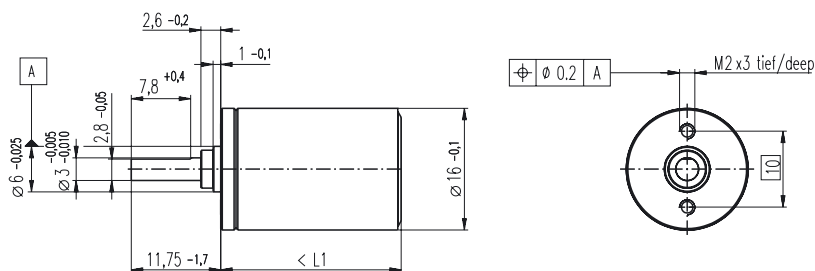


# Planetary Gearhead GP 16 A Ø16 mm, 0.1 - 0.3 Nm

Metal Version



M 1:1

## Technical Data

|                                       |                           |
|---------------------------------------|---------------------------|
| Planetary Gearhead                    | straight teeth            |
| Output shaft                          | stainless steel, hardened |
| Bearing at output                     | sleeve bearing            |
| Option*                               | ball bearing              |
| Radial play, 6 mm from flange         | max. 0.06 mm              |
| Axial play                            | 0.02 - 0.10 mm            |
| Max. permissible axial load           | 8 N                       |
| Max. permissible force for press fits | 100 N                     |
| Sense of rotation, drive to output    | =                         |
| Recommended input speed               | < 8000 rpm                |
| Recommended temperature range         | -15 ... +100°C            |
| Extended range as option              | -35 ... +100°C            |
| Number of stages                      | 1 2 3 4 5                 |
| Max. radial load, 6 mm from flange    | 8 N 12 N 16 N 20 N 20 N   |

\*Mounting plate 6 tapholes M2x3

- Stock program
- Standard program
- Special program (on request!)

## Order Number

|                                                       | 110321  | 110322   | 110323      | 118186    | 110324         | 134782       | 110325           | 134785         |
|-------------------------------------------------------|---------|----------|-------------|-----------|----------------|--------------|------------------|----------------|
| <b>Gearhead Data</b>                                  |         |          |             |           |                |              |                  |                |
| 1 Reduction                                           | 4.4 : 1 | 19 : 1   | 84 : 1      | 157 : 1   | 370 : 1        | 690 : 1      | 1621 : 1         | 3027 : 1       |
| 2 Reduction absolute                                  | 57/13   | 3249/169 | 185193/2197 | 19683/125 | 10556001/28561 | 1121931/1625 | 601692057/371293 | 63950067/21125 |
| 3 Max. motor shaft diameter mm                        | 2       | 2        | 2           | 1.5       | 2              | 2            | 2                | 2              |
| <b>Order Number</b>                                   | 118184  | 134777   | 134778      |           | 134780         | 118187       | 134783           | 134786         |
| 1 Reduction                                           | 5.4 : 1 | 24 : 1   | 104 : 1     |           | 455 : 1        | 850 : 1      | 1996 : 1         | 3728 : 1       |
| 2 Reduction absolute                                  | 27/5    | 1539/65  | 87723/845   |           | 5000211/10985  | 531441/625   | 285012027/142805 | 30292137/8125  |
| 3 Max. motor shaft diameter mm                        | 1.5     | 2        | 2           |           | 2              | 1.5          | 2                | 2              |
| <b>Order Number</b>                                   |         | 118185   | 134779      |           | 134781         |              | 134784           | 118188         |
| 1 Reduction                                           |         | 29 : 1   | 128 : 1     |           | 561 : 1        |              | 2458 : 1         | 4592 : 1       |
| 2 Reduction absolute                                  |         | 729/25   | 41553/325   |           | 2368521/4225   |              | 135005697/54925  | 14348907/3125  |
| 3 Max. motor shaft diameter mm                        |         | 1.5      | 2           |           | 2              |              | 2                | 1.5            |
| 4 Number of stages                                    | 1       | 2        | 3           | 3         | 4              | 4            | 5                | 5              |
| 5 Max. continuous torque Nm                           | 0.10    | 0.15     | 0.20        | 0.20      | 0.25           | 0.25         | 0.30             | 0.30           |
| 6 Intermittently permissible torque at gear output Nm | 0.150   | 0.225    | 0.300       | 0.300     | 0.375          | 0.375        | 0.450            | 0.450          |
| 7 Max. efficiency %                                   | 90      | 81       | 73          | 73        | 65             | 65           | 59               | 59             |
| 8 Weight g                                            | 20      | 23       | 27          | 27        | 31             | 31           | 35               | 35             |
| 9 Average backlash no load °                          | 1.4     | 1.8      | 2.0         | 2.0       | 2.4            | 2.4          | 3.0              | 3.0            |
| 10 Mass inertia gcm <sup>2</sup>                      | 0.08    | 0.05     | 0.05        | 0.05      | 0.05           | 0.05         | 0.05             | 0.05           |
| 11 Gearhead length L1 mm                              | 15.5    | 19.1     | 22.7        | 22.7      | 26.3           | 26.3         | 29.9             | 29.9           |



