

## Gearboxes

Order code	Manufacturer code	Description
37-1222	n/a	GEARBOX & MOTOR 100:1 4MM SHAFT 1.5 - 3V
37-1224	n/a	GEARBOX & MOTOR 100:1 4MM SHAFT 12 - 24V
37-1226	n/a	MOTOR & GEARBOX 30:1 4MM SHAFT 1.5 - 3V
37-1228	n/a	GEARBOX & MOTOR 30:1 4MM SHAFT 12 - 24V

Gearboxes	Page 1 of 3
The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

**918D SERIES SINGLE RATIO METAL GEARBOX (RE280 MOTOR/RE 280/1 MOTOR)**



**WITH 2mm OUTPUT SHAFT (15:1 ONLY)**



**WITH 4mm OUTPUT SHAFT (ALL RATIOS)**

RATIOS NOW AVAILABLE AS EX-STOCK ITEMS.

- |            |  |              |  |
|------------|--|--------------|--|
| 918D151    | (1.5v - 3v) WITH RE 280 MOTOR (RATIO 15:1). 2mm SHAFT  | 918D15112    | (12v - 24v) WITH RE 280/1 MOTOR (RATIO 15:1). 2mm SHAFT  |
| 918D151/1  | (1.5v - 3v) WITH RE 280 MOTOR (RATIO 15:1). 4mm SHAFT  | 918D15112/1  | (12v - 24v) WITH RE 280/1 MOTOR (RATIO 15:1). 4mm SHAFT  |
| 918D301/1  | (1.5v - 3v) WITH RE 280 MOTOR (RATIO 30:1). 4mm SHAFT  | 918D30112/1  | (12v - 24v) WITH RE 280/1 MOTOR (RATIO 30:1). 4mm SHAFT  |
| 918D1001/1 | (1.5v - 3v) WITH RE 280 MOTOR (RATIO 100:1). 4mm SHAFT | 918D100112/1 | (12v - 24v) WITH RE 280/1 MOTOR (RATIO 100:1). 4mm SHAFT |
| 918D2501/1 | (1.5v - 3v) WITH RE 280 MOTOR (RATIO 250:1). 4mm SHAFT | 918D250112/1 | (12v - 24v) WITH RE280/1 MOTOR (RATIO 250:1). 4mm SHAFT  |

This miniature gearbox is of steel and brass construction with brass gears and is mounted on a 1mm thickness steel bracket. It incorporates a high quality three pole motor with sleeved bearings. The design and construction of the unit make it suitable for a host of model and light industrial applications.

**MOTOR DATA. (RE-280 & RE-280/1)**

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	%	oz - in	g - cm
RE - 280	1.5 - 3.0	1.5v CONSTANT	4600	0.120	3750	0.53	0.160	11.53	0.44	56.2	0.86	62.0
RE - 280	1.5 - 3.0	3.0v CONSTANT	9200	0.155	7800	0.85	0.278	20.00	1.60	62.3	1.81	130.0
RE - 280/1	12 - 24	12v CONSTANT	8400	0.10	6300	0.30	0.347	25.0	1.62	44.87	1.389	100

**REDUCTION TABLE. R.P.M.**

SUPPLY VOLTAGE	1.5v	3.0v	6v	12v	18v	24v
918D151	306	613				
918D15112			280	560	840	1120
918D301	153	306				
918D30112			140	280	420	560
918D1001	46	92				
918D100112			42	84	126	168
918D2501	18	37				
918D250112			17	34	50	67

WEIGHT	
918D151	72g
918D15112	72g
918D301	72g
918D30112	72g
918D1001	72g
918D100112	72g
918D2501	72g
918D250112	72g

**TORQUE TABLE (g.cm). (Theoretical rating for motor & gearbox combined).**

	AT MAXIMUM EFFICIENCY			STALL TORQUE		
	1.5V	3V	12V	1.5V	3V	12V
RE 280 (15:1)	173	300		930	1950	
RE 280/1 (15:1)			375			1500
RE 280 (30:1)	346	600		1860	3900	
RE 280/1 (30:1)			750			3000
RE 280 (100:1)	1153	2000		6200	13000	
RE 280/1 (100:1)			2500			10000
RE 280 (250:1)	2883	5000		15500	32500	
RE 280/1 (250:1)			6250			25000

