

SMF TYPE

– Round Flange Type –

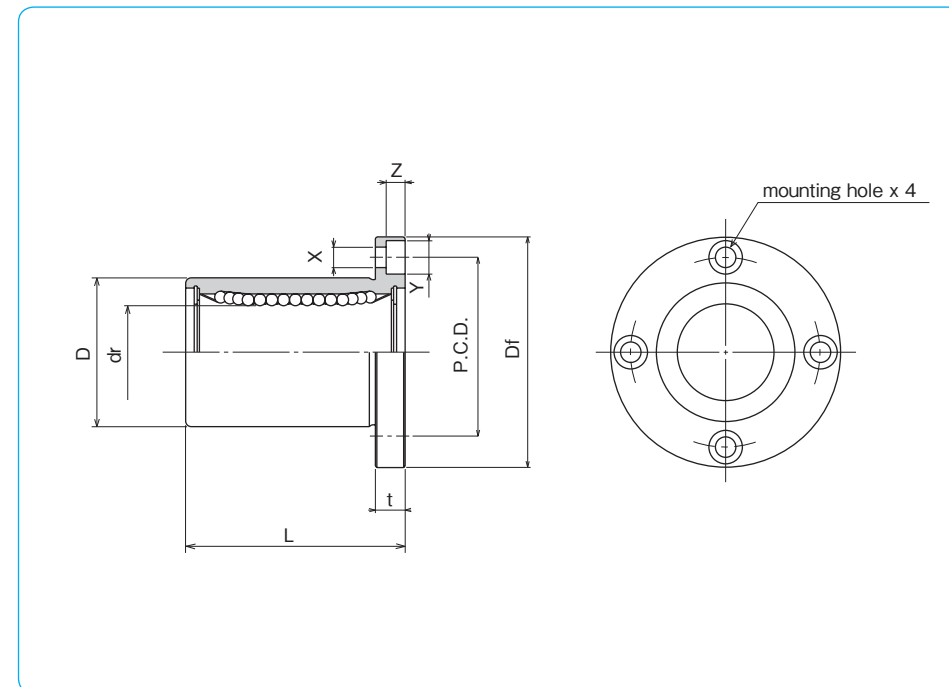


part number structure

example **SMSF 25 G UU -SK**

| | |
|--|--|
| specification SMF : standard SMSF : anti-corrosion | outer cylinder surface treatment blank : no surface treatment SK : electroless nickel plating LF : low temperature black chrome treatment with fluoride coating SB : black oxide (not available on anti-corrosion type) SC : industrial chrome plating |
| inner contact diameter (dr) | seal blank : without seal UU : seals on both sides ZZ : doublelip-seals on both sides |
| retainer material blank : standard/steel anti-corrosion/stainless steel G : resin | |

Doublelip-seal is available for size 6 to 30.



| part number | | | | number of ball circuits | dr | major dimensions | | | |
|-------------------------|-------------------------------|--------------------------|----------------|-------------------------|-----|------------------|-------------------------|-------|-------------------------|
| standard steel retainer | anti-corrosion resin retainer | stainless steel retainer | resin retainer | | | mm | tolerance μm | D mm | tolerance μm |
| SMF 6 | SMF 6G | SMSF 6 | SMSF 6G | 4 | 6 | 0 | 12 | 0 | 19 |
| SMF 8s | SMF 8sG | SMSF 8s | SMSF 8sG | 4 | 8 | -9 | 15 | -13 | 17 |
| SMF 8 | SMF 8G | SMSF 8 | SMSF 8G | 4 | 8 | -9 | 15 | -13 | 24 |
| SMF 10 | SMF10G | SMSF10 | SMSF10G | 4 | 10 | -9 | 19 | -16 | 29 |
| SMF 12 | SMF12G | SMSF12 | SMSF12G | 4 | 12 | -9 | 21 | -16 | 30 |
| SMF 13 | SMF13G | SMSF13 | SMSF13G | 4 | 13 | -9 | 23 | -16 | 32 |
| SMF 16 | SMF16G | SMSF16 | SMSF16G | 4 | 16 | -9 | 28 | -16 | 37 |
| SMF 20 | SMF20G | SMSF20 | SMSF20G | 5 | 20 | -10 | 32 | -19 | 42 |
| SMF 25 | SMF25G | SMSF25 | SMSF25G | 6 | 25 | -10 | 40 | -19 | 59 |
| SMF 30 | SMF30G | SMSF30 | SMSF30G | 6 | 30 | -10 | 45 | -19 | 64 |
| SMF 35 | SMF35G | SMSF35 | SMSF35G | 6 | 35 | -12 | 52 | -22 | 70 |
| SMF 40 | SMF40G | SMSF40 | SMSF40G | 6 | 40 | -12 | 60 | -22 | 80 |
| SMF 50 | SMF50G | SMSF50 | SMSF50G | 6 | 50 | -12 | 80 | -22 | 100 |
| SMF 60 | SMF60G | SMSF60 | SMSF60G | 6 | 60 | -15 | 90 | -25 | 110 |
| SMF 80 | - | - | - | 6 | 80 | -15 | 120 | -25 | 140 |
| SMF100 | - | - | - | 6 | 100 | 0/-20 | 150 | 0/-29 | 175 |

