# Partial User References (not complete list) of Kolver Electrical Screwdrivers



SNo.	Item Description, Customer's Name & City	Qty	SNo.	Item Description, Customer's Name & City	Qty
	NATO50D Electrical Screwdriver		38	BN Hitech Machines Pvt. Ltd., PANCKLULA	1
1	Sumitron Exports Private Limited, Delhi	5	39	Enphase Solar Energy Pvt. Ltd., Bengaluru	1
	MITO15D & MITO15D/TA Electrical Screwdriver		40	Infinity Automation Systems Pvt. Ltd., Pune	1
2	Ash & Alain India Private Limited, Noida	1	41	Motherson Sumi Wiring India Limited, Pune	2
3	GnR Corporation, Gurgaon	1	42	S. D. Engineerstech Pvt. Ltd., Pune	1
4	Inteva Products India Automotive Private Limited, Pune	1	43	Sanko Shoji India Pvt. Ltd., Gurgaon	1
5	Sumitron Exports Private Limited, Delhi	11	44	Secure Meters Limited, Ahmedabad	1
	PLUTO 3CA, PLUTO3D, PLUTO3D/PS & PLUTO3D/TA		45	Sumitron Exports Private Limited, Delhi	24
6	Ash & Alain India Private Limited, Noida	1	46	Sunrise Enterprises, Pune	1
7	ASTronics Technology (I) Pvt. Ltd, Delhi	1		PLUTO20CA/SR & PLUTO20CA/SR/TA	
8	Authentic Engineers, Gurgaon	1	47	Shigan Quantum Technologies Limited, Gurugram	1
9	BBS Automation India Pvt. Ltd., Pune	1	48	Sumitron Exports Private Limited, Delhi	6
10	Enphase Solar Energy Pvt. Ltd., Bengaluru	1		PLUTO30ANG Electrical Screwdriver	
11	Hemaadri Ele Systems Private Limited, Bangalore	1	49	Shigan Quantum Technologies Limited, Gurugram	1
12	Inteva Products India Automotive Private Limited, Pune	1		PLUTO35CA/SR Electrical Screwdriver	
13	JKB Mechtech Private Limited, Chennai	1	50	Sumitron Exports Private Limited, Delhi	3
14	Motherson Automotive Technologies & Eng., Chennai	2		KDS-PL15 Electrical Screwdriver	
15	Motherson Sumi Systems Limited, Noida	3	51	Sumitron Exports Private Limited, Delhi	1
16	Motherson Sumi Wiring India Limited, Pune	2		KBL30FR Electrical Screwdriver	
17	Samvardhana Motherson International Ltd, Noida	1	52	Schindler India Pvt. Ltd, Mumbai	1
18	Sumitron Exports Private Limited, Delhi	57		PLUTO30ANG Electric Screwdriver	
19	Unique Circle Automation Pvt. Ltd., Pune	1	53		
20	Yesh Enterprises, Gurgaon	1		PLUT050CA/SR Electrial Screwdriver	2
	PLUTO6D, PLUTO6D/PS & PLUTO6D/TA		54	Crane Process Flow Technologies (India) Pvt. Ltd., Satara	1
21	ASTronics Technology (I) Pvt. Ltd, Delhi	2		Sumitron Exports Private Limited, Delhi	1
22	Authentic Engineers, Gurgaon	1	55	PLUTO70ANG Electrical Screwdriver	
23	I6 Techlabs Private Limited, Coimbatore	6		Crane Process Flow Technologies (India) Pvt. Ltd., Satara	1
24	JKB Mechtech Private Limited, Chennai	1	56	PLUTO6ANG Electrical Screwdriver	
25	Rotex Automation Limited, Vadodara	1		Eureka Design India Private Limited, Manesar	2
26	S. D. Engineerstech Pvt. Ltd., Pune	1	57	FAB18RE/FR Electrical Screwdriver	_
27	Sumitron Exports Private Limited, Delhi	89		Rapiscan Systems Private Limited, Hyderabad	1
28	Sunrise Enterprises, Pune	1	58	KDS-PL6 Electrical Screwdriver	
	PLUTO10D/N & PLUTO10D/TA			Sumitron Exports Private Limited, Delhi	2
29	Crane Process Flow Technologies (India) Pvt. Ltd., Satara	4	59	KDS-PL10 Electrical Screwdriver	_
30	DELL'ORTO INDIA PVT. LTD., Pune	7		Eaton Industrial Products Private Limited, Bangalore	1
31	Gilbarco Veeder Root India Pvt. Ltd.,Coimbatore	1	60	RAF38PP/FR Electrical Screwdriver	
32	JKB Mechtech Private Limited, Chennai	5	"	Draeger Safety India Pvt.Ltd., Thane	1
33	Kadence Automation and Robotic Systems, Faridabad	1	61	RAF32NS/FR Electrical Screwdriver	<u> </u>
34	Modine Thermal Systems Pvt. Ltd., Tamil Nadu	3		Sumitron Exports Private Limited, Delhi	2
35	Nobel Automotive India Private Limited, Ahmedabad	1	62	PLUTO5FR/P Electrical Screwdriver	
36	Sumitron Exports Private Limited, Delhi	43	63	Sumitron Exports Private Limited, Delhi	1
	PLUTO15D/N & PLUTO15D/TA Electrical Screwdriver			EDU2AE/TOP/NT/TA Control Unit	<u>'</u>
37	Ash & Alain India Private Limited, Noida	1	64	Sumitron Exports Private Limited, Delhi	5

