METAL DISC COUPLINGS

# SERVOFLEX SFS G – Datasheet

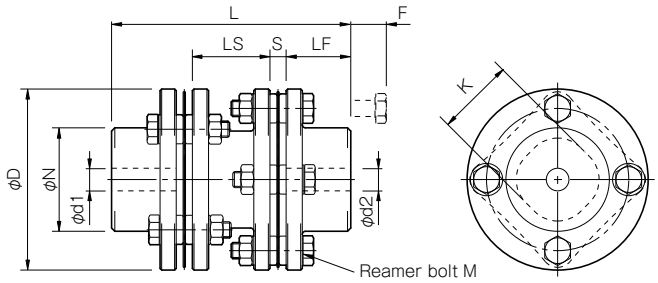
## DOUBLE ELEMENT TYPE / FLOATING SHAFT TYPE
## Key/Set Screw Type

### Specifications

| Model | Rated torque [N·m] | Misalignment | | | Max. rotation speed [min$^{-1}$] | Torsional stiffness [N·m/rad] | Axial stiffness [N/mm] | Moment of inertia [kg·m$^2$] | Mass [kg] |
|---|---|---|---|---|---|---|---|---|---|
| | | Parallel [mm] | Angular [°] | Axial [mm] | | | | | |
| SFS-05G | 20 | 0.5 | 2 | ± 1.2 | 20000 | 8000 | 21 | $0.20 \times 10^{-3}$ | 0.50 |
| SFS-06G | 40 | 0.5 | 2 | ± 1.6 | 16000 | 14000 | 22 | $0.55 \times 10^{-3}$ | 0.90 |
| SFS-08G | 80 | 0.5 | 2 | ± 2.0 | 13000 | 41000 | 30 | $1.50 \times 10^{-3}$ | 1.70 |
| SFS-09G | 180 | 0.6 | 2 | ± 2.4 | 12000 | 85000 | 61 | $2.90 \times 10^{-3}$ | 2.40 |
| SFS-10G | 250 | 0.6 | 2 | ± 2.8 | 10000 | 125000 | 80 | $4.60 \times 10^{-3}$ | 3.30 |
| SFS-12G | 450 | 0.8 | 2 | ± 3.2 | 8000 | 215000 | 98 | $11.80 \times 10^{-3}$ | 5.80 |
| SFS-14G | 800 | 0.9 | 2 | ± 3.6 | 7000 | 390000 | 156 | $21.20 \times 10^{-3}$ | 8.60 |

• Higher rpm possible with balancing.
• The moment of inertia and mass are specified for the maximum bore diameter.

### Dimensions




Unit [mm]

| Model | d1 • d2 | | | D | N | L | LF | LS | S | F | K | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pilot bore | Min. | Max. | | | | | | | | | |
| SFS-05G | 7 | 8 | 20 | 56 | 32 | 74 | 20 | 24 | 5 | 11 | 24 | 8-M5 × 22 |
| SFS-06G | 7 | 8 | 25 | 68 | 40 | 86 | 25 | 24 | 6 | 10 | 30 | 8-M6 × 25 |
| SFS-08G | 10 | 11 | 35 | 82 | 54 | 98 | 30 | 26 | 6 | 11 | 38 | 8-M6 × 29 |
| SFS-09G | 10 | 11 | 38 | 94 | 58 | 106 | 30 | 30 | 8 | 21 | 42 | 8-M8 × 36 |
| SFS-10G | 15 | 16 | 42 | 104 | 68 | 120 | 35 | 30 | 10 | 16 | 48 | 8-M8 × 36 |
| SFS-12G | 18 | 19 | 50 | 126 | 78 | 140 | 40 | 38 | 11 | 23 | 54 | 8-M10 × 45 |
| SFS-14G | 20 | 22 | 60 | 144 | 88 | 160 | 45 | 46 | 12 | 31 | 61 | 8-M12 × 54 |

• Further dimensions for LS possible on request.

### Standard Bore Diameter

| Model | Standard bore diameter d1 • d2 [mm] | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8 | 9 | 10 | 11 | 12 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 22 | 24 | 25 | 28 | 30 | 32 | 35 | 38 | 40 | 42 | 45 | 48 | 50 | 55 | 56 | 60 |
| SFS-05G | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | | | |
| SFS-06G | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | |
| SFS-08G | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | |
| SFS-09G | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | |
| SFS-10G | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| SFS-12G | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| SFS-14G | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

### How to Place an Order

SFS-10G-25H-30H LS=500

- Size
- Type: G — Double element, Floating shaft
- Bore diameter: d1 (Small diameter) – d2 (Large diameter)
  - Blank: Pilot bore
  - Bore specifications
  - Blank: Compliant with the old JIS standards (class 2) E9
  - H: Compliant with the new JIS standards H9
  - J: Compliant with the new JIS standards JS9
  - P: Compliant with the new JIS standards P9
  - N: Compliant with the new motor standards
- Spacer length
  - Blank: Standard spacers

