# 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	Sumitron Exports Private Limited, Delhi	2
20	Yesh Enterprises, Gurgaon	1		PLUT050CA/SR Electrial Screwdriver	
	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	
34	Modine Thermal Systems Pvt. Ltd., Tamil Nadu	3		Sumitron Exports Private Limited, Delhi	2
35	Nobel Automotive India Private Limited, Ahmedabad	1	62	PLUT05FR/P Electrical Screwdriver	
36	Sumitron Exports Private Limited, Delhi	43	63	Sumitron Exports Private Limited, Delhi	1
-	PLUT015D/N & PLUT015D/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

shown trademarks are property of their respective owners.

Warranty is 12 months from the date of invoice. It excludes any mechanically damaged part in and warranty on our part; and no statement shall be construed as recommendation to infringe any of existing

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



	Qty	SNo.	Item Description, Customer's Name & City	Qty
EDU2AE/HPRO Control Unit			EDU1FR Control Unit	
Ash & Alain India Private Limited, Noida		103	Rapiscan Systems Private Limited, Hyderabad	
Authentic Engineers, Gurgaon	2	104	Draeger Safety India Pvt.Ltd., Thane	1
BBS Automation India Pvt. Ltd., Pune			EDU1FR/SG Control Unit	1
BN Hitech Machines Pvt. Ltd., Panchkula		105	Sumitron Exports Private Limited, Delhi	
Crane Process Flow Technologies (India) Pvt. Ltd., Satara			KDU-1A Control Unit	2
Enphase Solar Energy Pvt. Ltd., Bengaluru		106	Eaton Industrial Products Private Limited, Bangalore	
Eureka Design India Private Limited, Manesar		107	Sumitron Exports Private Limited, Delhi	1
Gilbarco Veeder Root India Pvt. Ltd.,Coimbatore			LINAR1 Torque Reaction Arm	1
GnR Corporation, Gurgaon		108	Eaton Industrial Products Private Limited, Bangalore	<u>'</u>
Hemaadri Ele Systems Private Limited, Bangalore		109	Motherson Sumi Systems Limited, Noida	1
I6 Techlabs Private Limited, Coimbatore		110	·	1
Infinity Automation Systems Pvt. Ltd., Pune		111	•	4
Inteva Products India Automotive Private Limited, Pune		112	Sumitron Exports Private Limited, Delhi	1
JKB Mechtech Private Limited, Chennai			LINAR2 Torque Reaction Arm	20
		113	<u> </u>	20
•			<u> </u>	1
•		114	<u> </u>	-
·			<u> </u>	1
		115	·	
-			· · · · · · · · · · · · · · · · · · ·	1
		116	<u></u>	1
		110		4
•		117	<u></u>	1
		117	· · · · · · · · · · · · · · · · · · ·	
•		118	<u> </u>	1
		110	<u> </u>	10
	1	110		18
- , ,		110	<u> </u>	
		120	•	1
		120	<u> </u>	
		101	<u> </u>	1
	32		<u> </u>	1
·		122	<u> </u>	
	2	100	<u> </u>	3
·			<u> </u>	
	1	124		1
		105	·	1
-		125	<del>-</del>	-
•	3	100		1
	4	126	<u> </u>	
•	1	107	<u> </u>	1
	40			1
	Authentic Engineers, Gurgaon  BBS Automation India Pvt. Ltd., Pune  BN Hitech Machines Pvt. Ltd., Panchkula  Crane Process Flow Technologies (India) Pvt. Ltd., Satara  Enphase Solar Energy Pvt. Ltd., Bengaluru  Eureka Design India Private Limited, Manesar  Gilbarco Veeder Root India Pvt. Ltd., Coimbatore  GnR Corporation, Gurgaon  Hemaadri Ele Systems Private Limited, Bangalore  I6 Techlabs Private Limited, Coimbatore  Infinity Automation Systems Pvt. Ltd., Pune	Authentic Engineers, Gurgaon  BBS Automation India Pvt. Ltd., Pune  BN Hitech Machines Pvt. Ltd., Panchkula  Crane Process Flow Technologies (India) Pvt. Ltd., Satara  Enphase Solar Energy Pvt. Ltd., Bengaluru  Eureka Design India Private Limited, Manesar  Gilbarco Veeder Root India Pvt. Ltd., Coimbatore  GnR Corporation, Gurgaon  Hemadri Ele Systems Private Limited, Bangalore  16 Techlabs Private Limited, Coimbatore  Infinity Automation Systems Pvt. Ltd., Pune  Inteva Products India Automotive Private