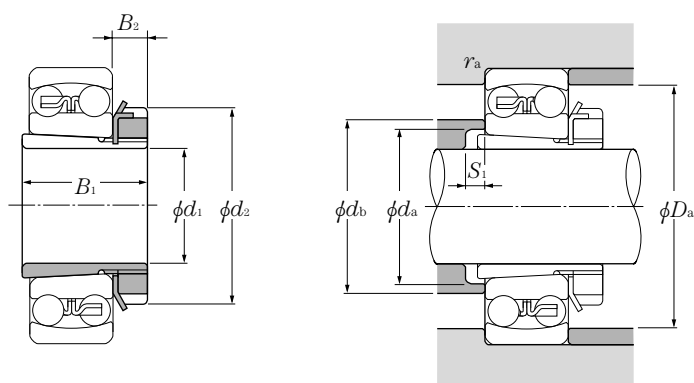


(for self-aligning ball bearings)



d 17 ~ 50mm

| | Boundary dimensions mm | | | | Bearing numbers | Abutment and fillet dimensions mm | | | | | Mass ¹⁾ kg (approx.) |
|-----------|---------------------------|-------|-------|-------|-----------------|--------------------------------------|--------------|--------------|--------------|-----------------|---------------------------------------|
| | d_1 | B_1 | d_2 | B_2 | | d_a min | d_b max | S_1 min | D_a max | r_{as} max | |
| 17 | 24 | 32 | 7 | | 1204SK;H 204 | 23 | 27 | 5 | 41 | 1 | 0.041 |
| | 28 | 32 | 7 | | 2204SK;H 304 | 24 | 28 | 5 | 41 | 1 | 0.045 |
| | 28 | 32 | 7 | | 1304SK;H 304 | 24 | 31 | 8 | 45 | 1 | 0.045 |
| | 31 | 32 | 7 | | 2304SK;H2304 | 24 | 28 | 5 | 45 | 1 | 0.049 |
| 20 | 26 | 38 | 8 | | 1205SK;H 205X | 28 | 33 | 5 | 46 | 1 | 0.07 |
| | 29 | 38 | 8 | | 2205SK;H 305X | 29 | 33 | 5 | 46 | 1 | 0.075 |
| | 29 | 38 | 8 | | 1305SK;H 305X | 29 | 37 | 6 | 55 | 1 | 0.075 |
| | 35 | 38 | 8 | | 2305SK;H2305X | 29 | 34 | 5 | 55 | 1 | 0.087 |
| 25 | 27 | 45 | 8 | | 1206SK;H 206X | 33 | 39 | 5 | 56 | 1 | 0.099 |
| | 31 | 45 | 8 | | 2206SK;H 306X | 34 | 39 | 5 | 56 | 1 | 0.109 |
| | 31 | 45 | 8 | | 1306SK;H 306X | 34 | 44 | 6 | 65 | 1 | 0.109 |
| | 38 | 45 | 8 | | 2306SK;H2306X | 35 | 40 | 5 | 65 | 1 | 0.126 |
| 30 | 29 | 52 | 9 | | 1207SK;H 207X | 38 | 46 | 5 | 65 | 1 | 0.125 |
| | 35 | 52 | 9 | | 2207SK;H 307X | 39 | 45 | 5 | 65 | 1 | 0.142 |
| | 35 | 52 | 9 | | 1307SK;H 307X | 39 | 50 | 7 | 71.5 | 1.5 | 0.142 |
| | 43 | 52 | 9 | | 2307SK;H2307X | 40 | 46 | 5 | 71.5 | 1.5 | 0.165 |
| 35 | 31 | 58 | 10 | | 1208SK;H 208X | 44 | 52 | 5 | 73 | 1 | 0.174 |
| | 36 | 58 | 10 | | 2208SK;H 308X | 44 | 50 | 5 | 73 | 1 | 0.189 |
| | 36 | 58 | 10 | | 1308SK;H 308X | 44 | 56 | 5 | 81.5 | 1.5 | 0.189 |
| | 46 | 58 | 10 | | 2308SK;H2308X | 45 | 52 | 5 | 81.5 | 1.5 | 0.224 |
| 40 | 33 | 65 | 11 | | 1209SK;H 209X | 49 | 57 | 5 | 78 | 1 | 0.227 |
| | 39 | 65 | 11 | | 2209SK;H 309X | 49 | 57 | 8 | 78 | 1 | 0.248 |
| | 39 | 65 | 11 | | 1309SK;H 309X | 49 | 61 | 5 | 91.5 | 1.5 | 0.248 |
| | 50 | 65 | 11 | | 2309SK;H2309X | 50 | 58 | 5 | 91.5 | 1.5 | 0.28 |
| 45 | 35 | 70 | 12 | | 1210SK;H 210X | 53 | 62 | 5 | 83 | 1 | 0.274 |
| | 42 | 70 | 12 | | 2210SK;H 310X | 54 | 63 | 10 | 83 | 1 | 0.303 |
| | 42 | 70 | 12 | | 1310SK;H 310X | 54 | 67 | 5 | 100 | 2 | 0.303 |
| | 55 | 70 | 12 | | 2310SK;H2310X | 56 | 65 | 5 | 100 | 2 | 0.362 |
| 50 | 37 | 75 | 12 | | 1211SK;H 211X | 60 | 70 | 6 | 91.5 | 1.5 | 0.308 |

1) Refers to adapter mass.

