

Accessories and Options

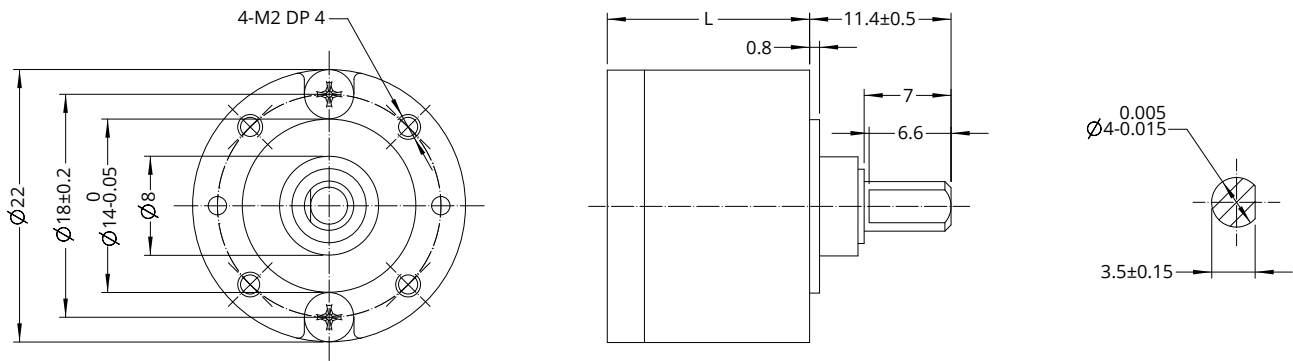
Planetary Gearbox

Overview

Frame size	Ratio	Rated torque (N·m)	Limit torque (N·m)	Stages	Efficiency (%)	Length (mm)	Mass (g)	Corresponding motor
22 mm	4	0.03	0.09	1	81	16.3	29.1	20 mm
	15	0.05	0.15	2	66	16.3	30.1	
	20							
	107	0.1	0.3	3	53	19.5	36	
28 mm	3.3	0.5	1.5	1	90	21.2	87	28 mm
	4.6							
	11.2	1	3	2	81	26.9	91	
	15.5							
	21.5							
	37.7	2.5	7.5	3	73	32.7	100	
72								
32 mm	3.3	0.5	1.5	1	90	16.2	90	35 mm
	4.6							
	11.2	1	3	2	81	21.9	115	
	15.5							
	21.5							
	37.7	2.5	7.5	3	73	27.7	140	
72								
42 mm	3.7	1	3	1	90	30.6	260	42 mm
	5.2							
	13.7	2	6	2	81	41.9	350	
	19.2							
	26.9							
	50.9	5	15	3	73	53.2	440	
	71.2							
99.5								
57 mm	5	6	12	1	95	53	800	57 mm
	10							
	15	25	40	2	90	70	1100	
	20							
	25							
60 mm	5	6	12	1	95	53	900	60 mm
	10							
	15	25	40	2	90	70	1200	
	20							
	25							

