearing		0.58 kg
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