



**The electrical solution
for tightening operations.
Simple, ergonomic,
reliable.**

**New
Brushless Electric Screwdrivers BL**

- Torque range: from 0.02 up to 3.4 Nm
- Automatic electric shut-off

Fiam®

PEOPLE AND SOLUTIONS

New Brushless Electric Screwdrivers BL

Maximum accuracy, minimum maintenance. Freedom of tightening is brushless.

The **new BL electric screwdrivers** have been designed and made by the Japanese HIOS, one of the world's foremost tool-making companies.

They have **brushless motors** that, thanks to the absence of maintenance and of the coal dust in the working environment (characteristics of the standard motors with brushes), guarantee:

- **greater reliability** in time
- **absence of pollution** in the working environment
- **greater productivity** for a considerable increase of the performances.

Featuring extremely practical controls, they are **easy, quick and comfortable to use**.

They are particularly suitable for specific assembly work with **small and very small screws and nuts** and are therefore used in the following sectors: electronic and electromechanical components, toys, plastic objects, eyewear, etc.

.....
BL 5020



.....
BL 2000 ESD
Real size 1:1



.....
BL 7000



The electrical solution for tightening operations.

Be demanding

Reliability

Long lifetime of the components thanks to careful design and to quality of the productive process which results in less maintenance and repair costs

The absence of maintenance of the brushless motor (replacement of brushes/ rotor) guarantees **long lifetime** equal to **four times of a standard motor with brushes**

The absence of the coal and copper dust doesn't damage the internal components of the screwdrivers and reduces the maintenance and repair costs

The new components of the tool's starting system, completely redesigned, avoids every electrical contact and **guarantees always reliable starts**

They have a **control system with automatic motor shut off** that, interacting with the controller, cuts off the power supply to the tool upon reaching the established tightening value

Particularly suitable for assembly work with small and very small screws and nuts, they ensure **high repeatability** of the tightening torque and great accuracy, even with **very low torques**

The **controller** (built into the driver unit), **sole for all range**, automatically cuts off the electrical supply to the screwdriver upon reaching the torque that has been set on the tool

The **sturdiness and long life** of the internal parts ensure constant, lasting performance as well as extremely reduced maintenance costs

Where very small screws have to be used the **micro screwdriver BL 2000 ESD** is indispensable since it guarantees **high repeatability of torque** starting from 0.02 Nm

The **BL models in the ESD version** (Electro Static Discharge) are designed for assembling electronic components in order to protect against any electrostatic discharge

Don't be satisfied with the maximum

Productivity

Considerable increase of the efficiency of the tightening cycle thanks to innovative systems

The internal parts ensure a high motor speed of rotation with consequent **reduction in the tightening time-cycle**

The extreme **simplicity in adjusting the tightening torque control system** permits to reduce the tool's starting time

The tightening torque control system reduces to a minimum the need for quality control at the end of assembly work, resulting in a **considerable increase in the tightening cycle output**

The BL screwdrivers come with a new and **exclusive built-in device** that acts **both as driver unit and controller**: it guarantees excellent operation and fully exploits the capacities of the screwdriver

The driver unit supplies the correct voltage to the screwdriver and **offers a choice between two tool speeds of rotation**: the speed given by the screwdriver and a speed that is approx. 30% lower

The absence of maintenance operations guarantees high **productive continuity**

The BL models in the version OPC permit the **monitoring of the tightening cycle** avoiding the manual check of the number of tightened screws



BL 5000



Simple, ergonomic, reliable.

Perfection is
in your hands

Ergonomics

Optimization of the tool performances in regard to ergonomics and operator safety

For maximum operator's comfort and safeguard of the hand-arm system, all models (except mod. BL 2000 ESD) **are supplied with a device to convert the starting mechanism from lever-start to push-to-start** (and viceversa) depending on type of application

These solutions ensure maximum safety of use due to **low voltage operation** (24 Volt) and **perfect thermal insulation**

Extremely small and lightweight for utmost operator comfort

All the models are fitted with a **handy, practical reversibility device**

In line with ergonomic requirements, they ensure **very low noise level, minimum vibrations and maximum safety** (low supply voltage)

They offer **total electromagnetic compatibility in the work environment**

The models are **outstandingly lightweight from only 320 g.**

All models are **fitted with a tool suspension device** to lessen operator effort



Ideal in the eyewear field



Ideal for assembling electronic components

The monitoring of tightening cycle accelerates your production cycles!

