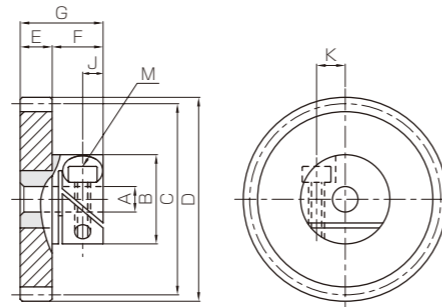




| Specifications  |   |
|-----------------|---|
| Precision grade | JIS grade N10 (JIS B 1702-1:1998) *<br>Former JIS grade 6 (JIS B 1702:1976) |
| Gear teeth      | Standard full depth   |
| Pressure angle  | 20°   |
| Material        | Polyacetal (Hub: SUS303)  |
| Heat treatment  | -   |
| Tooth hardness  | (110-120HRR)  |

\* The precision grade of products with a module of 0.5 or less is equivalent to the value shown in the table.



S1

| Catalog No. | Module | No. of teeth | Shape | Bore            |     | Pitch dia. |      | Outside dia. |     | Face width | Hub width | Total Length | Hex socket screw |   |   |   |
|-------------|--------|--------------|-------|-----------------|-----|------------|------|--------------|-----|------------|-----------|--------------|------------------|---|---|---|
|             |        |              |       | A <sub>H7</sub> | B   | C          | D    | E            | F   |            |           |              | G                | M | J | K |
| DSF0.5-36   | m0.5   | 36           | S1    | 5               | 14  | 18         | 19   | 5            | 8.5 | 13.5       | M2.5      | 3.3          | 4.4              |   |   |   |
| DSF0.5-40   |        | 40           |       |                 |     | 20         | 21   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-45   |        | 45           |       |                 |     | 22.5       | 23.5 |              |     |            |           |              |                  |   |   |   |
| DSF0.5-48   |        | 48           |       |                 |     | 24         | 25   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-50   |        | 50           |       |                 |     | 25         | 26   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-60   |        | 60           |       |                 |     | 30         | 31   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-64   |        | 64           |       |                 |     | 32         | 33   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-70   |        | 70           |       |                 |     | 35         | 36   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-80   |        | 80           |       |                 |     | 40         | 41   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-90   |        | 90           |       |                 |     | 45         | 46   |              |     |            |           |              |                  |   |   |   |
| DSF0.5-100  | 8      | 100          | 19    | 50              | 51  | 10         | 15   | M3           | 4.5 | 6          |           |              |                  |   |   |   |
| DSF0.5-120  |        | 120          |       | 60              | 61  |            |      |              |     |            |           |              |                  |   |   |   |
| DSF1-20     | m1     | 20           | S1    | 5               | 14  | 20         | 22   | 6            | 8.5 | 14.5       | M2.5      | 3.3          | 4.4              |   |   |   |
| DSF1-24     |        | 24           |       |                 |     | 24         | 26   |              |     |            |           |              |                  |   |   |   |
| DSF1-25     |        | 25           |       |                 |     | 25         | 27   |              |     |            |           |              |                  |   |   |   |
| DSF1-28     |        | 28           |       |                 |     | 28         | 30   |              |     |            |           |              |                  |   |   |   |
| DSF1-30     |        | 30           |       |                 |     | 30         | 32   |              |     |            |           |              |                  |   |   |   |
| DSF1-32     |        | 32           |       |                 |     | 32         | 34   |              |     |            |           |              |                  |   |   |   |
| DSF1-35     |        | 35           |       |                 |     | 35         | 37   |              |     |            |           |              |                  |   |   |   |
| DSF1-36     |        | 36           |       |                 |     | 36         | 38   |              |     |            |           |              |                  |   |   |   |
| DSF1-40     |        | 40           |       |                 |     | 40         | 42   |              |     |            |           |              |                  |   |   |   |
| DSF1-45     |        | 45           |       |                 |     | 45         | 47   |              |     |            |           |              |                  |   |   |   |
| DSF1-48     | 8      | 48           | 19    | 48              | 50  | 10         | 16   | M3           | 4.5 | 6          |           |              |                  |   |   |   |
| DSF1-50     |        | 50           |       | 50              | 52  |            |      |              |     |            |           |              |                  |   |   |   |
| DSF1-60     |        | 60           |       | 60              | 62  |            |      |              |     |            |           |              |                  |   |   |   |
| DSF1-64     |        | 64           |       | 64              | 66  |            |      |              |     |            |           |              |                  |   |   |   |
| DSF1-70     |        | 70           |       | 70              | 72  |            |      |              |     |            |           |              |                  |   |   |   |
| DSF1-80     |        | 80           |       | 80              | 82  |            |      |              |     |            |           |              |                  |   |   |   |
| DSF1-90     |        | 90           |       | 90              | 92  |            |      |              |     |            |           |              |                  |   |   |   |
| DSF1-100    |        | 100          |       | 100             | 102 |            |      |              |     |            |           |              |                  |   |   |   |