Limited, Pune  JKB Mechtech Private Limited, Chennai  Kadence Automation and Robotic Systems, Faridabad  Modine Thermal Systems Pvt. Ltd., Tamil Nadu  Nobel Automotive India Private Limited, Ahmedabad  Rotex Automation Limited, Vadodara  S. D. Engineerstech Pvt. Ltd., Pune  Sanko Shoji India Pvt. Ltd., Gurgaon  Secure Meters Limited, Ahmedabad  1 Sumitron Exports Private Limited, Delhi  Sunrise Enterprises, Pune  1 Sunise Enterprises, Gurgaon  1 EDU2AE/TOP/E & EDU2AE/TOP Control Unit  Crane Process Flow Technologies (India) Pvt. Ltd., Satara  DELL'ORTO INDIA PVT. LTD., Pune  Motherson Automotive Technologies & Eng., Chennai  3 Sumitron Exports Private Limited, Delhi  EDU2AE/TOP/MITO/TA Control Unit  2 Sumitron Exports Private Limited, Delhi  EDU2AE/TOP/TA Control Unit  Ash & Alain India Private Limited, Noida  ASTronics Technology (I) Pvt. Ltd., Delhi  Authentic Engineers, Gurgaon  3 Authentic Engineers Limited, Noida  4 Authentic Engineers Private Limited, Delhi  EDU1BL/SG Control Unit  4 Delticon India Authentic Limited, Pune	Authentic Engineers, Gurgaon  BBS Automation India Pvt. Ltd., Pune  BN Hitech Machines Pvt. Ltd., Panchkula  Crane Process Flow Technologies (India) Pvt. Ltd., Satara  Enphase Solar Energy Pvt. Ltd., Bengaluru  Eureka Design India Private Limited, Manesar  Gilbarco Veeder Root India Pvt. Ltd., Coimbatore  GnR Corporation, Gurgaon  Hemaadri Ele Systems Private Limited, Bangalore  Infinity Automation Systems Pvt. Ltd., Pune  Infinity Automation Systems Pvt. Ltd., Pune  Inteva Products India Automotive Private Limited, Pune  JKB Mechtech Private Limited, Chennai  Kadence Automation and Robotic Systems, Faridabad  Nobel Automotive India Private Limited, Ahmedabad  Rotex Automation Limited, Vadodara  S. D. Engineerstech Pvt. Ltd., Pune  1115  Sanko Shoji India Pvt. Ltd., Gurgaon  Secure Meters Limited, Ahmedabad  116  Sumitron Exports Private Limited, Delhi  Sunrise Enterprises, Pune  117  Unique Circle Automation Pvtd. Ltd., Pune  118  EDU2AE/TOP/E & EDU2AE/TOP Control Unit  Crane Process Flow Technologies (India) Pvt. Ltd., Satara  DELL'ORTO INDIA PVT. LTD., Pune  Motherson Automotive Technologies & Eng., Chennai  3  Sumitron Exports Private Limited, Delhi  2  EDU2AE/TOP/MITO/TA Control Unit  2  Ash & Alain India Private Limited, Noida  ASTronics Technology (I) Pvt. Ltd., Delhi  122  EDU2AE/TOP/TA Control Unit  Authentic Engineers, Gurgaon  Motherson Sumi Systems Limited, Noida  ASTronics Technology (I) Pvt. Ltd., Delhi  124  Authentic Engineers, Gurgaon  Motherson Sumi Systems Limited, Noida  ASTronics Technology (I) Pvt. Ltd., Delhi  125  Bumitron Exports Private Limited, Noida  ASTronics Technology (I) Pvt. Ltd., Delhi  126  Bumitron Exports Private Limited, Noida  ASTronics Technology (I) Pvt. Ltd., Delhi  127  EDU1BL/SG Control Unit  40  127	Authentic Engineers, Gurgaon 2 BBS Automation India PVL Ltd., Pune 2 BN Hilberh Machines PVL Ltd., Panchkula 1 Enphase Solar Energy PvL Ltd., Bengaluru 1 Enphase Solar Energy PvL Ltd., Coimbatore 2 Gilbarco Veeder Root India PvL Ltd., Coimbatore 2 Gilbarco Veeder Root India PvL Ltd., Coimbatore 1 In Technadri Ele Systems Private Limited, Manesar 2 Gilbarco Veeder Root India PvL Ltd., Coimbatore 1 In Technadri Ele Systems Private Limited, Bangalore 1 In Technadri Ele Systems Private Limited, Bangalore 1 In Technadri Ele Systems Private Limited, Bangalore 1 In Technadri Ele Systems PvL Ltd., Pune 1 Intexa Products India Automotive Private Limited, Pune 1 INARAT Torque Reaction Arm 1 INARATOR Exports Private Limited, Delhi 1 INARATOR Exports Private Limited, Delh

