

熟 JUKU 線工

Brushless\*Screwdriver

Screw Counter / Built-in Pulse System

**HI()5**<sup>®</sup>

BLG-BC2 Series

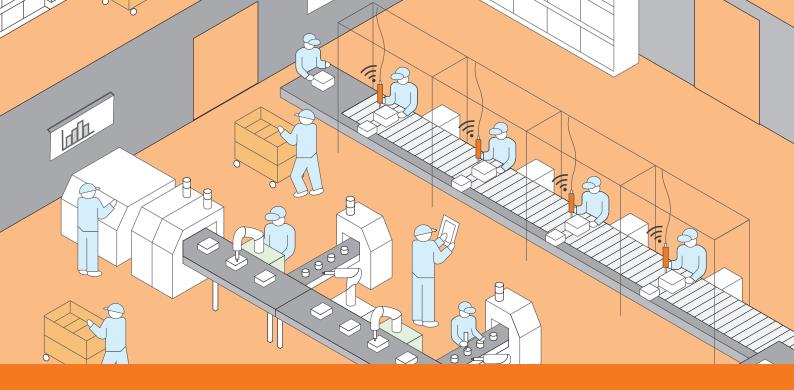
#### HIOS Inc.

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   The information presented in this catalog is current as of June 2025.
   Catalog number: EK-A034(25A)







### Do you have anxiety when fastening screws?





















JUKUREN eliminates all anxieties about screw fastening.

# Error detection and data management of screw fastening are all automated.

Conventional screw fastening work often relies on the experience and intuition of the worker, who determines if the screw ha been fastened correctly. Thus, the quality depends on the skills of the individual. To keep consistent fastening quality regard less who does it, automation and digitalization is the most effective way, and it becomes possible with this JUKUREN. Be reading the signals transmitted from the motor and checking the number of pulses, the screwdriver itself judges the screw' seating condition that is barely detected with a visual check. As a result, anyone can efficiently perform proper screw fastening.

#### DX Advancement with Built-in Serial Port

Driver settings can be changed from computer or PLC. Tightening data can be output and stored, enabling traceability and promoting DX in the production site.



When fastening several screws directly to a workpiece, it will automatically learn the number of motor rotation pulses from fastening start to seating.



#### Easy-to-grip Design



Automatically counts the number of motor rotation pulses. Detects screw fastening errors in real time with high

The measured value is displayed on a panel at hand every time you fasten a screw. The screwdriver judges OK/NG

from 1 to 99. The remaining number of screws is counted down.



#### Brushless drivers are carbon-free, contributing to CO2 reduction.

Motor Heat	Motor Heat	Power Consumption	Noise & EMI
100% Reduction	30%*1 Reduction	50%**2 Reduction	64%**3 Reduction

%1BL Serise /VB Serise %2VB Serise %3 BL Serise Compared with our conventional.