Material: S45C heat-treated or an equivalent

METAL DISC COUPLINGS

# SERVOFLEX SFS G-C – Datasheet

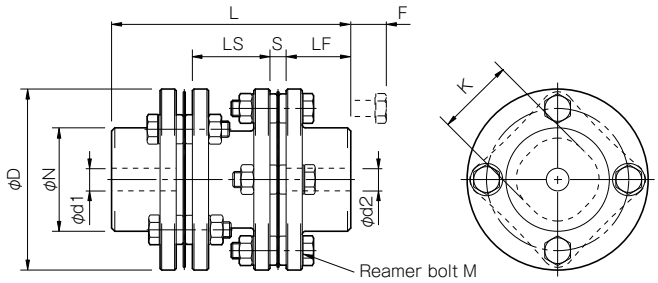
## DOUBLE ELEMENT / FLOATING SHAFT TYPE
## Electroless nickel coat / Key/Set Screw Type

### Specifications

| Model | Rated torque [N·m] | Misalignment | | | Max. rotation speed [min$^{-1}$] | Torsional stiffness [N·m/rad] | Axial stiffness [N/mm] | Moment of inertia [kg·m$^2$] | Mass [kg] |
|---|---|---|---|---|---|---|---|---|---|
| | | Parallel [mm] | Angular [°] | Axial [mm] | | | | | |
| SFS-05G-C | 15 | 0.5 | 2 | ± 1.2 | 20000 | 8000 | 21 | $0.20 \times 10^{-3}$ | 0.50 |
| SFS-06G-C | 30 | 0.5 | 2 | ± 1.6 | 16000 | 14000 | 22 | $0.55 \times 10^{-3}$ | 0.90 |
| SFS-08G-C | 60 | 0.5 | 2 | ± 2.0 | 13000 | 41000 | 30 | $1.50 \times 10^{-3}$ | 1.70 |
| SFS-09G-C | 135 | 0.6 | 2 | ± 2.4 | 12000 | 85000 | 61 | $2.90 \times 10^{-3}$ | 2.40 |
| SFS-10G-C | 190 | 0.6 | 2 | ± 2.8 | 10000 | 125000 | 80 | $4.60 \times 10^{-3}$ | 3.30 |
| SFS-12G-C | 340 | 0.8 | 2 | ± 3.2 | 8000 | 215000 | 98 | $11.80 \times 10^{-3}$ | 5.80 |
| SFS-14G-C | 600 | 0.9 | 2 | ± 3.6 | 7000 | 390000 | 156 | $21.20 \times 10^{-3}$ | 8.60 |

• Higher rpm possible with balancing.
• The moment of inertia and mass are specified for the maximum bore diameter.

### Dimensions




Unit [mm]

| Model | d1 • d2 | | D | N | L | LF | LS | S | F | K | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Min. | Max. | | | | | | | | | |
| SFS-05G-C | 8 | 20 | 56 | 32 | 74 | 20 | 24 | 5 | 11 | 24 | 8-M5 × 22 |
| SFS-06G-C | 8 | 25 | 68 | 40 | 86 | 25 | 24 | 6 | 10 | 30 | 8-M6 × 25 |
| SFS-08G-C | 11 | 35 | 82 | 54 | 98 | 30 | 26 | 6 | 11 | 38 | 8-M6 × 29 |
| SFS-09G-C | 11 | 38 | 94 | 58 | 106 | 30 | 30 | 8 | 21 | 42 | 8-M8 × 36 |
| SFS-10G-C | 16 | 42 | 104 | 68 | 120 | 35 | 30 | 10 | 16 | 48 | 8-M8 × 36 |
| SFS-12G-C | 19 | 50 | 126 | 78 | 140 | 40 | 38 | 11 | 23 | 54 | 8-M10 × 45 |
| SFS-14G-C | 22 | 60 | 144 | 88 | 160 | 45 | 46 | 12 | 31 | 61 | 8-M12 × 54 |

• Further dimensions for LS possible on request.
• Please note that when the LS dimension exceeds 100 mm with the electroless nickel plating option (SFS- □ G-C), the insertion length of the shaft cannot exceed the LS dimension.

### Standard Bore Diameter

| Model | Standard bore diameter d1 • d2 [mm] | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8 | 9 | 10 | 11 | 12 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 22 | 24 | 25 | 28 | 30 | 32 | 35 | 38 | 40 | 42 | 45 | 48 | 50 | 55 | 56 | 60 |
| SFS-05G-C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | | | |
| SFS-06G-C | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | |
| SFS-08G-C | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | |
| SFS-09G-C | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | | |
| SFS-10G-C | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| SFS-12G-C | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| SFS-14G-C | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

