



## Clutch Screwdrivers / PLUTO Series





## PLUTO Clutch Screwdrivers | Torque range 0.5 – 7 Nm

 $\mathsf{PLUTO}^{\otimes}$  (PLUs TOrque) clutch screwdrivers combine the versatility of PLUTO tools with the precision of clutch screwdrivers.

#### Precise and accurate

High performances are guaranteed on any type of joint.  $\mathsf{PLUTO}^{\circledast}$  clutch models ensure an excellent accuracy on the whole torque range.

#### Long-lasting quality

PLUTO® Screwdrivers feature an innovative coreless motor with low inertia and friction and absence of iron losses for extreme efficiency and extended life.

Planetary gearboxes and clutches are made of high-quality composite materials for excellent accuracy and repeatability throughout the whole torque range.

## Hand-held and fixture mount models

PLUTO FR are available in inline or pistol grip ESD-safe housing. Angle attachments for hand-held tools are also available.

PLUTO FR/CA are supplied in an aluminium body for a quick and easy integration with automatic machines and screwfeeding systems. PLUTO tools in CA/FN version are equipped with a flange mount and reciprocating spindle for high volume/high duty applications.

#### Specific control unit

Any PLUTO FR operates with a specific control unit, model EDU2AE/FR. It is designed to best run PLUTO FR screwdrivers, with the addition of some high-end features such as password protection and serial print.

#### Highest environmental protection requirements

- Low energy consumption
- No polluting emissions
- Low noise level
- Minimal vibrations
- ESD-safe



Available Housings

INLINE (PLUTO..FR) – Inline versions available in lever start. Clutch style. Bit Drive: 1/4" hex quick change chuck



PISTOL GRIP – Trigger start, pistol grip available with top connector (PLUTO FR/P/U) or bottom connector (PLUTO FR/P). Clutch style. Bit Drive: 1/4" hex quick change chuck



models with angle head attached. Clutch style.

ANGLE MODELS (PLUTO FR/ANG) - Inline



ALUMINIUM BODY (PLUTO FR/CA and PLUTO FR/CA/FN) – Specifically designed for automation. Easy to install on any machine or robot. Flange and telescopic spindle for automated high volume/high duty applications available together or separately.





### Inline PLUTO Clutch Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Output
131203/HS	PLUTO3FR/HS	0.5 - 2.8	1550 - 2400	259 x 40	0.55	Hex 1/4"
131205	PLUTO5FR	1 - 5	600 - 1000	274 x 40	0.55	Hex 1/4"
131207	PLUTO7FR	1.5 - 7	350 - 600	274 x 40	0.55	Hex 1/4"

## Pistol grip PLUTO Clutch Screwdrivers

Code	Model	Torque Nm	ue Nm RPM min-max Dimensions mm We		Weight kg	<b>Connector Option</b>
131204/HS	PLUTO3FR/P/HS	0.5 - 2.8	1550 - 2400	158 x 224 x 45	0.55	Bottom connector
131204/U/HS	PLUTO3FR/P/U/HS	0.5 - 2.8	1550 - 2400	163 x 232 x 45	0.55	Top connector
131206	PLUTO5FR/P	1 - 5	600 - 1000	158 x 224 x 45	0.55	Bottom connector
131206/U	PLUTO5FR/P/U	1 - 5	600 - 1000	163 x 232 x 45	0.55	Top connector
131208	PLUTO7FR/P	1.5 - 7	350 - 600	158 x 224 x 45	0.55	Bottom connector
131208/U	PLUTO7FR/P/U	1.5 - 7	350 - 600	163 x 232 x 45	0.55	Top connector

## Angle head PLUTO Clutch Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Output	Start Option
131205/A	PLUTO5FR/ANG	1 - 5	600 - 1000	336 x 40	Hex 1/4"	Lever start
131207/A	PLUTO7FR/ANG	1.5 - 7	350 - 600	336 x 40	Hex 1/4"	Lever start