The BL - OPC models equipped with driver with screws counter BLOP-STC are **practical and inexpensive monitoring systems, poka-yoke type** (anti-error system) to verify in real time the tightening cycle, guaranteeing the reliability of the tightening process regardless of the operator's ability.

The use of these systems accelerates the production cycles avoiding the manual check of the assembled products (for example to check the number of tightened screws) thus ensuring the good quality of the assembled product.

Naturally
Innovative

Ecology

Innovative systems designed paying even more attention with respect to environment and of its safeguard

More healthy and breathable working environments thanks to **absence of coal and copper dust** (motor without brushes)

Greater output of the motors guarantees **less electric energy consumptions**

These screwdrivers are made with **recyclable materials**; all the parts may therefore be easily disposed of and do not represent a hazard for environmental pollution or personal safety

The electrical solutions safeguard the workplace since there is absolutely **no oil fog in the air**, which is sometimes present when using air tools

The **ESD models** (Electro Static Discharge) are designed for **assembling electronic components** in order to protect against any electrostatic discharge. For other models, this option is possible only upon request.

Eco-contribution WEEE acquitted: Fiam carries out its obligations of producer, with full respect for the environment, and without any extra charge for the customer



The BL electric screwdrivers **are in compliance with European Directive 2004/108** (15th December 2004).

They do not create any electromagnetic problems in the environment and are not influenced by them either. They are therefore suitable for operation even in presence of other electronic equipment, without compromising their regular operation. All screwdrivers BL, comply with directives in force.

Brushless Electric Screwdrivers

Type of screwdriver		Grip	Tightening torque on soft joint				Idle speed	Starting system	Reversibility	Weight		Dimensions (mm)	Power consumption	Accessories	Noise level	Vibrations
Model	Code		Type	Nm	in lb	r.p.m.				Type	Type					
BL 5000	111313401		0,2 ÷ 1,2	1.77÷10.62	900				0,360	0.792	32x207	24		58	< 2,5	
BL 5020	111313402		0,5 ÷ 2	4.425÷17.7	750				0,360	0.792	32x207	24		58	< 2,5	
BL 7000 20	111313408		0,5 ÷ 1,5	4.425÷13.275	2200				0,640	1.408	36x239	24		58	< 2,5	
BL 7000X HT	111313403		0,7 ÷ 3,4	6.195÷30.09	740				0,640	1.408	36x239	24		58	< 2,5	

Brushless Electric Screwdrivers version ESD

Type of screwdriver		Grip	Tightening torque on soft joint				Idle speed	Starting system	Reversibility	Weight		Dimensions (mm)	Power consumption	Accessories	Noise level	Vibrations
Model	Code		Type	Nm	in lb	r.p.m.				Type	Type					
BL 2000 ESD	111313400		0,02 ÷ 0,2	0.177÷1.77	990				0,254	0.560	26x172	24	HIOS H4	58	< 2,5	
BL 3000 ESD	111313409		0,2 ÷ 0,55	1.77÷4.867	980				0,320	0.704	32x132	24		58	< 2,5	
BL 5000 ESD	111313407		0,2 ÷ 1,2	1.77÷10.62	900				0,360	0.792	32x207	24		58	< 2,5	
BL 5020 ESD	111313405		0,5 ÷ 2,0	4.425÷17.7	750				0,360	0.792	32x207	24		58	< 2,5	
BL 7000X HT ESD	111313404		0,7 ÷ 3,4	6.195÷30.09	740				0,640	1.408	36x239	24		58	< 2,5	