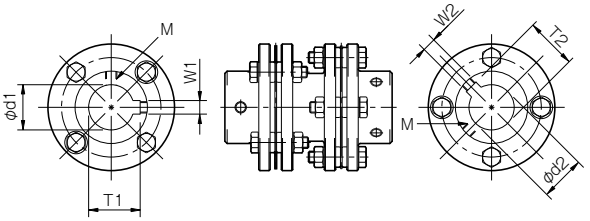
### How to Place an Order

SFS-10G-C-25H-30H LS=500

- Size
- Type: G
  Double element
  Floating shaft
- Surface finishing
  -C: Electroless nickel plating
- Bore diameter: d1 (Small diameter) – d2 (Large diameter)
  Bore specifications
  Blank: Compliant with the old JIS standards (class 2) E9
  H: Compliant with the new JIS standards H9
  J: Compliant with the new JIS standards JS9
  P: Compliant with the new JIS standards P9
  N: Compliant with the new motor standards
- Spacer length
  • Blank: Standard spacers

Material: S45C heat-treated or an equivalent

## Standard Hole-Drillings




Unit [mm]

| Models compliant with the old JIS standards (class 2) | | | | | Models compliant with the new JIS standards (H9) | | | | | Models compliant with the new JIS standards (JS9) | | | | | Models compliant with the new JIS standards (P9) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal bore diameter | Bore diameter [d1 • d2] | Keyway width [W1 • W2] | Keyway height [T1 • T2] | Set screw hole [M] | Nominal bore diameter | Bore diameter [d1 • d2] | Keyway width [W1 • W2] | Keyway height [T1 • T2] | Set screw hole [M] | Nominal bore diameter | Bore diameter [d1 • d2] | Keyway width [W1 • W2] | Keyway height [T1 • T2] | Set screw hole [M] | Nominal bore diameter | Bore diameter [d1 • d2] | Keyway width [W1 • W2] | Keyway height [T1 • T2] | Set screw hole [M] |
| Tolerance | H7, H8 | E9 | $^{+0.3}_{0}$ | — | Tolerance | H7, H8 | H9 | $^{+0.3}_{0}$ | — | Tolerance | H7, H8 | JS9 | $^{+0.3}_{0}$ | — | Tolerance | H7, H8 | P9 | $^{+0.3}_{0}$ | — |
| 8 | 8 $^{+0.022}_{0}$ | — | — | 2-M4 | 8H | 8 $^{+0.022}_{0}$ | 3 $^{+0.025}_{0}$ | 9.4 | 2-M4 | 8J | 8 $^{+0.022}_{0}$ | 3 ± 0.0125 | 9.4 | 2-M4 | 8P | 8 $^{+0.022}_{0}$ | 3 $^{-0.006}_{-0.031}$ | 9.4 | 2-M4 |
| 9 | 9 $^{+0.022}_{0}$ | — | — | 2-M4 | 9H | 9 $^{+0.022}_{0}$ | 3 $^{+0.025}_{0}$ | 10.4 | 2-M4 | 9J | 9 $^{+0.022}_{0}$ | 3 ± 0.0125 | 10.4 | 2-M4 | 9P | 9 $^{+0.022}_{0}$ | 3 $^{-0.006}_{-0.031}$ | 10.4 | 2-M4 |
| 10 | 10 $^{+0.022}_{0}$ | — | — | 2-M4 | 10H | 10 $^{+0.022}_{0}$ | 3 $^{+0.025}_{0}$ | 11.4 | 2-M4 | 10J | 10 $^{+0.022}_{0}$ | 3 ± 0.0125 | 11.4 | 2-M4 | 10P | 10 $^{+0.022}_{0}$ | 3 $^{-0.006}_{-0.031}$ | 11.4 | 2-M4 |
| 11 | 11 $^{+0.018}_{0}$ | — | — | 2-M4 | 11H | 11 $^{+0.018}_{0}$ | 4 $^{+0.030}_{0}$ | 12.8 | 2-M4 | 11J | 11 $^{+0.018}_{0}$ | 4 ± 0.0150 | 12.8 | 2-M4 | 11P | 11 $^{+0.018}_{0}$ | 4 $^{-0.012}_{-0.042}$ | 12.8 | 2-M4 |
| 12 | 12 $^{+0.018}_{0}$ | 4 $^{+0.050}_{+0.020}$ | 13.5 | 2-M4 | 12H | 12 $^{+0.018}_{0}$ | 4 $^{+0.030}_{0}$ | 13.8 | 2-M4 | 12J | 12 $^{+0.018}_{0}$ | 4 ± 0.0150 | 13.8 | 2-M4 | 12P | 12 $^{+0.018}_{0}$ | 4 $^{-0.012}_{-0.042}$ | 13.8 | 2-M4 |
