



## G51A Series

The G51A is an economical 51 mm offset spur gearbox suitable for lower torque applications. The wide range of sintered steel gears combinations especially complement brushed motors when speed reduction is required. Also available in high torque or wide faced gears for increased output loads.

**Compatible Motors:** DC030C, DC040B, DC054B, EC057C

### ■ Benefits

- Maximum Load torque up to 1.24 Nm in the standard model
- Load increased to 2.12 Nm in the high torque and up to 3.53 in wide face versions
- Standard bronze bearings

### ■ Optional Assembly

- Special lubrication for extreme conditions
- Ball bearings for high radial loads
- Delrin gears for noise reduction

### ■ Characteristics

Gear Data	Units	G51A 5.9:1	G51A 11.5:1	G51A 19.7:1	G51A 38.3:1	G51A 65.5:1	G51A 127.8:1
Maximum Load	Nm	1.236					
	oz-in	175					
Weight (Mass)	g	167.3	167.3	177.5	177.5	187.7	187.7
	oz	5.9	2.9	6.26	6.26	6.62	6.62
Length (L)	mm	34.9					
	inches	1.373					
Stages	–	1					
Ratio	–	5.9:1	11.5:1	19.7:1	38.3:1	65.5:1	127.8:1
Efficiency	–	0.81	0.81	0.73	0.73	0.66	0.66
Shaft Rotation	–	CW	CW	CCW	CCW	CW	CW

Gear Data	Units	G51A 218.4:1	G51A 425.9:1	G51A 728.1:1	G51A 1419.8:1	G51A 2426.9:1	G51A 4732.5:1
Maximum Load	Nm	1.236					
	oz-in	175					
Weight (Mass)	g	197.9	197.9	208.1	208.1	231.9	231.9
	oz	6.98	6.98	7.34	7.34	8.18	8.18
Length (L)	mm	34.9	34.9	34.9	34.9	38.8	38.8
	inches	1.373	1.373	1.373	1.373	1.528	1.528
Stages	–	1	1	1	1	2	2
Ratio	–	218.4:1	425.9:1	728.1:1	1419.8:1	2426.9:1	4732.5:1
Efficiency	–	0.59	0.59	0.53	0.53	0.48	0.48
Shaft Rotation	–	CCW	CCW	CW	CW	CCW	CCW