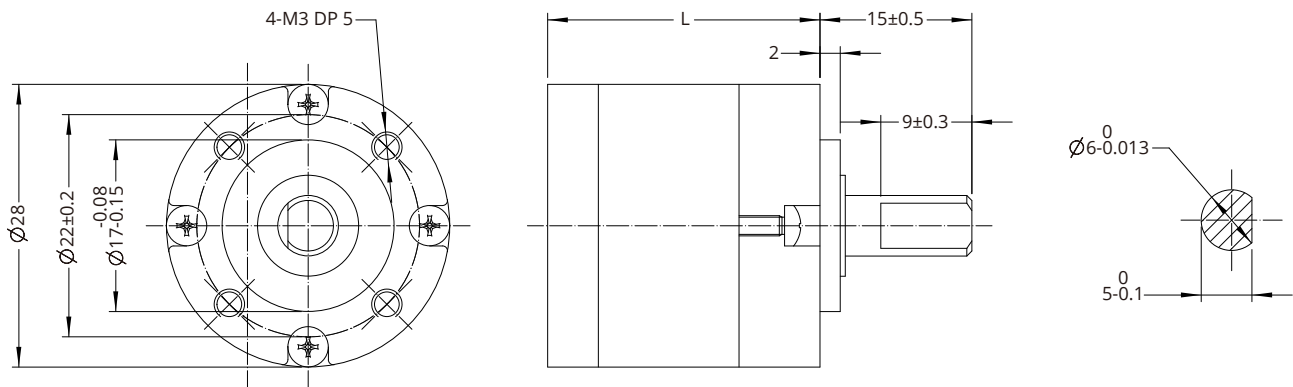
Accessories and Options

● 22mm Frame Planetary Gearbox



Housing material			Metal			
No load backlash			1°			
Bearing			Sleeve bearing			
Ratio	Rated torque (N·m)	Limit torque (N·m)	Stages	Efficiency (%)	Length (mm)	Mass (g)
4	0.03	0.09	1	81	16.3	29.1
15 20	0.05	0.15	2	66	16.3	30.1
107	0.1	0.3	3	53	19.5	36

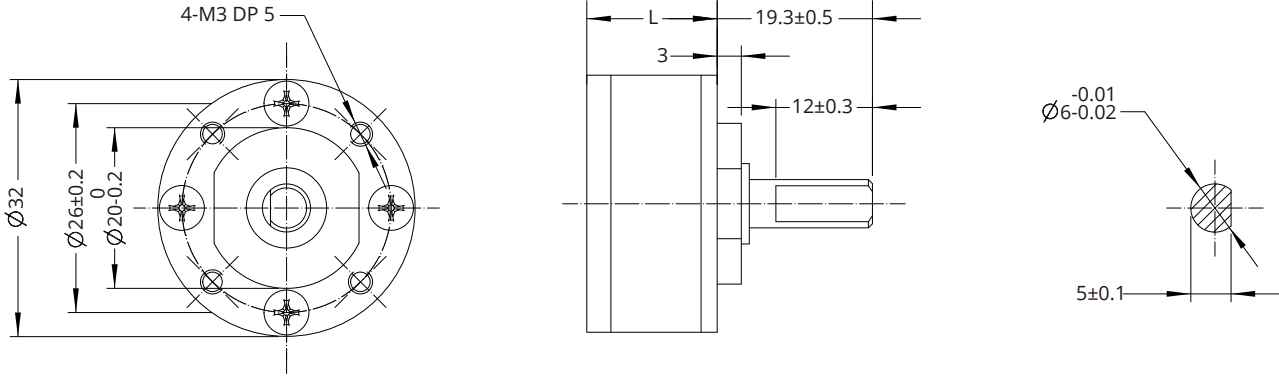
● 28mm Frame Planetary Gearbox



Housing material			Metal			
No load backlash			1°			
Bearing			Ball bearing			
Ratio	Rated torque (N·m)	Limit torque (N·m)	Stages	Efficiency (%)	Length (mm)	Mass (g)
3.3 4.6	0.5	1.5	1	90	21.2	87
11.2 15.5 21.5	1	3	2	81	26.9	91
37.7 72	2.5	7.5	3	73	32.7	100

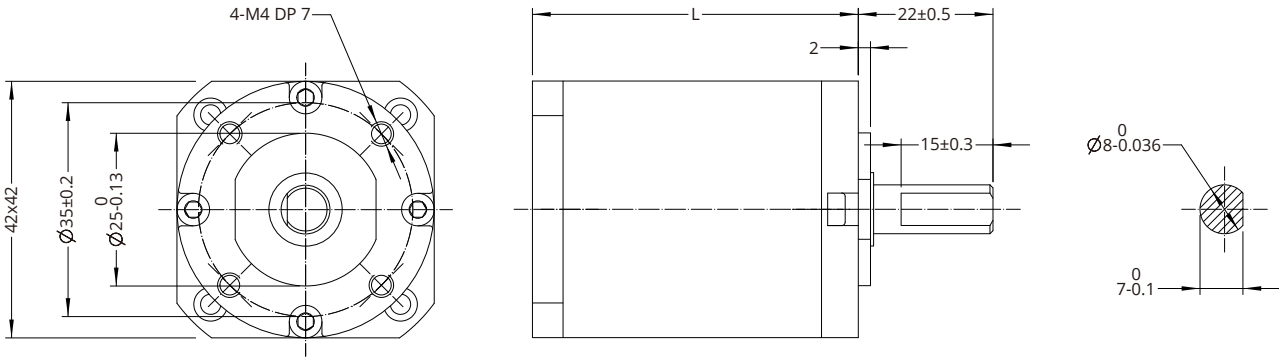
Accessories and Options

● 32mm Frame Planetary Gearbox



Housing material			Metal			
No load backlash			1°			
Bearing			Ball bearing			
Ratio	Rated torque (N·m)	Limit torque (N·m)	Stages	Efficiency (%)	Length (mm)	Mass (g)
3.3 4.6	0.5	1.5	1	90	16.2	90
11.2 15.5 21.5	1	3	2	81	21.9	115
37.7 72	2.5	7.5	3	73	27.7	140