1





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

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





# **Low Torque Screwdrivers - MITO Series**

# MITO Screwdrivers | Torque range 0.35 - 1.5 Nm

MITO screwdrivers are the ideal solution for high-precision low torques. Their accurate and smooth torque control makes them perfect for the electronics, mobile, watchmaking and eyewear industry.

#### Precise low-torque screwdrivers

Kolver's experience with current-controlled technology has led to the creation of the MITO series; truly accurate current-controlled torque drivers designed for applications in which torques below 1.5 Nm are required. MITO tools operate within a torque range of 0.35-1.5 Nm.

## **Long-lasting accuracy**

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

#### **Compact ergonomic design**

All MITO screwdrivers feature an ESD-Safe Housing, either in hand-held option or aluminium body for automation. MITO drivers are available in pistol or inline style, catering to operator preference and comfort. MITO drivers are inline style, with a lever start actuation.

#### **Available Housings**



INLINE (MITO D) – Inline versions available in lever start, current-controlled style.



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



ALUMINIUM BODY (MITO CA)
For automation, they can also be used
with foot pedals for manual operations.
MITO also available with flange mount.

## **Inline MITO Screwdrivers**

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
170015	MITO15D	0.35 - 1.5	450 - 850	216 x 33	0.35	Hex 1/4"

#### Pistol grip MITO Screwdrivers

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	<b>Connector Option</b>
170014	MITO15P	0.35 - 1.5	450 - 850	159 x 195 x 45	0.50	Bottom connector
170014/U	MITO15P/U	0.35 - 1.5	450 - 850	163 x 195 x 45	0.50	Top connector

#### **Aluminium housing MITO Screwdrivers**

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
170016	MITO15CA	0.35 - 1.5	450 - 850	193 x 32	0.36	Hex 1/4"
Model with flange	e mount					
170016/FN	MITO15CA/FN	0.35 - 1.5	450 - 850	271 x 33	1.3	Hex 1/4"

#### **Control units for MITO Screwdrivers**

Code	Model	Single Program	Torque Value in Nm	Serial Port	Multitorque (8P-sets)	USB Port	PC Software	Weight kg	Dimensions mm
032000	EDU2AE	•	-	-	-	-	-	2.40	195 x 170 x 110
032000/HPR0	EDU2AE/HPRO	•	•	•	-	-	-	2.40	195 x 170 x 110
032000/TOP	EDU2AE/TOP	-	•	•	•	-	-	2.50	190 x 205 x 120
032000/TOP/E	EDU2AE/TOP/E	-	•	•	•	•	•	2.50	190 x 205 x 120

IMPORTANT: Continuous use over 80% of torque range is not recommended.

shown trademarks are property of their respective owners.

