



# THE BENEFITS OF CURRENT-CONTROLLED SCREWDRIVERS

The PLUTO, MITO & NATO screwdriver family is the most advanced current-controlled tightening solution for torque applications up to 620 lbf-in and as low as 0.2 lbf-in.

Extremely ergonomic, compact and full of functionalities, it is the right tool to boost productivity, resulting in high efficiency and cost reduction.

Our current-controlled system is flexible and provides clear operator feedback.

All PLUTO, MITO & NATO screwdrivers are ESD (electrostatic discharge) approved to guarantee the best quality, no matter the requirement of the surroundings.

## KOLVER's Current-controlled solution means:

- High accuracy, normally better than  $\pm 10\%$ , Cmk always better than 1.66
- Torque & angle control and monitoring
- Ergonomic and lightweight design
- Multiple communication ports

## Benefits of KOLVER's current-controlled tools:

- The best price-to-quality ratio
- Superior product quality
- Direct error detection and error proofing
- Reduction of incorrectly-tightened screws and stripped joints
- Improved process control and reduced setup time
- Industry 4.0 ready



## PLUTO, MITO and NATO | Torque range 0.18 – 620 lbf-in

Our PLUTO, MITO and NATO screwdrivers offer high-precision at a competitive price, with a repeatability of  $\pm 5\%$ . Pick the one that best suits your application among the many current-controlled models ranging in torque from 0.18 lbf-in all the way up to 620 lbf-in.

### Extremely versatile

Our PLUTO® Series screwdrivers feature a wide torque range: starting at 4.4 lbf-in with PLUTO3, they reach up to 620 lbf-in with PLUTO70ANG. Also, you can handle up to 8 different joints by connecting your PLUTO screwdriver to one of our EDU2AE/TOP multiprogram control units.

### Precise low-torque screwdrivers

The NATO and MITO series are the ideal solution for high-precision low torques below 13 lbf-in. MITO tools operate within a torque range of 3 – 13 lbf-in, while NATO screwdrivers are designed for an even lower torque range of 0.2 – 4.4 lbf-in.

### Long-lasting accuracy

PLUTO, MITO and NATO drivers feature an innovative coreless motor coupled with planetary gearboxes, producing extremely low inertia and minimal friction for long life and very accurate torque production.

### Torque/Angle Control

The main parameters to be controlled are the tightening torque and the rotation angle of the screw, either with torque or angle priority. The screwdriver stops automatically when the pre-set angle and torque value have been reached and an indication of OK cycle (green led turned on) is given, otherwise a red led turns on if the tightened screw doesn't match the pre-set parameters. The final torque and angle values are also displayed.

### Compact ergonomic design

All PLUTO, MITO and NATO screwdrivers feature an ESD-safe housing, either in hand-held option or aluminium body for automation. PLUTO and MITO drivers are available in pistol or inline style, catering to operator preference and comfort. NATO drivers are inline style, with a lever start actuation. Foot pedals are available in cases where the operator would like the convenience of manual operation with the NATO/CA series.

### Available Housings



INLINE (PLUTO D, MITO D & NATO D) – Inline versions available in lever start, current-controlled style. PLUTO D available with reduced front ring upon request.



PISTOL GRIP – Trigger start, pistol grip available with top connector (PLUTO P/U and MITO15P/U) or bottom connector (PLUTO P and MITO15P).



ALUMINIUM BODY (PLUTO CA/SR, MITO CA and NATO CA) – PLUTO with start and reverse buttons. MITO and NATO they can also be used with foot pedals for manual operations. MITO also available with flange mount



ANGLE MODELS (PLUTO .ANG) – Inline models with angle head attached. Current-controlled style. Wrench blade attachments available upon request.



ESD-safe housing





## EDU2AE Control Units | For PLUTO, MITO and NATO Screwdrivers

EDU2AE control units are meant to be used in combination with Kolver® current controlled PLUTO, MITO and NATO screwdrivers. EDU2AE series switching controllers act as an AC to DC transformer and torque controller. The electronic control circuit cuts the power supply to the motor as soon as the pre-set torque has been reached.

