

Gear Series **GB32K**

Planetary Reduction Gearhead - 0.4.....2 Nm



Design

Gearhead GB32K, a moderately priced gearhead, is specially designed to cater heavy duty application in a cylindrical frame with centre shaft. This is a planetary gear box with the possibility of polyacetal gears in first stage (for low noise) and remaining stages being powder metal or hardened metal (on special request). The output bearing is robust and is made of powdered metal (ball bearing on special request). The entire gearhead is permanently lubricated and therefore requires no maintenance. Brushed and Brushless DC Motors upto 36mm diameter are generally mounted on this gearhead to provide a compact and yet powerful drive.

Technical Data

| | | |
|---|----|--|
| Gear type | | Spur Gears |
| Gear Torque | Nm | 0.4...2 |
| Combination with Mechtex motors (add assembly drawing along with proper mounting) | | DC28, DC30, DC32, DC36, DC38, MTR2b, BI24, BI28, BI36, BI42, BO32 (others like BO42, DC42, etc on special request) |
| Mounting | | 4 ~ M3X5.5 dp, PCDØ26 |
| Axial thrust | N | 15 |
| Lateral force | N | 45 |
| Radial torque | Nm | 0.8 |
| Output Bearings | | Powdered metal (Ball bearing on special request) |
| Output shafts | Ø | 6mm (others on special request) |
| Ambient temperature operation | | -15....+55 |
| Enclosure | IP | 40 |

Gearhead Data

| | | | | | | | | | | | | | | | | |
|--------------------------------------|------|------|------|-------|------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Reduction | | 3.71 | 5.18 | 13.73 | 19.2 | 26.85 | 50.89 | 71.16 | 99.51 | 139.14 | 188.61 | 263.73 | 369.76 | 515.63 | 720.99 | 938.85 |
| Max. motor shaft diameter | mm | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| number of stages | | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| Max. continuous torque | (Nm) | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2 | 2 | 2 | 2 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Max Momentary or intermediate torque | | | | | | | | | | | | | | | | |
| Max. efficiency | % | 80 | 80 | 72 | 72 | 72 | 65 | 65 | 65 | 65 | 60 | 60 | 60 | 60 | 60 | 60 |
| Gearhead length L1 | mm | 20.6 | 20.6 | 27 | 27 | 27 | 33.4 | 33.4 | 33.4 | 33.4 | 39.8 | 39.8 | 39.8 | 39.8 | 39.8 | 39.8 |

Transmission Ratios

| | |
|---------|---|
| 1 Stage | 3.71, 5.18 |
| 2 Stage | 13.73, 19.2, 26.85 |
| 3 Stage | 50.89, 71.16, 99.51, 139.14 |
| 4 Stage | 188.61, 263.76, 369.76, 515.63, 720.99, 938.85* |

Note - Dc38 Motor not possible with ratio marked with * suffix

Shaft Type Catalogue

| Shaft type | (+0.00/ -0.10) | | | | Shaft Diam. | | |
|------------|----------------|----|----|----|-------------|-----|-----|
| | D' | D | H | L | d | l | d' |
| OS | 18 | 20 | 20 | 19 | 6 | 12 | 5.5 |
| OA | 18 | 20 | 20 | 19 | 6 | ... | ... |

Dimensional Drawing