| Df mm | t mm | flange P.C.D. mm | X×Y×Z mm | eccentricity μm | perpendicularity μm | basic load rating | | mass g | shaft diameter mm |
|-------|------|------------------|-------------|----------------------------|--------------------------------|-------------------|-------------|--------|-------------------|
| | | | | | | dynamic C N | static Co N | | |
| 28 | 5 | 20 | 3.5×6×3.1 | 12 | 12 | 206 | 265 | 24 | 6 |
| 32 | 5 | 24 | 3.5×6×3.1 | | | 176 | 216 | 32 | 8 |
| 32 | 5 | 24 | 3.5×6×3.1 | | | 274 | 392 | 37 | 8 |
| 40 | 6 | 29 | 4.5×7.5×4.1 | | | 372 | 549 | 72 | 10 |
| 42 | 6 | 32 | 4.5×7.5×4.1 | | | 510 | 784 | 76 | 12 |
| 43 | 6 | 33 | 4.5×7.5×4.1 | | | 510 | 784 | 88 | 13 |
| 48 | 6 | 38 | 4.5×7.5×4.1 | 15 | 15 | 774 | 1,180 | 120 | 16 |
| 54 | 8 | 43 | 5.5×9×5.1 | | | 882 | 1,370 | 180 | 20 |
| 62 | 8 | 51 | 5.5×9×5.1 | | | 980 | 1,570 | 340 | 25 |
| 74 | 10 | 60 | 6.6×11×6.1 | | | 1,570 | 2,740 | 470 | 30 |
| 82 | 10 | 67 | 6.6×11×6.1 | | | 1,670 | 3,140 | 650 | 35 |
| 96 | 13 | 78 | 9×14×8.1 | | | 2,160 | 4,020 | 1,060 | 40 |
| 116 | 13 | 98 | 9×14×8.1 | 20 | 20 | 3,820 | 7,940 | 2,200 | 50 |
| 134 | 18 | 112 | 11×17×11.1 | | | 4,700 | 10,000 | 3,000 | 60 |
| 164 | 18 | 142 | 11×17×11.1 | | | 7,350 | 16,000 | 5,800 | 80 |
| 200 | 20 | 175 | 14×20×13.1 | | | 14,100 | 34,800 | 10,600 | 100 |

