



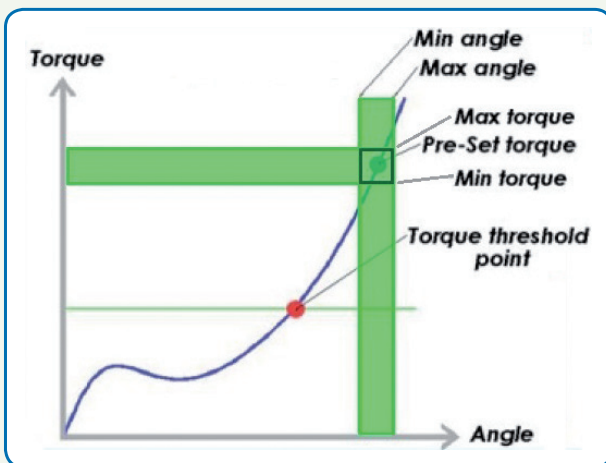
Electric Screwdrivers with Torque & Angle Control

Industrial tightening may require different control strategies and solutions. The most common cases are: torque control with angle monitoring and angle control with torque monitoring. Kolver Multi-Torque Torque & Angle controllers can manage all such strategies, with up to 8 individual P-sets.

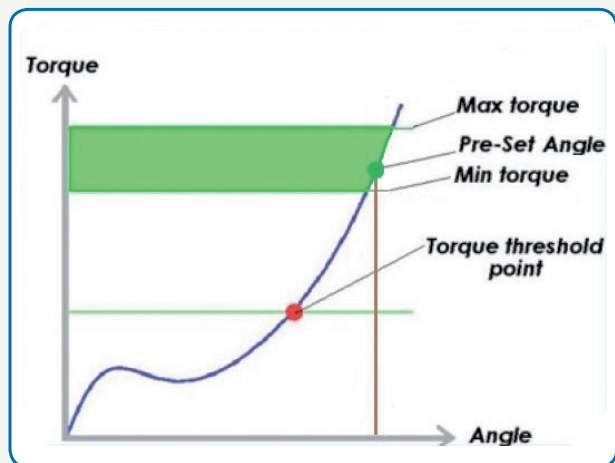
The Torque/Angle Control

The main parameters to be controlled are the tightening torque and the rotation angle of the screw, either with torque or angle priority. The motor 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.

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.



TORQUE: It's the most common mode. The control unit shows the tightening torque and the torque starting from a certain torque percentage (threshold torque). If the final torque and angle values are within the preset minimum and maximum values, the screw is tightened correctly. If the torque and/or angle are outside the preset values, the screw will be considered incorrectly tightened. In this case the red led will light up and the message "Error Max (Min) Angle" or "Error Max (Min) Torque" will be displayed.



ANGLE: This mode gives priority to the angle to be reached. The value is measured starting from a tightening torque percentage. Starting from the preset threshold torque the system will start counting the degrees and when the preset angle is reached the screwdriver will stop. If the preset angle is reached the screw will be considered correctly tightened, the green led will light up and the message "tightening OK" will be displayed on the status bar. If the screwdriver stops before reaching the preset angle the tightening will be considered not ok, the red led will light up and the message "error angle not reached" will be displayed on the status bar. It is also possible to set minimum and maximum values within which the set angle must be reached.



T A S E R I E S - T O R Q U E A N D A N G L E

Main features:

- New Expand software package for remote programming via USB port and PC.
- USB port on the front of the controller for uploading and downloading programs.
- Easy to program user interface screens.
- Password protected.
- Torque value in Nm, lbf.in and kgf.cm.
- Angle value in degrees.
- 8 independent programs including the options:
 - Min/Max torque value.
 - Min/Max angle value.
 - Rundown speed.
 - Slow start/Soft stop.
 - Hard/soft joint.
 - Min/Max rundown time.
 - Prevailing torque (threadcutting).
 - Auto reverse if required.
- 6 torque & angle strategies:
 - Torque priority: angle count from torque threshold (T) or from remote input (T/I) or from lever input (T/L).
 - Angle priority: driver stops when angle is reached from threshold torque (A) or from remote input (A/I) or from lever (A/L).

