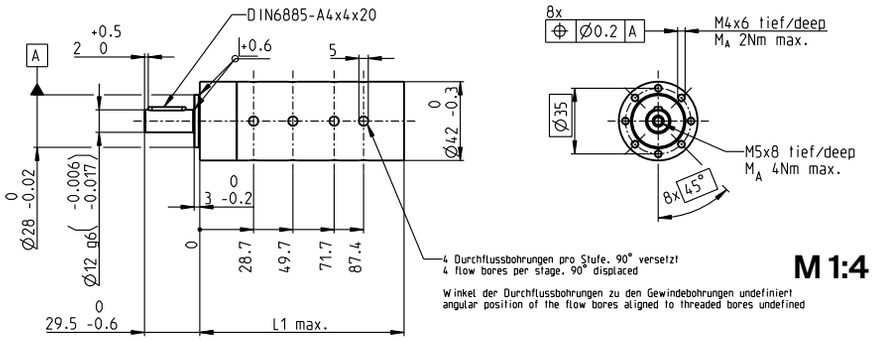
Planetary Gearhead GP 42 HD ∅42 mm, 10.0–50.0 Nm

Heavy Duty – for application in oil

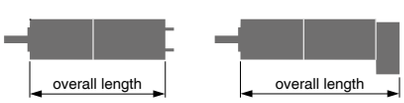


Technical Data				
Planetary Gearhead	straight teeth			
Output shaft	stainless steel			
Bearing at output	ball bearing			
Radial play, 12 mm from flange	max. 0.05 mm			
Axial play	max. 0.2 mm			
Max. axial load (dynamic)	250 N			
Max. force for press fits	450 N			
Direction of rotation, drive to output	=			
Max. continuous input speed	< 8000 rpm			
Recommended temperature range	-55...+200°C			
Extended range as option	-55...+260°C			
Number of stages	1	2	3	4
Max. radial load, 12 mm from flange	250 N	480 N	720 N	720 N

Stock program
Standard program
Special program (on request)

			Part Numbers						
			454742	454744	454745	476936	454280	476945	476949
Gearhead Data (provisional)									
1	Reduction		3.5:1	12:1	43:1	81:1	150:1	285:1	441:1
2	Absolute reduction		7/2	49/4	343/8	2197/27	2401/16	15379/54	441/1
10	Mass inertia	gcm²	17.5	29	35.5	23.9	41.3	33.1	30.6
3	Max. motor shaft diameter	mm	10	10	10	8	10	8	10
	Part Numbers		476927	476928	476933	476937	476942	476946	476950
1	Reduction		4.3:1	15:1	53:1	91:1	186:1	319:1	488:1
2	Absolute reduction		13/3	91/6	637/12	91/1	4459/24	637/2	4394/9
10	Mass inertia	gcm²	11.1	23.3	31.8	25.4	37.6	34.2	26.3
3	Max. motor shaft diameter	mm	8	8	10	8	10	10	8
	Part Numbers			476929	476934	476938	476943	476947	476951
1	Reduction			19:1	66:1	113:1	230:1	353:1	546:1
2	Absolute reduction			169/9	1183/18	338/3	8281/36	28561/81	546/1
10	Mass inertia	gcm²		19.1	28.1	21.2	36.6	28.9	28.1
3	Max. motor shaft diameter	mm		8	8	8	10	8	8
	Part Numbers				454746		476944	476948	476952
1	Reduction				74:1		257:1	394:1	676:1
2	Absolute reduction				147/2		1029/4	1183/3	676/1
10	Mass inertia	gcm²			28.2		37.6	30.4	23.9
3	Max. motor shaft diameter	mm			10		10	8	8
4	Number of stages		1	2	3	3	4	4	4
5	Max. continuous torque	Nm	10	20	40	40	50	50	50
6	Max. intermittent torque at gear output	Nm	15	30	60	60	75	75	75
15	Max. overload torque[1]	Nm	20	40	80	80	100	100	100
7	Max. efficiency	%	95	87	78	78	65	65	65
8	Weight	g	430	600	710	710	780	780	780
9	Average backlash no load	°	0.6	0.8	0.8	1.0	1.0	1.0	1.0
11	Gearhead length L1	mm	57.7	79.9	102.2	102.2	116.9	116.9	116.9
13	Max. transmittable power (continuous)	W	2000	880	300	300	62	62	62
14	Max. transmittable power (intermittent)	W	3000	1320	450	450	93	93	93

1) Reduced expected life span



maxon Modular System

+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts						
EC-4pole 32 HD oil, A	263			221.3	243.5	265.8	265.8	280.5	280.5	280.5
EC-4pole 32 HD oil, B	263			201.3	223.5	245.8	245.8	260.5	260.5	260.5

Application

General
- extreme temperature applications
- vibration tested according to MIL-STD810F/ Jan2000 Fig. 514.5C-10
- operation in oil and high pressure

Oil & Gas Industry
- oil, gas and geothermal wells

Important Notice

This gearhead has been designed for applications in oil and is only equipped with minimum lubrication. Therefore it is not permitted to use it under normal air conditions.