### Universal usage

All units are equipped with a high power switching transformer with 90-260 V AC power supply for universal usage. EDU2AE control units are multilanguage: you can choose among English, Italian, German, French, Portuguese or Spanish.

### Single & Multi-Torque

Choose the control unit that best suits your requirements among our single-torque controllers or multi-torque. Multi-torque control units are designed to expand the functionality of current-controlled screwdrivers by enabling multiple torque settings (up to 8) using one controller and one driver.

### Extremely accurate

Thanks to the latest state-of-the-art advanced software for torque controlling it is now possible to reach the most accurate results with CM / CMK values higher than ever. The combination of the software and switching transformer allows these screwdrivers to reach a +/- 5% precision all over the torque range.

### Better endurance

All units comply to norms 61000-6-2 and 61000-6-3, and therefore have better endurance in environments with high noise and interference levels. Improved EMC features are guaranteed thanks to their solid steel base and back panel.

### Connectivity and Industry 4.0

All functions can be set and controlled via user interface screens or remotely via 15 input and 11 output connectors. A wide range of accessories for remote programming and PC interface is available for the complete EDU2AE series (see page 51). EDU2AE/TOP/E, EDU2AE/TOP/TA and EDU2AE/TOP/NT/TA come standard with the EXPAND software package to set, change and save all parameters via USB key & PC.

### EDU2AE & Screwdriver Series Combination

Control units	Screwdriver models	
<b>EDU2AE/HPRO</b> <b>EDU2AE/TOPE</b>	Hand-held	Automation
	MITO D MITO P PLUTO D, D/N PLUTO P, P/N PLUTO P/U, P/U/N PLUTO CA/SR PLUTO ANG PLUTO ANG/SR	MITO CA MITO CA/FN PLUTO CA PLUTO CA/FN PLUTO CA/FN2
<b>EDU2AE/TOP/TA</b> <b>EDU2AE/HPRO/TA</b>	Hand-held	Automation
	MITO D/TA PLUTO D/TA PLUTO D/TA/LED PLUTO P/TA PLUTO CA/SR/TA	MITO CA/TA PLUTO CA/TA PLUTO CA/FN/TA PLUTO CA/FN2/TA
<b>EDU2AE/TOP/NT/TA</b>	Hand-held	Automation
	NATO D/TA	NATO CA/TA



Features	EDU2AE/HPRO	EDU2AE/TOPE	EDU2AE/HPRO/TA	EDU2AE/TOP/TA	EDU2AE/TOP/NT/TA
<b>Torque &amp; Angle</b>			•	•	•
<b>Multiple Programs and Sequences</b>		•		•	•
<b>Time, Ramp &amp; Speed settings</b>	•	•	•	•	•
<b>Settable loosening speed &amp; torque</b>	•	•	•	•	•
<b>Prevailing torque</b>	•	•	•	•	•
<b>Clockwise/anticlockwise tightening</b>	•	•	•	•	•
<b>Password protection</b>	•	•	•	•	•
<b>Calibration</b>	•	•	•	•	•
<b>Nm - lb/in - Kgf.cm selection</b>	•	•	•	•	•
<b>Screw count</b>	•	•	•	•	•
<b>Auto and pre reverse</b>	•	•	•	•	•
<b>End cycle signal</b>	•	•	•	•	•
<b>Screw, Program &amp; Sequence reset</b>		•		•	•
<b>Lever error</b>	•	•	•	•	•
<b>Enable/Disable loosening</b>		•		•	•
<b>Barcode</b>	•	•	•	•	•
<b>Serial print</b>	•	•	•	•	•
<b>Error, motor on and correct screw signals</b>	•	•	•	•	•
<b>Optional back driver connector</b>			•		
<b>Use with DOCK04 double connector</b>		•		•	•
<b>Use with PRNTR1 serial printer</b>	•	•	•	•	•
<b>Printing options for each program</b>		•		•	•
<b>Use with TLS1</b>	•	•	•	•	•
<b>PC programming (EDU EXPAND)</b>		•		•	•
<b>USB data collection</b>		•		•	•

