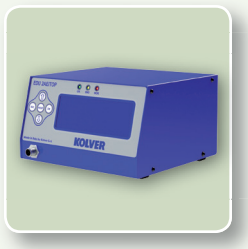
CONTROL UNITS - PLUTO SERIES

EDU2AE

EDU2AE/HPro



EDU2AE/TOP

EDU2AE/TOP/E

EDU2AE/TOP/TA

PLUTO Control Units
Single & Multi-Torque

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.
The whole EDU2AE Series is now totally renovated and fully upgraded with our state-of-the-art advanced software for torque controlling. The main features of the new switching control units are:

- Universal usage: All units are equipped with a high power switching transformer with 90-260 V AC power supply: 100% more power and 40% weight reduction.
- New software: EDU2AE & EDU2AE/HPro have a 2.00 version, all TOP units a 5.00 version installed.
- More accurate than ever: The combination of the switching transformer and new software allows MITO & PLUTO screwdrivers to reach a much higher accuracy, better than +/- 5% all over the torque range.
- Better endurance in environment with high noise and interference level: All units comply to norms 61000-6-2 and 61000-6-3.
- Improved EMC features: All units are equipped with a solid steel base and back panel.
- New Features: Users are able to select a fast approach speed and a final tightening speed to adapt to any type of application. It is also possible to select an endless time of clockwise rotation for any application requiring no max time option.
- Multilanguage: English, Italian, German, French, Portuguese, Spanish.

EDU2AE control units can be used in combination with any Kolver current controlled MITO and PLUTO and/or clutch PLUTO screwdriver.
An easy-to-use scroll menu allows to select, set and/or adjust the following functions:

- Screwdriver model
- Tightening torque, fastening and unscrewing speed
- Acceleration ramp
- Min and Max fastening time
- Autoreverse

The EDU2AE/TOP multiple torque system is designed to expand the functionality of PLUTO screwdrivers by enabling multiple torque settings (up to 8) using one controller and one driver. All functions can also be controlled remotely via 15 input and 11 output connectors, which can be connected to one of our optional accessories such as Switch Box, Socket/Bit Tray, Bar Code Scanner, Printer and Ethernet assist.

EDU2AE/TOP/E has all of the features of the standard EDU2AE/TOP and the Expand software package for remote programming via USB port & PC.
The features of the EDU2AE/TOP/E come standard with EDU2AE/TOP/TA, the torque and angle control unit (see page 10).

Model	Code	Features	Dimensions mm	Weight kg
EDU2AE	032000	Programmable with user interface screens	195x170x110	2,4
EDU2AE/FR	032000/FR	For PLUTO..FR series. Like EDU2AE + Run time, Integrated screw counter, Additional signals, Serial Port, Optional screwdriver connector on back panel	195x170x110	2,4
EDU2AE/HPro	032000/HPRO	Like EDU2AE + Torque value, Run Time, Additional signals, Serial Port, serial print, integrated screw counter, Optional screwdriver connector on back panel	195x170x110	2,4
EDU2AE/TOP	032000/TOP	8 different programs - selection by barcode, socket tray, switchbox	190x205x120	2,5
EDU2AE/TOP/E	032000/TOP/E	Like EDU2AE/TOP + remote programming via USB & PC (with EDU EXPAND software)	190x205x120	2,5
EDU2AE/TOP/TA	032000/TOP/TA	Programmable Torque & Angle (8 P-Sets) with user interface screens	190x205x120	2,5

KOLVER

CONTROL UNITS - PLUTO SERIES

PLUTO Control Units – TOP EXPAND

EDU2AE/TOP/E

EDU2AE/TOP/TA

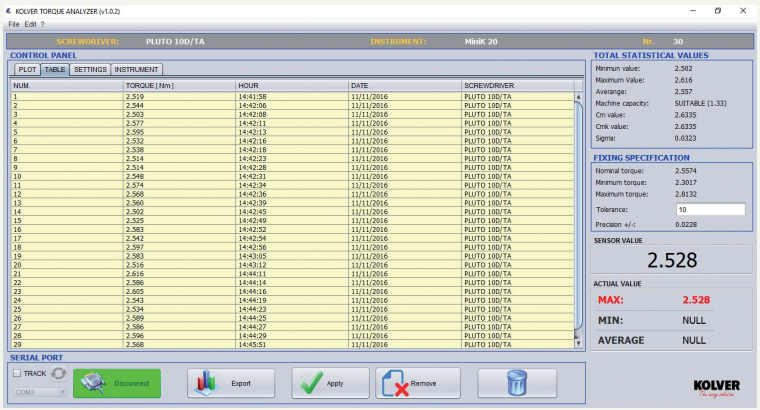
EDU2AE/TOP/E and EDU2AE/TOP/TA are now available with programming software. Each control unit is supplied standard with EDU EXPAND software and an 8Gb USB flash drive. An external WiFi device is available on request.

