

# Brushless® Screwdriver

## BL Series (DC Type)



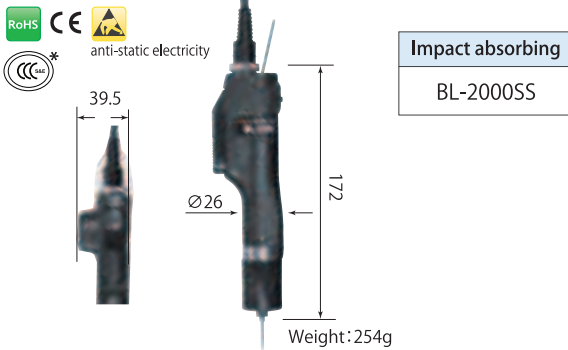
## Thanks to ultra-powerful brushless motor, durability and stability have improved.

- There is no carbon powder emission and maintains a clean environment.
- Significant durability improvement considerably reduces maintenance cost.
- Reduces the temperature rise of the motor by about 30% and mitigates problems related to heating.
- Two types of start systems (push and lever) are available with one screwdriver (not applicable to BL-2000).
- High-speed rotation shortens the tightening time and improves work efficiency.

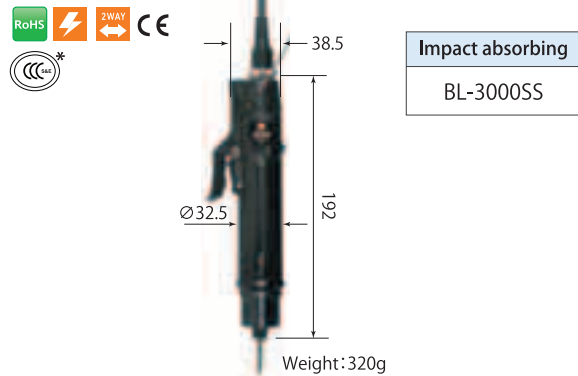
### Two-way Start System

### Two-way Start System

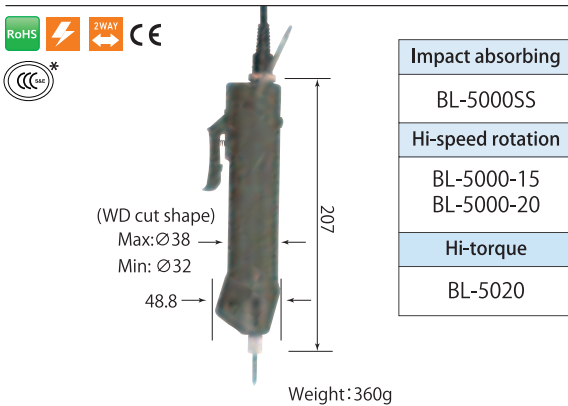
#### BL-2000 (Lever Start)



#### BL-3000 Two-way(Push/Lever)



#### BL-5000 Two-way(Push/Lever)



#### BL-7000 Two-way(Push/Lever)



Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

### BL Series Specifications

### Specifications

Model Name		BL-2000 BL-2000SS	BL-3000 BL-3000SS *	BL-5000 BL-5000SS	BL-5000-15 BL-5000-20**	BL-5020	BL-7000	BL-7000-20 BL-7000HT *		
Output torque range	N·m	0.02 - 0.2	0.2 - 0.55   0.2-0.35*	0.2 - 1.2	0.2 - 1.2   0.2 - 1.0*	0.5 - 2.0	0.7 - 2.8	0.5 - 1.5   0.7 - 3.5 *		
	lbf·in	0.17 - 1.7	1.7 - 4.8   1.7 - 4.8*	1.7 - 10	1.7 - 10   1.7 - 8.7*	4.3 - 17.4	6.1 - 24	4.3 - 13   6.1 - 30 *		
	(kgf·cm)	(0.2 - 2)	(2 - 5.5)   (2-3.5)*	(2 - 12)	(2 - 12)   (2 - 10)*	(5 - 20)	(7 - 28)	(5 - 15)   (7 - 35)*		
Torque switching		Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment		
Unloaded Rotation	HI	990	980	900	1,500   2,200*	750	960	2,200   700 *		
	LOW	650	680	590	1,000   1,500*	500	630	1,500   500 *		
Screw Size (mm)	Machine Screw	1.0 - 2.3	1.7 - 2.3	2.0 - 3.0	2.0 - 3.0	2.0 - 4.0	2.6 - 5.0	2.6 - 4.0		
	Tapping Screw	1.0 - 2.0	2.0 - 2.3	2.0 - 3.0	2.0 - 2.6	2.0 - 3.0	2.6 - 4.0	2.6 - 4.0		
Bit Drive	HIOS Shank	H4	H4	H4		H5 and 5HEX				
	HEX Shank	—	1/4HEX	H5 and 5HEX or 1/4HEX		1/4HEX				
Power Supply	T-30BL	○	○	—	—	—	—	—		
	T-70BL	○	○	○	○	○	○	○		
Accessories	Bit (one each)	H4	+ #0 (∅2.0×40mm) + #0 (∅2.5×40mm)	+ #1 (∅4.0×40mm) + #1 (∅4.0×40mm)	+ #1 (∅4.0×40mm) + #2 (∅4.0×40mm)	/				
		H5	/		+ #1 (∅5.0×60mm) + #2 (∅5.0×60mm)				+ #1 (∅5.0×60mm) + #2 (∅5.0×60mm)	+ #1 (∅5.0×60mm) + #2 (∅5.0×60mm)
		1/4 HEX			+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	
	Spring	Yellow spring		/						
	Cord length (m)	2m (5P) ESD design		1.5m (5P)	1.5m (5P)	1.5m (5P)	1.5m (5P)	2m (5P)	2m (5P)	
L-shaped HEX wrench	/		Width across flats: 5mm, 1 pc		Width across flats: 5mm, 1 pc		Width across flats: 5mm, 1 pc		Width across flats: 5mm, 1 pc	

☆The output torque range and unloaded rotation speed of BL-5000-20 are different from those of BL-5000-15.

