Planetary gears

IMS.81 ProLN®

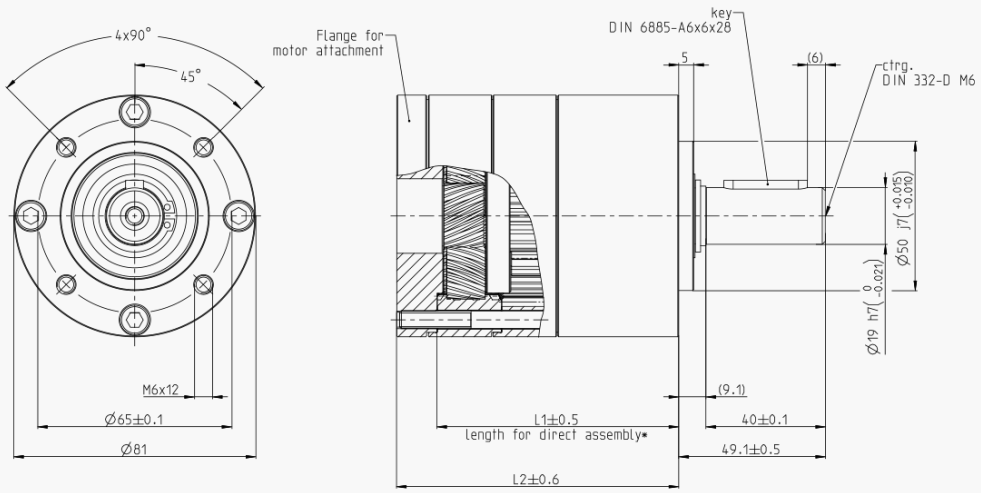
Our planetary gear from the Pro Series with outer diameter 81 mm combines performance with robustness. Due to easy adaptations of the configuration all Pro gears are also available in Low Noise (LN) design.

Low Noise (LN)
Due to the use of helical gearing in the first stage particularly low noise.

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)	20.0 Nm	60.0 Nm	120.0 Nm
Gear efficiency approx.	0.8	0.8	0.7
Max. Gear backlash	0.5 °DEG	0.6 °DEG	0.6 °DEG
Recommended input speed	3.000 rpm	3.000 rpm	3.000 rpm



All dimensions in millimetres [mm]

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Reductions

1-stage	2-stage	3-stage
4:1 (3,65)	14:1 (13,53)	50:1 (50,16)
5:1 (4,59)	16:1 (15,65)	58:1 (58,01)
5:1 (5,36)	17:1 (17,00)	67:1 (67,08)
7:1 (6,55)	19:1 (18,92)	70:1 (70,13)
9:1 (8,63)	23:1 (22,96)	81:1 (81,11)
13:1 (13,20)	25:1 (24,65)	91:1 (91,36)
	28:1 (27,76)	98:1 (98,07)
	28:1 (28,05)	102:1 (101,89)
	34:1 (33,92)	106:1 (105,65)
	45:1 (44,69)	115:1 (114,77)
	58:1 (58,22)	123:1 (123,20)
	68:1 (68,40)	128:1 (127,74)
	89:1 (89,10)	137:1 (136,99)
		145:1 (145,36)
		166:1 (166,40)
		176:1 (175,75)
		192:1 (191,54)
		232:1 (231,59)
		302:1 (301,68)
		393:1 (392,98)
		462:1 (461,70)
		601:1 (601,43)

Output side with ball bearing	1-stage	2-stage	3-stage
Max. radial load (centre of output shaft)	400,0 N	600,0 N	1,000,0 N
Max. Axial load	80,0 N	120,0 N	200,0 N
Max. permissible contact pressure	1,500,0 N	1,500,0 N	1,500,0 N
Weight approx.	1800 g	2500 g	3200 g

Gear length	1-stage	2-stage	3-stage
Length 1[1]	59,3 ± 0,5	81,0 ± 0,5	102,6 ± 0,5
Length 2[1]	72,8 ± 0,6	94,5 ± 0,6	116,1 ± 0,6

[1] 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.imsgear.com for the current status.

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