## Aluminium housing PLUTO Clutch Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Output
133203/HS	PLUTO3FR/CA/HS	0.5 - 2.8	1550 - 2400	252 x 40	0.75	Hex 1/4"
133205	PLUTO5FR/CA	1 - 5	600 - 1000	252 x 40	0.75	Hex 1/4"
133207	PLUTO7FR/CA	1.5 - 7	350 - 600	252 x 40	0.75	Hex 1/4"

## Aluminium housing PLUTO Clutch Screwdrivers with Flange Mount

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Output
133205/FN	PLUTO5FR/CA/FN	1 - 5	600 - 1000	328 x 40	0.80	Hex 1/4"
133207/FN	PLUTO7FR/CA/FN	1.5 - 7	350 - 600	328 x 40	0.80	Hex 1/4"

### IMPORTANT: Continuous use over 80% of torque range is not recommended.

PLUTO Screwdrivers work in combination with EDU2AE/FR controllers. See page 18 for further information.







## FAB & RAF Screwdrivers | Torque range 0.05 – 5 Nm

FAB & RAF screwdrivers have been well-known in the electronic industry since we first developed them in the early 1990s. FAB and RAF series are Kolver's powerful, reliable and truly cost-effective tools.

### Quick to set up, easy to use

FAB and RAF tools are incredibly easy to install and operate. The torque is set externally: you'll only have to turn the clutch adjusting nut according to the required torque setting.

Each screwdriver works in combination with a control unit. Its electronic control circuit cuts the power supply to the screwdriver motor in response to the clutch action as soon as the pre-set torque has been reached.

#### Simple maintenance

Replacing carbon brushes and greasing the gears once a year is all you need for maintenance.

EDU1FR control units for FAB and RAF screwdrivers feature a maintenance-free, state-of-the-art electronics and no wearing components. This design results in very low current to the driver's start switch and clutch switch to extend their life indefinitely.

#### Safe, clean and low noise

All FAB and RAF models come standard with ESD-safe housings against electrostatic discharge.

Their electric motor makes them not only energy efficient but also free of pollutants and contributes to a quieter environment (noise within 55 dB(A). Ergonomic grip, lightweight and compact design for maximum operator comfort.

#### Basic and advanced functionalities

FAB and RAF work in combination with EDU1FR series controllers, acting as an AC to DC transformer and torque controller with adjustable slow start and speed.

More features available when used in combination with EDU2AE/FR controller or EDU1FR/SG with ACE screw counter (see chart on next page).



Available Housings

INLINE – Inline versions available in lever start or push-to-start. Bit Drive: 1/4" hex quick change chuck



PISTOL GRIP – Trigger start, pistol grip available with top connector (PP/FR/U) or bottom connector (PP/FR). Bit Drive: 1/4" hex quick change chuck



ANGLE HEAD OPTION – 90° angle heads can be easily attached to inline models. Angle attachments ar the ideal solution to operate where space is limited. See page 46.



## Inline FAB Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Start Option
110003/FR	FAB03SS/FR	0.05 - 0.3	450 - 650	237 x 33	0.50	Lever Start
110010/FR	FAB10RE/FR	0.05 - 0.8	600 - 1000	237 x 33	0.50	Lever Start
110012/FR	FAB12RE/FR	0.2 - 1.2	600 - 1000	237 x 33	0.50	Lever Start
112012/FR	FAB12PS/FR	0.2 - 1.2	600 - 1000	249 x 33	0.50	Push-to-start
110618/FR	FAB18RE/FR	0.3 - 1.8	450 - 650	237 x 33	0.50	Lever Start
112618/FR	FAB18PS/FR	0.3 - 1.8	450 - 650	249 x 33	0.50	Push-to-start

## Inline RAF Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Start Option
120032/FR	RAF32NS/FR	0.7 - 3.2	600 - 1000	259 x 40	0.65	Lever Start
122032/FR	RAF32PS/FR	0.7 - 3.2	600 - 1000	269 x 40	0.65	Push-to-start
120638/FR	RAF38NS/FR	0.9 - 3.8	450 - 650	259 x 40	0.65	Lever Start
122638/FR	RAF38PS/FR	0.9 - 3.8	450 - 650	269 x 40	0.65	Push-to-start
120650/FR	RAF50NS/FR	0.9 - 5	400 - 700	259 x 40	0.65	Lever Start
122650/FR	RAF50PS/FR	0.9 - 4.5	400 - 700	269 x 40	0.65	Push-to-start