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Warranty is 12 months from the date of invoice. It excludes any mechanically damaged part

# Partial User References (not complete list) of Kolver Electrical Screwdrivers



SNo.	Item Description, Customer's Name & City	Qty	SNo.	Item Description, Customer's Name & City	Qty
	EDU2AE/HPRO Control Unit			EDU1FR Control Unit	
65	Ash & Alain India Private Limited, Noida	2	103	Rapiscan Systems Private Limited, Hyderabad	1
66	Authentic Engineers, Gurgaon	2	104 Draeger Safety India Pvt.Ltd., Thane		1
67	BBS Automation India Pvt. Ltd., Pune	1		EDU1FR/SG Control Unit	
68	BN Hitech Machines Pvt. Ltd., Panchkula	1	105	Sumitron Exports Private Limited, Delhi	2
69	Crane Process Flow Technologies (India) Pvt. Ltd., Satara	1		KDU-1A Control Unit	
70	Enphase Solar Energy Pvt. Ltd., Bengaluru	2	106	Eaton Industrial Products Private Limited, Bangalore	1
71	Eureka Design India Private Limited, Manesar	2	107	Sumitron Exports Private Limited, Delhi	1
72	Gilbarco Veeder Root India Pvt. Ltd.,Coimbatore	1		LINAR1 Torque Reaction Arm	
73	GnR Corporation, Gurgaon	1	108	Eaton Industrial Products Private Limited, Bangalore	1
74	Hemaadri Ele Systems Private Limited, Bangalore	1	109	Motherson Sumi Systems Limited, Noida	1
75	I6 Techlabs Private Limited, Coimbatore	6	110	Motherson Sumi Wiring India Limited, Pune	4
76	Infinity Automation Systems Pvt. Ltd., Pune	1	111	Shigan Quantum Technologies Limited, Gurugram	1
77	Inteva Products India Automotive Private Limited, Pune	1	112	Sumitron Exports Private Limited, Delhi	20
78	JKB Mechtech Private Limited, Chennai	7		LINAR2 Torque Reaction Arm	
79	Kadence Automation and Robotic Systems, Faridabad	1	113	Sumitron Exports Private Limited, Delhi	1
80	Modine Thermal Systems Pvt. Ltd., Tamil Nadu	3		LINART Torque Reaction Arm	
81	Nobel Automotive India Private Limited, Ahmedabad	1	114	Sumitron Exports Private Limited, Delhi	1
82	Rotex Automation Limited, Vadodara	1		PA2KOL Torque Reaction Arm	
83	S. D. Engineerstech Pvt. Ltd., Pune	2	115	Sumitron Exports Private Limited, Delhi	1
84	Sanko Shoji India Pvt. Ltd., Gurgaon	1	1.15	CAR501 Torque Reaction Arm	
85	Secure Meters Limited, Ahmedabad	1	116	Crane Process Flow Technologies (India) Pvt. Ltd., Satara	1
86	Sumitron Exports Private Limited, Delhi		110	CAR502 Torque Reaction Arm	· ·
87	Sunrise Enterprises, Pune	153	117	<u> </u>	
88	Unique Circle Automation Pvtd. Ltd., Pune	1	117	LINAR1/TLS1 Torque Reaction Arm	
89	Yesh Enterprises, Gurgaon	1	118	Sumitron Exports Private Limited, Delhi	18
- 00	EDU2AE/TOP/E & EDU2AE/TOP Control Unit		110	LINART/TLS1 Folding Torque Reaction Arm	10
90	Crane Process Flow Technologies (India) Pvt. Ltd., Satara	4	119	Sumitron Exports Private Limited, Delhi	1
91	DELL'ORTO INDIA PVT. LTD., Pune	3	113	CAR281/TLS1 Torque Reaction Arm	<u>'</u>
92	Motherson Automotive Technologies & Eng., Chennai	2	120	Gilbarco Veeder Root India Pvt. Ltd., Coimbatore	1
93	Sumitron Exports Private Limited, Delhi	32	120	Sumitron Exports Private Limited, Delhi	1
30	EDU2AE/TOP/MITO/TA Control Unit	32	121	CAR501/TLS1 Torque Reaction Arm	
94	Sumitron Exports Private Limited, Delhi	2		Sumitron Exports Private Limited, Delhi	3
94	<u> </u>		122	· · · · · · · · · · · · · · · · · · ·	
05	EDU2AE/TOP/TA Control Unit	1	100	Mini K-5/S Torque Tester  Methoropo Cumi Sustamo Limited Noide	1
95 96	Ash & Alain India Private Limited, Noida  ASTronics Technology (I) Pvt. Ltd, Delhi	3	123	Motherson Sumi Systems Limited, Noida	1
			124	Rapiscan Systems Private Limited, Hyderabad	
97	Authentic Engineers, Gurgaon	2	105	Mini K-20/S Torque Tester	4
98	Motherson Sumi Systems Limited, Noida	3	125	Deutsch India Power Connectors Pvt. Ltd Bangalore	1
99	Motherson Sumi Wiring India Limited, Pune	4	100	K20 Torque Tester upto 20 Nm	
100	Samvardhana Motherson International Ltd, Noida	1	126	Motherson Sumi Wiring India Limited, Pune	1
101	Sumitron Exports Private Limited, Delhi	40		Muffaddal Tools & Hardware, Bangalore	1
	EDU1BL/SG Control Unit		127	Mini Ke50/S Torque Tester upto 50 Nm	
102	Schindler India Pvt. Ltd, Mumbai	1	128	Crane Process Flow Technologies (India) Pvt. Ltd., Satara	1