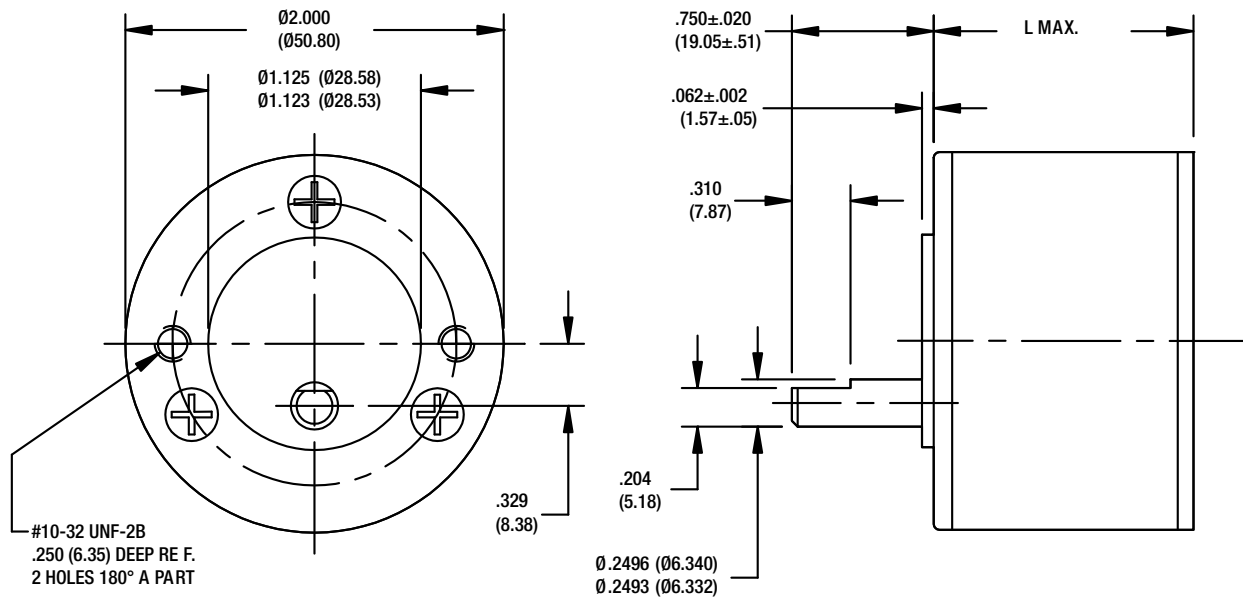
## High Torque Characteristics

Gear Data	Units	G51A-HT 5.9:1	G51A-HT 11.5:1	G51A-HT 19.7:1	G51A-HT 38.3:1	G51A-HT 65.5:1	G51A-HT 127.8:1
Maximum Load	Nm	2.118					
	oz-in	300					
Weight (Mass)	g	167.30	167.3	177.5	177.5	187.7	187.7
	oz	5.90	5.9	6.26	6.26	6.62	6.62
Length (L)	mm	34.9					
	inches	1.373					
Stages	–	1					
Ratio	–	5.9:1	11.5:1	19.7:1	38.3:1	65.5:1	127.8:1
Efficiency	–	0.81	0.81	0.73	0.73	0.66	0.66
Shaft Rotation	–	CW	CW	CCW	CCW	CW	CW
Gear Data	Units	G51A-HT 218.4:1	G51A-HT 425.9:1	G51A-HT 728.1:1	G51A-HT 1419.8:1	G51A-HT 2426.9:1	G51A-HT 4732.5:1
Maximum Load	Nm	2.118					
	oz-in	300					
Weight (Mass)	g	197.9	197.9	208.1	208.1	231.9	231.9
	oz	6.98	6.98	7.34	7.34	8.18	8.18
Length (L)	mm	34.9	34.9	34.9	34.9	38.8	38.8
	inches	1.373	1.373	1.373	1.373	1.528	1.528
Stages	–	1	1	1	1	2	2
Ratio	–	218.4:1	425.9:1	728.1:1	1419.8:1	2426.9:1	4732.5:1
Efficiency	–	0.59	0.59	0.53	0.53	0.48	0.48
Shaft Rotation	–	CCW	CCW	CW	CW	CCW	CCW

## Wide Face Characteristics

Gear Data	Units	G51A-WF 19.7:1	G51A-WF 38.3:1	G51A-WF 65.5:1	G51A-WF 127.8:1
Maximum Load	Nm	3.53			
	oz-in	500			
Weight (Mass)	g	184.8	184.8	195	195
	oz	6.52	6.52	6.88	6.88
Length (L)	mm	34.9			
	inches	1.373			
Stages	–	1			
Ratio	–	19.7:1	38.3:1	65.5:1	127.8:1
Efficiency	–	0.73	0.73	0.66	0.66
Shaft Rotation	–	CCW	CCW	CW	CW
Gear Data	Units	G51A-WF 218.4:1	G51A-WF 425.9:1	G51A-WF 728.1:1	G51A-WF 1419.8:1
Maximum Load	Nm	3.53			
	oz-in	500			
Weight (Mass)	g	205.3	205.3	229.1	229.1
	oz	7.24	7.24	8.08	8.08
Length (L)	mm	34.9	34.9	38.8	38.8
	inches	1.373	1.373	1.53	1.53
Stages	–	1	1	2	2
Ratio	–	218.4:1	425.9:1	728.1:1	1419.8:1
Efficiency	–	0.59	0.59	0.53	0.53
Shaft Rotation	–	CCW	CCW	CW	CW

## Dimensional Drawings



### Combined Length

Compatible Motors / Length (mm) Standard, High Torque, Wide Face		
Stage	1	2
DC030C-1	88.6	92.5
DC030C-2	100.6	104.5
DC030C-3	112.6	116.5

Compatible Motors / Length (mm) Standard, High Torque, Wide Face		
Stage	1	2
DC054B-1	109.9	113.8
DC054B-2	116.3	120.2
DC054B-3	129.0	132.9
DC054B-4	138.5	142.4
DC054B-5	148.0	151.9
DC054B-6	160.7	164.6
DC054B-7	179.8	183.7

Compatible Motors / Length (mm) Standard, High Torque, Wide Face		
Stage	1	2
DC040B-1	78.8	82.7
DC040B-2	88.3	92.2
DC040B-3	93.4	97.3
DC040B-4	101.0	104.9
DC040B-5	109.9	113.8
DC040B-6	117.5	121.4

Compatible Motors / Length (mm) Standard, High Torque, Wide Face		
Stage	1	2
EC057C-1	73.8	77.7
EC057C-2	85.2	89.1
EC057C-3	97.9	101.8
EC057C-4	110.6	114.5