





## **PLUTO Hand-held Screwdrivers** | Torque range 0.5 – 70 Nm

PLUTO® (PLUs TOrque) are among the most advanced DC tools in the assembly market. Priced at the same level as obsolete air tools, PLUTO® screwdrivers are available in plenty of options to meet any assembly requirement.

#### Extremely versatile

PLUTO® Series screwdrivers feature a wide torque range: starting at 0.5 Nm with PLUTO3, they reach up to 70 Nm with PLUTO70ANG. Pick the one that best suits your application among the many current-controlled models.

Also, you can handle up to 8 different joints by connecting your PLUTO screwdriver to one of our EDU2AE/TOP multiprogram control units (see page 18).

#### Precise and accurate

High performances are guaranteed on any type of joint. PLUTO® current-controlled tools can reach 70 Nm with a repeatability of +/-5% with a unique electronic torque control system.

#### 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 are made of high-quality composite materials for excellent accuracy and repeatability throughout the wide 0.5 - 70 Nm torque range.

#### Highest environmental protection requirements

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

#### Available Housings



INLINE (PLUTO...D) – Inline versions available in lever start. Current-controlled style. Bit Drive: 1/4" hex quick change chuck. Available with reduced front ring upon request.



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



ALUMINIUM BODY (PLUTO..CA/SR) – For 20+ Nm torque models. Current-controlled style. With start and reverse buttons.



ANGLE MODELS (PLUTO..ANG) – Inline models with angle head attached. Current-controlled style.





# Hand-held Screwdrivers / PLUTO Series

## Inline PLUTO Screwdrivers

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
130203	PLUTO3D	0.5 - 3	370 - 1300	226 x 40	0.55	Hex 1/4"
130206	PLUTO6D	0.85 - 6	200 - 850	226 x 40	0.55	Hex 1/4"
130211/N	PLUTO10D/N	1.5 - 10	110 - 600	226 x 40	0.55	Hex 1/4"
130216/N	PLUTO15D/N	2.0 - 15	60 - 320	226 x 40	0.60	Hex 1/4"

## Pistol grip PLUTO Screwdrivers

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	<b>Connector Option</b>
130204	PLUTO3P	0.5 - 3	370 - 1300	159 x 174 x 45	0.55	Bottom connector
130205	PLUTO3P/U	0.5 - 3	370 - 1300	163 x 174 x 45	0.55	Top connector
130207	PLUTO6P	0.85 - 6	200 - 850	159 x 174 x 45	0.55	Bottom connector
130207/U	PLUTO6P/U	0.85 - 6	200 - 850	163 x 174 x 45	0.55	Top connector
130210/N	PLUTO10P/N	1.5 - 10	110 - 600	159 x 174 x 45	0.55	Bottom connector
130210/U/N	PLUTO10P/U/N	1.5 - 10	110 - 600	163 x 174 x 45	0.55	Top connector
130215/N	PLUTO15P/N	2.0 - 15	60 - 320	159 x 174 x 45	0.55	Bottom connector
130215/U/N	PLUTO15P/U/N	2.0 - 15	60 - 320	163 x 174 x 45	0.55	Top connector

## Aluminium body PLUTO Screwdrivers

Code	Model	Torque Nm	RPM min-max	<b>Dimensions mm</b>	Weight kg	Bit Drive
133221/SR	PLUTO20CA/SR	3.0 - 20	50 - 200	232 x 53	1.10	Sq 3/8"
133236/SR	PLUTO35CA/SR	3.0 - 35	40 - 140	247 x 57	1.50	Sq 3/8"
133250/SR	PLUTO50CA/SR	5.0 - 50	20 - 90	252 x 57	1.50	Sq 1/2"

## Angle head PLUTO Screwdrivers

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Bit Drive	Start Option
130203/A	PLUTO3ANG	0.5 - 2.5	370 - 1300	261 x 40	Hex 1/4"	Lever start
130206/A	PLUTO6ANG	1.0 - 6	200 - 850	261 x 40	Hex 1/4"	Lever start
130208	PLUTO8ANG	1.5 - 8	110 - 600	261 x 40	Hex 1/4"	Lever start
130216/A	PLUTO15ANG	2.0 - 13	100 - 320	286 x 40	Sq 3/8"	Lever start
133220	PLUTO20ANG	3.0 - 18	60 - 200	302 x 40	Sq 3/8"	Start/Reverse Buttons
133231	PLUTO30ANG	6.0 - 30	30 - 130	435 x 54	Sq 3/8"	Start/Reverse Buttons
133245	PLUTO45ANG	10 - 45	20 - 90	445 x 57	Sq 1/2"	Start/Reverse Buttons
133270	PLUTO70ANG	15 - 70	20 - 50	458 x 57	Sq 1/2"	Start/Reverse Buttons

## Control units for PLUTO Screwdrivers

Code	Model	Single Program	Torque Value in Nm	Serial Port	Multitorque (8 P-sets)	USB Port	PC Software	Weight kg	Dimensions mm
032000	EDU2AE	0	-	-	-	-	-	2.40	195 x 170 x 110
032000/HPRO	EDU2AE/HPRO	0	•	٠	-	-	-	2.40	195 x 170 x 110
032000/TOP	EDU2AE/TOP	-	0	٠	۰	-	-	2.50	190 x 205 x 120
032000/TOP/E	EDU2AE/TOP/E	-	•	٠	٠	0	•	2.50	190 x 205 x 120

See page 18 for a complete list of features.