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Warranty is 12 months from the date of invoice. It excludes any mechanically damaged part While the information contained herein in, has been carefully compiled to the best of our knowledge, nothing is intended as representation and warranty on our part; and no statement shall be construed as recommendation to infringe any of existing patents. We accept no liability of whatsoever for any faults and errors in the information contained herein. Contents of this catalogue and specifications of the products, are subject to change without notice due to continuous improvements.

Email: romesh1947@gmail.com & info@indeonline.in







From:giovanni colasante <boss@kolver.it> To:rksgm <romesh1947@gmail.com>

Dear Romesh,

Congratulations for your repair. Not many of our sales partners have such ability.

I'll pass your suggestions on to our technical and production department to see if it's feasible on our side and inform you accordingly.

Enjoy your weekend

Cordiali saluti/Best regards

Giovanni Colasante Kolver Srl

Il giorno ven 6 ago 2021 alle ore 04:01 rksgm <romesh1947@gmail.com> ha scritto:

Dear Giovanni,

Please see attachment, we finally mastered in-house the repair of this at chip level (much beyond Power FET). This is now working ok. Infact we took one Good type of your Power Supply and created our own Test Points with signals and waveforms.







### To whom it may concern in India

We certify that:

Inde Enterprises 745, Sector 8-B Chandigarh 1650 009

Email: romesh1947@gmail.com

Cell: 9815600745

are our India partner both for sales and service of our Kolver Brand Electric Screwdrivers.

This certificate is re-issued on March 8th, 2024 and will be valid for next 3 years.

We solicit all our Indian customers' co-operation to Inde Enterprises so as to perform the assigned responsibility.

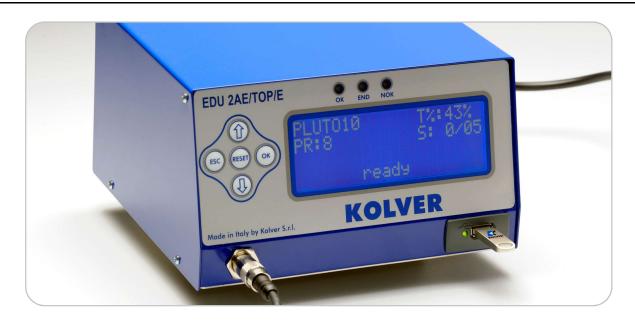


KOLVER S.r.I. - Società Benefit / Via M. Corner, 19/21 - 36016 Thiene – Italy T: +39 0445 371068 - W: www.kolver.com - E: kolver@kolver.it Cap.Soc. €900.000,00 i.v. - REA: VI - 207558 - P.I. e C.F.: IT 02103900243