Note: 1. For bearing dimensions, basic rated loads, and mass, refer to pages B-68 to B-70.

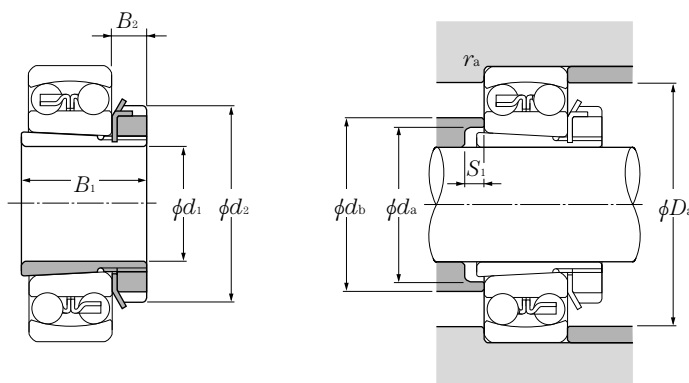
2. Adapters for series 12 bearings can also be used with H2 and H3 series bearings.

Caution: the B_1 dimension of H3 series bearings is longer than that of H2 series bearings.

3. Adapter numbers which are appended with the code "X" indicate narrow slit type adapters which use washer with straight inner tabs.

4. For adapter locknut and washer dimensions, please refer to pages C-2 to C-7, and C-12 to C-14.

(for self-aligning ball bearings)



d 50 ~ 85mm

| Boundary dimensions mm | | | | Bearing numbers | Abutment and fillet dimensions mm | | | | | Mass ¹⁾ kg (approx.) |
|---------------------------|-------|-------|-------|-----------------|--------------------------------------|--------------|--------------|--------------|-----------------|---------------------------------------|
| d_1 | B_1 | d_2 | B_2 | | d_a min | d_b max | S_1 min | D_a max | r_{as} max | |
| 50 | 45 | 75 | 12 | 2211SK;H 311X | 60 | 69 | 11 | 91.5 | 1.5 | 0.345 |
| | 45 | 75 | 12 | 1311SK;H 311X | 60 | 73 | 6 | 110 | 2 | 0.345 |
| | 59 | 75 | 12 | 2311SK;H2311X | 61 | 71 | 6 | 110 | 2 | 0.42 |
| 55 | 38 | 80 | 13 | 1212SK;H 212X | 64 | 76 | 5 | 101.5 | 1.5 | 0.346 |
| | 47 | 80 | 13 | 2212SK;H 312X | 65 | 75 | 9 | 101.5 | 1.5 | 0.394 |
| | 47 | 80 | 13 | 1312SK;H 312X | 65 | 79 | 5 | 118 | 2 | 0.394 |
| | 62 | 80 | 13 | 2312SK;H2312X | 66 | 77 | 5 | 118 | 2 | 0.481 |
| 60 | 40 | 85 | 14 | 1213SK;H 213X | 70 | 83 | 5 | 111.5 | 1.5 | 0.401 |
| | 50 | 85 | 14 | 2213SK;H 313X | 70 | 81 | 8 | 111.5 | 1.5 | 0.458 |
| | 50 | 85 | 14 | 1313SK;H 313X | 70 | 85 | 5 | 128 | 2 | 0.458 |
| | 65 | 85 | 14 | 2313SK;H2313X | 72 | 84 | 5 | 128 | 2 | 0.557 |
| 65 | 43 | 98 | 15 | 1215SK;H 215X | 80 | 93 | 5 | 121.5 | 1.5 | 0.707 |
| | 55 | 98 | 15 | 2215SK;H 315X | 80 | 93 | 12 | 121.5 | 1.5 | 0.831 |
| | 55 | 98 | 15 | 1315SK;H 315X | 80 | 97 | 5 | 148 | 2 | 0.831 |
| | 73 | 98 | 15 | 2315SK;H2315X | 82 | 96 | 5 | 148 | 2 | 1.05 |
| 70 | 46 | 105 | 17 | 1216SK;H 216X | 85 | 100 | 5 | 130 | 2 | 0.882 |
| | 59 | 105 | 17 | 2216SK;H 316X | 86 | 98 | 12 | 130 | 2 | 1.03 |
| | 59 | 105 | 17 | 1316SK;H 316X | 86 | 103 | 5 | 158 | 2 | 1.03 |
| | 78 | 105 | 17 | 2316SK;H2316X | 87 | 103 | 5 | 158 | 2 | 1.28 |
| 75 | 50 | 110 | 18 | 1217SK;H 217X | 90 | 106 | 6 | 140 | 2 | 1.02 |
| | 63 | 110 | 18 | 2217SK;H 317X | 91 | 104 | 12 | 140 | 2 | 1.18 |
| | 63 | 110 | 18 | 1317SK;H 317X | 91 | 110 | 6 | 166 | 2.5 | 1.18 |
| | 82 | 110 | 18 | 2317SK;H2317X | 94 | 110 | 6 | 166 | 2.5 | 1.45 |
| 80 | 52 | 120 | 18 | 1218SK;H 218X | 95 | 111 | 6 | 150 | 2 | 1.19 |
| | 65 | 120 | 18 | 2218SK;H 318X | 96 | 112 | 10 | 150 | 2 | 1.37 |
| | 65 | 120 | 18 | 1318SK;H 318X | 96 | 116 | 6 | 176 | 2.5 | 1.37 |
| | 86 | 120 | 18 | 2318SK;H2318X | 99 | 117 | 6 | 176 | 2.5 | 1.69 |
| 85 | 55 | 125 | 19 | 1219SK;H 219X | 101 | 118 | 7 | 158 | 2 | 1.37 |
| | 68 | 125 | 19 | 2219SK;H 319X | 102 | 117 | 9 | 158 | 2 | 1.56 |