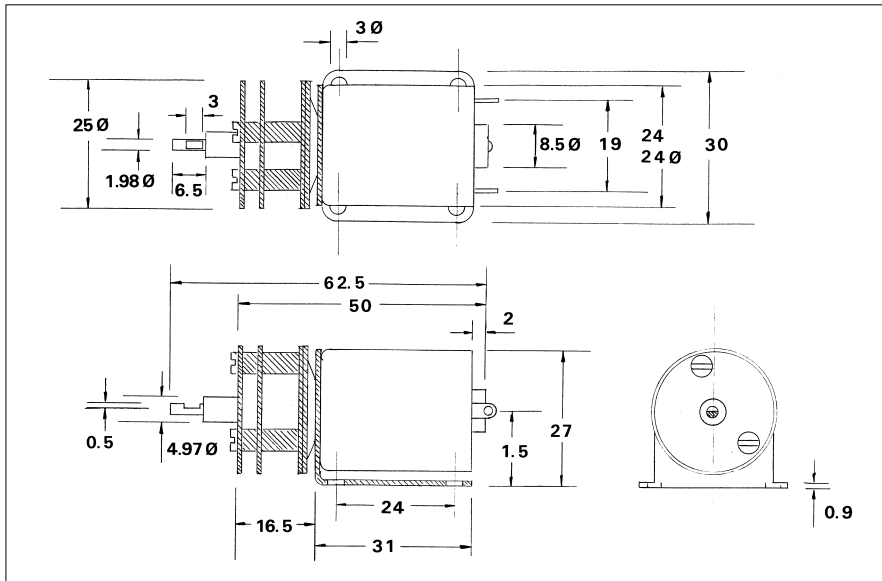
RATED TOLERANCE TORQUE	
15:1	400g.cm
30:1	600g.cm
100:1	1000g.cm
250:1	1200g.cm

**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).

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

**918D SERIES SINGLE RATIO METAL GEARBOX**

**GEARBOX DIMENSIONS.**



Part No. 1071. Anti vibration mount. M3



Part No. 918D8. Steel Shaft. 4mm OD x 150mm

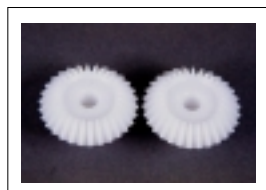


Part No. 1105/61 Universal Coupling. 4mm - 4mm

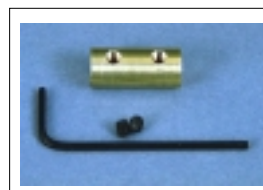
**ACCESSORIES FOR 918D SERIES GEARBOX.**



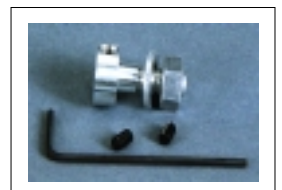
Part No. 917D9. Voltage Regulator. (6-15v DC Input, 3v, 1.5amp output)  
Part No. 917D10. Voltage Regulator. (6-15v DC Input. 1.5v, 1.5amp output)  
Part No. 917D11. Voltage Regulator. (6-15v DC Input. 4.5v, 1.5amp output) (Above for 280 motor only)



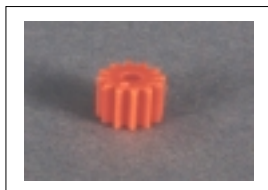
Part No. 918D7. Nylon Bevel Gears (1:1). O.D. 17.2mm. 4mm I.D.



Part No. 918D1. In-Line Coupling. 2mm - 3mm. (Dia. 8mm x 18.4mm)  
Part No. 918D1/1. In-Line Coupling 4mm - 4mm. (Dia. 8mm x 18.4mm)



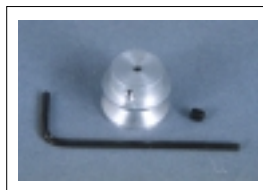
Part No. 918D4. Gear Adapter. 2mm I.D.  
Part No. 918D4/1 Gear Adapter. 4mm I.D.



Part No. 917D2458. Pinions (Plastic) 12 tooth. 1.9mm I.D.



Part No. 918D2. Pulley. 2mm I.D. (25mm dia. x 14.75mm) (Aluminium)  
Part No. 918D2/1. Pulley 4mm I.D. (25mm dia. x 14.75mm) (Aluminium)



Part No. 918D3. Pulley. 2mm I.D. (16mm dia. x 13.6mm) (Aluminium)  
Part No. 918D3/1. Pulley 4mm I.D. (16mm dia x 13.6mm) (Aluminium)



Part No. 917D2515. "O" Ring 70mm x 5mm Dia.

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 21:1 with RE280 motor (1.5v - 3v)  
GEARBOX 44:1 with RE280 motor (1.5v - 3v)  
GEARBOX 60:1 with RE280 motor (1.5v - 3v)  
GEARBOX 112:1 with RE280 motor (1.5v - 3v)  
GEARBOX 150:1 with RE280 motor (1.5v - 3v)  
GEARBOX 200:1 with RE280 motor (1.5v - 3v)  
GEARBOX 250:1 with RE280 motor (1.5v - 3v)  
GEARBOX 320:1 with RE280 motor (1.5v - 3v)  
GEARBOX 360:1 with RE 280 motor (1.5v - 3v)  
GEARBOX 1024:1 with RE 280 motor (1.5v - 3v)

GEARBOX 21:1 with RE280/1 motor (12v - 24v)  
GEARBOX 44:1 with RE280/1 motor (12v - 24v)  
GEARBOX 60:1 with RE280/1 motor (12v - 24v)  
GEARBOX 112:1 with RE280/1 motor (12v - 24v)  
GEARBOX 150:1 with RE280/1 motor (12v - 24v)  
GEARBOX 200:1 with RE280/1 motor (12v - 24v)  
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GEARBOX 320:1 with RE280/1 motor (12v - 24v)  
GEARBOX 360:1 with RE280/1 motor (12v - 24v)  
GEARBOX 1024:1 with RE 280/1 motor (12v - 24v)