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





# Hand-held Screwdrivers - PLUTO Series





# 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

# **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 and efficiency 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. Wrench blade attachments available upon request.

shown trademarks are property of their respective owners





# **Hand-held Screwdrivers - PLUTO Series**

## **Inline PLUTO Screwdrivers**

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
130203	PLUT03D	0.5 - 2.5	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	Connector Option
130204	PLUT03P	0.5 - 2.5	370 - 1300	159 x 174 x 45	0.55	Bottom connector
130205	PLUT03P/U	0.5 - 2.5	370 - 1300	163 x 174 x 45	0.55	Top connector
130207	PLUT06P	0.85 - 6	200 - 850	159 x 174 x 45	0.55	Bottom connector
130207/U	PLUT06P/U	0.85 - 6	200 - 850	163 x 174 x 45	0.55	Top connector
130210/N	PLUT010P/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	PLUT015P/N	2.0 - 15	60 - 320	159 x 174 x 45	0.55	Bottom connector
130215/U/N	PLUT015P/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	Dimensions mm	Weight kg	Bit Drive
133221/SR	PLUT020CA/SR	3.0 - 20	50 - 200	232 x 53	1.10	Sq 3/8"
133236/SR	PLUT035CA/SR	3.0 - 35	40 - 140	247 x 57	1.50	Sq 3/8"
133250/SR	PLUT050CA/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	<b>Bit Drive</b>	Start Option
130203/A	PLUT03ANG	0.5 - 2.5	370 - 1300	261 x 40	Hex 1/4"	Lever start
130206/A	PLUT06ANG	1.0 - 6	200 - 850	261 x 40	Hex 1/4"	Lever start
130208	PLUT08ANG	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	433 x 54	Sq 3/8"	Start/Reverse Buttons
133231	PLUTO30ANG	6.0 - 30	30 - 130	435 x 47	Sq 3/8"	Start/Reverse Buttons
133245	PLUTO45ANG	10 - 45	20 - 90	445 x 57	Sq 1/2"	Start/Reverse Buttons
133270	PLUT070ANG	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	•	-	-	-	-	-	2.40	195 x 170 x 110
032000/HPR0	EDU2AE/HPRO	•	•	•	-	-	-	2.40	195 x 170 x 110
032000/TOP	EDU2AE/TOP	-	•	•	•	-	-	2.50	190 x 205 x 120
032000/TOP/E	EDU2AE/TOP/E	-	•	•	•	•	•	2.50	190 x 205 x 120

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

shown trademarks are property of their respective owners.

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





# 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 quaranteed 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	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				
KOLVER SOLVER		s sight				

shown trademarks are property of their respective owners.

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)					•	•

shown trademarks are property of their respective owners.





(Max power 400mA)

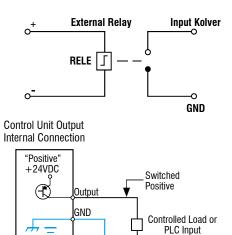
'Negative"

# 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.

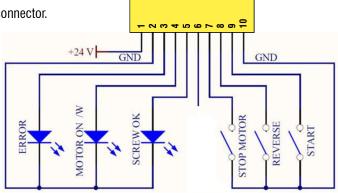
These pins can be used directly connected to PNP inputs (PLC) or used to turn on LEDs, buzzers or other devices with 24V power supply. The maximum total power of the outputs is about 400mA. Using inductive loads such as relays or other loads with an initial consumption peak greater than 400mA will send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



# CN1 CONNECTOR - 10 PIN:

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





OVDC

**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 (OVDC) & 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.				

shown trademarks are property of their respective owners

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





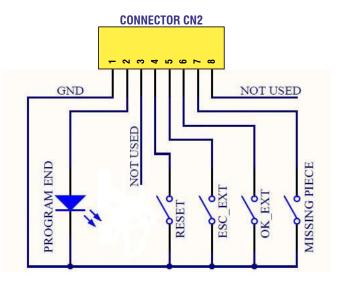


# **CN2 CONNECTOR – 8 PIN:**

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.

shown trademarks are property of their respective owners

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





# Hand-held Screwdrivers / Torque & Angle Series



# Torque & Angle Hand-held Screwdrivers | Torque range 0.02 - 50 Nm

Industrial tightening requires precise control strategies. TA systems feature Torque and Angle monitoring, making it possible to manage both torque and rotation angle of the screw.