1N=0.102kgf

SMF-E TYPE

– Round Flange Type with Pilot End –

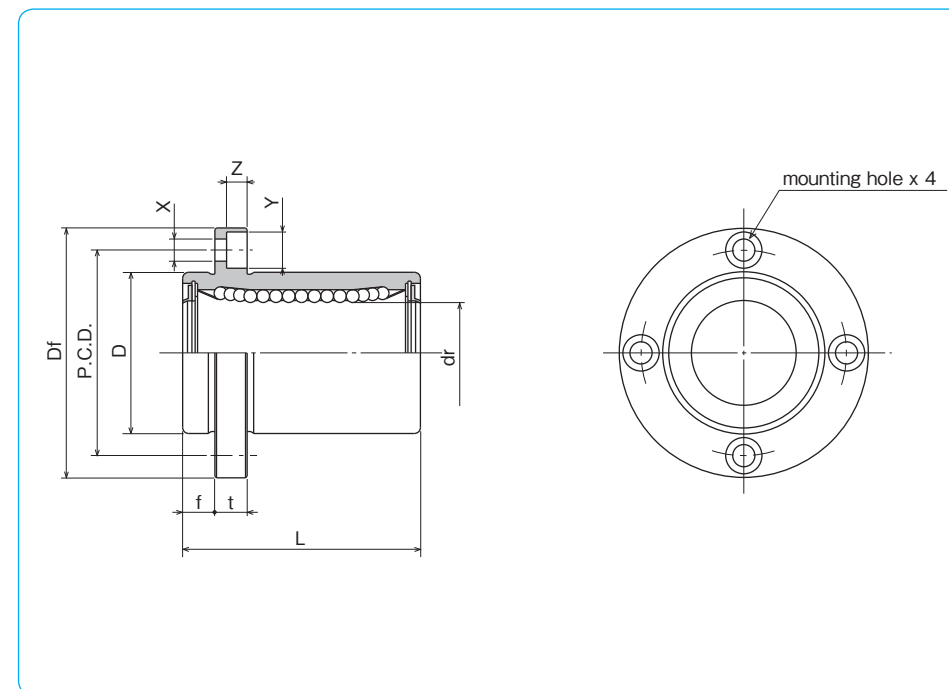


part number structure

example **SMSF 25 G UU -E -SK**

| | | | | |
|--|-----------------------------|--|--|----------------|
| specification SMF: standard SMSF: anti-corrosion | inner contact diameter (dr) | retainer material blank: standard/steel anti-corrosion/stainless steel G: resin | outer cylinder surface treatment blank: no surface treatment SK: electroless nickel plating LF: low temperature black chrome treatment with fluoride coating SB: black oxide (not available on anti-corrosion type) SC: industrial chrome plating | with pilot end |
| | | | seal UU: seals on both sides ZZ: doublelip-seals on both sides | |

Doublelip-seal is available for size 6 to 30.



| part number* | | | | number of ball circuits | dr | | major dimensions | | |
|-------------------------|----------------|-----------------------------------|-------------------------------|-------------------------|----|-------------------------|------------------|-------------------------|----------------|
| standard steel retainer | resin retainer | anti-corrosion stainless retainer | anti-corrosion resin retainer | | mm | tolerance μm | D mm | tolerance μm | L ± 0.3 mm |
| SMF 6UU-E | SMF 6GUU-E | SMSF 6UU-E | SMSF 6GUU-E | 4 | 6 | 12 | 0 | 19 | |
| SMF 8UU-E | SMF 8GUU-E | SMSF 8UU-E | SMSF 8GUU-E | 4 | 8 | 15 | -13 | 24 | |
| SMF 10UU-E | SMF 10GUU-E | SMSF 10UU-E | SMSF 10GUU-E | 4 | 10 | 19 | 0 | 29 | |
| SMF 12UU-E | SMF 12GUU-E | SMSF 12UU-E | SMSF 12GUU-E | 4 | 12 | 21 | 0 | 30 | |
| SMF 13UU-E | SMF 13GUU-E | SMSF 13UU-E | SMSF 13GUU-E | 4 | 13 | 23 | -16 | 32 | |
| SMF 16UU-E | SMF 16GUU-E | SMSF 16UU-E | SMSF 16GUU-E | 4 | 16 | 28 | | 37 | |
| SMF 20UU-E | SMF 20GUU-E | SMSF 20UU-E | SMSF 20GUU-E | 5 | 20 | 32 | 0 | 42 | |
| SMF 25UU-E | SMF 25GUU-E | SMSF 25UU-E | SMSF 25GUU-E | 6 | 25 | 40 | -19 | 59 | |
| SMF 30UU-E | SMF 30GUU-E | SMSF 30UU-E | SMSF 30GUU-E | 6 | 30 | 45 | | 64 | |
| SMF 35UU-E | SMF 35GUU-E | — | — | 6 | 35 | 52 | 0 | 70 | |
| SMF 40UU-E | SMF 40GUU-E | — | — | 6 | 40 | 60 | 0 | 80 | |
| SMF 50UU-E | SMF 50GUU-E | — | — | 6 | 50 | 80 | -22 | 100 | |
| SMF 60UU-E | SMF 60GUU-E | — | — | 6 | 60 | 90 | 0/-25 | 110 | |

* Seals-on-both-sides is standard.