| 14 | 14 $^{+0.018}_{0}$ | 5 $^{+0.050}_{+0.020}$ | 16.0 | 2-M4 | 14H | 14 $^{+0.018}_{0}$ | 5 $^{+0.030}_{0}$ | 16.3 | 2-M4 | 14J | 14 $^{+0.018}_{0}$ | 5 ± 0.0150 | 16.3 | 2-M4 | 14P | 14 $^{+0.018}_{0}$ | 5 $^{-0.012}_{-0.042}$ | 16.3 | 2-M4 |
| 15 | 15 $^{+0.018}_{0}$ | 5 $^{+0.050}_{+0.020}$ | 17.0 | 2-M4 | 15H | 15 $^{+0.018}_{0}$ | 5 $^{+0.030}_{0}$ | 17.3 | 2-M4 | 15J | 15 $^{+0.018}_{0}$ | 5 ± 0.0150 | 17.3 | 2-M4 | 15P | 15 $^{+0.018}_{0}$ | 5 $^{-0.012}_{-0.042}$ | 17.3 | 2-M4 |
| 16 | 16 $^{+0.018}_{0}$ | 5 $^{+0.050}_{+0.020}$ | 18.0 | 2-M4 | 16H | 16 $^{+0.018}_{0}$ | 5 $^{+0.030}_{0}$ | 18.3 | 2-M4 | 16J | 16 $^{+0.018}_{0}$ | 5 ± 0.0150 | 18.3 | 2-M4 | 16P | 16 $^{+0.018}_{0}$ | 5 $^{-0.012}_{-0.042}$ | 18.3 | 2-M4 |
| 17 | 17 $^{+0.018}_{0}$ | 5 $^{+0.050}_{+0.020}$ | 19.0 | 2-M4 | 17H | 17 $^{+0.018}_{0}$ | 5 $^{+0.030}_{0}$ | 19.3 | 2-M4 | 17J | 17 $^{+0.018}_{0}$ | 5 ± 0.0150 | 19.3 | 2-M4 | 17P | 17 $^{+0.018}_{0}$ | 5 $^{-0.012}_{-0.042}$ | 19.3 | 2-M4 |
| 18 | 18 $^{+0.018}_{0}$ | 5 $^{+0.050}_{+0.020}$ | 20.0 | 2-M4 | 18H | 18 $^{+0.018}_{0}$ | 6 $^{+0.030}_{0}$ | 20.8 | 2-M5 | 18J | 18 $^{+0.018}_{0}$ | 6 ± 0.0150 | 20.8 | 2-M5 | 18P | 18 $^{+0.018}_{0}$ | 6 $^{-0.012}_{-0.042}$ | 20.8 | 2-M5 |
| 19 | 19 $^{+0.021}_{0}$ | 5 $^{+0.050}_{+0.020}$ | 21.0 | 2-M4 | 19H | 19 $^{+0.021}_{0}$ | 6 $^{+0.030}_{0}$ | 21.8 | 2-M5 | 19J | 19 $^{+0.021}_{0}$ | 6 ± 0.0150 | 21.8 | 2-M5 | 19P | 19 $^{+0.021}_{0}$ | 6 $^{-0.012}_{-0.042}$ | 21.8 | 2-M5 |
| 20 | 20 $^{+0.021}_{0}$ | 5 $^{+0.050}_{+0.020}$ | 22.0 | 2-M4 | 20H | 20 $^{+0.021}_{0}$ | 6 $^{+0.030}_{0}$ | 22.8 | 2-M5 | 20J | 20 $^{+0.021}_{0}$ | 6 ± 0.0150 | 22.8 | 2-M5 | 20P | 20 $^{+0.021}_{0}$ | 6 $^{-0.012}_{-0.042}$ | 22.8 | 2-M5 |
| 22 | 22 $^{+0.021}_{0}$ | 7 $^{+0.061}_{+0.025}$ | 25.0 | 2-M6 | 22H | 22 $^{+0.021}_{0}$ | 6 $^{+0.030}_{0}$ | 24.8 | 2-M5 | 22J | 22 $^{+0.021}_{0}$ | 6 ± 0.0150 | 24.8 | 2-M5 | 22P | 22 $^{+0.021}_{0}$ | 6 $^{-0.012}_{-0.042}$ | 24.8 | 2-M5 |
| 24 | 24 $^{+0.021}_{0}$ | 7 $^{+0.061}_{+0.025}$ | 27.0 | 2-M6 | 24H | 24 $^{+0.021}_{0}$ | 8 $^{+0.036}_{0}$ | 27.3 | 2-M6 | 24J | 24 $^{+0.021}_{0}$ | 8 ± 0.0180 | 27.3 | 2-M6 | 24P | 24 $^{+0.021}_{0}$ | 8 $^{-0.015}_{-0.051}$ | 27.3 | 2-M6 |
| 25 | 25 $^{+0.021}_{0}$ | 7 $^{+0.061}_{+0.025}$ | 28.0 | 2-M6 | 25H | 25 $^{+0.021}_{0}$ | 8 $^{+0.036}_{0}$ | 28.3 | 2-M6 | 25J | 25 $^{+0.021}_{0}$ | 8 ± 0.0180 | 28.3 | 2-M6 | 25P | 25 $^{+0.021}_{0}$ | 8 $^{-0.015}_{-0.051}$ | 28.3 | 2-M6 |
| 28 | 28 $^{+0.021}_{0}$ | 7 $^{+0.061}_{+0.025}$ | 31.0 | 2-M6 | 28H | 28 $^{+0.021}_{0}$ | 8 $^{+0.036}_{0}$ | 31.3 | 2-M6 | 28J | 28 $^{+0.021}_{0}$ | 8 ± 0.0180 | 31.3 | 2-M6 | 28P | 28 $^{+0.021}_{0}$ | 8 $^{-0.015}_{-0.051}$ | 31.3 | 2-M6 |
| 30 | 30 $^{+0.021}_{0}$ | 7 $^{+0.061}_{+0.025}$ | 33.0 | 2-M6 | 30H | 30 $^{+0.021}_{0}$ | 8 $^{+0.036}_{0}$ | 33.3 | 2-M6 | 30J | 30 $^{+0.021}_{0}$ | 8 ± 0.0180 | 33.3 | 2-M6 | 30P | 30 $^{+0.021}_{0}$ | 8 $^{-0.015}_{-0.051}$ | 33.3 | 2-M6 |