## Pistol grip FAB Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	<b>Connector Option</b>
110013/FR	FAB12PP/FR	0.2 - 1.2	600 - 1000	220 x 159 x 44	0.55	Bottom connector
110013/FR/U	FAB12PP/FR/U	0.2 - 1.2	600 - 1000	220 x 163 x 44	0.55	Top connector
110619/FR	FAB18PP/FR	0.3 - 1.8	450 - 650	220 x 159 x 44	0.55	Bottom connector
110619/FR/U	FAB18PP/FR/U	0.3 - 1.8	450 - 650	220 x 163 x 44	0.55	Top connector

## Pistol grip RAF Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	<b>Connector Option</b>
120033/FR	RAF32PP/FR	0.7 - 3.2	600 - 1000	220 x 159 x 44	0.65	Bottom connector
120033/FR/U	RAF32PP/FR/U	0.7 - 3.2	600 - 1000	220 x 163 x 44	0.65	Top connector
120639/FR	RAF38PP/FR	0.9 - 3.8	450 - 650	220 x 159 x 44	0.65	Bottom connector
120639/FR/U	RAF38PP/FR/U	0.9 - 3.8	450 - 650	220 x 163 x 44	0.65	Top connector
120651/FR	RAF50PP/FR	0.9 - 5	400 - 700	220 x 159 x 44	0.70	Bottom connector
120651/FR/U	RAF50PP/FR/U	0.9 - 5	400 - 700	220 x 163 x 44	0.70	Top connector

### Control units for FAB & RAF Screwdrivers

Code	Model	Adjustable Speed	Ramp Option	I/O Signals	Serial Print	Screw Count	Run Time	Weight kg	Dimensions mm
010010/FR	EDU1FR	•	0	-	-	-	-	0.60	138 x 118 x 67
010010/FR/SG	EDU1FR/SG	۰	۰	0	with ACE	with ACE	-	0.60	138 x 118 x 67
032000/FR	EDU2AE/FR	۰	٥	٥	٥	۰	٥	2.40	195 x 170 x 110







# KBL Brushless Screwdrivers | Torque range 0.04 – 4 Nm

The perfect solution for clean room applications. KBL screwdrivers feature state-of-the-art brushless motors and clutch torque control.

#### Simple set up

KBL tools are very easy to install and operate. The torque is set externally: you'll only have to manually adjust the front clutch according to the required torque setting.

Each screwdriver works in combination with a control unit. Its electronic control circuit cuts the power supply to the screwdriver motor in response to the clutch action, as soon as the pre-set torque has been reached.

#### Maintenance-free

No wearing components and no brush replacement – KBL Screwdrivers combine Swiss brushless motors with magnetic clutch switches for a real maintenance-free solution. The absence of maintenance operations guarantees high productive continuity.

EDU1BL control units for KBL screwdrivers feature state-of-the-art electronics working at only 30 VDC. This design results in very low current to the driver's start and clutch switches to extend their life even further.

#### For a cleaner environment

No brushes means zero emissions of carbon dust or other pollutants into the working environment, which makes KBL screwdrivers perfect for clean-room applications.

#### Safe and ergonomic

KBL hand-held screwdrivers are available in inline and pistol type and they all come standard with ESD-safe housing.

Small and lightweight for utmost operator comfort and with advanced ergonomic design, they ensure very low noise level, minimum vibrations and maximum safety.

#### Improve your productivity by cutting investments

It is possible to use two screwdrivers with just one control unit by connecting a double output device called DOCK 02 (for KBL FR) or DOCK 02/S (for KBL FR/S).

The two screwdrivers can be used at the same time for maximum productivity. 230V only.



INLINE – Inline versions available in lever start with signals (KBL FR/S) or without (KBL FR). Also available with autoreverse feature (KBL FR/AR), best used with RIV HD riveting heads. Bit Drive: 1/4" hex quick change chuck



PISTOL GRIP – Trigger start, pistol grip available with signals (KBL P/S) or without (KBL P/FR). Bit Drive: 1/4" hex quick change chuck



ANGLE HEAD OPTION – 90° angle heads can be easily attached to inline models. Angle attachments ar the ideal solution to operate where space is limited.