#### 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 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.

#### **Main Features**

- Latest generation ergonomic ESD-safe housing.
- · Automatic model recognition.
- · 'EDU Expand' software for remote programming via USB port and PC.
- · USB port on front panel 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.
- Precision comparable to class 'A' torque scatter performance class (as defined in ISO5393-2017, between 25% to 75% of the torque range)...

#### · 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).

## **EDU2AE/TOP/TA Torque and Angle Functionalities**

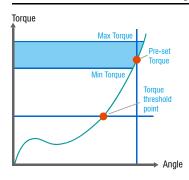
# Torque Mir

It's the most common mode. If the final torque and angle values are within the preset minimum and maximum values, the screw is tightened correctly and the controller will give an OK message.

If the torque and/or angle are outside the pre-set values, the screw will be considered incorrectly tightened and the controller will give an error message.

#### **Angle Mode**

Torque Mode



This mode gives priority to the angle to be reached. Starting from the pre-set threshold torque, the system will start counting the degrees and when the pre-set angle is reached the screwdriver will stop.

The control unit will give an OK or NOK message depending on whether the screw is tightened correctly or not. It is also possible to set minimum and maximum values within



shown trademarks are property of their respective owners





# Hand-held Screwdrivers / Torque & Angle Series

Code	Model	Torque Nm	RPM min-max	<b>Dimensions mm</b>	Weight kg	Bit Drive
170015/TA	MITO15D/TA	0.35 - 1.5	450 - 850	216 x 33	0.35	Hex 1/4"
134203/TA	PLUTO3D/TA	0.5 - 2.5	370 - 1300	251 x 40	0.55	Hex 1/4"
134206/TA	PLUTO6D/TA	0.85 - 6	200 - 850	251 x 40	0.55	Hex 1/4"
134211/TA	PLUTO10D/TA	1.5 - 10	110 - 600	251 x 40	0.55	Hex 1/4"
134216/TA	PLUTO15D/TA	2.0 - 15	60 - 320	251 x 40	0.55	Hex 1/4"
Models with LED Li	ght Ring					
134203/TA/LED	PLUTO3D/TA/LED	0.5 - 2.5	370 - 1300	226 x 40	0.55	Hex 1/4"
134206/TA/LED	PLUTO6D/TA/LED	0.85 - 6	200 - 850	226 x 40	0.55	Hex 1/4"
134211/TA/LED	PLUT010D/TA/LED	1.5 - 10	110 - 600	226 x 40	0.55	Hex 1/4"
134216/TA/LED	PLUT015D/TA/LED	2.0 - 15	60 - 320	226 x 40	0.55	Hex 1/4"

## **Pistol Grip TA Screwdrivers**

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	<b>Connector Option</b>
130204/TA	PLUT03P/TA	0.5 - 2.5	370 - 1300	159 x 174 x 45	0.55	Bottom connector
130205/TA	PLUTO3P/U/TA	0.5 - 2.5	370 - 1300	163 x 174 x 45	0.55	Top connector
130207/TA	PLUTO6P/TA	0.85 - 6	200 - 850	159 x 174 x 45	0.55	Bottom connector
130207/U/TA	PLUTO6P/U/TA	0.85 - 6	200 - 850	163 x 174 x 45	0.55	Top connector
130210/TA	PLUTO10P/TA	1.5 - 10	110 - 600	159 x 174 x 45	0.55	Bottom connector
130210/U/TA	PLUTO10P/U/TA	1.5 - 10	110 - 600	163 x 174 x 45	0.55	Top connector
130215/TA	PLUTO15P/TA	2.0 - 15	60 - 320	159 x 174 x 45	0.55	Bottom connector
130215/U/TA	PLUTO15P/U/TA	2.0 - 15	60 - 320	163 x 174 x 45	0.55	Top connector