### Suction(Vacuum) Attachment for BL Series

By making use of negative pressure, the effort needed to pick up screws can be reduced. This suction device can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It can also be used to remove powder dust generated from screw tightening.

#### Order guide

(A), (B) and (C) needed to be purchased separately if you would like to mount this suction device to your screwdriver.

\* There are several options of sizes of (A) and (B) depending on the screw size. For more information on the size, please refer to P. 58.

Model	(A) Mouthpiece model	(B) Bits total length	(C) Suction attachment model
BL-2000	F3-Standard 18mm	H4 60mm	CLQ2-SET/CLQ2-SET-ESD*
BL-3000	F3-Standard 18mm	H4 60mm	BLQ3N-SET/BLQ3N-SET-ESD*
BL-5000	F3-Standard 18mm	H4 40mm	BLQ5-SET/BLQ5-SET-ESD*
		H4 60mm	BLQ5N-SET/BLQ5N-SET-ESD*
BL-7000	F6-Standard 31mm	H5 80mm	BLQ7-SET/BLQ7-SET-ESD*

Note: The suction attachment cannot be used with 1/4HEX.

\* ESD is anti-electrostatic

### Suction + Anti-electrostatic

## BLQ-ESD

Models:  
 BLQ-3000ESD      BLQ-5000ESD-20  
 BLQ-5000ESD      BLQ-7000ESD  
 BLQ-5000ESD-15      BLQ-7000ESD-20

### Clean Room

## BLQ-CR

Models:  
 BLQ-2000CR      BLQ-5000CR-20  
 BLQ-3000CR      BLQ-7000CR  
 BLQ-5000CR      BLQ-7000CR-20  
 BLQ-5000CR-15

### Anti-electrostatic

## BL-ESD

Models:  
 BL-3000ESD      BL-5020ESD  
 BL-5000ESD      BL-7000ESD  
 BL-5000ESD-15      BL-7000ESD-20  
 BL-5000ESD-20      BL-7000HT

The screwdriver body uses an anti-electrostatic material to prevent the generation of static electricity, which is suitable for the assembly of precision equipment and electronic parts.

[Surface resistance: max. 10<sup>4</sup>Ω ]

### Clean Room + Anti-electrostatic

## BLQ-CR-ESD

Models:  
 BLQ-2000CR  
 BLQ-3000CR-ESD  
 BLQ-5000CR-ESD  
 BLQ-5000CR-ESD-15  
 BLQ-5000CR-ESD-20  
 BLQ-7000CR-ESD  
 BLQ-7000CR-ESD-20

In addition to anti-electrostatic, two vacuum units are installed in the body and the suction attachment in order to suck up powder dust generated from screw tightening.

[Class 100 equivalent]

[Surface resistance: max. 10<sup>4</sup>Ω ]

### For use with HIOS Screw Counter

## BL-OPC

Models:  
 BL-2000-OPC      BL-5020-OPC      BL-7000HT-OPC  
 BL-3000-OPC      BL-7000-OPC  
 BL-5000-OPC      BL-7000-20-OPC

These screwdrivers prevent you from skipping screw tightening in combination with the screw counter.

● They have a function to output positive rotation, reverse rotation and torque-up (tightening complete) signals.

#### Compatible counters

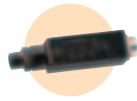
Power supply with HIOS screw counter  
**BLOP-STC3**



Separate counter  
**BLOP-SC1**



Compact separate counter  
**BLOP-SC3**



▶ See P. 41-44 for details.

### Accessories

### Accessories

### Pistol Attachment

## PAB-70

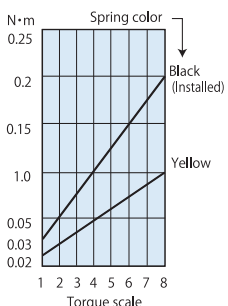
This attachment converts a standard screwdriver to a pistol-style screwdriver, most suitable for horizontal screw tightening.



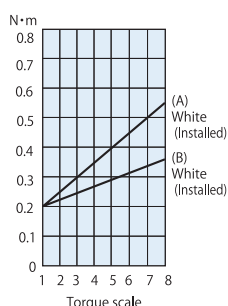
Compatible screwdrivers:  
 BL-7000 Series

### Output torque guide (HI input)

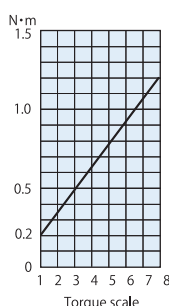
BL-2000  
 BL-2000SS



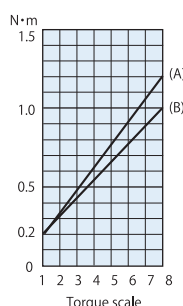
BL-3000 (A)  
 BL-3000SS (B)



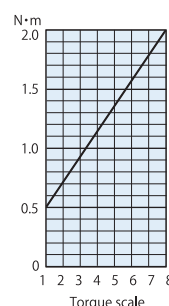
BL-5000  
 BL-5000SS



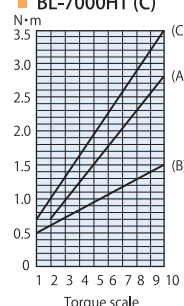
BL-5000-15 (A)  
 BL-5000-20 (B)



BL-5020



BL-7000 (A) (Including PS type)  
 BL-7000-20 (B)  
 BL-7000HT (C)



\*There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.