### Control Units for PLUTO & MITO Screwdrivers - EDU2AE Series



# **EDU2AE Control Units | For PLUTO and MITO Screwdrivers**

EDU2AE control units are meant to be used in combination with Kolver® current controlled MITO and PLUTO and/or clutch PLUTO 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 PLUTO 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 the MITO & PLUTO screwdrivers to reach a  $\pm$ 1-5% 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. EDU2AE/TOP/E and EDU2AE/TOP/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	trol units Screwdriver models				
EDU2AE EDU2AE/HPRO EDU2AE/TOP EDU2AE/TOP/E	Hand-held 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	Automation MITO CA MITO CA/FN PLUTO CA PLUTO CA/FN PLUTO CA/FN			
EDU2AE/TOP/TA	Hand-held MITO D/TA PLUTO D/TA PLUTO D/TA/LED PLUTO P/TA PLUTO CA/SR/TA	Automation MITO CA/TA PLUTO CA/TA PLUTO CA/FN/TA PLUTO CA/FN2/TA			
KOLVE		s sight			

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Warranty is 12 months from the date of invoice. It excludes any mechanically damaged part







# **Control Units for PLUTO & MITO Screwdrivers**

Features	EDU2AE	EDU2AE/FR	EDU2AE/HPRO	EDU2AE/TOP	EDU2AE/TOP/E	EDU2AE/TOP/TA
Switching power supply	•	•	•	•	•	•
Settable Torque percentage	•		•	•	•	•
Ramp and Speed settings	•	•	•	•	•	•
Speed 1 and Speed 2 settings	•		•	•	•	•
Min/max or infinite time settings	•	•	•	•	•	•
Auto reverse	•	•	•	•	•	•
Pre Reverse			•	•	•	•
Settable loosening speed	•	•	•	•	•	•
Settable loosening torque	•		•	•	•	•
Run time	•	•	•	•	•	•
Prevailing torque			•	•	•	•
Clockwise/anticlock- wise tightening			•	•	•	•
Password protected		•	•	•	•	•
Calibration			•	•	•	•
Nm - lb/in - Kgf.cm selection			•	•	•	•
Settable Min/max torque			•	•	•	•
Screw count	•	•	•	•	•	•
End cycle signal		•	•	•	•	•
Screw reset				•	•	•
Program reset		•	•	•	•	•
Sequence reset			•	•	•	•
Multitorque				•	•	•
Lever error			•	•	•	•
Enable/Disable loosening				•	•	•
Barcode			•	•	•	•
Serial print		•	•	•	•	•
Error, motor on & correct screw signals	•	•	•	•	•	•
Optional back driver connector		•	•			
Use with DOCK04 double connector				•	•	•
Use with PRNTR1 serial printer		•	•	•	•	•
Printing options for each program				•	•	•
Use with TLS1	•	•	•	•	•	•
>> w/ automatic program switch				•	•	•
DO : (EDITE/DAND)						
PC programming (EDU EXPAND)					•	•

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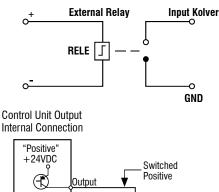


# I/O CONNECTIONS (for detailed Operating Manual please contact us)

EDU 2AE control unit series have connectors placed on the back panel. These connectors allow to enable functions through inputs and to take signals through outputs. The inputs are activated by connecting them to ground. A positive voltage must NEVER be brought to these inputs. Bringing 24V to the unit inputs could damage the inputs themselves. As seen from the picture below, to enable the inputs it is recommended to bring a clean contact by using a relay or a simple switch or button.

As for the outputs, they are all PNP type with active function. On each pin you will have 24V DC.

These pins can be used directly connected to PNP inputs (PLC) or used to turn on LEDs, buzzers or other devices with 24V power supply. The maximum total power of the outputs is about 400mA. Using inductive loads such as relays or other loads with an initial consumption peak greater than 400mA will send all outputs to protection, displaying the message "output disable". To restore the outputs after a protection, turn off and turn on the unit again.

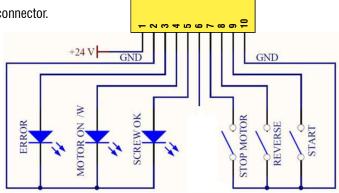


# GND Controlled Load or PLC Input (Max power 400mA) 'Negative" OVDC

### CN1 CONNECTOR - 10 PIN:

On the back panel, in all the EDU 2AE units, there is a 10 pin I/O connector.





