



# New Planetary Brushless DC Gearmotors

The new type 22B4-60P gearmotor combines our high-performance 22B brushless DC motor with the all-new type-60P planetary (60mm) gearhead. The gearmotor's small diameter and predictable variable speed performance make it an ideal drive for industrial automation, pumps, packaging equipment and many other industrial applications.

## All-new type 60P Planetary Gearhead Features

- Up to twice the torque of conventional helical / spur parallel shaft gearboxes of similar size
- Unvented gearhousing mounts in any orientation
- Permanently lubricated with high-performance lubricant
- Hardened steel gears for long life and maximum performance
- Standard backlash < 60 arc minutes

## 22B Brushless DC Motor

- Totally enclosed non-ventilated
- Quiet operation, low electromagnetic interference (EMI)
- Encoder-compatible with new optional screw-in encoder shaft kit. (Standard/stock models supplied with factory-installed cover over shaft opening).
- Commutation angle: 120°
- Simple plug-in operation with Bodine chassis BLDC controls (flying leads, terminated for chassis control)
- Environmental protection: IP-44



(130V/Inch configuration shown)

## Typical Applications

Ideal for applications that require higher torque than conventional helical/spur gearheads can provide, and where very low backlash is not required: conveyors, pumps, packaging and other industrial automation equipment.

## Gearmotor Specifications and Ratings

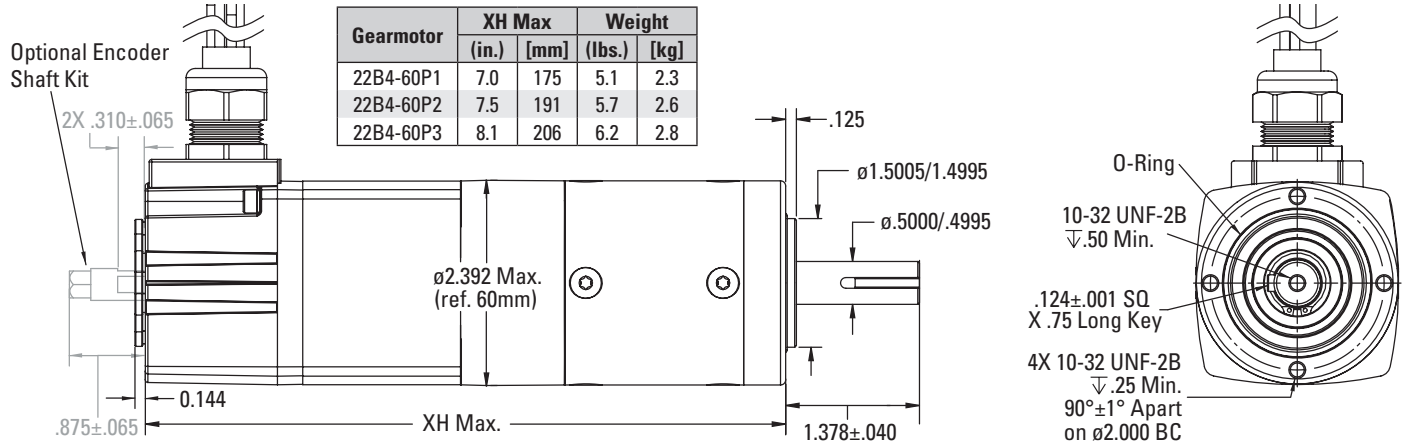
U.S./Imperial Models								
Speed (rpm)	Rated Torque (lb-in.)	Rate Current (Amps)	Peak Torque (lb-in.)	Power (HP)	Gear Ratio	Radial Load (lbs.)	Product Type	Item Number
<b>130VDC, Totally Enclosed, Non-ventilated, Class B, Accessory Shaft Ready; IP-44</b>								
15	226	0.88	315	1/8	162:1	145	22B4FEBL-60P3	7030
28	218	0.88	278	1/8	89:1	120	22B4FEBL-60P3	7029
39	176	0.88	254	1/8	64:1	107	22B4FEBL-60P2	7028
82	84	0.88	245	1/8	30:1	86	22B4FEBL-60P2	7026
146	47	0.88	229	1/8	17:1	72	22B4FEBL-60P2	7024
197	35	0.88	170	1/8	13:1	66	22B4FEBL-60P2	7023
313	24	0.88	114	1/8	8:1	56	22B4FEBL-60P1	7022
658	11	0.88	54	1/8	4:1	44	22B4FEBL-60P1	7021
Metric Models								
Speed [1/min]	Rated Torque (Nm)	Rate Current (Amps)	Peak Torque (Nm)	Power (Watts)	Gear Ratio (i)	Radial Load (N)	Product Type	Item Number
<b>24VDC Totally Enclosed, Non-ventilated, Class B, Accessory Shaft Ready; IP-44</b>								
15	25.5	5.6	36	93	162:1	645	22B4FEBL-60P3	7040
28	24.6	5.6	31	93	89:1	538	22B4FEBL-60P3	7039
39	19.9	5.6	29	93	64:1	480	22B4FEBL-60P2	7038
82	9.4	5.6	28	93	30:1	387	22B4FEBL-60P2	7036
146	5.3	5.6	23	93	17:1	320	22B4FEBL-60P2	7034
197	3.9	5.6	17	93	13:1	294	22B4FEBL-60P2	7033
313	2.7	5.6	12	93	8:1	249	22B4FEBL-60P1	7032
658	1.3	5.6	5	93	4:1	196	22B4FEBL-60P1	7031



