

## LOW COST SLIP CLUTCH



### FEATURES

#### ACCURATE TORQUE

The drag torque is produced by means of a hysteresis principle. This allows for constant torque levels and eliminates the possibility of high break away torque that occurs with typical friction devices

#### STABLE TORQUE

A consistent torque is maintained because of the hysteresis principle and is consistent within allowable speed range.

#### LONG OPERATIONAL LIFE

Permanent magnets and magnetic particles transmit torque, therefore wear is virtually eliminated.

#### EASY INSTALLATION WITH NO ADJUSTMENTS

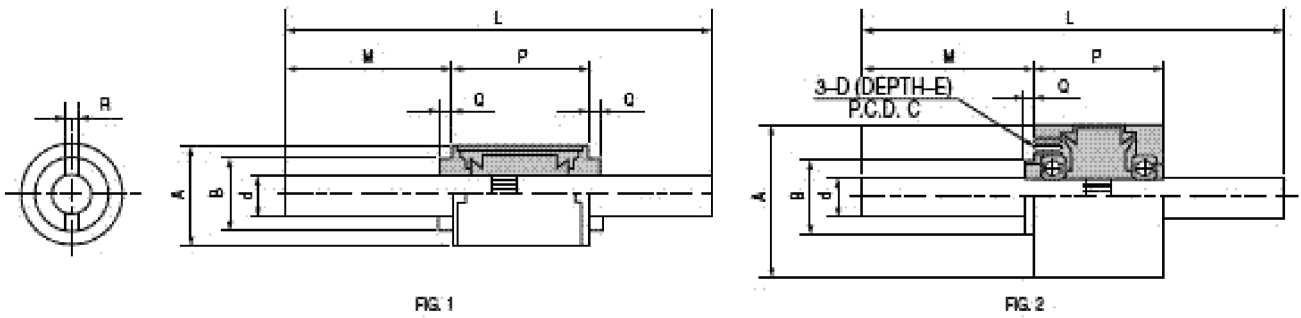
Units are provided pre-assembled to a specific torque range, so there is nothing to adjust.

#### NO CONTAMINATION

Units are sealed which prevents any particles from contaminating the machine, and also prevents contamination of the clutch by the machine environment.