| flange | | | | | eccentricity μm | perpendicularity μm | basic load rating | | mass g | shaft diameter mm |
|--------|-------|------|-----------|-------------|----------------------------|--------------------------------|-------------------|-------------|--------|-------------------|
| f mm | Df mm | t mm | P.C.D. mm | X×Y×Z mm | | | dynamic C N | static Co N | | |
| 5 | 28 | 5 | 20 | 3.5×6×3.1 | 12 | 12 | 206 | 265 | 24 | 6 |
| 5 | 32 | 5 | 24 | 3.5×6×3.1 | | | 274 | 392 | 37 | 8 |
| 6 | 40 | 6 | 29 | 4.5×7.5×4.1 | | | 372 | 549 | 72 | 10 |
| 6 | 42 | 6 | 32 | 4.5×7.5×4.1 | | | 510 | 784 | 76 | 12 |
| 6 | 43 | 6 | 33 | 4.5×7.5×4.1 | | | 510 | 784 | 88 | 13 |
| 6 | 48 | 6 | 38 | 4.5×7.5×4.1 | | | 774 | 1,180 | 120 | 16 |
| 8 | 54 | 8 | 43 | 5.5×9×5.1 | 15 | 15 | 882 | 1,370 | 180 | 20 |
| 8 | 62 | 8 | 51 | 5.5×9×5.1 | | | 980 | 1,570 | 340 | 25 |
| 10 | 74 | 10 | 60 | 6.6×11×6.1 | | | 1,570 | 2,740 | 470 | 30 |
| 10 | 82 | 10 | 67 | 6.6×11×6.1 | | | 1,670 | 3,140 | 650 | 35 |
| 13 | 96 | 13 | 78 | 9×14×8.1 | 20 | 20 | 2,160 | 4,020 | 1,060 | 40 |
| 13 | 116 | 13 | 98 | 9×14×8.1 | | | 3,820 | 7,940 | 2,200 | 50 |
| 18 | 134 | 18 | 112 | 11×17×11.1 | | | 4,700 | 10,000 | 3,000 | 60 |

1N≐0.102kgf

SMF-W TYPE

– Round Flange Double-Wide Type –



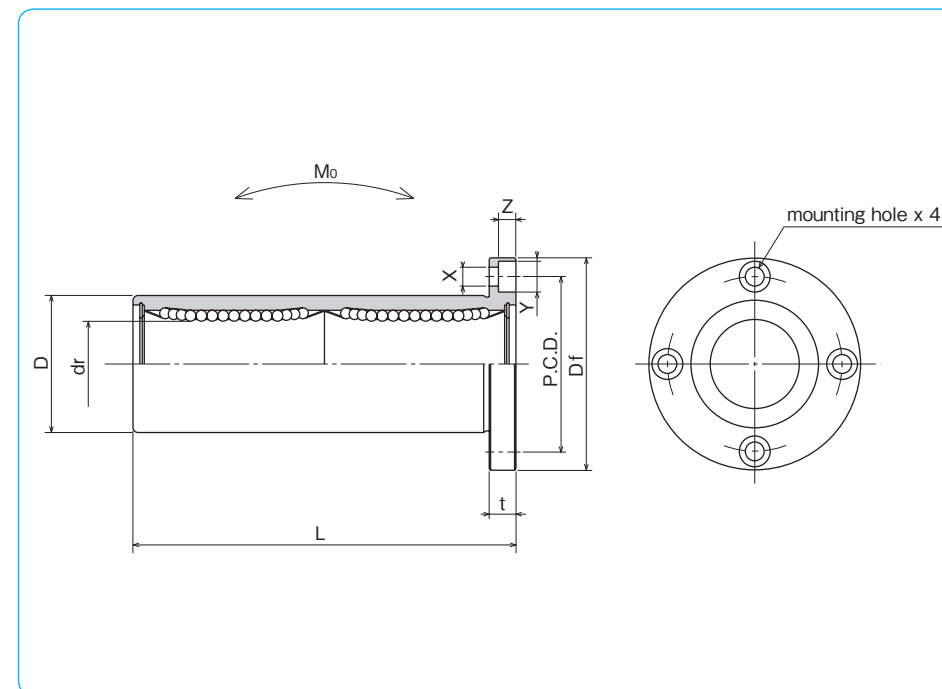
part number structure

example **SMSF 25 G W UU -SK**

| | |
|--|--|
| specification SMF: standard SMSF: anti-corrosion | outer cylinder surface treatment blank: no surface treatment SK: electroless nickel plating LF: low temperature black chrome treatment with fluoride coating SB: black oxide (not available on anti-corrosion type) SC: industrial chrome plating |
| inner contact diameter (dr) | seal blank: without seal UU: seals on both sides ZZ: doublelip-seals on both sides |
| retainer material blank: standard/steel anti-corrosion/stainless steel G: resin | double-wide type |

Doublelip-seal is available for size 6 to 30.