| 32 | 32 $^{+0.025}_{0}$ | 10 $^{+0.061}_{+0.025}$ | 35.5 | 2-M8 | 32H | 32 $^{+0.025}_{0}$ | 10 $^{+0.036}_{0}$ | 35.3 | 2-M8 | 32J | 32 $^{+0.025}_{0}$ | 10 ± 0.0180 | 35.3 | 2-M8 | 32P | 32 $^{+0.025}_{0}$ | 10 $^{-0.015}_{-0.051}$ | 35.3 | 2-M8 |
| 35 | 35 $^{+0.025}_{0}$ | 10 $^{+0.061}_{+0.025}$ | 38.5 | 2-M8 | 35H | 35 $^{+0.025}_{0}$ | 10 $^{+0.036}_{0}$ | 38.3 | 2-M8 | 35J | 35 $^{+0.025}_{0}$ | 10 ± 0.0180 | 38.3 | 2-M8 | 35P | 35 $^{+0.025}_{0}$ | 10 $^{-0.015}_{-0.051}$ | 38.3 | 2-M8 |
| 38 | 38 $^{+0.025}_{0}$ | 10 $^{+0.061}_{+0.025}$ | 41.5 | 2-M8 | 38H | 38 $^{+0.025}_{0}$ | 10 $^{+0.036}_{0}$ | 41.3 | 2-M8 | 38J | 38 $^{+0.025}_{0}$ | 10 ± 0.0180 | 41.3 | 2-M8 | 38P | 38 $^{+0.025}_{0}$ | 10 $^{-0.015}_{-0.051}$ | 41.3 | 2-M8 |
| 40 | 40 $^{+0.025}_{0}$ | 10 $^{+0.061}_{+0.025}$ | 43.5 | 2-M8 | 40H | 40 $^{+0.025}_{0}$ | 12 $^{+0.043}_{0}$ | 43.3 | 2-M8 | 40J | 40 $^{+0.025}_{0}$ | 12 ± 0.0215 | 43.3 | 2-M8 | 40P | 40 $^{+0.025}_{0}$ | 12 $^{-0.018}_{-0.061}$ | 43.3 | 2-M8 |
| 42 | 42 $^{+0.025}_{0}$ | 12 $^{+0.075}_{+0.032}$ | 45.5 | 2-M8 | 42H | 42 $^{+0.025}_{0}$ | 12 $^{+0.043}_{0}$ | 45.3 | 2-M8 | 42J | 42 $^{+0.025}_{0}$ | 12 ± 0.0215 | 45.3 | 2-M8 | 42P | 42 $^{+0.025}_{0}$ | 12 $^{-0.018}_{-0.061}$ | 45.3 | 2-M8 |
| 45 | 45 $^{+0.025}_{0}$ | 12 $^{+0.075}_{+0.032}$ | 48.5 | 2-M8 | 45H | 45 $^{+0.025}_{0}$ | 14 $^{+0.043}_{0}$ | 48.8 | 2-M10 | 45J | 45 $^{+0.025}_{0}$ | 14 ± 0.0215 | 48.8 | 2-M10 | 45P | 45 $^{+0.025}_{0}$ | 14 $^{-0.018}_{-0.061}$ | 48.8 | 2-M10 |
| 48 | 48 $^{+0.025}_{0}$ | 12 $^{+0.075}_{+0.032}$ | 51.5 | 2-M8 | 48H | 48 $^{+0.025}_{0}$ | 14 $^{+0.043}_{0}$ | 51.8 | 2-M10 | 48J | 48 $^{+0.025}_{0}$ | 14 ± 0.0215 | 51.8 | 2-M10 | 48P | 48 $^{+0.025}_{0}$ | 14 $^{-0.018}_{-0.061}$ | 51.8 | 2-M10 |
| 50 | 50 $^{+0.025}_{0}$ | 12 $^{+0.075}_{+0.032}$ | 53.5 | 2-M8 | 50H | 50 $^{+0.025}_{0}$ | 14 $^{+0.043}_{0}$ | 53.8 | 2-M10 | 50J | 50 $^{+0.025}_{0}$ | 14 ± 0.0215 | 53.8 | 2-M10 | 50P | 50 $^{+0.025}_{0}$ | 14 $^{-0.018}_{-0.061}$ | 53.8 | 2-M10 |
| 55 | 55 $^{+0.030}_{0}$ | 15 $^{+0.075}_{+0.032}$ | 60.0 | 2-M10 | 55H | 55 $^{+0.030}_{0}$ | 16 $^{+0.043}_{0}$ | 59.3 | 2-M10 | 55J | 55 $^{+0.030}_{0}$ | 16 ± 0.0215 | 59.3 | 2-M10 | 55P | 55 $^{+0.030}_{0}$ | 16 $^{-0.018}_{-0.061}$ | 59.3 | 2-M10 |
| 56 | 56 $^{+0.030}_{0}$ | 15 $^{+0.075}_{+0.032}$ | 61.0 | 2-M10 | 56H | 56 $^{+0.030}_{0}$ | 16 $^{+0.043}_{0}$ | 60.3 | 2-M10 | 56J | 56 $^{+0.030}_{0}$ | 16 ± 0.0215 | 60.3 | 2-M10 | 56P | 56 $^{+0.030}_{0}$ | 16 $^{-0.018}_{-0.061}$ | 60.3 | 2-M10 |
| 60 | 60 $^{+0.030}_{0}$ | 15 $^{+0.075}_{+0.032}$ | 65.0 | 2-M10 | 60H | 60 $^{+0.030}_{0}$ | 18 $^{+0.043}_{0}$ | 64.4 | 2-M10 | 60J | 60 $^{+0.030}_{0}$ | 18 ± 0.0215 | 64.4 | 2-M10 | 60P | 60 $^{+0.030}_{0}$ | 18 $^{-0.018}_{-0.061}$ | 64.4 | 2-M10 |

