

**941D SERIES 16mm PLANETRY (EPICYCLIC) SUB MINIATURE METAL GEARBOX**



**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.**

941D41	(1.5v - 12v)	RATIO 4:1
941D621	(1.5v - 12v)	RATIO 62:1
941D1041	(1.5v - 12v)	RATIO 104:1
941D2311	(1.5v - 12v)	RATIO 231:1
941D5611	(1.5v - 12v)	RATIO 561:1
941D10141	(1.5v - 12v)	RATIO 1014:1

Designed for heavy-duty industrial and model applications this robust unit boasts a powerful high quality 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.

**MOTOR DATA.**

MODEL	VOLTAGE		NO LOAD		MAX EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	g - cm	
			R.P.M.	mA	R.P.M.	mA	oz - in	g - cm	W	%		
(941D)	1.5 - 12.0	12.0v CONSTANT	8000	19	5881	70		6.1	0.5	63.26		26

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

SUPPLY VOLTAGE		3.0v	6.0v	9.0v	12.0v
941D41		350	800	1300	1800
941D621		18	50	82	119
941D1041		12.5	30	50	70
941D2311		5	14	23	32
941D5611		2.5	6	9.5	13
941D10141		1.25	3.10	5	6.8

WEIGHT	
941D41	35g
941D621	42g
941D1041	43g
941D2311	46g
941D5611	46g
941D10141	49g

**NOTE:** It is not recommended to run the motor/gearbox combination at 1.5v

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

**GEARED MOTOR TORQUE RATINGS AT MAX. EFFICIENCY.**

	At 12V (g.cm)
4:1	20
62:1	227
104:1	381
231:1	705
561:1	1711
1014:1	2474

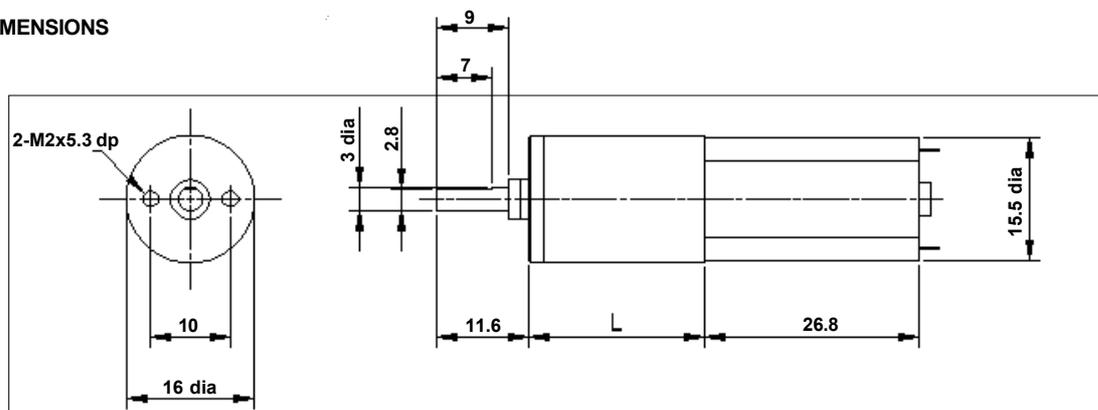
**IMPORTANT NOTICE**  
At very low ratios the torque produced by this geared motor combination may exceed the maximum permissible torque of the gearbox. In this situation the unit must not be allowed to stall as this may damage the gears.

**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. 941D621 will be 941D62124V**

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

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**GEARBOX DIMENSIONS**



GEARBOX REF.	L
941D41 (4:1)	15
941D621 (62:1)	22.2
941D1041 (104:1)	22.2
941D2311 (231:1)	25.8
941D5611 (561:1)	26
941D10141 (1014:1)	29.7

**FOR ACCESSORIES TO FIT THIS SERIES GEARBOX, REFER TO 917D SERIES PAGE.**

**ADVANTAGES OF PLANETARY GEARBOXES.**

<b>EFFICIENCY:</b>	Efficiencies of planetary gearboxes can be above 90% while some other types of transmission can be 50% or 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 MOTOR  
 GEARBOX 29:1 WITH MOTOR  
 GEARBOX 84:1 WITH MOTOR  
 GEARBOX 128:1 WITH MOTOR  
 GEARBOX 316:1 WITH MOTOR  
 GEARBOX 455:1 WITH MOTOR  
 GEARBOX 690:1 WITH MOTOR  
 GEARBOX 1996:1 WITH MOTOR

GEARBOX 19:1 WITH MOTOR  
 GEARBOX 72:1 WITH MOTOR  
 GEARBOX 104:1 WITH MOTOR  
 GEARBOX 157:1 WITH MOTOPR  
 GEARBOX 370:1 WITH MOTOR  
 GEARBOX 561:1 WITH MOTOR  
 GEARBOX 1621:1 WITH MOTOR  
 GEARBOX 3027:1 WITH MOTOR