

970D SERIES 35mm SINGLE RATIO METAL GEARBOX (CENTRAL OUTPUT SHAFT)

(RE 540/1 MOTOR)



Metal Gearbox cover included with this series

IMPORTANT NOTICE
Due to the wide range of applications for this product it is the users responsibility to establish the products suitability for their individual purpose(s).

RATIOS NOW AVAILABLE AS EX-STOCK ITEMS.

970D61	(4.5v - 15v)	WITH RE 540/1 MOTOR.	RATIO 6:1
970D161	(4.5v - 15v)	WITH RE 540/1 MOTOR.	RATIO 16:1
970D471	(4.5v - 15v)	WITH RE 540/1 MOTOR.	RATIO 47:1
970D1561	(4.5v - 15v)	WITH RE 540/1 MOTOR.	RATIO 156:1
970D7501	(4.5v - 15v)	WITH RE 540/1 MOTOR.	RATIO 750:1
970D28121	(4.5v - 15v)	WITH RE 540/1 MOTOR.	RATIO 2812:1

Designed for heavy-duty industrial and model applications this robust unit boasts a powerful high quality, three pole motor with sintered bronze bearings. The metal gearbox incorporates sleeved bearings, enabling the high torque transfer from the motor to be transmitted through the gearbox. The unit is mounted on a 1mm thick plated steel bracket.

MOTOR DATA. (RE-540/1)

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	oz - in	g - cm
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%		
RE - 540/1	4.5 - 15.0	6.0v CONSTANT	7362	0.45	6190	2.1	1.64	118.2	7.49	59.4	9.31	670
		12.0v CONSTANT	14724	0.52	12380	2.75	2.14	152	19.35	58.6	13.9	956

Stall Current RE540/1 at 6v = 8.24A

REDUCTION TABLE. R.P.M. (NO LOAD)

SUPPLY VOLTAGE	4.5v	6.0v	9.0v	12.0v	15.0v	Direction of rotation Clockwise/ Anticlockwise
970D61	920	1227	1466	2454	3067	ACW
970D161	345	460	690	920	1150	CW
970D471	117	125	235	313	391	CW
970D1561	35	47	71	94	117	CW
970D7501	7	10	15	20	25	CW
970D28121	1.9	2.6	3.9	5	6	ACW

WEIGHT	
970D61	247g
970D161	252g
970D471	257g
970D1561	261g
970D7501	270g
970D28121	271g

Note: Motor speeds may vary by (+) or (-) 12.5%

GEARED MOTOR TORQUE RATINGS AT MAX. EFFICIENCY.

AT 12V (g.cm)	
6:1	741
16:1	1803
47:1	3000
156:1	6000
750:1	6000
2812:1	6000

970D SERIES	
No load Backlash:	Max 2 deg.
Max Radial Load: (10mm from flange)	1000gf.
Shaft Axial Load:	700gf.

IMPORTANT NOTICE
At very low ratios the torque produced by this geared motor combination may exceed the maximum permissible torque of the gearbox. In this situation the unit must not be allowed to stall as this may damage the gears.

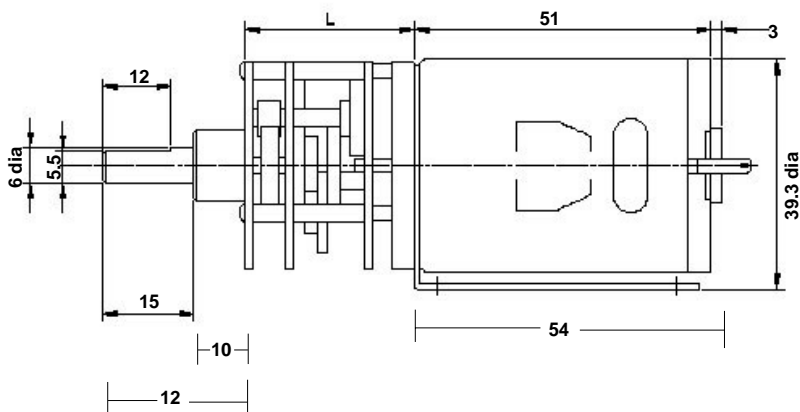
NOTE: To establish Torque Rating in Nm, divide g.cm by 10,197.0

24 volt versions are available for this range of motor-gearboxes. Performance data is similar to 12 volt versions. This version also has an extended 10mm rear shaft to accommodate motor encoders. When ordering please use 12v version part number suffixed with 24V. I.E. 919D111 will be 919D11124V

970D SERIES 35mm SINGLE RATIO METAL GEARBOX (CENTRAL OUTPUT SHAFT)

(RE 540/1 MOTOR)

GEARBOX DIMENSIONS



GEARBOX REF.	L
970D61 (6:1)	22
970D161 (16:1)	25
970D471 (47:1)	27.5
970D1561 (1561)	30
970D7501 (750:1)	35
970D28121(2812:1)	37.5

RATED TOLERANCE TORQUE	
970D61 (6:1)	1000 gf.cm
970D161 (16:1)	2000 gf.cm
970D471 (47:1)	3000 gf.cm
970D1561 (1561)	6000 gf.cm
970D7501 (750:1)	6000 gf.cm
970D28121(2812:1)	6000 gf.cm

FOR ACCESSORIES TO FIT THIS SERIES GEARBOX, REFER TO 919D SERIES PAGE.

Subject to minimum order quantities of 250 units, the following ratios are also available with a six week lead-time. The physical dimensions of these other gearboxes may vary from the data as illustrated above.

Details of individual gearboxes are available upon request.

Gearbox 19:1 with 540/1 motor
 Gearbox 56:1 with 540/1 motor
 Gearbox 94:1 with 540/1 motor
 Gearbox 169:1 with 540/1 motor
 Gearbox 250:1 with 540/1 motor
 Gearbox 422:1 with 540/1 motor
 Gearbox 625:1 with 540/1 motor
 Gearbox 3750:1 with 540/1 motor

Gearbox 21:1 with 540/1 motor
 Gearbox 63:1 with 540/1 motor
 Gearbox 104:1 with 540/1 motor
 Gearbox 188:1 with 540/1 motor
 Gearbox 281:1 with 540/1 motor
 Gearbox 438:1 with 540/1 motor
 Gearbox 938:1 with 540/1 motor
 Gearbox 5625:1 with 540/1 motor

Gearbox 31:1 with 540/1 motor
 Gearbox 69:1 with 540/1 motor
 Gearbox 113:1 with 540/1 motor
 Gearbox 219:1 with 540/1 motor
 Gearbox 312:1 with 540/1 motor
 Gearbox 469:1 with 540/1 motor
 Gearbox 1250:1 with 540/1 motor

Gearbox 38:1 with 540/1 motor
 Gearbox 75:1 with 540/1 motor
 Gearbox 125:1 with 540/1 motor
 Gearbox 234:1 with 540/1 motor
 Gearbox 375:1 with 540/1 motor
 Gearbox 563:1 with 540/1 motor
 Gearbox 1875:1 with 540/1 motor