



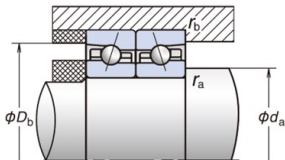
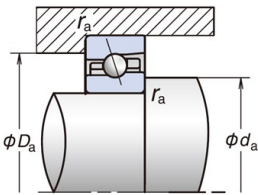
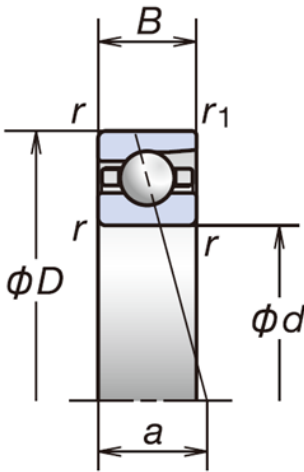
# PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 10:18 (UTC)



## 7904C

### Standard Series High Precision Angular Contact Ball Bearings



#### Boundary Dimensions

|          |      |    |                   |
|----------|------|----|-------------------|
| d        | 20   | mm | Bore diameter     |
| D        | 37   | mm | Outside diameter  |
| B        | 9    | mm | Width             |
| r(min.)  | 0.3  | mm | Chamfer Dimension |
| r1(min.) | 0.15 | mm | Chamfer Dimension |

#### Basic Load Ratings

|     |      |    |                           |
|-----|------|----|---------------------------|
| Cr  | 8.75 | kN | Basic Dynamic Load Rating |
| C0r | 4.25 | kN | Basic Static Load Rating  |

#### Speeds

|               |       |       |                |
|---------------|-------|-------|----------------|
| Grease        | 40400 | min-1 | Limiting Speed |
| Oil (Oil-air) | 61500 | min-1 | Limiting Speed |

#### Dimensions

|   |        |    |                       |
|---|--------|----|-----------------------|
|   | C: 15° |    | Contact Angle         |
| a | 8.3    | mm | Effective Load Center |

#### Abutment and Fillet Dimensions

|          |      |    |                                   |
|----------|------|----|-----------------------------------|
| da(min.) | 22.5 | mm | Diameter of Shaft Abutment        |
| Da(max.) | 34.5 | mm | Diameter of Housing Abutment      |
| Db(max.) | 35.8 | mm | Diameter of Housing Abutment      |
| ra(max.) | 0.3  | mm | Radius of Shaft or Housing Fillet |
| rb(max.) | 0.15 | mm | Radius of Shaft or Housing Fillet |

#### Performance

|    |      |    |                        |
|----|------|----|------------------------|
| Pa | 3.20 | kN | Permissible Axial Load |
|----|------|----|------------------------|

#### Calculation factors

|    |      |  |        |
|----|------|--|--------|
| f0 | 14.9 |  | Factor |
|----|------|--|--------|

#### Preload,Rigidity(DB and DF arrangement)

|    | Preload | Axial Rigidity | Measured axial clearance |
|----|---------|----------------|--------------------------|
| EL | 20N     | 19N/μm         | 1μm                      |
| L  | 42N     | 26N/μm         | -3μm                     |
| M  | 80N     | 35N/μm         | -8μm                     |
| H  | 152N    | 48N/μm         | -15μm                    |

#### Additional information

|  |      |       |                               |
|--|------|-------|-------------------------------|
|  | 0.21 | g/brg | Recommended Grease Quantities |
|--|------|-------|-------------------------------|



# PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 10:18 (UTC)



## Mass

|       |    |               |
|-------|----|---------------|
| 0.036 | kg | Mass(approx.) |
|-------|----|---------------|

| Table A |     | EL  | L   | M   | H   |
|---------|-----|-----|-----|-----|-----|
|         | 15° | 6.5 | 6.0 | 5.0 | 4.5 |
|         | 25° | 2   |     |     |     |
|         | 30° | 1.4 |     |     |     |

| Table B         | DBD  | DBB |
|-----------------|------|-----|
| Preload factor  | 1.36 | 2   |
| Axial rigidity  | 1.48 | 2   |
| Radial rigidity | 1.54 | 2   |

### Calculation of radial rigidity

Multiply axial rigidity by the appropriate factor in Table A.

### Calculation of preload and axial rigidity for combined bearings

Multiply by the appropriate factor in Table B. For radial rigidity, multiply the value from Table A with the appropriate factor in Table B.