## Inline KBL Screwdrivers

Code	Model	Torque Nm	RPM min-max Dimensions mm		Weight kg	Control unit
Standard models						
190004	KBL04FR	0.04 - 0.4	700 - 1150	255 x 37	0.50	EDU1BL
190015	KBL15FR	0.4 - 1.5	700 - 1150	255 x 37	0.50	EDU1BL
190030	KBL30FR	0.7 - 3	700 - 1150	268 x 43	0.65	EDU1BL
190040	KBL40FR	0.9 - 4	400 - 700	268 x 43	0.65	EDU1BL
Models with I/O sig	gnals					
190004/S	KBL04FR/S	0.04 - 0.4	700 - 1150	255 x 37	0.50	EDU1BL/SG
190015/S	KBL15FR/S	0.4 - 1.5	700 - 1150	255 x 37	0.50	EDU1BL/SG
190030/S	KBL30FR/S	0.7 - 3	700 - 1150	268 x 43	0.65	EDU1BL/SG
190040/S	KBL40FR/S	0.9 - 4	400 - 700	268 x 43	0.65	EDU1BL/SG

Inline KBL Screwdrivers are also available in KBL FR/AR, with autoreverse feature.

## Pistol grip KBL Screwdrivers

Code	Model	Torque Nm	RPM min-max Dimensions mm		Weight kg	Control unit
Standard models						
190005	KBL04P/FR	0.04 - 0.4	700 - 1150	154 x 210 x 45	0.50	EDU1BL
190016	KBL15P/FR	0.4 - 1.5	700 - 1150	154 x 210 x 45	0.50	EDU1BL
190031	KBL30P/FR	0.7 - 3	700 - 1150	154 x 217 x 45	0.65	EDU1BL
190041	KBL40P/FR	0.9 - 4	400 - 700	154 x 217 x 45	0.65	EDU1BL
Models with I/O signals						
190005/S	KBL04P/S	0.04 - 0.4	700 - 1150	154 x 210 x 45	0.50	EDU1BL/SG
190016/S	KBL15P/S	0.4 - 1.5	700 - 1150	154 x 210 x 45	0.50	EDU1BL/SG
190031/S	KBL30P/S	0.7 - 3	700 - 1150	154 x 217 x 45	0.65	EDU1BL/SG
190041/S	KBL40P/S	0.9 - 4	400 - 700	154 x 217 x 45	0.65	EDU1BL/SG

## Angle head KBL Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Control unit
190004/A	KBL04FR/ANG	0.04 - 0.4	700 - 1150	316 x 37	0.60	EDU1BL
190015/A	KBL15FR/ANG	0.4 - 1.5	700 - 1150	316 x 37	0.60	EDU1BL
190030/A	KBL30FR/ANG	0.7 - 3	700 - 1150	330 x 43	0.75	EDU1BL
190040/A	KBL40FR/ANG	0.9 - 4	400 - 700	330 x 43	0.75	EDU1BL

### Control units for KBL Screwdrivers

Code	Model	Settable Speed	Ramp Option	I/O Signals	Serial Print	Screw Count	Min-Max Run Time	Weight kg	<b>Dimensions mm</b>
003000	EDU1BL	۰	-	-	-	-	-	0.60	138 x 118 x 67
003000/SG	EDU1BL/SG	0	۰	0	with ACE	with ACE	with ACE	0.60	138 x 118 x 67







## KBL Screwdrivers for Automation | Torque range 0.04 – 4 Nm

KBL CA Screwdrivers combine state-of-the-art brushless motors with an aluminium housing for quick and easy installation on robots and automatic machines.

### Designed for automation

KBL CA tools are supplied in an aluminium body for a quick and easy integration with automatic machines and screw feeding systems. KBL tools in CA/FN version are equipped with a flange mount and reciprocating spindle for high-intensity applications.

#### Easy to install and operate

Each KBL CA screwdriver works in combination with an EDU1BL/SG control unit. Its electronic control circuit cuts the power supply to the screwdriver motor in response to the clutch action, as soon as the pre-set torque has been reached.