| Models compliant with the new motor standards | | | | |
|---|---|---|---|---|
| Nominal bore diameter | Bore diameter [d1 • d2] | Keyway width [W1 • W2] | Keyway height [T1 • T2] | Set screw hole [M] |
| Tolerance | G7, F7 | H9 | $^{+0.3}_{0}$ | — |
| 14N | 14 $^{+0.024}_{+0.006}$ | 5 $^{+0.030}_{0}$ | 16.3 | 2-M4 |
| 19N | 19 $^{+0.028}_{+0.007}$ | 6 $^{+0.030}_{0}$ | 21.8 | 2-M5 |
| 24N | 24 $^{+0.028}_{+0.007}$ | 8 $^{+0.036}_{0}$ | 27.3 | 2-M6 |
| 28N | 28 $^{+0.028}_{+0.007}$ | 8 $^{+0.036}_{0}$ | 31.3 | 2-M6 |
| 38N | 38 $^{+0.050}_{+0.025}$ | 10 $^{+0.036}_{0}$ | 41.3 | 2-M8 |
| 42N | 42 $^{+0.050}_{+0.025}$ | 12 $^{+0.043}_{0}$ | 45.3 | 2-M8 |
| 48N | 48 $^{+0.050}_{+0.025}$ | 14 $^{+0.043}_{0}$ | 51.8 | 2-M10 |
| 55N | 55 $^{+0.060}_{+0.030}$ | 16 $^{+0.043}_{0}$ | 59.3 | 2-M10 |
| 60N | 60 $^{+0.060}_{+0.030}$ | 18 $^{+0.043}_{0}$ | 64.4 | 2-M10 |