1) Refers to adapter mass.

Note: 1. For bearing dimensions, basic rated loads, and mass, refer to pages B-70 to B-72.

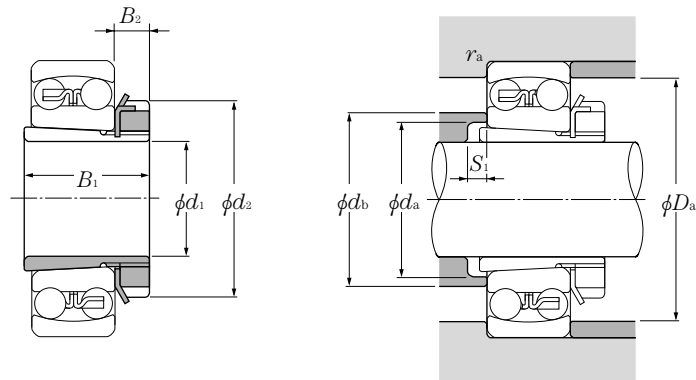
2. Adapters for series 12 bearings can also be used with H2 and H3 series bearings.

Caution: the B_1 dimension of H3 series bearings is longer than that of H2 series bearings.

3. Adapter numbers which are appended with the code "X" indicate narrow slit type adapters which use washer with straight inner tabs.

4. For adapter locknut and washer dimensions, please refer to pages C-2 to C-7, and C-12 to C-14.

(for self-aligning ball bearings)



d 85 ~ 100mm

| | Boundary dimensions mm | | | | Bearing numbers | Abutment and fillet dimensions mm | | | | | Mass ¹⁾ kg (approx.) |
|------------|---------------------------|-------|-------|-------|-----------------------|--------------------------------------|--------------|--------------|--------------|-----------------|---------------------------------------|
| | d_1 | B_1 | d_2 | B_2 | | d_a min | d_b max | S_1 min | D_a max | r_{as} max | |
| 85 | 68 | 125 | 19 | | 1319SK; H 319X | 102 | 123 | 7 | 186 | 2.5 | 1.56 |
| | 90 | 125 | 19 | | 2319SK; H2319X | 105 | 123 | 7 | 186 | 2.5 | 1.92 |
| 90 | 58 | 130 | 20 | | 1220SK; H 220X | 106 | 125 | 7 | 168 | 2 | 1.49 |
| | 71 | 130 | 20 | | 2220SK; H 320X | 107 | 123 | 8 | 168 | 2 | 1.69 |
| | 71 | 130 | 20 | | 1320SK; H 320X | 107 | 130 | 7 | 201 | 2.5 | 1.69 |
| | 97 | 130 | 20 | | 2320SK; H2320X | 110 | 129 | 7 | 201 | 2.5 | 2.15 |
| 100 | 63 | 145 | 21 | | 1222SK; H 222X | 116 | 138 | 7 | 188 | 2 | 1.93 |
| | 77 | 145 | 21 | | 2222SK; H 322X | 117 | 137 | 6 | 188 | 2 | 2.18 |
| | 77 | 145 | 21 | | 1322SK; H 322X | 117 | 150 | 9 | 226 | 2.5 | 2.18 |
| | 105 | 145 | 21 | | 2322SK; H2322X | 121 | 142 | 7 | 226 | 2.5 | 2.74 |

1) Refers to adapter mass.

Note: 1. For bearing dimensions, basic rated loads, and mass, refer to pages B-72 to B-73.

2. Adapters for series 12 bearings can also be used with H2 and H3 series bearings.

Caution: the B_1 dimension of H3 series bearings is longer than that of H2 series bearings.

3. Adapter numbers which are appended with the code "X" indicate narrow slit type adapters which use washer with straight inner tabs.

4. For adapter locknut and washer dimensions, please refer to pages C-2 to C-7, and C-12 to C-14.