KBL's torque clutch only needs to be set once and guarantees accurate repeatability on any kind of joint.

#### Industry 4.0 with KBL

Transitioning to Industry 4.0 is easy with KBL CA screwdrivers. They can be easily connected to robots or automatic machines through their EDU 1BL/SG controller's proper connectors to manage input/output signals such as start, stop, error and more.

#### No maintenance required

Automation requires tools capable of keeping high quality standards, even on heavy-duty applications. KBL Screwdrivers combine Swiss brushless motors with magnetic clutch switches for a real maintenancefree solution. The absence of maintenance operations guarantees high productive continuity.

#### For clean-room environments

KBL screwdrivers are perfect for automated applications requiring cleanroom standards. No brushes means zero emissions of carbon dust or other pollutants into the working environment, which guarantees highquality assembly on any joint.

#### Available Housings



ALUMINIUM BODY (KBL CA) – Specifically designed for automation. Easy to install on any machine or robot.



ALUMINIUM BODY WITH FLANGE MOUNT (KBL CA/FN) – Ideal for automated high volume/high duty applications. Flange and telescopic spindle available together or separately.



Robotic application SCAN TO WATCH





## Aluminium housing KBL Screwdrivers

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Bit Drive
190004/CA	KBL04FR/CA	0.04 - 0.4	700 - 1150	257 x 40	0.60	Hex 1/4"
190015/CA	KBL15FR/CA	0.4 - 1.5	700 - 1150	257 x 40	0.60	Hex 1/4"
190030/CA	KBL30FR/CA	0.7 - 3	700 - 1150	264 x 40	0.75	Hex 1/4"
190040/CA	KBL40FR/CA	0.9 - 4	400 - 700	264 x 40	0.75	Hex 1/4"

## Aluminium housing KBL Screwdrivers with flange mount

Code	Model	Torque Nm	<b>RPM min-max</b>	<b>Dimensions mm</b>	Weight kg	Bit Drive
190004/CA/FN	KBL04FR/CA/FN	0.04 - 0.4	700 - 1150	330 x 40	0.65	Hex 1/4"
190015/CA/FN	KBL15FR/CA/FN	0.4 - 1.5	700 - 1150	330 x 40	0.65	Hex 1/4"
190030/CA/FN	KBL30FR/CA/FN	0.7 - 3	700 - 1150	338 x 40	0.80	Hex 1/4"
190040/CA/FN	KBL40FR/CA/FN	0.9 - 4	400 - 700	338 x 40	0.80	Hex 1/4"

## Control unit for KBL CA Screwdrivers

Code	Model				Serial Print			Weight kg	Dimensions mm
003000/SG	EDU1BL/SG	٠	٠	•	with ACE	with ACE	with ACE	0.60	138 x 118 x 67





## ACC Screwdrivers | Torque range 0.2 – 4.5 Nm

ACC screwdrivers are direct plug-in tools with built-in PCB for automatic cut off and AC to DC rectifier. They are ideal for applications where portability is needed to minimize costly set-up time. ACC models have the unique feature of selectable push to start or push and lever start: to select the working mode just slide the switch located by the start lever.

All ACC models feature shut off torque control through mechanical clutch. It is possible to lock their mechanical clutch and avoid any accidental torque change by adding an optional Lock-out Cover, available for all ACC models (code 219011).





Reverse Switch

Torque Adjusting Nut Cover

### Inline ACC Screwdrivers with Built-in Controller

Code	Model	Torque Nm	RPM max	<b>Dimensions mm</b>	Weight kg	Bit Drive
141910	ACC2210	0.2 - 1	950	255 x 35	0.75	Hex 1/4"
141920	ACC2220	0.7 - 2	950	255 x 35	0.80	Hex 1/4"
151222	ACC2222	0.9 - 2	2400	265 x 38	0.85	Hex 1/4"
151930	ACC2230	1.0 - 3	950	265 x 38	0.85	Hex 1/4"
151945	ACC2245	1.0 - 4.5	450	265 x 38	0.85	Hex 1/4"