Main features:

PC programming (back panel): it is possible to set, change and save all parameters through our new "EDU EXPAND" software for PC. EDU EXPAND communicates with the control unit via mini-USB or RS232.

Saving/programming on USB flash drive (front panel): you can now save the results of each screwing operation directly on USB pen drive! It is also possible to upload via USB drive all parameters/programs previously set on "EDU EXPAND". Just connect your USB to the port and recall the desired programs on the menu. The programs set on control unit can be downloaded on USB and recalled on another unit and on EDU EXPAND, too.

EDU2AE Switching Control Units



The EDU2AE series of controllers for MITO & PLUTO screwdrivers has been totally renovated and fully upgraded to improve the system performances. Thanks to the new 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! All units are meant for universal usage and are equipped with a high power switching transformer with 90-260 V AC power supply for 100% more power and 40% weight reduction. The combination of the switching transformer and new software allows the MITO & PLUTO screwdrivers to reach a much higher accuracy, better than +/- 5% all over the torque range. 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 solid steel base and back panel. The new features allow users to select a fast approach speed and a final tightening speed to adapt to any type of application and it is also possible to select an endless time of clockwise rotation for any application requiring no max time option. The new EDU2AE control units are now multilanguage: you can choose among English, Italian, German, French, Portuguese or Spanish. A wide range of accessories for remote programming and PC interface is available for the complete EDU2AE series.

ETHERNET DEVICE
code 020075

SWITCHBOX SWBX88
code 020033

BAR CODE SCANNER
code 020050

SOCKET TRAY CBS880
code 020042

KOLVER

CA Control Units

All Kolver Current Controlled screwdrivers work in combination with a control unit acting as an AC to DC transformer, and torque controller. Our exclusively designed circuitry monitors the power supply, and cuts power to the driver motor once the pre-set torque has been reached.
For the Pluto CA Series, the EDU 2AE Series controllers give the precise torque control for all automated operations at a fraction of the cost of transducer tools. The whole EDU2AE Series is now totally renovated and fully upgraded with our state-of-the-art advanced software for torque controlling. The main features of the new switching control units are:

- Universal usage: All units are equipped with a high power switching transformer with 90-260 V AC power supply: 100% more power and 40% weight reduction.
- New software: EDU2AE & EDU2AE/HPro have a 2.00 version, all TOP units a 5.00 version installed.
- More accurate than ever: The combination of the switching transformer and new software allows MITO & PLUTO screwdrivers to reach a much higher accuracy, better than +/- 5% all over the torque range.
- Better endurance in environment with high noise and interference level: All units comply to norms 61000-6-2 and 61000-6-3.
- Improved EMC features: All units are equipped with a solid steel base and back panel.
- New Features: Users are able to select a fast approach speed and a final tightening speed to adapt to any type of application. It is also possible to select an endless time of clockwise rotation for any application requiring no max time option.
- Multilanguage: English, Italian, German, French, Portuguese, Spanish.

EDU2AE

EDU2AE/TOP/TA

EDU2AE/TOP/E

The EDU1BL/SG control unit is designed to work with our KBL Brushless drivers. These KBL drivers feature a maintenance free brushless motor, and the EDU controllers feature state-of-the-art electronics with zero wearing components.
Controllers come standard with:

- Slow start adjustment.
- RPM adjustment (60% to 100% of rated speed).
- Visual indicators (red-green) for power and torque.
- Input: Start and Reverse contacts.
- Output: 24 V DC for torque reached and lever signals.

Kolver also features Multi-Spindle units, including Pluto or Brushless controllers, CA spindles, all custom fixturing, and master PLC.
We invite you to contact us for further information.

EDU1BL/SG

MULTI SPINDLE

Model	Code	Features	Dimension mm	Weight kg
EDU2AE	032000	Programmable with user interface screens	195x170x110	2,4
EDU2AE/FR	032000/FR	For PLUTO..FR series. Like EDU2AE + Run time, Integrated screw counter, Additional signals, Serial Port, Optional screwdriver connector on back panel	195x170x110	2,4
EDU2AE/HPro	032000/HPRO	Like EDU2AE + Torque value, Run Time, Additional signals, Serial Port, serial print, integrated screw counter, Optional screwdriver connector on back panel	195x170x110	2,4
EDU2AE/TOP	032000/TOP	8 different programs - selection by barcode, socket tray, switchbox	190x205x120	2,5
EDU2AE/TOP/E	032000/TOP/E	Like EDU2AE/TOP + remote programming via USB & PC (with EDU EXPAND software)	190x205x120	2,5
EDU2AE/TOP/TA	032000/TOP/TA	Programmable Torque & Angle (8 P-Sets) with user interface screens	190x205x120	2,5
EDU1BL/SG	003000/SG	Output signals: torque, error and lever; Input signals: start, stop and reverse. For KBL/S and KBL/CA.	138x118x67	0,6