MAGNETIC SLIP CLUTCH WITH SHAFT

SERIES 51-OPL

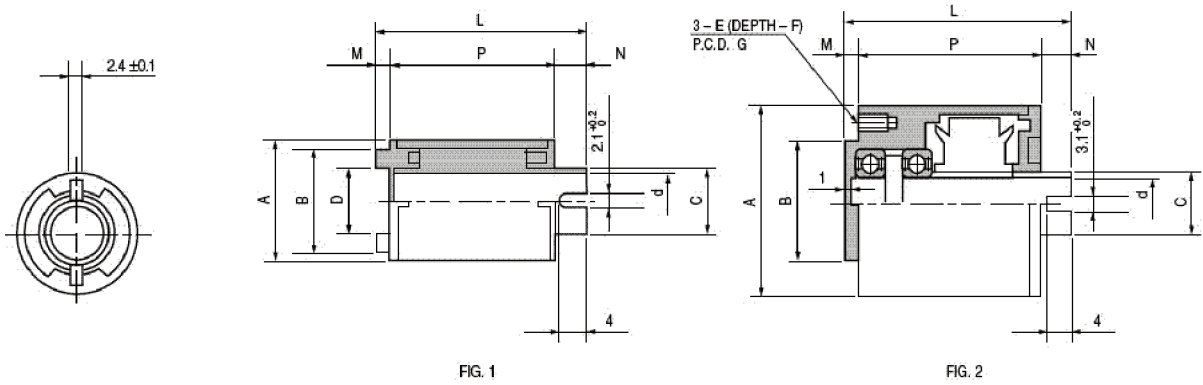


| MODEL                           |   | Fig. 1 (Synthetic bearing) |         |          |           | Fig. 2 (Ball bearing) |          |           |           |           |
|---------------------------------|---|----------------------------|---------|----------|-----------|-----------------------|----------|-----------|-----------|-----------|
|                                 |   | 0.3N                       | 0.6N    | 1.2N     | 1.8N      | 13N                   | 15N      | 23N       | 33N       | 48N       |
| Static torque (Nm)              |   | 0.03                       | 0.06    | 0.12     | 0.18      | 1.00                  | 0.15     | 0.20      | 0.30      | 0.40      |
| OPTIONAL TORQUE RANGE (Lbs. in) |   | .17~.35                    | .35~.53 | .53~1.06 | 1.06~1.60 | .62~.88               | .88~1.33 | 1.33~1.76 | 1.76~2.66 | 2.66~3.52 |
| MAX ALLOWABLE SPEED (r/min.)    |   | 300                        | 300     | 250      | 200       | 400                   | 400      | 300       | 300       | 200       |
| SHAFT DIA. (mm) d-0.03          |   | 8                          | 8       | 8        | 8         | 8                     | 8        | 8         | 8         | 8         |
| RADIAL DIMENSIONS (mm)          | A | 20                         | 20      | 20       | 20        | 32                    | 32       | 32        | 32        | 32        |
|                                 | B | 15                         | 15      | 15       | 15        | 15                    | 15       | 15        | 15        | 15        |
|                                 | C | -                          | -       | -        | -         | 21                    | 21       | 21        | 21        | 21        |
|                                 | D | -                          | -       | -        | -         | M3                    | M3       | M3        | M3        | M3        |
|                                 | E | -                          | -       | -        | -         | 5                     | 5        | 5         | 5         | 5         |
| AXIAL DIMENSIONS (mm)           | L | 180                        | 180     | 180      | 180       | 180                   | 180      | 180       | 180       | 180       |
|                                 | M | 50                         | 50      | 50       | 50        | 50                    | 50       | 50        | 50        | 50        |
|                                 | P | 20                         | 20      | 27       | 34        | 26                    | 26       | 33        | 33        | 40        |
|                                 | Q | 2.5                        | 2.5     | 2.5      | 2.5       | 2                     | 2        | 2         | 2         | 2         |
|                                 | R | 2.4                        | 2.4     | 2.4      | 2.4       | -                     | -        | -         | -         | -         |

- \* Weight will vary depending upon shaft length. For reference weight, see OPL-R
- \* Where the slip clutch is subjected to any radial or axial thrust, we recommend the use of the ball bearing design shown in figure 2.
- \* The configuration and shaft length of the slip clutch can be varied to suite particular application requirements.

MAGNETIC SLIP CLUTCH THROUGH BORE

SERIES 51-OPL-R



| MODEL                          |   | Fig. 1 (Synthetic bearing) |             |             | Fig. 2 (Ball bearing) |            |            |             |
|--------------------------------|---|----------------------------|-------------|-------------|-----------------------|------------|------------|-------------|
|                                |   | 0.3R                       | 0.6R        | 1.2R        | 1 BR                  | 1.5BR      | 2BR        | 3BR         |
| STATIC TORQUE                  |   | 0.03                       | 0.06        | 0.12        | 1.0                   | 0.15       | 0.20       | 0.30        |
| OPTIONAL TORQUE RANGE (Nm. in) |   | 0.019-0.039                | 0.039-0.059 | 0.059-0.119 | 0.069-0.099           | 0.099-0.14 | 0.14-0.197 | 0.197-0.299 |
| MAX ALLOWABLE SPEED (r/min.)   |   | 300                        | 300         | 250         | 400                   | 400        | 300        | 300         |
| SHAFT DIA. (mm) d-0.03         |   | -                          | -           | -           | -                     | -          | -          | -           |
| RADIAL DIMENSIONS (mm)         | A | 20                         | 20          | 20          | 32                    | 32         | 32         | 32          |
|                                | B | 17                         | 17          | 17          | 20h8                  | 20h8       | 20h8       | 20h8        |
|                                | C | 11                         | 11          | 11          | 10                    | 10         | 10         | 10          |
|                                | D | 11                         | 11          | 11          | -                     | -          | -          | -           |
|                                | E | -                          | -           | -           | M3                    | M3         | M3         | M3          |
|                                | F | -                          | -           | -           | 5                     | 5          | 5          | 5           |
|                                | G | -                          | -           | -           | 26+/- .2              | 26+/- .2   | 26+/- .2   | 26+/- .2    |
| AXIAL DIMENSIONS (mm)          | L | 27.5                       | 27.5        | 34.5        | 37                    | 37         | 44         | 44          |
|                                | M | 2.5                        | 2.5         | 2.5         | 2                     | 2          | 2          | 2           |
|                                | N | 5                          | 5           | 5           | 5                     | 5          | 5          | 5           |
|                                | P | 20                         | 20          | 27          | 30                    | 30         | 37         | 37          |
| Unit Weight (Kg)               |   | 0.025                      | 0.025       | 0.030       | 0.12                  | 0.12       | 0.15       | 0.15        |

\*Where the slip clutch is subjected to any radial or axial thrust, we recommend the use of the ball bearing design shown in figure 2.