# Safe for Beginners

### Instantly detects errors that are difficult to detect visually!

















Mixture of wrong type of screw





# **BLG-BC2 Series Lineup**









BLG-7000BC2

### **SPECIFICATIONS**

Star	rt typ	e		Le	ver	Push and Lever				Push	
Мо	del			BLG-4000BC2	BLG-4000BC2-LT	BLG-5000BC2	BLG-5000BC2-15	BLG-5000BC2-18	BLG-5000BC2-HT	BLG-7000BC2	BLG-7000BC2-GT
Out	put t	orque i	range (N·m)	0.1 - 0.55	0.03 - 0.2	0.2 - 1.2	0.3 - 1.0	0.5 - 1.5	0.5 - 2.0	0.7 - 2.8	2.0 - 5.0
			ion speed I / LOW]	1,000	/ 690	1,000 / 690	1,500 / 1,000	1,800 / 1,200	730 /—	1,200 / 800	600/—
Scre	ew siz	ze N	Machine screw	1.4 - 2.6	1.0 - 2.3	2.0 - 3.0	2.3 - 3.0	2.3 - 3.0	2.0 - 4.0	2.6 - 5.0	4.0 - 6.0
(mn	n)	Т	Tapping screw	1.4 - 2.3	1.0 - 2.0	2.0 - 3.0	2.0 - 2.6	2.0 - 2.6	2.0 - 3.0	2.6 - 4.0	4.0 - 6.0
Out	er	G	Grip diameter (Max)	Ø3	32.7	Ø	38	Ø	38	⊘40	Ø40 (-HANDLE) Ø44 (-S)
dim	ensio	ons L	ength (mm)	206	207	2:	35	2:	35	238	242.7
Wei	ight (	g)		370	312	4:	25	4:	25	670	1000 (-HANDLE) 1915 (-S)
	BLC-45		BLC-45	0	0	0	○*	_	○*	_	_
Con	trolle	er E	BLC-70	0	0	0	○*	○*	○*	○*	_
		Е	BLC-80	0	0	0	○*	○*	○*	○*	○*
Di+	drive	5	Standard	H	14	H4		H5 a	H5 and 5HEX (compatible)		
	ection	n <u>s</u>	Special Order	1/4HEX	_		IS and 5HEX (compatible) or 1/4HEX 1/4HEX			_	
	Bi	HIOS	H4	+#0 (⊘2.5×40) +#1 (⊘4.0×40)	+#0 (⊘2.0×40) +#0 (⊘2.5×40)	+#1 (⊘4.0×40) +#2 (⊘4.0×40)		_			_
₽	Bit (one	Shan	H5	_	_	+#1 (⊘5.0×60) +#2 (⊘5.0×60)			+#1 (∅5.0×60) +#2 (∅5.0×60)		
Accessories 1/4-		nk 1/4HEX	+#1 (∅5.0×50) +#2 (∅5.0×50) - (∅5.0×50)	_				+#1 (Ø5.0×50) +#2 (Ø5.0×50) - (Ø5.0×50)			
S	Tord	que adj	justment spring	White	Yellow	_	_		_		_
	Cord length		h	2m	(6P)	2m	(6P)		2m (6P)		2m (6P)
	L-sh	aped H	HEX wrench	_	_	Width across	flat: 5mm, 1 pc	Width across flat: 5mm, 1 pc		1 pc	
\/>::	ations	s BLG	HIOS Shank	(					•		_
vari	ations	BLG	HEX Shank	_	-	_	-		-		_

● For the models with the 🛨 mark, use with output power HI (DC 30V). With LOW (DC 20V) output, the screwdriver features may not be fully performed.



HI Torque

#### **BLG-7000BC2-GT-HANDLE**

HI Torque

#### BLG-7000BC2-GT-S

Grip Type

Stand Typ

Stronger, faster, safer and higher precision torque control. Equipped with a slide arm and a handle as standard for minimum impact and excellent operability. Eliminates fatigue from work and enables highly precise screw fastening.





All models are anti-static (IEC61340 compliant)

#### MAIN FANCTION

Function	Notes
Screw Count Setting (1–99 screws)	Available on both models
Counter ON/OFF Function	Can be used as a standard electric screwdriver
Miscount Prevention (Double tightening / Re-tightening)	Equipped with a count timer to prevent miscounts
Error Notification (Sound / LED)	PASS/FAIL status indicated by buzzer and LED
Error Detection Method (Based on Rotation Pulses)	Judge OK/NG by motor pulse
External Device Linkage (Signal tower / switches)	BC2 requires a dedicated external I/O box (BLG-IO-Pro1) for external device connection.
Data I/O Port (RS-232C)	Supports connection to external PCs or PLCs
External Setting via PC (Batch setting)	Settings can be batch-configured using dedicated PC software
Screw Tightening Data Output (CSV, etc.)	Supports traceability and work history management

#### **OPTION**

Pre-fastening Mode

#### **AS1 Specification**

Stops the driver at a specified number of pulses before the screw is fully seated.

Applicable models: BLG-5000BC2 / BLG-5000BC2-HT





#### Shock Absorption

#### **SS Specification**

Reduces the impact of clutch-out, minimizing effects on the workpiece and limiting vibration.

Applicable models: BLG-5000BC2

### **APPLICABLE DRIVERS**

Suction BLGQ



#### **ACCESSORIES**

Stand for Vertical Operations VMS-40 / VMS-50

Keeps the screwdriver in a vertical position, allowing accurate screw fastening.

Applicable models: BLG-4000BC2 BLG-5000BC2 Series



### Cord for External I/O BLG-BC2-3012

The plug design has renewed to enhance robustness by a one-touch lock.



#### Pistol Attachment

#### PABG-50 / PABG-70

Can be installed with a pistol type attachment, ideal for horizontal fastening.



BLG-5000BC2 Series BLG-7000BC2 Series

## **BLG-BC2** Related Products

#### RELATED PRODUCTS

#### External I/O Box BLG-IO-Pro1

By connecting this box to the screwdriver, you can control screw fastening easily such as error



\* Please separately purchase an external I / O cable.