KOLVER

F A B & R A F S E R I E S

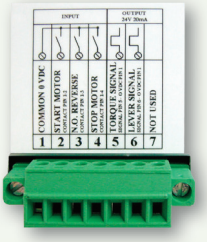
FAB & RAF Control Units

All Kolver screwdrivers work in combination with a control unit acting 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. The EDU1FR control units for FAB and RAF screwdrivers feature a maintenance free state-of-the-art electronics, with no wearing components with a circuit design suitable to both lever start and push start drivers with protection against current overload up to 10A. This design results in very low current to the driver's start switch and clutch switch to extend their life indefinitely. Additional features:

- Suitable to universal supply from 90 to 260 V ac 50/60 hz.
- Slow start (0-2 seconds) and RPM (60% to 100%).
- Visual indicators (green–red) for power on/off and clutch action.
- Reduced weight (0,6 kg) and compact size for easy placement.
- M12 waterproof connector with silver and gold contacts for perfect conductivity.

The EDU1FR/SG controller features additional circuits wired to one connector in the back panel: output 24V for torque reached and lever signals; input start and reverse contacts. A double output connector (DOCK01) is also available for operators using two screwdrivers on the same working area (only FAB and RAF series). One end of this device is to be connected to the controller (cable included), the other end to the drivers. The screwdrivers are not to be used at the same time.

FAB and RAF screwdrivers can be used with the new switching EDU2AE/FR as well! This means they can benefit from all of the 2AE features (screw counting option, autoreverse, run time etc).

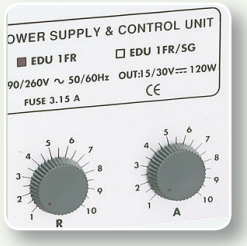


BACK CONNECTOR (EDU1FR/SG ONLY)

ACE SCREW COUNTER (see page 24)

DOUBLE OUTPUT DEVICE Model DOCK 01

SPIRAL CABLE



SOFT START AND SPEED REGULATION

Model	Code	Features	Dimensions mm	Weight kg	Screwdriver
EDU1FR	010010/FR	In: 90-260Vca	138x118x67	0,6	FAB & RAF Series
		Out: 18-30 Vcc power 120VA			
		slow start and adjustable speed			
EDU1FR/SG	010010/FR/SG	Input: start and reverse contacts	138x118x67	0,6	FAB & RAF Series
		Output: torque reached and lever signal			
EDU2AE/FR	032000/FR	Run time, Additional signals, Serial Port, Optional screwdriver connector on back panel	195x170x110	2,4	PLUTO and FAB&RAF Series (see pages 5 and 12)

KOLVER

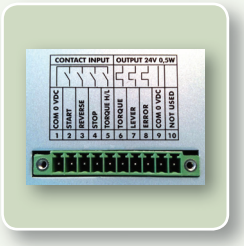
B R U S H L E S S S E R I E S

BRUSHLESS Control Units

EDU1BL

EDU1BL/SG
Control unit with signals

All Kolver screwdrivers work in combination with a control unit acting 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. The EDU1BL, and EDU1BL/SG control units for KBL screwdrivers feature maintenance free state-of-the-art electronics with no wearing components. They come standard with the torque knob to adjust the torque (from 60% to 100%) of current control tools and a green LED which indicates when the control unit is on. EDU1BL/SG control unit works with KBL..FR/S or KBL..FR/CA and it additionally features signals for reached/not reached torque, pressed lever and remote start/reverse.
A double output connector (Dock02 or Dock02/S for models with signals) is also available for operators using two screwdrivers at the same time. KBL..FR screwdrivers work in combination with our standard EDU1FR controllers. This option will allow existing customers to replace FAB & RAF drivers with no need to replace controllers.



BACK CONNECTOR
(EDU1BL/SG ONLY)

ACE SCREW COUNTER
(see page 24)

DOUBLE OUTPUT CONNECTOR FOR KBL

A double output connector is available for operators using two KBL screwdrivers in the same working area. Model DOCK02 (code 020035) is meant to be used with KBL..FR, while model DOCK02/S (code 020035/S) is to be used with KBL..FR/S (with signals) or KBL..CA (for automation). The two screwdrivers can be used at the same time.

Model	Code	Features	Weight kg	Dimensions mm	Screwdriver
EDU1BL	003000	Adjustable speed	0,6	138x118x67	KBL04FR, 15FR, 30FR, 40FR
EDU1BL/SG	003000/SG	Slow start and adjustable speed. Output signals: torque, error and lever; Input signals: start, stop and reverse.	0,6	138x118x67	KBL04FR/S, 15FR/S, 30FR/S, 40FR/S