 ${\it IMPORTANT: Continuous use over 80\% of torque\ range\ is\ not\ recommended.}$ 







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

PLUTO® (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. PLUTO® 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



ANGLE MODELS (PLUTO FR/ANG) – Inline models with angle head attached. Clutch style.



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.





# Clutch Screwdrivers / PLUTO Series

## Inline PLUTO Clutch Screwdrivers

Code	Model	Torque Nm	RPM min-max	<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	RPM min-max	<b>Dimensions mm</b>	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	RPM min-max	Dimensions mm	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	RPM min-max	Dimensions mm	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

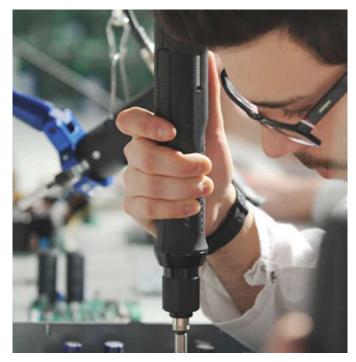
Code	Model	Torque Nm	RPM min-max	<b>Dimensions mm</b>	Weight kg	Output
133205/FN	PLUTO5FR/CA/FN	1 - 5	600 - 1000	328 x 40	0.80	Hex 1/4"
133207/FN	PLUTO7FR/CA/FN	1.5 - 7	350 - 600	328 x 40	0.80	Hex 1/4"

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.







## **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 quarantees 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).

#### **Available Housings**



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.





# Hand-held Clutch Screwdrivers / KBL Series

## Inline KBL Screwdrivers

Code	Model	Torque Nm	RPM min-max	<b>Dimensions mm</b>	Weight kg	Control unit
Standard models						
190004	KBL04FR	0.04 - 0.4	650 - 1000	255 x 37	0.50	EDU1BL
190015	KBL15FR	0.4 - 1.5	650 - 1000	255 x 37	0.50	EDU1BL
190030	KBL30FR	0.7 - 3	650 - 1000	268 x 43	0.65	EDU1BL
190040	KBL40FR	0.9 - 4	450 - 750	268 x 43	0.65	EDU1BL
Models with I/O sig	gnals					
190004/S	KBL04FR/S	0.04 - 0.4	650 - 1000	255 x 37	0.50	EDU1BL/SG
190015/S	KBL15FR/S	0.4 - 1.5	650 - 1000	255 x 37	0.50	EDU1BL/SG
190030/S	KBL30FR/S	0.7 - 3	650 - 1000	268 x 43	0.65	EDU1BL/SG
190040/S	KBL40FR/S	0.9 - 4	450 - 750	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	650 - 1000	154 x 210 x 45	0.50	EDU1BL
190016	KBL15P/FR	0.4 - 1.5	650 - 1000	154 x 210 x 45	0.50	EDU1BL
190031	KBL30P/FR	0.7 - 3	650 - 1000	154 x 217 x 45	0.65	EDU1BL
190041	KBL40P/FR	0.9 - 4	450 - 750	154 x 217 x 45	0.65	EDU1BL
Models with I/O sig	gnals					
190005/S	KBL04P/S	0.04 - 0.4	650 - 1000	154 x 210 x 45	0.50	EDU1BL/SG
190016/S	KBL15P/S	0.4 - 1.5	650 - 1000	154 x 210 x 45	0.50	EDU1BL/SG
190031/S	KBL30P/S	0.7 - 3	650 - 1000	154 x 217 x 45	0.65	EDU1BL/SG
190041/S	KBL40P/S	0.9 - 4	450 - 750	154 x 217 x 45	0.65	EDU1BL/SG

## Angle head KBL Screwdrivers

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Control unit
190004/A	KBL04FR/ANG	0.04 - 0.4	650 - 1000	316 x 37	0.60	EDU1BL
190015/A	KBL15FR/ANG	0.4 - 1.5	650 - 1000	316 x 37	0.60	EDU1BL
190030/A	KBL30FR/ANG	0.7 - 3	650 - 1000	330 x 43	0.75	EDU1BL
190040/A	KBL40FR/ANG	0.9 - 4	450 - 750	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	Dimensions mm
003000	EDU1BL	•	-	-	-	-	-	0.60	138 x 118 x 67
003000/SG	EDU1BL/SG	•	0	•	with ACE	with ACE	with ACE	0.60	138 x 118 x 67

 ${\it IMPORTANT:}\ Continuous\ use\ over\ 80\%\ of\ torque\ range\ is\ not\ recommended.$