# **Aluminium Body TA Screwdrivers**

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
133221/SR/TA	PLUT020CA/SR/TA	3.0 - 20	50 - 200	232 x 53	1.10	Sq 3/8"
133236/SR/TA	PLUTO35CA/SR/TA	3.0 - 35	40 - 140	247 x 57	1.50	Sq 3/8"
133250/SR/TA	PLUT050CA/SR/TA	5.0 - 50	20 - 90	252 x 57	1.50	Sq 1/2"

## **Angle Head TA Screwdrivers**

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Bit Drive	Start Option
130203/A/TA	PLUTO3ANG/TA	0.5 - 2.5	370 - 1300	286 x 40	Hex 1/4"	Lever start
130206/A/TA	PLUTO6ANG/TA	1.0 - 6	200 - 850	286 x 40	Hex 1/4"	Lever start
130208/TA	PLUTO8ANG/TA	1.5 - 8	110 - 600	286 x 40	Hex 1/4"	Lever start
130216/A/TA	PLUTO15ANG/TA	2.0 - 13	100 - 320	286 x 40	Hex 1/4"	Lever start

# **Control Units for TA Screwdrivers**

Code	Model	TA Series	TA Series	Port	(8 P-sets)	Interface	Angle	Weight kg	Dimensions mm
031000/TOP/NT/TA	EDU2AE/TOP/NT/TA	•	-	•	•	•	•	2.00	190 x 205 x 120
034000/TOP/TA	EDU2AE/TOP/TA	-	•	•	•	•	•	2.50	190 x 205 x 120

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

shown trademarks are property of their respective owners.

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





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

shown trademarks are property of their respective owners





# Mini K/S Series Torque Testers | Torque range 0.1 - 50 Nm

Controlling torque is vital for companies to ensure their product's quality. Fasteners that are torqued can vibrate loose and excessive torque can insufficiently strip threaded fasteners. Using a quality torque tester has become increasingly important for most companies to ensure that proper torque is being applied.



#### Mini Ke/S Series with External Transducer

The Mini Ke/S system consists of a torque readout and an external rotary transducer. By connecting a rotary torque transducer between an electric or pneumatic tool and an assembly application, you can monitor the real torque being applied from the tool to fastener or bolt.

It is possible to connect transducers to the same torque reader different by setting the proper Correction Factor (FATC).

A Mini Ke/S is the ideal torque-auditing tool for testing the actual torque being applied on the assembly application.

#### Mini K/S Series – Portable Torque Testers

MINI K/S Torque Testers feature a built-in transducer. These easy-to-use torque testers are ideal for checking all power tools up to 20 Nm. The small size and portability of MINI K/S make them ideal for checking torque tools on the production floor regularly to ensure the tools are always calibrated.

- Three units of torque measurement available; Nm, Kg.cm, in/lbs.
- · Manual and auto reset functions to clear displayed values.
- Battery powered (9V) and AC adapter. 9V battery provides 30 hours of continuous operation.
- Automatic shut down to extend battery life.
- · mini USB port for printing torque values, date and hour
- Torque Tester includes a washer-based joint simulator (miniK5/S and miniK20/S) or built in joint simulator (miniK1/S), instructions manual, certificate of calibration and a case.

# **Torque Testers / Mini K/S Series**

## Model Mini K/S Torque Testers

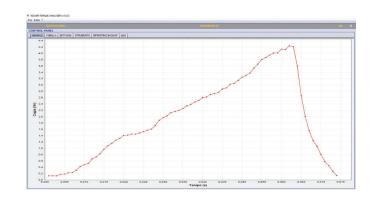
Code	Model	Torque range Nm	<b>Dimensions mm</b>	Weight kg	<b>Joint Simulator</b>	<b>External Transducer</b>	<b>Connecting Port</b>
021402/S	Mini K1/S	0.1 - 1	150 x 70 x 45	0.80	Internal Simulator	-	mini USB
021403/S	Mini K5/S	0.3 - 5	150 x 70 x 45	0.80	Semi-Elastic M6	-	mini USB
021404/S	Mini K20/S	0.5 - 20	150 x 70 x 45	0.80	Semi-Elastic M8	-	mini USB
021405/50/S	Mini Ke50/S	5 - 50	150 x 70 x 45	0.50	-	KTE50 (included)	mini USB

## **Torque Analyser Software**

The new Kolver® Torque Analyser software for Mini K/S and Mini Ke/S Torque Testers features real-time tracking of each measurement and calculation of CM and CMK.