| part number | | | | number of ball circuits | dr | | major dimensions | | |
|-------------------------|----------------|-----------------------------------|-------------------------------|-------------------------|----|-------------------------|------------------|-------------------------|----------------|
| standard steel retainer | resin retainer | anti-corrosion stainless retainer | anti-corrosion resin retainer | | mm | tolerance μm | D mm | tolerance μm | L ± 0.3 mm |
| SMF 6W | SMF 6GW | SMSF 6W | SMSF 6GW | 4 | 6 | 0 | 12 | 0 | 35 |
| SMF 8W | SMF 8GW | SMSF 8W | SMSF 8GW | 4 | 8 | 0 | 15 | -13 | 45 |
| SMF10W | SMF10GW | SMSF10W | SMSF10GW | 4 | 10 | 0 | 19 | 0 | 55 |
| SMF12W | SMF12GW | SMSF12W | SMSF12GW | 4 | 12 | -10 | 21 | 0 | 57 |
| SMF13W | SMF13GW | SMSF13W | SMSF13GW | 4 | 13 | 0 | 23 | -16 | 61 |
| SMF16W | SMF16GW | SMSF16W | SMSF16GW | 4 | 16 | 0 | 28 | 0 | 70 |
| SMF20W | SMF20GW | SMSF20W | SMSF20GW | 5 | 20 | 0 | 32 | 0 | 80 |
| SMF25W | SMF25GW | SMSF25W | SMSF25GW | 6 | 25 | -12 | 40 | -19 | 112 |
| SMF30W | SMF30GW | SMSF30W | SMSF30GW | 6 | 30 | 0 | 45 | 0 | 123 |
| SMF35W | SMF35GW | SMSF35W | SMSF35GW | 6 | 35 | 0 | 52 | 0 | 135 |
| SMF40W | SMF40GW | SMSF40W | SMSF40GW | 6 | 40 | -15 | 60 | -22 | 151 |
| SMF50W | SMF50GW | SMSF50W | SMSF50GW | 6 | 50 | 0 | 80 | 0 | 192 |
| SMF60W | SMF60GW | SMSF60W | SMSF60GW | 6 | 60 | 0/-20 | 90 | 0/-25 | 209 |



| Df mm | t mm | flange P.C.D. mm | X × Y × Z mm | eccentricity μm | perpendicularity μm | basic load rating | | allowable static moment M_o N · m | mass g | shaft diameter mm |
|-------|------|------------------|-----------------|----------------------------|--------------------------------|-------------------|----------------|-------------------------------------|--------|-------------------|
| | | | | | | dynamic C N | static C_o N | | | |
| 28 | 5 | 20 | 3.5 × 6 × 3.1 | 15 | 15 | 323 | 530 | 2.18 | 31 | 6 |
| 32 | 5 | 24 | 3.5 × 6 × 3.1 | | | 431 | 784 | 4.31 | 51 | 8 |
| 40 | 6 | 29 | 4.5 × 7.5 × 4.1 | | | 588 | 1,100 | 7.24 | 98 | 10 |
| 42 | 6 | 32 | 4.5 × 7.5 × 4.1 | | | 813 | 1,570 | 10.9 | 110 | 12 |
| 43 | 6 | 33 | 4.5 × 7.5 × 4.1 | | | 813 | 1,570 | 11.6 | 130 | 13 |
| 48 | 6 | 38 | 4.5 × 7.5 × 4.1 | | | 1,230 | 2,350 | 19.7 | 190 | 16 |
| 54 | 8 | 43 | 5.5 × 9 × 5.1 | 20 | 20 | 1,400 | 2,740 | 26.8 | 260 | 20 |
| 62 | 8 | 51 | 5.5 × 9 × 5.1 | | | 1,560 | 3,140 | 43.4 | 540 | 25 |
| 74 | 10 | 60 | 6.6 × 11 × 6.1 | | | 2,490 | 5,490 | 82.8 | 680 | 30 |
| 82 | 10 | 67 | 6.6 × 11 × 6.1 | | | 2,650 | 6,270 | 110 | 1,020 | 35 |
| 96 | 13 | 78 | 9 × 14 × 8.1 | 25 | 25 | 3,430 | 8,040 | 147 | 1,570 | 40 |
| 116 | 13 | 98 | 9 × 14 × 8.1 | | | 6,080 | 15,900 | 397 | 3,600 | 50 |
| 134 | 18 | 112 | 11 × 17 × 11.1 | | | 7,550 | 20,000 | 530 | 4,500 | 60 |

1N \approx 0.102kgf 1N · m \approx 0.102kgf · m