## Combination

| + Motor            | Page    | + Tacho / Encoder / Brake | Page    | Overall length [mm] = Motor length + gearhead length + (tacho / encoder / brake) + assembly parts |      |      |      |      |      |      |      |
|--------------------|---------|---------------------------|---------|---------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|
| RE 15, 1.6 W 72    |         |                           |         | 37.9                                                                                              | 41.5 | 45.1 | 45.1 | 48.7 | 48.7 | 52.3 | 52.3 |
| RE 16, 3.2 W 73/74 |         |                           |         | 56.0                                                                                              | 59.6 | 63.2 | 63.2 | 66.8 | 66.8 | 70.4 | 70.4 |
| RE 16, 3.2 W 74    | MR      |                           | 235/236 | 61.0                                                                                              | 64.6 | 68.2 | 68.2 | 71.8 | 71.8 | 75.4 | 75.4 |
| RE 16, 3.2 W 74    | MEnc 13 |                           | 251     | 62.1                                                                                              | 65.7 | 69.3 | 69.3 | 72.9 | 72.9 | 76.5 | 76.5 |
| RE 16, 4.5 W 75/76 |         |                           |         | 59.0                                                                                              | 62.6 | 66.2 | 66.2 | 69.8 | 69.8 | 73.4 | 73.4 |
| RE 16, 4.5 W 76    | MR      |                           | 235/236 | 64.0                                                                                              | 67.6 | 71.2 | 71.2 | 74.8 | 74.8 | 78.4 | 78.4 |
| RE 16, 4.5 W 76    | MEnc 13 |                           | 251     | 65.1                                                                                              | 68.7 | 72.3 | 72.3 | 75.9 | 75.9 | 79.5 | 79.5 |
| A-max 16           | 101-104 |                           |         | 41.0                                                                                              | 44.6 | 48.2 | 48.2 | 51.8 | 51.8 | 55.4 | 55.4 |
| A-max 16           | 102/104 | MR                        | 235/236 | 46.0                                                                                              | 49.6 | 53.2 | 53.2 | 56.8 | 56.8 | 60.4 | 60.4 |
| A-max 16           | 102/104 | MEnc 13                   | 251     | 49.1                                                                                              | 52.7 | 56.3 | 56.3 | 59.9 | 59.9 | 63.5 | 63.5 |
| RE-max 17          | 131-134 |                           |         | 41.0                                                                                              | 44.6 | 48.2 | 48.2 | 51.8 | 51.8 | 55.4 | 55.4 |
| RE-max 17          | 132/134 | MR                        | 235/236 | 46.0                                                                                              | 49.6 | 53.2 | 53.2 | 56.8 | 56.8 | 60.4 | 60.4 |
| EC 16, 15 W 151    |         |                           |         | 55.8                                                                                              | 59.4 | 63.0 | 63.0 | 66.6 | 66.6 | 70.2 | 70.2 |
| EC 16, 15 W 151    | MR      |                           | 237     | 65.9                                                                                              | 69.5 | 73.1 | 73.1 | 76.7 | 76.7 | 80.3 | 80.3 |
| EC-max 16          | 169     |                           |         | 39.6                                                                                              | 43.2 | 46.8 | 46.8 | 50.4 | 50.4 | 54.0 | 54.0 |
| EC-max 16          | 169     | MR                        | 237     | 46.9                                                                                              | 50.5 | 54.1 | 54.1 | 57.7 | 57.7 | 61.3 | 61.3 |