### Serial-to-parallel Conversion Box BLG-IF2

The communication mode with an external device such as a PLC can be converted from serial to parallel. Up to 4 setting patterns including the number of screws and pulses can be saved and switched on the PLC.





### ONTROLLER

#### BLC-45 (for one screwdriver)

#### **BLC-70** (for one screwdriver)

#### BLC-80 (for one screwdriver)







#### **SPECIFICATIONS**

Model	BLC-45	BLC-70	BLC-80
Primary input power source	AC100-240V (47-63Hz)	AC100-240V (47-63Hz)	AC100-240V (47-63Hz)
Secondary output voltage	HI (2): DC30V, LOW (1): DC20V (2-step switch)	HI (2): DC30V, LOW (1): DC20V (2-step switch)	HI (2): DC30V, LOW (1): DC20V (2-step switch)
Outer dimensions (mm)	71.5 (W)×146 (D)×42.6 (H)	88 (W)×210 (D)×52 (H)	116 (W)×210 (D)×55 (H)
Weight (g)	320	685	1,370
Controller cord 1.8m(1pc),flat2p conversion plug Accessories (1pc) (only for 100V), mounting hardware, mounting screws		Controller cord 1.8m(1pc),flat2p conversion plug (1pc) (only for 100V), mounting hardware, mounting screws	Controller cord 1.8m(1pc),flat2p conversion plug (1pc) (only for 100V), mounting hardware, mounting screws
Plug type	A / A-2 / A-3 / C / BF / S	A / A-2 / A-3 / C / BF / S	A / A-2 / A-3 / C / BF / S
Applicable screwdrivers	4000BC2、4000BC2-LT、5000BC2、 5000BC2-15、5000BC2-HT	4000BC2、4000BC2-LT、5000BC2、 5000BC2-15、5000BC2-18、 5000BC2-HT、7000BC2	Compatible with all models

#### **RELATED VIDEOS**

You can watch videos showing how to use HIOS screwdrivers and examples of fastening errors detected in detail on our website. Please check them out.









Jukurenko Content With This-No Mistakes Setup options

With This-No Mistakes Detectable errors in screw tightening

With This-No Mistakes Direct teaching

## **Accessories for Suction Screwdrivers**

Suction screwdrivers suck screws by negative pressure, eliminating the need to pick up screws. Nonferrous metal screws such as stainless steel ones can also be sucked. In addition, it can remove dust generated during a screw fastening process. Suction parts vary in size depending on the model. Please check the accessory chart when purchasing.



#### COMPATIBLE ACCESSORY CHART

		Α	В			С		
Category	Model	Mouthpiece	Applicable bit		S	uction attachment		
		Mouthpiece	Applicable bit	Standard	ESD		Appearance	
	BLG-4000BC2	F3 Std.18mm	H4 60mm	BLGQ4-SET				
	BLG-4000BC2-LT	F3 Std.18mm	H4 60mm	CLQ2-SET	CLQ2-SET-ESD			101
BLG-BC2	BLG-5000BC2	F3 Std.18mm	H4 40mm	BLQ5-SET	BLQ5-SET-ESD			
Series	BLG-5000BC2-15	13 3(4.16)11111	H4 60mm	BLQ5N-SET	BLQ5N-SET-ESD	BLGQ4-SET	CLQ2-SET	BLQ5-SET
	BLG-5000BC2-18 BLG-5000BC2-HT		Please contact th	e HIOS distributor.				
	BLG-7000-BC2	F6 Std.31mm	H5 80mm	BLQ7-SET	BLQ7-SET-ESD	BLQ5N-SET	BLQ7-SET	

 $<sup>^{*}</sup>$  Suction attachment cannot be equipped on 'BLG-7000BC2-GT'.

#### RELATED PRODUCTS

#### For suction-type screwdrivers

#### **Vacuum Pump**

In combination with a suction-type screwdriver, it generates negative pressure to have a screw sucked at the tip of the bit.



