

Planetary gears

# IMS.53 Pro MAX

Our planetary gear from the Pro Series with outer diameter 53 mm combines performance with robustness. In the radially screwed MAX version it stands for improved performance with less installation space. Due to easy adaptations of the configuration it is also available in Low Noise (LN) design.



**Performance**

Powerful, long-lived and robust - the planetary gear convinces in a multitude of applications.

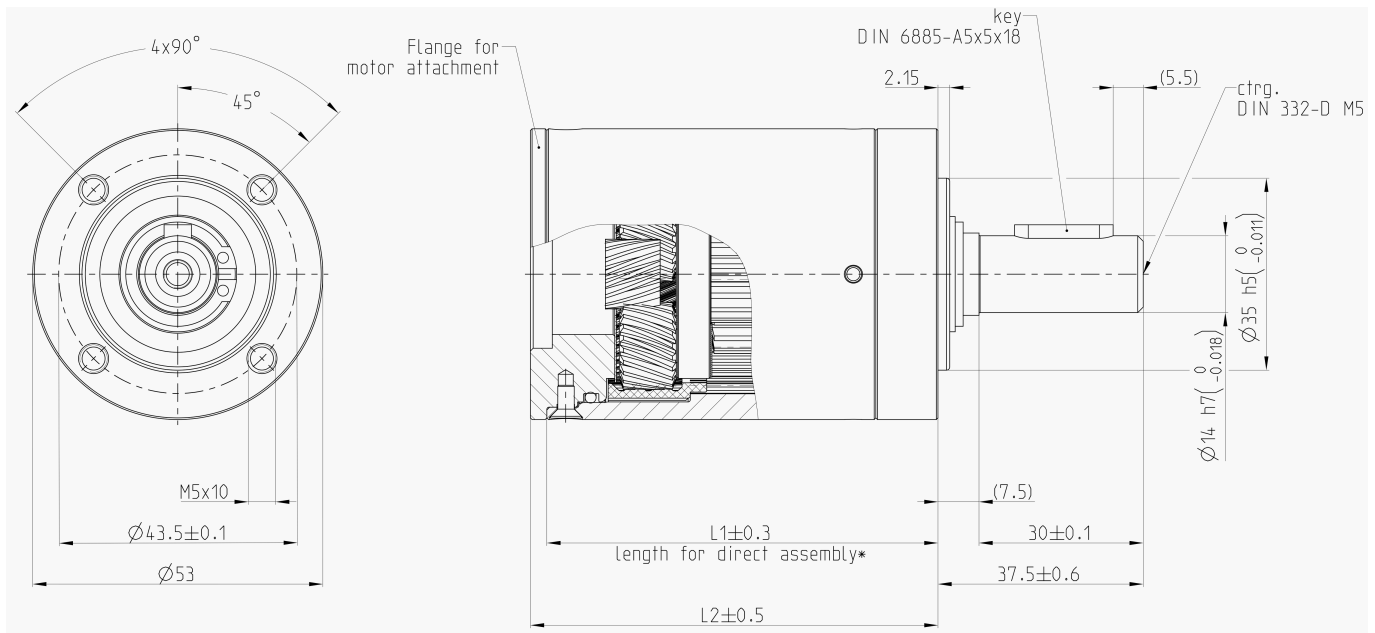


**Temperature**

Also ideally suited for demanding temperature ranges from -30° to +120°C.



| Technical data                           | 1-stage   | 2-stage   | 3-stage   |
|--|-----------|-----------|-----------|
| Permissible output torque TAB (CB = 1.0) | 8.0 Nm    | 25.0 Nm   | 50.0 Nm   |
| Gear efficiency approx.                  | 0.8       | 0.8       | 0.7       |
| Max. Gear backlash                       | 0.7 °DEG  | 0.7 °DEG  | 0.8 °DEG  |
| Recommended input speed                  | 3.000 rpm | 3.000 rpm | 3.000 rpm |



All dimensions in millimetres [mm]

**Reductions**

| 1-stage    | 2-stage      | 3-stage        |
|------------|--------------|----------------|
| 4:1 (3,71) | 14:1 (13,73) | 51:1 (50,89)   |
| 4:1 (4,29) | 16:1 (15,88) | 59:1 (58,86)   |
| 5:1 (5,18) | 18:1 (18,37) | 68:1 (68,07)   |
| 7:1 (6,75) | 19:1 (19,20) | 71:1 (71,16)   |
|            | 22:1 (22,21) | 79:1 (78,72)   |
|            | 25:1 (25,01) | 93:1 (92,70)   |
|            | 27:1 (26,85) | 95:1 (95,18)   |
|            | 29:1 (28,93) | 100:1 (99,51)  |
|            | 35:1 (34,98) | 107:1 (107,21) |
|            | 46:1 (45,56) | 115:1 (115,08) |
|            |              | 124:1 (123,98) |
|            |              | 130:1 (129,62) |
|            |              | 139:1 (139,14) |
|            |              | 150:1 (149,90) |
|            |              | 169:1 (168,85) |
|            |              | 181:1 (181,25) |
|            |              | 195:1 (195,27) |
|            |              | 236:1 (236,10) |
|            |              | 308:1 (307,55) |

| Output side with ball bearing             | 1-stage   | 2-stage   | 3-stage   |
|---|-----------|-----------|-----------|
| Max. radial load (centre of output shaft) | 240,0 N   | 360,0 N   | 520,0 N   |
| Max. Axial load                           | 70,0 N    | 100,0 N   | 150,0 N   |
| Max. permissible contact pressure         | 1,000,0 N | 1,000,0 N | 1,000,0 N |
| Weight approx.                            | 800 g     | 1200 g    | 1600 g    |

| Gear length           | 1-stage    | 2-stage    | 3-stage    |
|-----------------------|------------|------------|------------|
| Length 1 <sup>1</sup> | 54,5 ± 0,3 | 71,5 ± 0,3 | 88,4 ± 0,3 |
| Length 2 <sup>1</sup> | 57,5 ± 0,5 | 74,5 ± 0,5 | 91,4 ± 0,5 |

<sup>1</sup> A calculated minimum length of the gearbox is given under the condition of an optimal connection of flange and motor. Please contact us directly for your specific project.

All data in this brochure are approximates

Deviations are possible and are due, for example, to non-standardized testing and measuring methods. Please contact us directly for detailed information. We reserve the right to make technical changes without prior notice. Please refer to our website [www.imsgea.com](http://www.imsgea.com) for the current status.