Model	Code	Torque Nm	RPM min-max	Dimensions mm	Output	Style	To be used with
NATO15D/TA	160015/TA	0,01-0,15	350-700	201x33	Half moon 4mm	Inline	EDU2AE/TOP/NT/TA
NATO50D/TA	160050/TA	0,05-0,50	200-700	210x33	Hex 1/4"	Inline	EDU2AE/TOP/NT/TA
MITO15D/TA	170015/TA	0,2-1,5	450-850	216x33	Hex 1/4"	Inline	EDU2AE/TOP/TA
PLUTO3D/TA	130203/TA	0,5-3,0	370-1300	226x40	Hex 1/4"	Inline	EDU2AE/TOP/TA
PLUTO3D/TA/LED	130203/TA/LED	0,5-3,0	370-1300	226x40	Hex 1/4"	Inline, with LED	EDU2AE/TOP/TA
PLUTO3P/TA	130204/TA	0,5-3,0	370-1300	159x174x45	Hex 1/4"	Pistol	EDU2AE/TOP/TA
PLUTO6D/TA	130206/TA	0,85-6,0	200-850	226x40	Hex 1/4"	Inline	EDU2AE/TOP/TA
PLUTO6D/TA/LED	130206/TA/LED	0,85-6,0	200-850	226x40	Hex 1/4"	Inline, with LED	EDU2AE/TOP/TA
PLUTO6P/TA	130207/TA	0,85-6,0	200-850	159x174x45	Hex 1/4"	Pistol	EDU2AE/TOP/TA
PLUTO10D/TA	130211/TA	1,5-10,0	110-600	226x40	Hex 1/4"	Inline	EDU2AE/TOP/TA
PLUTO10D/TA/LED	130211/TA/LED	1,5-10,0	110-600	226x40	Hex 1/4"	Inline, with LED	EDU2AE/TOP/TA
PLUTO10P/TA	130210/TA	1,5-10,0	110-600	159x174x45	Hex 1/4"	Pistol	EDU2AE/TOP/TA
PLUTO15D/TA	130216/TA	2,0-15,0	60-320	226x40	Hex 1/4"	Inline	EDU2AE/TOP/TA
PLUTO15D/TA/LED	130216/TA/LED	2,0-15,0	60-320	226x40	Hex 1/4"	Inline, with LED	EDU2AE/TOP/TA
PLUTO15P/TA	130215/TA	2,0-15,0	60-320	159x174x45	Hex 1/4"	Pistol	EDU2AE/TOP/TA
PLUTO20CA/SR/TA	133221/SR/TA	3,0-20,0	50-200	232x54	Sq 3/8"	Aluminium body, start/reverse buttons	EDU2AE/TOP/TA
PLUTO35CA/SR/TA	133236/SR/TA	3,0-35,0	40-140	247x57	Sq 3/8"	Aluminium body, start/reverse buttons	EDU2AE/TOP/TA
PLUTO50CA/SR/TA	133250/SR/TA	5,0-50,0	20-90	252x57	Sq 1/2"	Aluminium body, start/reverse buttons	EDU2AE/TOP/TA
EDU2AE/TOP/TA Control unit	032000/TOP/TA						Any PLUTO../TA and MITO../TA
EDU2AE/TOP/NT/TA Control unit	031000/TOP/NT/TA						NATO../TA 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

4. KOLVER TORQUE ANALYZER (v1.0.2)

FILE EDIT ?

SEARCHED: PLUTO 100/TA INSTRUMENT: Minik 20

CONTROL PANEL

NUM	TORQUE (Nm)	HOUR	DATE	SCREWDRIVER
1	2.515	14:41:58	11/11/2016	PLUTO 100/TA
2	2.544	14:42:06	11/11/2016	PLUTO 100/TA
3	2.503	14:42:08	11/11/2016	PLUTO 100/TA
4	2.577	14:42:11	11/11/2016	PLUTO 100/TA
5	2.595	14:42:13	11/11/2016	PLUTO 100/TA
6	2.532	14:42:16	11/11/2016	PLUTO 100/TA
7	2.538	14:42:18	11/11/2016	PLUTO 100/TA
8	2.514	14:42:23	11/11/2016	PLUTO 100/TA
9	2.514	14:42:28	11/11/2016	PLUTO 100/TA
10	2.548	14:42:31	11/11/2016	PLUTO 100/TA
11	2.574	14:42:34	11/11/2016	PLUTO 100/TA
12	2.568	14:42:36	11/11/2016	PLUTO 100/TA
13	2.560	14:42:39	11/11/2016	PLUTO 100/TA
14	2.593	14:42:45	11/11/2016	PLUTO 100/TA
15	2.525	14:42:49	11/11/2016	PLUTO 100/TA
16	2.583	14:42:52	11/11/2016	PLUTO 100/TA
17	2.542	14:42:54	11/11/2016	PLUTO 100/TA
18	2.597	14:42:56	11/11/2016	PLUTO 100/TA
19	2.583	14:42:59	11/11/2016	PLUTO 100/TA
20	2.516	14:43:12	11/11/2016	PLUTO 100/TA
21	2.616	14:44:11	11/11/2016	PLUTO 100/TA
22	2.586	14:44:14	11/11/2016	PLUTO 100/TA
23	2.605	14:44:16	11/11/2016	PLUTO 100/TA
24	2.543	14:44:19	11/11/2016	PLUTO 100/TA
25	2.574	14:44:23	11/11/2016	PLUTO 100/TA
26	2.580	14:44:25	11/11/2016	PLUTO 100/TA
27	2.586	14:44:27	11/11/2016	PLUTO 100/TA
28	2.596	14:44:29	11/11/2016	PLUTO 100/TA
29	2.568	14:45:51	11/11/2016	PLUTO 100/TA

SERIAL PORT

TRACK [] Discover [] Export [] Apply [] Remove []

TOTAL STATISTICAL VALUES

Minimum Value: 2.502
Maximum Value: 2.616
Average: 2.557
Machine capacity: SUITABLE (1.33)
On value: 2.6335
Cmk value: 2.6335
Sigma: 0.0323

FIXING SPECIFICATION

Normal torque: 2.5574
Minimum torque: 2.5017
Maximum torque: 2.6332
Tolerance: 10
Precision +/-: 0.0228

SENSOR VALUE

2.528

ACTUAL VALUE

MAX: 2.528
MIN: NULL
AVERAGE: NULL

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