Brushless Electric Screwdrivers with cycle monitoring

Type of screwdriver		Grip	Tightening torque on soft joint				Idle speed	Starting system	Reversibility	Weight		Dimensions (mm)	Power consumption	Accessories	Noise level	Vibrations
Model	Code		Type	Nm	in lb	r.p.m.				Type	Type					
BL 2000 OPC	111313410		0,02 ÷ 0,2	0.177÷1.77	990				0,254	0.560	26x172	24	HIOS H4	58	< 2,5	
BL 3000 OPC	111313411		0,2 ÷ 0,55	1.77÷4.867	980				0,320	0.704	32x132	24		58	< 2,5	
BL 5000 OPC	111313412		0,2 ÷ 1,2	1.77÷10.62	900				0,360	0.792	32x207	24		58	< 2,5	
BL 5020 OPC	111313406		0,5 ÷ 2,0	4.425÷17.7	750				0,360	0.792	32x207	24		58	< 2,5	
BL 7000 OPC	111313413		0,7 ÷ 2,8	6.195÷24.78	960				0,640	1.408	36x239	24		58	< 2,5	

Legend

Reversibility: All models are suitable for tightening and untightening operation

Lever start

Push start

Lever or push start

All models (except mod. BL 2000 ESD and BL 2000 OPC) permit to convert the starting mechanism from lever-start to push-to-start and viceversa

- The tightening torque values has been measured in accordance with ISO 5393 standard.
- Noise level has been measured in accordance with ISO 3744 and ISO 15744 standards.
- Vibrations level has been measured in accordance with ISO 8662-1 e ISO 8662-7 standard.
- Accessory drive: female hexagonal drive 1/4", 6,35 mm (ISO 1173); except for BL 2000 ESD and BL 2000 OPC models with HIOS H4 drive (see accessories on next page).
- The code number must be used when ordering.

The torque values are purely indicative and may be influenced by the softness of the type of joint, by the type and length of the screw. For all further details, please apply to the Fiam Technical Consultancy Service.

Standard equipment (supplied with the tool)

- 3 bits (except for BL 2000 ESD and BL 2000 OPC models: 2 bits)
- Hanging ring
- Use and maintenance manual
- Eco-friendly packaging

Models available upon request

- Models with screws suction system
- Models ESD for BL... OPC

Accessories available upon request

Driver T-70-BL

It is necessary to **convert the local power feed** (230 Volt CA - 50 Hz) into direct current (20/30 Volt CC - 2,5 A max).

It has a **built-in torque control device** able to stop automatically the power of the tool the moment the preset torque is reached.

It permits the **choice between two tool speed rotation**: the speed given by the screwdriver and a speed that is approx. 30% lower



Code	Power W	Weight Kg	Weight lb	Length mm	Height mm	Depth mm	Length of cable supplied with m
676000088	70	0,8	1,76	88	52	210	1,8

Driver with screws counter BLOP-STC

It can be used only with BL electric screwdrivers version OPC and connected only to one tool; besides features of the T-70 BL driver above described, it has the following features:

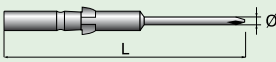

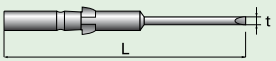

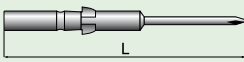

- Possibility to set **1 sequence of tightening**
- Each tightening sequence **can count up to 99 screws**
- For each tightening sequence, it is possible to **program the maximum number of tightening attempts for KO screws**
- **Automatic check of tightening time** which can be adjusted by setting the cycle time thus discriminating the different KO results
- **Visual indicators of the tightening status**
- **Electric signal for "end cycle OK"** to release pallet/jig (or manual with key selector)
- **Electric feed**: 110/220VAC, 50/60Hz



Code	Power W	Weight Kg	Weight lb	Length mm	Height mm	Depth mm	Length of cable supplied with m
676000089	80	1,850	4,07	130	80	220	1,5

Bits (except mod. BL 2000 ESD), sockets, balancers: please see the "Accessories" catalogue

Bits for BL 2000 ESD and BL 2000 OPC

Imprint		mm		Length L.	Code
 	Cross-slotted	PH. 00	ø 1,5	60 mm	601056005
		PH. 0	ø 2,0	60 mm	601056010
		PH. 0	ø 2,5	60 mm	601056015
		PH. 1	ø 3,0	60 mm	601056020
 	Slotted		t = 1,3 s = 0,3	60 mm	601016005
			t = 1,5 s = 0,3	60 mm	601016010
			t = 1,8 s = 0,4	60 mm	601016015
			t = 2,0 s = 0,4	60 mm	601016020
 	Torx	T3		60 mm	601086005
		T4		60 mm	601086010
		T5		60 mm	601086015