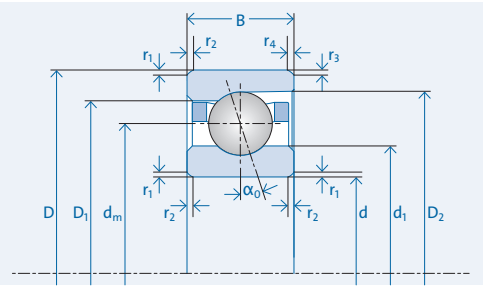
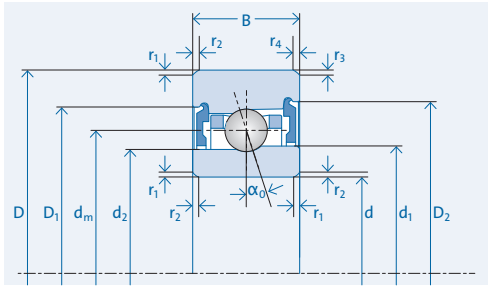
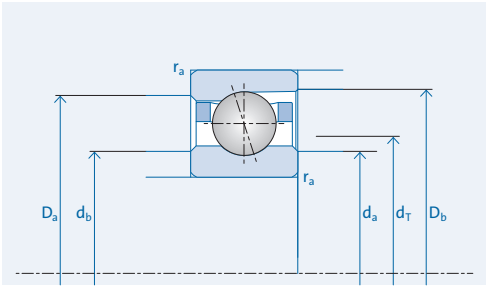


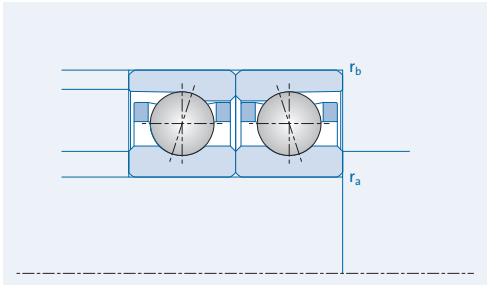
# Bearing data
# Bore diameter from 5 to 6 mm

## Symbol explanations




**Boundary dimensions**

| | | |
|---|---|---|
| **d** | [mm] | Bore diameter |
| **D** | [mm] | Outer diameter |
| **B** | [mm] | Width of single bearing |

**Balls**

| | | |
|---|---|---|
| **$d_m$** | [mm] | Pitch circle diameter |
| **$D_w$** | [mm] | Ball diameter |
| **Z** | pieces | Number of balls |

**Dimensions**

| | | |
|---|---|---|
| **$d_1$** | [mm] | Outer diameter of inner ring |
| **$d_2$** | [mm] | Outer diameter of inner ring (open side) |
| **$D_1$** | [mm] | Inner diameter of outer ring |
| **$D_2$** | [mm] | Inner diameter of outer ring (open side) |
| **$r_{1,2}$** | [mm] | Chamfer (min) |
| **$r_{3,4}$** | [mm] | Chamfer; open side (min) |

**Abutment dimensions**

| | | |
|---|---|---|
| **$r_{a\,max}$** | [mm] | Undercut of associated component |
| **$r_{b\,max}$** | [mm] | Undercut of associated component (open side) |
| **$d_{a\,min}$** | [mm] | Abutment diameter inner ring |
| **$d_{b\,min}$** | [mm] | Abutment diameter inner ring |
| **$D_{a\,max}$** | [mm] | Abutment diameter outer ring |
| **$D_{b\,max}$** | [mm] | Abutment diameter outer ring |
| **$d_T$** | [mm] | Oiling nozzle position for bearings with TA cage (for TXM cage on request) |
| **m** | [kg] | Bearing weight |
| **$\alpha_0$** | [°] | Contact angle |

**Load rating**

| | | |
|---|---|---|
| **C** | [N] | Dynamic load rating |
| **$C_0$** | [N] | Static load rating, steel balls |
| **$C_{0\,HY}$** | [N] | Static load rating, $Si_3N_4$ balls |

**Speed values**

| | | |
|---|---|---|
| **$n_{oil}$** | [1/min] | Speed with oil lubrication |
| **$n_{grease}$** | [1/min] | Speed with grease lubrication |