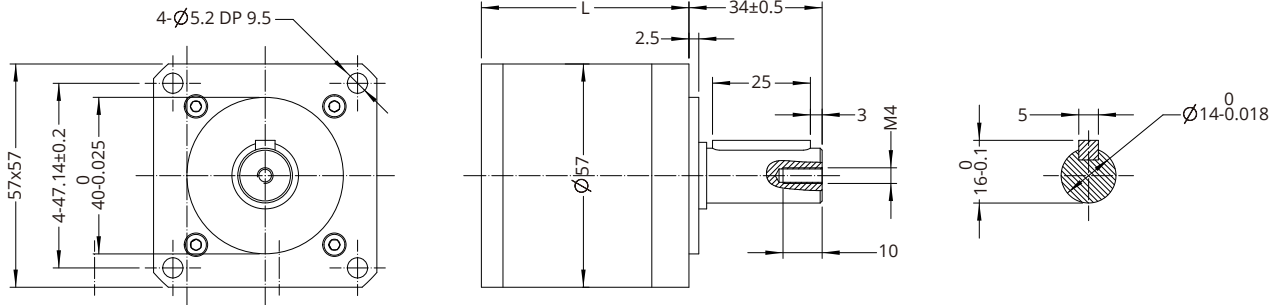
● 42mm Frame Planetary Gearbox



Housing material			Metal			
No load backlash			1.2°			
Bearing			Ball bearing			
Ratio	Rated torque (N·m)	Limit torque (N·m)	Stages	Efficiency (%)	Length (mm)	Mass (g)
3.7 5.2	1	3	1	90	30.6	260
13.7 19.2 26.9	2	6	2	81	41.9	350
50.9 71.2 99.5	5	15	3	73	53.2	440

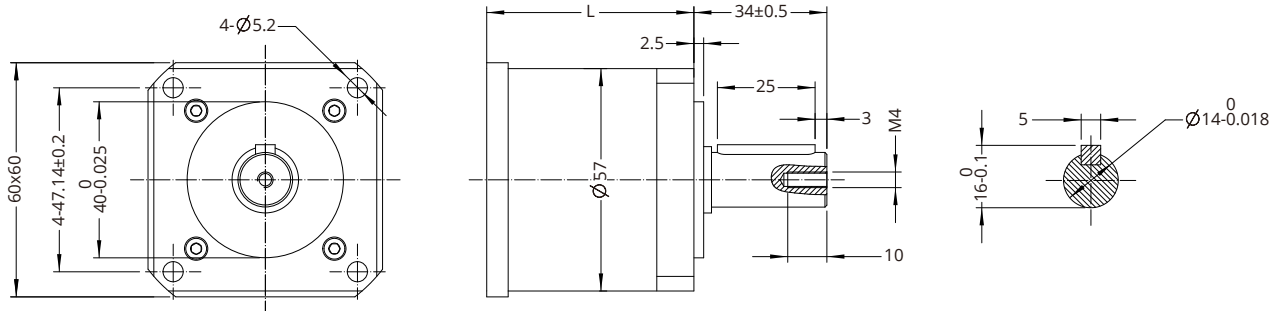
Accessories and Options

● 57mm Frame Planetary Gearbox



Housing material			Metal			
No load backlash			One stage 15 arcmin, two stages 25 arcmin			
Bearing			Ball bearing			
Ratio	Rated torque (N·m)	Limit torque (N·m)	Stages	Efficiency (%)	Length (mm)	Mass (g)
5 10	6	12	1	95	53	800
15 20 25	25	40	2	90	70	1100

● 60mm Frame Planetary Gearbox



Housing material			Metal			
No load backlash			One stage 15 arcmin, two stages 25 arcmin			
Bearing			Ball bearing			
Ratio	Rated torque (N·m)	Limit torque (N·m)	Stages	Efficiency (%)	Length (mm)	Mass (g)
5 10	6	12	1	95	53	900
15 20 25	25	40	2	90	70	1200