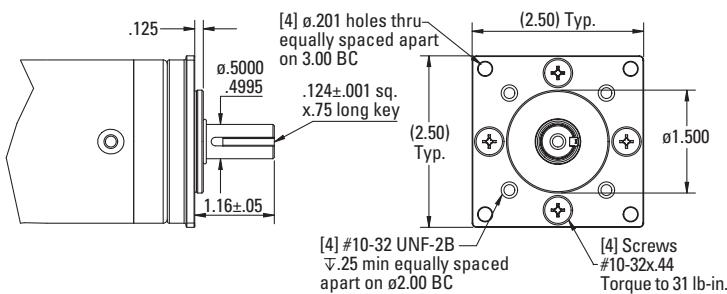


## 22B4-60P Brushless DC Planetary Gearmotors

Inch dimensions shown (130V models). Visit our web site for metric mounting and shaft details.

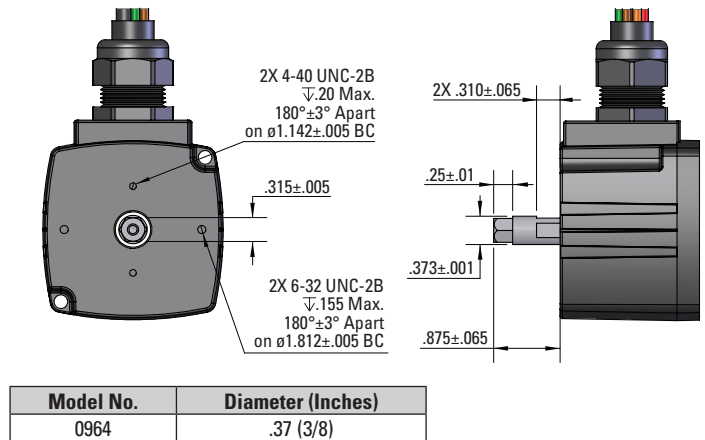


### 22B4-60P With Optional Flange Kit Installed (US/Inch shown)



	Model Number	
	U.S.	Metric
Mounting Flange	0960	0961
Shaft Seal Kit	0962	0963

### 22B4-60P With Optional Encoder Shaft Kit



## System Matched Brushless DC Speed Controls

**Buy a Bodine gearmotor and speed control as a set and get our Extended 2-Year System Warranty**

Bodine BLDC speed controls are designed to deliver optimal performance from our 12, 24 and 130VDC motors and gearmotors. Stock controls are available with either filtered or unfiltered DC output. Torque limit, maximum/minimum speed, and acceleration/ deceleration time can all be adjusted to fit your application. Enclosed models also available. For more information, visit [www.bodine-electric.com](http://www.bodine-electric.com).



**Filtered SCR  
Brushless DC Controls**  
ABL Model 3911  
& 3912 (enclosed); 3910  
unfiltered SCR (130VDC)



**NEW Low Voltage (24VDC)  
Brushless DC Control**  
ABL Model 3919  
(120° commutation)