#### **SPECIFICATIONS**

Model	VP-3		
Primary input power	AC100V、120V、220V-240V±5%		
Max. power consumption	39W±20%		
Ultimate vacuum	-350mm Hg		
Air capacity	25L/min		
Dimensions (mm)	200×188×142 (H)		
Weight (kg)	3.8		
Plug type	A-1/A-2/A-3/C/BF/S		

#### Plug types

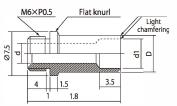
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Voltage	10	OV	120V				
	Type A	Type A-1	Type A-2	Type A-3	Type C	Type BF	Type S
P <b>l</b> ug shape					4.8		

## **Accessories for Suction Screwdrivers**

#### **A** Mouthpiece

F3 Std. 18mm (Total length)

#### Cross-sectional view of a mouthpiece



Order code	Mouthpiece reference dimensions (mm)		e	Screw head shape and screw size						
	D	d	d1	JIS plus (machine screw)	JCIS plus	JIS minus (machine screw)				
F3-00	7.5	- 5	-	Custom screw	Custom screw	Custom screw				
F3-01	3.3	2.1	2.1		Class 1 M1.4					
F3-02	3.6	2.6	2.6		Class 1 M1.7 / Class 3 M1.4					
F3-03	4.1	3.1	3.1		Class 1 M2.0 / Class 3 M1.7					
F3-04	4.6	3.6	3.6	Pan, round M2.0	Class 1 M2.3 / Class 3 M2.0	Pan, round, flat M2.0 / countersunk, round countersunk M1.7				
F3-05	5.1	4.1	4.1	Pan, round M2.3 / countersunk, round countersunk M2.0	Class 1 M2.6 / Class 3 M2.3	countersunk, round countersunk M2.0				
F3-06	5.8	4.3	4.5	Pan, round M2.6	Class 3 M2.6	BindingM2.0				
F3-07	7.0	4.3	5.5	Pan, round M3.0 / Binding M2.6		Pan, round, flat M3.0 / Binding M2.6				
F3-10	5.5	4.3	4.3	Binding M2.0		Pan, round, flat M2.3				
F3-11	6.0	4.0	4.9	Binding M2.3		Binding M2.3				
F3-15	3.8	2.8	2.8			Pan, round, flat M1.4				
F3-16	3.5	2.5	2.5			countersunk, round countersunk, M1.2				
F3-17	4.3	3.3	3.3			Pan, round, flat M1.7				

■For different specifications, please contact the HIOS distributor. ■3 mouthpieces per pack.

#### В Applicable bit Н4 Screw recess Screw size Order code M2.0-M2.6 BP-H4-#1-3.0-40(60)(80) BP4130040(60)(80) JIS plus M3.0 BP-H4-#2-4.0-40(60)(80) BP4240040(60)(80) M1.4 Class 1 BP4018040(S)(60)(80) JCIS BP-H4-#0-1.8-40(S)(60)(80) M1.4-M1.7 plus BP-H4-#0-2.0-40(60)(80) BP4020040(60)(80) M2.0-M2.6 BP-H4-#0-2.5-40(60)(80) BP4025040(60)(80) M1.2 BS-H4-2.0-40(60)(80) BS420040(60)(80)

M2.3-M3.0 BS-H4-4

The () in the listmeans total length of thebit.

M1.7-M2.0

M1.4

For special order item 1.8 x 40, please contact the HIOS distributor.

BS-H4-2.5-40(60)(80)

BS-H4-3.0-40(60)(80)

BS-H4-4.0-40(60)(80)

BS425040(60)(80)

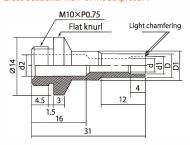
BS430040(60)(80)

BS440040(60)(80)

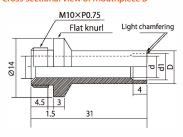
The material of the mouthpiece is BS (brass) only.

## A Mouthpiece F6 Std. 31mm (Total length)

#### Cross-sectional view of mouthpiece A



Cross-sectional	view of	mouthn	ioco R



The material of a mouthpiece is BS (brass)

Drawing	Order (mm) Mouthpiece reference dimensions		Screw head shape and screw size					
	code	D	D1	d	d1	d2	JIS plus (Machine screw)	JIS minus (Machine screw)
В	F6-00	8.0		_	-		Custom screw	Custom screw
	F6-01	4.6	7.0	3.5	3.6	5.5	Pan, round M2.0	Pan, round M2.0
Α	F6-02	5.1	7.0	3.5	4.1	5.5	Pan, round M2.3 / countersunk, round countersunk M2.0	Pan, round M2.3
	F6-03	5.8	7.0	3.5	4.5	5.5	Pan, round M2.6 / Binding, truss M2.0	Binding, truss M2.0
	F6-04	7.0	_	5.5	5.5	<u> </u>	Pan, round M3.0 / Binding M2.6	Pan, round M3.0 / Binding M2.6
В	F6-05	7.5	-	5.5	6.0	-	Cuntersunk, round countersunk M3.0	Truss M2.6
	F6-06	8.5	-	5.5	7.0		Pan, round M4.0 / truss M3.0	Pan, round M4.0 / truss M3.0
Α	F6-09	6.5	7.0	3.5	5.2	5.5	Cuntersunk, round countersunk M2.6	Truss M2.3
	F6-10	14.0		22	23		Custom screw	Custom screw
	F6-11	7.7	_	5.5	6.3	—	Binding M3.0	Binding M3.0
В	F6-13	9.7		5.5	8.3	_	Binding M4.0	
	F6-16*	9.4		5.5	8.0	_	Cuntersunk, round countersunk M4.0	
	F6-22*	9.7	_	7.5	8.3	_		Binding M4.0