**Preload / axial rigidity**

| | | |
|---|---|---|
| **$F_v$** | [N] | Preload |
| **$C_{ax}$** | [N/µm] | Axial rigidity (bearing pair) |
| | | **L** light preload |
| | | **M** medium preload |
| | | **S** heavy preload |
| **$F_f$** | [N] | Minimum spring preload at max. speed |

| | Boundary dimensions | | | Balls | | | Dimensions | | | | | | Abutment dimensions | | | | | Weight | Contact angle | Load rating | | | Speed value | | Preload/axial rigidity | | | | | | Spring preload | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Designation** | d | D | B | $d_m$ | $D_W$ | Z | $d_1$ | $d_2$ | $D_1$ | $D_2$ | $r_{1,2}$ | $r_{3,4}$ | $r_{a\,max}$ | $r_{b\,max}$ | $d_{a,\,b\,min}$ | $D_{a,\,b\,max}$ | $d_T$ | m | $\alpha_0$ | C | $C_0$ | $C_{0\,HY}$ | $n_{oil}$ | $n_{grease}$ | $F_v$ | $C_{ax}$ | $F_v$ | $C_{ax}$ | $F_v$ | $C_{ax}$ | $F_f$ | **Designation** |
| | | | | | | | | | | | | | | | | | | | | | | | | | L | | M | | S | | | |
| **5 mm** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **5 mm** |
| S 619/5 C TA | 5 | 13 | 4 | 9.0 | 2.381 | 8 | 7.1 | | 10.7 | 11.3 | 0.2 | 0.2 | 0.2 | 0.1 | 6.8 | 11.2 | 8.05 | 0.002 | 15 | 1200 | 430 | 300 | 190000 | 140000 | 6 | 7 | 18 | 11 | 36 | 15 | 35 | S 619/5 C TA |
| S 605 C TA | 5 | 14 | 5 | 9.5 | 2.381 | 8 | 6.9 | | 10.3 | 11.0 | 0.2 | 0.2 | 0.2 | 0.1 | 6.5 | 11.5 | 7.8 | 0.004 | 15 | 1400 | 545 | 385 | 195000 | 145000 | 7 | 8 | 20 | 13 | 40 | 20 | 40 | S 605 C TA |
| SM 605 C TA | 5 | 14 | 5 | 9.5 | 2.381 | 8 | 6.9 | | 10.3 | 11.0 | 0.2 | 0.2 | 0.2 | 0.1 | 6.5 | 11.5 | 7.8 | 0.004 | 15 | 990 | 310 | 216 | 230000 | 170000 | 5 | 5 | 14 | 9 | 28 | 13 | 30 | SM 605 C TA |
| S 625 C TA | 5 | 16 | 5 | 10.5 | 3.175 | 7 | 7.7 | | 12.5 | 13.2 | 0.3 | 0.3 | 0.3 | 0.15 | 7.5 | 13.5 | 9.0 | 0.005 | 15 | 1930 | 710 | 500 | 170000 | 125000 | 10 | 9 | 30 | 14 | 60 | 21 | 50 | S 625 C TA |
| **6 mm** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **6 mm** |
| S 619/6 C TA | 6 | 15 | 5 | 10.5 | 2.381 | 9 | 8.5 | | 12.1 | 12.7 | 0.2 | 0.2 | 0.2 | 0.1 | 8.0 | 13.0 | 9.43 | 0.004 | 15 | 1320 | 510 | 360 | 165000 | 125000 | 7 | 8 | 20 | 12 | 40 | 17 | 35 | S 619/6 C TA |
| S 606 C TA | 6 | 17 | 6 | 10.0 | 2.381 | 9 | 8.3 | | 11.7 | 12.4 | 0.3 | 0.3 | 0.3 | 0.1 | 8.0 | 14.5 | 9.2 | 0.005 | 15 | 1540 | 660 | 465 | 170000 | 125000 | 8 | 9 | 25 | 16 | 45 | 22 | 40 | S 606 C TA |
| SM 606 C TA | 6 | 17 | 6 | 10.0 | 2.381 | 9 | 8.3 | | 11.7 | 12.4 | 0.3 | 0.3 | 0.3 | 0.1 | 8.0 | 14.5 | 9.2 | 0.005 | 15 | 1100 | 370 | 260 | 200000 | 150000 | 6 | 7 | 18 | 11 | 32 | 15 | 35 | SM 606 C TA |
| S 626 C TA | 6 | 19 | 6 | 12.5 | 3.175 | 10 | 10.7 | | 15.8 | 16.5 | 0.3 | 0.3 | 0.3 | 0.15 | 9.0 | 16.5 | 12.1 | 0.008 | 15 | 2600 | 1170 | 820 | 125000 | 94000 | 15 | 13 | 40 | 20 | 80 | 29 | 70 | S 626 C TA |