- [Caution on Product Characteristics]
- ① The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 31 for more details.
  - ② The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.
  - ③ The tooth (acetal) and hub (SUS303) mating section has a rotation-stop pin inserted.
  - ④ F-Loc gears are attached to the shaft by a friction coupling. Recommended shaft tolerances are g6, h6, or h7. Torque slippage should be considered when making a selection.
  - ⑤ Do not tighten the clamping screw without inserting a shaft, or the bore will be permanently deformed and will not accept a shaft.

| Allowable torque (N·m) | Allowable torque (kgf·m) | Ref. slipping torque /<br>Standard screw tightening torque (N·m) | Backlash<br>(mm) | Weight<br>(g) | Catalog No. |
|------------------------|--------------------------|--|------------------|---------------|-------------|
| Bending strength       | Bending strength         |  |                  |               |             |
| 0.49                   | 0.050                    | 0.62 / 0.36  | 0~0.10           | 11.5          | DSF0.5-36   |
| 0.55                   | 0.057                    |  |                  | 12.0          | DSF0.5-40   |
| 0.64                   | 0.065                    |  |                  | 12.5          | DSF0.5-45   |
| 0.69                   | 0.071                    |  |                  | 12.9          | DSF0.5-48   |
| 0.73                   | 0.075                    |  |                  | 13.2          | DSF0.5-50   |
| 0.90                   | 0.092                    |  |                  | 14.7          | DSF0.5-60   |
| 0.97                   | 0.099                    |  |                  | 15.4          | DSF0.5-64   |
| 1.07                   | 0.11                     |  |                  | 16.5          | DSF0.5-70   |
| 1.25                   | 0.13                     |  |                  | 18.6          | DSF0.5-80   |
| 1.42                   | 0.14                     |  |                  | 31.1          | DSF0.5-90   |
| 1.59                   | 0.16                     | 2.22 / 0.63  | 0~0.10           | 33.7          | DSF0.5-100  |
| 1.93                   | 0.20                     |  |                  | 39.8          | DSF0.5-120  |
| 0.96                   | 0.098                    | 0.62 / 0.36  | 0~0.10           | 12.6          | DSF1-20     |
| 1.22                   | 0.12                     |  |                  | 13.7          | DSF1-24     |
| 1.28                   | 0.13                     |  |                  | 14.1          | DSF1-25     |
| 1.48                   | 0.15                     |  |                  | 15.1          | DSF1-28     |
| 1.61                   | 0.16                     |  |                  | 26.2          | DSF1-30     |
| 1.75                   | 0.18                     |  |                  | 27.0          | DSF1-32     |
| 1.96                   | 0.20                     | 2.22 / 0.63  | 0~0.10           | 28.3          | DSF1-35     |
| 2.04                   | 0.21                     |  |                  | 28.8          | DSF1-36     |
| 2.33                   | 0.24                     |  |                  | 30.8          | DSF1-40     |
| 2.69                   | 0.27                     |  |                  | 33.6          | DSF1-45     |
| 2.92                   | 0.30                     |  |                  | 35.5          | DSF1-48     |
| 3.07                   | 0.31                     |  |                  | 36.8          | DSF1-50     |
| 3.78                   | 0.39                     |  |                  | 44.1          | DSF1-60     |
| 4.07                   | 0.41                     |  |                  | 47.4          | DSF1-64     |
| 4.50                   | 0.46                     |  |                  | 52.7          | DSF1-70     |
| 5.23                   | 0.53                     |  |                  | 62.7          | DSF1-80     |
| 5.95                   | 0.61                     | 74.0   | DSF1-90          |               |             |
| 6.68                   | 0.68                     | 86.6   | DSF1-100         |               |             |

- [Caution on Secondary Operations] ① Avoid performing secondary operations, as this is a complete product.