**CONNECTOR CN1** 

PIN	NAME	FUNCTION		
		ОИТРИТ		
1	+24V	+24V voltage protected. The maximum current consumption is 400mA. CAN NOT BE USED TO POWER EXTERNAL DEVICES.		
2	GND	Common pin. Signals must be taken between this pin (0VDC) & the respective signal pins		
3	ERROR	Error signal: it activates every time an error occurs. The red led on the front panel will switch on. Signal is 24V.		
4	MOTOR ON (\W)	It activates when the motor turns during screwing. Signal is 24V.		
5	SCREW OK	Correct screw signal. The green led on the front panel will switch on. Signal is 24V.		
	INPUT			
6	NOT USED	Not used		
7	STOP MOTOR	Remote motor stop. If it's activated the message "STOP MOTOR ON" appears on the display. The motor will stop and won't start working again as long as the contact is closed.		
8	REVERSE	Remote motor start with torque control while unscrewing.		
9	START	Remote start with torque control while screwing.		
10	GND	Common pin. Signals must be taken between this pin and the respective signal pins.		

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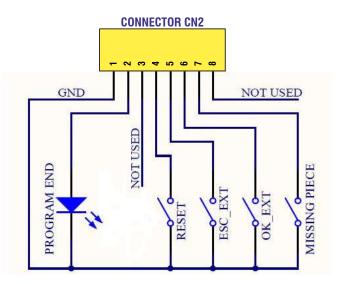


### **CN2 CONNECTOR – 8 PIN:**

Only on EDU 2AE/HPro



ATTENTION: Output signals are protected from an appropriate circuit. Overload of the available signals (> 450 mA) or short circuit will result in the stop of the unit. To re-activate signals, it is necessary to switch off the unit for 5-6 seconds, check connections and output loads then switch the unit on.



PIN	NAME	FUNCTION
		OUTPUT
1	GND	Common pin for any input and output. By closing the contact between pin 1 and any of the other pins to start the function you need. This pin is connected to OVDC and to the ground
2	PROGRAM END	It activates at the end of each program.
3		Not used
		INPUT
4	RESET	If pressed for at least 1 sec, it resets the program you are working in.
5	ESC_EXT	If enabled, (see point 9: OK/ESC), remote ESC key function to reset errors.
6	OK_EXT	If enabled, (see point 9: OK/ESC), remote OK key function to confirm program end.
7	MISSING PIECE	If enabled, it stops the motor, it enables the error signal and "Error missing piece" is displayed on the status bar.
8		Not used

### **CN3 CONNECTOR (9 PIN SERIAL CONNECTOR - FEMALE)**

Only on EDU 2AE/HPro

PIN	NAME	FUNCTION	
1	+15 Vcc	Not used	
2	TX	Serial Transmission	
5	GND	Common pin for any input. Signals must be taken between this pin (GND) and the other pins of this connector depending on the signal you want to be printed	

#### **CORRECT SCREWS ON STATUS BAR**

"Screw OK" is displayed on the status bar.	The tool has performed a correct screwing, that is when all the settings have been fulfilled.
"Run Time OK" is displayed on the status bar.	The tool has performed a correct screwing, that is when all the settings have been fulfilled.
"Rev. Torque OK" is displayed on the status bar.	The tool has performed a correct screwing, that is when all the settings have been fulfilled.

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NO CALIBRATION REPORT COMES ALONG WITH NEW SUPPLY OF PLUTO SERIES SCREWDRIVERS WITH EDU2AE SERIES CONTROL UNITS OF KOLVER ITALY. KOLVER PROVIDES CERTIFICATE WHICH SAYS ALL NEW CONTROLLERS HOLD CALIBRATION FOR TWO YEARS FROM THE DATE OF SUPPLY.

### PLEASE SEE BELOW CERTIFICATE COPY FROM KOLVER.

IF YOU STILL NEEDS CONTROL UNIT WITH CALIBRATION REPORT THEN K-DUCERSERIES OF KOLVER IS THE RIGHT CHOICE, WHICH COMES ALONG WITH CALIBRATION REPORT



KOLVER S.r.I – Via M. Corner, 19/21 – 36016 THIENE – ITALY tel. +39 0445 371068 fax. +39 0445 371069
Cap. Soc. € 110000– Trib. Vicenza 24316–C.C.I.A.A. 207558 n. Mecc. VI018163 - P. IVA e C.F. IT 02103900243

## To: Whomsoever Indian Customers it may concern

We certify that all our New Pluto Series Electric Screwdrivers with EDU2AE Series Controllers hold calibration for two years from the date of supply.

There is no calibration certificate possible for above.

Giovanni Colasante

Managing Director