



Geared motor bracket (90 degree)  
sold separately  
Part No. 727/1



**RATIOS NOW AVAILABLE AS EX-STOCK ITEMS.**  
Fitted with RE385LN (4.5v - 15v) Motor:

|            |       |       |
|------------|-------|-------|
| 940D51LN   | Ratio | 5:1   |
| 940D271LN  | Ratio | 27:1  |
| 940D511LN  | Ratio | 51:1  |
| 940D1001LN | Ratio | 100:1 |
| 940D1391LN | Ratio | 139:1 |
| 940D2641LN | Ratio | 264:1 |
| 940D5161LN | Ratio | 516:1 |
| 940D7211LN | Ratio | 721:1 |
| 940D9391LN | Ratio | 939:1 |

Designed for heavier duty industrial and modelling applications. These units boast a high quality five pole low rpm motor providing approx 45% more motor torque than the standard RE385 motor with a considerable reduction in motor noise level. The metal gearbox incorporates sleeve bearings, enabling the high torque transfer from the motor to be transmitted through the gearbox. The 721:1 ratio version has a ballraced output bearing.

**MOTOR DATA. (RE385LN)**

| MODEL   | VOLTAGE         |              | NO LOAD |         | AT MAXIMUM EFFICIENCY |         |        |      |        | STALL |        |      |
|---------|-----------------|--------------|---------|---------|-----------------------|---------|--------|------|--------|-------|--------|------|
|         | OPERATING RANGE | NOMINAL      | SPEED   | CURRENT | SPEED                 | CURRENT | TORQUE |      | OUTPUT | EFF   | TORQUE |      |
|         |                 |              | R.P.M.  | A       | R.P.M.                | A       | oz-in  | g-cm | W      | %     | oz-in  | g-cm |
| RE385LN | 6 - 12          | 12v Constant | 7200    | 0.19    | 5950                  | 0.9     |        | 110  | 6.72   | 62    |        | 660  |

Stall Current: RE385LN at 12v = 5.0A

**GEARBOX DATA.**

| PART NO    | RATIO | REDUCTION TABLE RPM (No Load) <sup>o</sup> |     |      |      |      | WEIGHT | TORQUE RATING AT:<br>12v (g.cm) <sup>^</sup> |
|------------|-------|--|-----|------|------|------|--------|--|
|            |       | 4.5v                                       | 6v  | 9v   | 12v  | 15v  |        |  |
| 940D51LN   | 5:1   | 548  | 876 | 1095 | 1460 | 1825 | 211g   | 456  |
| 940D271LN  | 27:1  | 101  | 135 | 203  | 270  | 338  | 229g   | 2155   |
| 940D511LN  | 51:1  | 54   | 72  | 107  | 143  | 179  | 257g   | 3488   |
| 940D1001LN | 100:1 | 27   | 37  | 55   | 73   | 91   | 255g   | 10000  |
| 940D1391LN | 139:1 | 20   | 26  | 39   | 53   | 66   | 254g   | 10000  |
| 940D2641LN | 264:1 | 10   | 14  | 21   | 28   | 35   | 280g   | 12000  |
| 940D5161LN | 516:1 | 5  | 7   | 11   | 14   | 18   | 284g   | 12000  |
| 940D7211LN | 721:1 | 3.8  | 5   | 7.6  | 10   | 12.7 | 285g   | 12000  |
| 940D9391LN | 939:1 | 2.9  | 3.9 | 5.9  | 7.8  | 9.8  | 281g   | 12000  |

NOTES:<sup>o</sup> Motor speeds may vary by + or - 12.5%

<sup>^</sup> Geared Motor Torque Ratings at Maximum Efficiency. To establish Torque Rating in Nm, divide g.cm by 10197.0

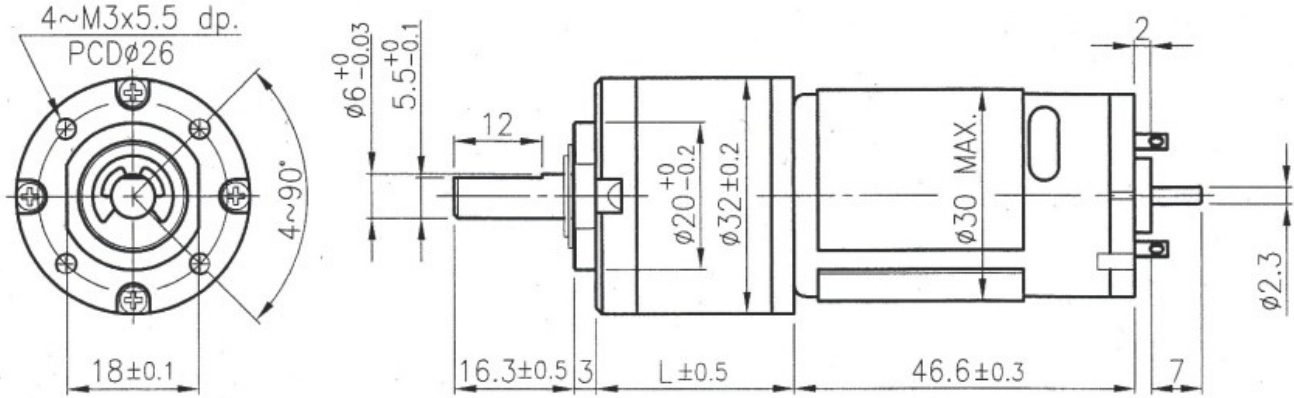
| 940DLN SERIES                         |              |
|---------------------------------------|--------------|
| No Load Backlash                      | Max 2.5 deg. |
| Max Radial Load<br>(10mm from flange) | 3000gf.      |
| Shaft Axial Load                      | 2500gf.      |

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. ie: 940D1001LN will be 940D1001LN24V

**IMPORTANT NOTICES:**

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. 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).

**940DLN SERIES TECHNICAL DRAWING**



| RATIO   | L    |
|---------|------|
| 5:1LN   | 20.6 |
| 27:1LN  | 27.0 |
| 51:1LN  | 33.4 |
| 100:1LN | 33.4 |
| 139:1LN | 33.4 |
| 264:1LN | 39.8 |
| 516:1LN | 39.8 |
| 721:1LN | 39.8 |
| 939:1LN | 39.8 |

NOTE: all diameters in mm

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

| ADVANTAGES OF PLANETRY GEARBOXES |  |
|----------------------------------|--|
| <b>EFFICIENCY:</b>               | Efficiencies of planetary gearboxes can be above 90% while some other types of transmission can be 50% of less. This allows the use of smaller motors.           |
| <b>SIZE:</b>                     | Planetary gearboxes can be half the size of conventional boxes.  |
| <b>WEIGHT:</b>                   | Weight savings can be as high as 60%, allowing smaller, lighter support structures.  |
| <b>MAINTENANCE:</b>              | Other than routine oil changes, no maintenance is required, eliminating the need to hold spares.   |
| <b>REVERSIBLE:</b>               | Planetary gears can be equally efficient in either direction. This is an advantage for use in running machinery in both clockwise and anti-clockwise directions. |
| <b>COAXIAL:</b>                  | The coaxial configuration of input and output shafts allows planetary gears to be installed in line with a motor and a machine.                                  |

Subject to minimum order quantities of 100 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 14:1 with 385 motor  
GEARBOX 19:1 with 385 motor

GEARBOX 35:1 with 385 motor  
GEARBOX 71:1 with 385 motor

GEARBOX 189:1 with 385 motor