## Position of Set Screw

| Model | Position of set screw [mm] |
|---|---|
| SFS-05 | 7 |
| SFS-06 | 9 |
| SFS-08 | 10 |
| SFS-09 | 10 |
| SFS-10 | 12 |
| SFS-12 | 12 |
| SFS-14 | 15 |

# SERVOFLEX SFS G-M-C – Datasheet

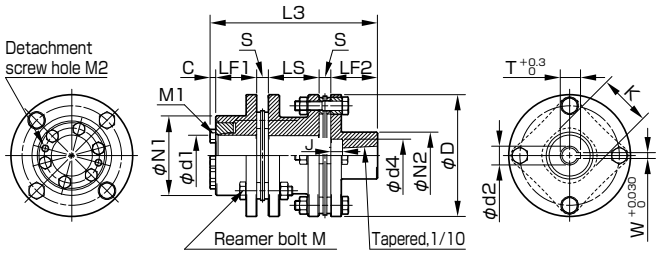
## DOUBLE ELEMENT / FLOATING SHAFT TYPE
## Conical clamp hub / Tapered Shaft Supported

### Specifications

| Model | Rated torque [N·m] | Misalignment | | | Max. rotation speed [min⁻¹] | Torsional stiffness [N·m/rad] | Axial stiffness [N/mm] | Moment of inertia [kg·m²] | Mass [kg] |
|---|---|---|---|---|---|---|---|---|---|
| | | Parallel [mm] | Angular [°] | Axial [mm] | | | | | |
| SFS-06G-□M-11C | 40 | 0.5 | 2 | ±1.6 | 5000 | 14000 | 22 | $0.54 \times 10^{-3}$ | 1.00 |
| SFS-06G-□M-16C | 40 | 0.5 | 2 | ±1.6 | 5000 | 14000 | 22 | $0.59 \times 10^{-3}$ | 1.10 |
| SFS-08G-□M-16C | 80 | 0.5 | 2 | ±2.0 | 5000 | 41000 | 30 | $1.47 \times 10^{-3}$ | 1.90 |
| SFS-09G-□M-16C | 180 | 0.6 | 2 | ±2.4 | 5000 | 85000 | 61 | $2.80 \times 10^{-3}$ | 2.60 |

• Higher rpm possible with balancing.
• The moment of inertia and mass are specified for the maximum bore diameter.

### Dimensions




Unit [mm]

| Model | Bore diameter | d1 | d2 | W +0.030 0 | T +0.3 0 | d4 | J | D | N1 | N2 | L | LF1 | LF2 | LS | S | C | K | M | M1 | M2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SFS-06G | □M-11C | 12 • 14 • 15 | 11 | 4 | 12.2 | 18 | 9 | 68 | 40 | 30 | 90.8 | 25 | 25 | 24 | 6 | 4.8 | 30 | 8-M6 × 25 | 4-M5 | 2-M5 |
| | □M-16C | 15 | 16 | 5 | 17.3 | 28 | 10 | | | 40 | 105.8 | | 40 | | | | | | | |
| SFS-08G | □M-16C | 15 • 16 • 20 • 22 | 16 | 5 | 17.3 | 28 | 10 | 82 | 54 | 40 | 112.8 | 30 | 40 | 26 | 6 | 4.8 | 38 | 8-M6 × 29 | 4-M6 | 2-M6 |
| SFS-09G | □M-16C | 25 • 28 | 16 | 5 | 17.3 | 28 | 10 | 94 | 58 | 40 | 120.8 | 30 | 40 | 30 | 8 | 4.8 | 42 | 8-M8 × 36 | 6-M6 | 2-M6 |

• Further dimensions for LS possible on request.
• The machining tolerance for paired mounting shafts of the hub on the friction-coupled side is h7 (h6 or g6) class.

### How to Place an Order

SFS-08G-20M-16C LS=500

- Size
- Types
  G: Floating shaft
- Bore diameter d1
- Affixing method
  M: Conical clamp hub
- Bore diameter d2
- Spacer length
  • Blank: Standard spacers

Material: S45C heat-treated or an equivalent

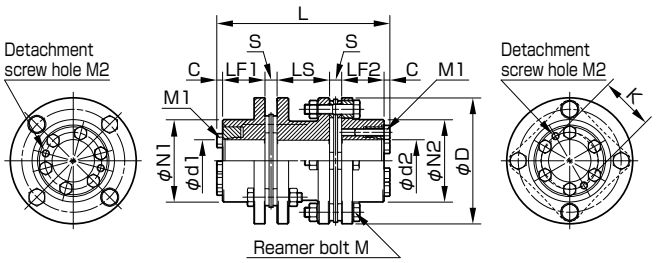
# SERVOFLEX SFS G-M-M – Datasheet
## DOUBLE ELEMENT / FLOATING SHAFT TYPE / Conical clamp hub

## Specifications

| Model | Rated torque [N·m] | Misalignment | | | Max. rotation speed [min$^{-1}$] | Torsional stiffness [N·m/rad] | Axial stiffness [N/mm] | Moment of inertia [kg·m$^2$] | Mass [kg] |
|---|---|---|---|---|---|---|---|---|---|
| | | Parallel [mm] | Angular [°] | Axial [mm] | | | | | |
| SFS-06G-☐M-☐M | 40 | 0.5 | 2 | ± 1.6 | 5000 | 14000 | 22 | $0.55 \times 10^{-3}$ | 1.10 |
| SFS-08G-☐M-☐M | 80 | 0.5 | 2 | ± 2.0 | 5000 | 41000 | 30 | $1.56 \times 10^{-3}$ | 2.00 |
| SFS-09G-☐M-☐M | 180 | 0.6 | 2 | ± 2.4 | 5000 | 85000 | 61 | $3.10 \times 10^{-3}$ | 2.80 |
| SFS-10G-☐M-☐M | 250 | 0.6 | 2 | ± 2.8 | 5000 | 125000 | 80 | $4.70 \times 10^{-3}$ | 3.50 |
| SFS-12G-☐M-☐M | 450 | 0.8 | 2 | ± 3.2 | 5000 | 215000 | 98 | $12.10 \times 10^{-3}$ | 6.50 |
| SFS-14G-35M-35M | 580 | 0.9 | 2 | ± 3.6 | 5000 | 390000 | 156 | $25.31 \times 10^{-3}$ | 10.10 |

• Check the Standard Bore Diameters as there may be limitations on the rated torque caused by the holding power of the coupling shaft section.
• Higher rpm possible with balancing.
• The moment of inertia and mass are specified for the maximum bore diameter.