\* Special order ●For different specifications, please contact the HIOS distributor. ●3 mouthpieces per pack.

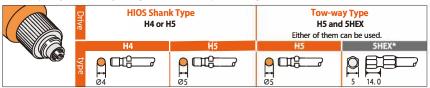
#### **B** Applicable bit

H5	Screw recess	Screw size	Bit	Order code		
Ø5 → CIL →	. UC L	M2.0-M2.6	BP-H5-#1-3.0×80	BP5130080		
80mm	JIS plus	M3.0-M5.0	BP-H5-#2-5.0×80	BP5250080		
80mm	JIS minus	M2.0-M2.3	BS-H5-3.0×80	BS530080		
	JIS MINUS	M3.0-M4.0	BS-H5-5.0×80	BS550080		
H5	Screw recess	Screw size	Bit	Order code		
Ø5 O E E =	مراد عال	M2.0-M2.6	BP-H5-#1-3.0-100	BP5130100		
100mm	JIS plus	M3.0-M5.0	BP-H5-#2-5.0-100	BP5250100		
Tooliilii.	JIS minus	M3.0-M4.0	BS-H5-5.0-100	BS550100		
	●Truss: For M3.0, use +#1.					

# Order Code / International Standard Certifications

#### **ORDER CODES**

Please specify bit drive by using order code for purchasing.





BLG-BC2 Series Model	Order Code	Bit Drive
Lever Start	3	52
BLG-4000BC2	BLG-4000BC2	H4
BLG-4000B02	BLG-4000XBC2	1/4HEX
BLG-4000BC2- LT	BLG-4000BC2-LT	H4
Lever Start and Pusl	n-to-Start	
	BLG-5000BC2	H4
DI O 5000DO0	BLG-5000H5BC2	H5 and 5HEX
BLG-5000BC2	BLG-5000X5BC2	H5 and 5HEX
	BLG-5000XBC2	1/4HEX
	BLG-5000BC2-15	H4
DI O 5000DO0 15	BLG-5000H5BC2-15	H5 and 5HEX
BLG-5000BC2-15	BLG-5000X5BC2-15	H5 and 5HEX
	BLG-5000XBC2-15	1/4HEX
	BLG-5000BC2-18	H5 and 5HEX
BLG-5000BC2-18	BLG-5000X5BC2-18	H5 and 5HEX
	BLG-5000XBC2-18	1/4HEX
	BLG-5000BC2-HT	H5 and 5HEX
BLG-5000BC2-HT	BLG-5000XBC2-HT	1/4HEX
	BLG-7000BC2	H5 and 5HEX
BLG-7000BC2	BLG-7000XBC2	1/4HEX
BLG-7000BC2-GT (Grip Type)	BLG-7000XBC2- GT-HANDLE	1/4HEX
Push Start		
BLG-7000BC2-GT	BLG-7000XBC2-GT-S	1/4HEX

★1 HIOS Shank H5 comes with the product as a standard accessary. ★2 No bit comes as a standard accessary.

### BLG-BC2 Variations Q Suction

If you wish to purchase a suction part, please select the screwdriver and the suction unit (suction attachment, mouthpiece and bit) on P. 7-P8 before ordering.

