

## Modulo 0.2 and 0.3 gears

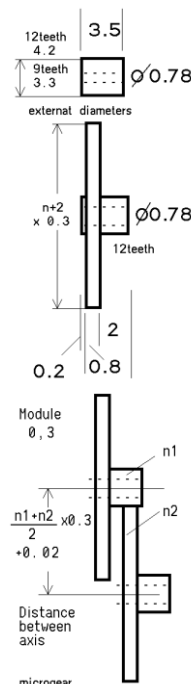
Gears at module 0.3 and 0.2 are available from Didel they are well suited for motors 3 to 10 mm in diameter. With module 0.3, two pinion sizes (9 and 12 teeth) and four spur gear sizes (36, 48, 60 and 81 teeth with 12teeth pinions) are available. Slotted gears with 48 and 60 teeth allow to add photodiodes or use the H7001 mouse encoder and get precise angle and speed information. With Module 0.2 has 9 and 12-teeth pinions and 20/9, 40/12 and 60/12 spur gears. Worms are available Mod 0.2 and 0.3

### Module and teeth number

The module is the quotient of the nominal diameter of a gear by the number of teeth. For instance, a module 0.3 gear of 60 teeth has a nominal diameter of  $0.3 \times 60 = 18$  mm. Add two teeth for the external diameter, which will be measured as 18.6 mm. The distance between the axis of two gears is simply the module multiplied by the total number of teeth, divided by 2. Add 0.02 to 0.04 mm to be sure the movement will be free. Distance has to be precise for long lasting gears and for reaching the efficiency of 90% one can expect for every stage.

### Plastic gears of module 0.3

Type	Teeth	Weigh	Dia ext	Dia bore	Price
G309	9	0.02 g	3,3	0.61 0.71 0.79 0.97	1.60
G312	12	0.04	4.2	0.61 0.71 0.79 0.97	1.40
G336L	36/12	0.094	11.4	0.78	4.10
G348L	48/12	0.15	15.0	0.78	6.60
G360L	60/12	0.18	18.6	0.78	6.60
G381L	81/12	0.34	24.9	0.78	10.40
GW338	worm	0.04	3.0	0.57 nomina dia 2.4	7.20
Specials (till end of stock)					
G348S 36 slots	48/12	0.19	15.0	0.78	7.20
G360S 60 slots	60/12	0.25	18.6	0.78	10.40



### Gears, Worm gear - distance between shafts -

					w to 12	3.0 mm
9 to 36	6.75 mm		12 to 36	7.2 mm	w to 36	6.6 mm
9 to 48	8.55 mm		12 to 48	9.0 mm	w to 48	8.4 mm
9 to 60	10.35 mm		12 to 60	10.8 mm	w to 60	10.2 mm
9 to 81	13.50 mm		12 to 81	13.95 mm	w to 81	13.35 mm

add 0.02mm depending drilling precision

### Plastic gears of module 0.2

Type	Teeth	Weigh	Dia ext	Dia bore	Price
G209	9	0.01 g	2.2	0.61 0.71	2.20
G212	12	0.02	2.8	0.71	2.70
G220	20/9	0.09	4.4	0.60	4.-
G240	40/12	0.13	8.4	0.78	6.50
G260	60/12	0.18	12.4	0.78	7.30
Gw205		0.021	2.8	0.78 nominal 2.4	5.-



Gasparin design for a 1g servo

### Distance between shafts

9 to 20	2.90 mm		12 to 20	3.20 mm		w to 20	3.70 mm to be
9 to 40	4.90 mm		12 to 40	5.20 mm		w to 40	5.20 mm checked
9 to 60	6.90 mm		12 to 60	7.20 mm		w to 60	7.20 mm

Significant deduction for large quantities - Special gears for very large quantities.