## Dimensions




Unit [mm]

| Model | Bore diameter | d1 | d2 | D | N1 | N2 | L | LF1 | LF2 | LS | S | C | K | M | M1 | M2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SFS-06G | ☐M-☐M | 12 • 14 • 15 | 12 • 14 • 15 | 68 | 40 | 40 | 95.6 | 25 | 25 | 24 | 6 | 4.8 | 30 | 8-M6 × 25 | 4-M5 | 2-M5 |
| SFS-08G | ☐M-☐M | 15 • 16 • 20 • 22 | 15 • 16 • 20 • 22 | 82 | 54 | 54 | 107.6 | 30 | 30 | 26 | 6 | 4.8 | 38 | 8-M6 × 29 | 4-M6 | 2-M6 |
| SFS-09G | ☐M-☐M | 25 • 28 | 25 • 28 | 94 | 58 | 58 | 115.6 | 30 | 30 | 30 | 8 | 4.8 | 42 | 8-M8 × 36 | 6-M6 | 2-M6 |
| | ☐M-35M | 25 • 28 | 35 | | | 68 | 123.6 | | 38 | | | | | | | |
| SFS-10G | ☐M-☐M | 25 • 28 • 30 • 35 | 25 • 28 • 30 • 35 | 104 | 68 | 68 | 129.6 | 35 | 35 | 30 | 10 | 4.8 | 48 | 8-M8 × 36 | 6-M6 | 2-M6 |
| SFS-12G | ☐M-☐M | 30 • 35 | 30 • 35 | 126 | 78 | 78 | 150.6 | 40 | 40 | 38 | 11 | 5.3 | 54 | 8-M10 × 45 | 4-M8 | 2-M8 |
| SFS-14G | 35M-35M | 35 | 35 | 144 | 88 | 88 | 170.6 | 45 | 45 | 46 | 12 | 5.3 | 61 | 8-M12 × 54 | 6-M8 | 2-M8 |

• Further dimensions for LS possible on request.

## Standard Bore Diameter

| SFS-06 | | Standard bore diameter d2 [mm] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12M | 14M | 15M | 16M | 20M | 22M | 25M | 28M | 30M | 35M |
| Standard bore diameter d1 [mm] | 12M | ● | ● | ● | | | | | | | |
| | 14M | | ● | ● | | | | | | | |
| | 15M | | | ● | | | | | | | |

| SFS-08 | | Standard bore diameter d2 [mm] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12M | 14M | 15M | 16M | 20M | 22M | 25M | 28M | 30M | 35M |
| Standard bore diameter d1 [mm] | 15M | | | ● | ● | ● | ● | | | | |
| | 16M | | | | ● | ● | ● | | | | |
| | 20M | | | | | ● | ● | | | | |
| | 22M | | | | | | ● | | | | |

| SFS-09 | | Standard bore diameter d2 [mm] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12M | 14M | 15M | 16M | 20M | 22M | 25M | 28M | 30M | 35M |
| Standard bore diameter d1 [mm] | 25M | | | | | | | ● | ● | | ● |
| | 28M | | | | | | | | ● | | ● |

| SFS-10 | | Standard bore diameter d2 [mm] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12M | 14M | 15M | 16M | 20M | 22M | 25M | 28M | 30M | 35M |
| Standard bore diameter d1 [mm] | 25M | | | | | | | ● | ● | ● | ● |
| | 28M | | | | | | | | ● | ● | ● |
| | 30M | | | | | | | | | ● | ● |
| | 35M | | | | | | | | | | ● |

| SFS-12 | | Standard bore diameter d2 [mm] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12M | 14M | 15M | 16M | 20M | 22M | 25M | 28M | 30M | 35M |
| Standard bore diameter d1 [mm] | 30M | | | | | | | | | 380 | 380 |
| | 35M | | | | | | | | | | ● |

| SFS-14 | | Standard bore diameter d2 [mm] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12M | 14M | 15M | 16M | 20M | 22M | 25M | 28M | 30M | 35M |
| Standard bore diameter d1 [mm] | 35M | | | | | | | | | | ● |

- Bore diameters marked with ● or numbers are supported as the standard bore diameters.
- Bore diameters whose fields contain numbers are restricted in their rated torque by the holding power of the shaft connection component because the bore diameter is small. The numbers indicate the rated torque [N•m].
- Where a bore diameter is not given above and is small, please check first; model may be restricted in its rated torque.

Unit [mm]

- The recommended processing tolerance for paired mounting shafts is the h7 (h6 or g6) class. However, for a bore diameter of ø35, the shaft tolerance is $^{+0.010}_{-0.025}$.

## How to Place an Order

SFS-10G-25M-30M LS=500

- Size
- Types
  - G: Floating shaft
- Bore diameter d1 (Small diameter)
- Bore diameter d2 (Large diameter)
- Affixing method
  - M: Conical clamp hub
- Spacer length
  - • Blank: Standard spacers.

Material: S45C heat-treated or an equivalent