BLG-BC2 Op	tional				
AS1 Pre-fastenin	g Mode				
Lever Start					
BLG-4000BC2-AS1	BLG-4000BC2-AS1	H4			
BLG-4000BG2-AS1	BLG-4000XBC2-AS1	1/4HEX			
LeverStart and Push	n-to-Start				
	BLG-5000BC2-AS1	H4			
	BLG-5000H5BC2-AS1	H5 and 5HEX			
BLG-5000BC2-AS1	BLG-5000XBC2-AS1	1/4HEX			
	BLG-5000BC2-HT-AS1	H5 and 5HEX			
	BLG-5000XBC2-HT-AS1	1/4HEX			
SS Shock Absorp					
Lever Start and Push	n-to-Start				
	BLG-5000H5BC2-SS	H5			
BLG-5000BC2	BLG-5000BC2-SS	H5 and 5HEX			
DLG-000DOZ	BLG-5000X5BC2-SS	H5 and 5HEX			
	BLG-5000XBC2-SS	1/4HEX			

Controller					
Model	Order Code	Plug			
BI C-45	BLC-45	A (100V)			
	BLC-45-UL	A2 (120V)			
	BLC-45-TH	A3 (220-240V)			
DEO-45	BLC-45-EU-HK	C (220-240V)			
	BLC-45-UK-SP	BF (220-240V)			
	BLC-45-CN	S (220-240V)			
	BLC-70	A (100V)			
	BLC-70-UL	A2 (120V)			
DI O 70	BLC-70-TH	A3 (220-240V)			
BLC-70	BLC-70-EU-HK	C (220-240V)			
	BLC-70-UK-SP	BF (220-240V)			
	BLC-70-CN	S (220-240V)			

	-				
Controller					
Model	Order Code	Plug			
	BLC-80	A (100V)			
	BLC-80-UL	A2 (120V)			
BLC-80	BLC-80-TH	A3 (220-240V)			
BLO-00	BLC-80-EU-HK	C (220-240V)			
	BLC-80-UK-SP	BF (220-240V)			
	BLC-80-CN	S (220-240V)			
Peripherals					
Model	Order Code	Note			
Vacuum Pump	-100. 5000	1.010			
VP-3	VP-3	A( 100V			
Dedicated Cable fo	or External I/O	20			
BLG-BC2-3012	BLG-BC2-3012	One-touch Type			
BLG-BC2-3010	BLG-BC2-3010	Phone Plug Type			
External I/O Box					
BLG-IO-P ro1	BLG-IO-P ro1	-			
Serial-to-Parallel C	onversion Box				
BLG-IF2	BLG-IF2	10 m			

Model	Order Code	Applicable Model			
Pistol Attachment					
PABG-50	PABG-50	BLG-4000系-BC2			
	PABG-70	BLG-7000系-BC2			

Vertical Screw	driver Operating	Stand	5				
VMS-40	VMS-40		BLG-4000-BC2 BLG-5000BC2 Series				
VMS-50	VMS-50		(Except BL-7000BC2)				

Model	Holder model
BLG-4000-BC2 BLG-5000-BC2 Series	VMS-0900-BLG45

#### INTERNATIONAL STANDARD CERTIFICATIONS

#### [Cautions]

● Diffrent order code system applies to China CQC mark certified products. Please contact the HIOS distributor before ordering. ● For the GB Safety Standard(UKCA), please contact the HIOS distributor.

1	CE	European Safety Standard CE Compliant Products
2	CQC	China Quality Certification CQC Compliant Products
3	CCC	China Compulsory Certification CQC Compliant Products
4	UL cUL	US Canada Safety Standards UL / cUL Compliant Products
5	ESD	Anti-electrostatic IEC61340 compliant products
6	ESD	Supporting anti-electrostatic (surface resistance: $3 \times 1012 \Omega$ or less)
7	RoHS	RoHS compliant products
8	10	China RoHS compliant products
9	FCC	U.S.EMC Standard

Model	1	2	3	4	5	6	7	8	9
<b>BLG-BC2 Series</b>									
BLG-4000BC2	0	0		-	0	-	0	0	0
BLG-4000BC2-LT	0	0	-	-	0	-	0	0	0
BLG-5000BC2	0	0		-	0	-	0	0	0
BLG-5000BC2-15	0	0		-	0	_	0	0	0
BLG-5000BC2-18	0	0			0	_	0	0	0
BLG-5000BC2-HT	0	0	-	-	0	-	0	0	0
BLG-7000BC2	0	0			0		0	0	0
BLG-IO-Pro1	-	_			=	0	0	0	_

Model	1	2	3	4	5	6	7	8	9		
Controller DC Screwdriver											
BLC-45	0	-	-	0	0	-	0	0	_		
BLC-70	0	-	-	0	0	-	0	0	0		
BLC-80	0	-	-	0	_	0	0	0			
Vertical Screwdrive	Ope	erat	ting	, St	anc	ls					
VMS-40	-	-	-	-	-	-	0	0	0		
VMS-50	-		_		=	=	0	0	0		
Vacuum Pump											
VP-3( AC100V)	1-	=	-	_		0	0	0	0		