A Real-time chart for each torque measurement is displayed on your PC screen (when "track mode" on the tester is enabled).

The chart will show the trend of the single screwing operation or, in case of multiple screwing operations it will show the results according to the settings on the torque tester and software (for example if you're keeping track of multiple operations at max torque, the chart will show the trend of these max torques). You can also export an Excel file (max 30 measurements) with corresponding CM-CMK values: this is useful for testing the torque accuracy of the screwdriver.



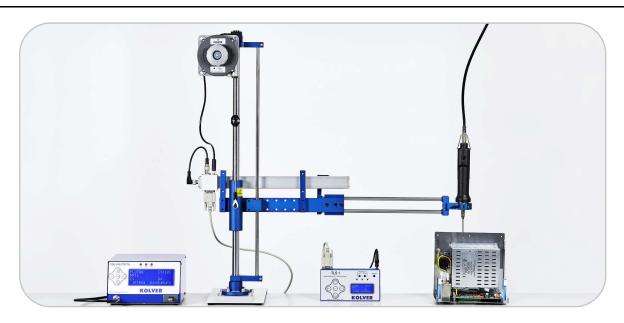
shown trademarks are property of their respective owners.

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





# Positioning Arms TLS1 Series | Up to 50 Nm



# Positioning Arms TLS1 Series | Up to 50 Nm

TLS1 is an intelligent system that error-proofs your assembly ensuring that every screw is in the correct location at the right torque. Assembly sequences and X-Y coordinates are easily programmed with user interface screens through the keypad from the intuitive menu. Torque programs are automatically selected and enabled from the screwdriver controller based on the TLS1 Arm locations and current sequence step.

#### **Main features**

- 8 available programs and up to 35 screws per program.
- Screw position (length/angle) with accuracy: length ±1 mm; angle ±1°.
- · Programmable tolerance and manual reset.
- · Password protected.
- · External keyboard and serial port for easy programming and statistics.

#### TLS1 with CAR Arm

The TLS1/CAR Arm consists of a torque reaction arm with an encoder mounted at the pivot point and with a linear metering resistor. The encoder records the angle and the linear resistor records the distance. X-Y accuracy can be set by the operator according to each application.

#### **TLS1 with Linear Arm**

TLS1/LINAR1 and TLS1/LINAR2 positioning arms work just like LINAR1 and LINAR2 with the addition of positioning sensors for a real time feedback on the position of the arm. Max torque and reach are the same as LINAR1 and LINAR2 respectively. Adapter code 234545 is required for screwdriver model PLUTO35 and PLUTO50.

#### **TLS1 with Folding Arm**

TLS1/LINART features a folding arm for extreme flexibility and accuracy. Thanks to the positioning sensors you can have a real time feedback on the position of the arm, which is very useful for default calibrations. Max torque and reach are the same as LINART.

#### **TLS1 with Suspended Arm**

A SAR XYZ/TLS1 is ideal for assembly stations where space is limited. It can be easily installed on most workplaces to help the operator handle the screwdriver in total safety and stability. The TLS1 System makes each operation truly error-proof: it tracks the X-Y-Z coordinates to make sure that each screw is tightened only when the screwdriver is in correct position. Max torque and reach are the same as SAR XYZ.

#### **Positioning Arm models**



TLS1/CAR Positioning Carbon Arm

TLS1/LINAR1 and TLS1/LINAR2



TLS1/LINART Positioning Folding Arm

TLS1/SAR XYZ Suspended Arm

shown trademarks are property of their respective owners

# Kolver Italy Hi-Performance Torque Programmable Electric Screwdrivers



Min distance between

# Positioning Arms / TLS1 Series

Code	Model	<b>Max Torque Nm</b>	Min Reach mm	Max Reach mm	Min distance between screws at max extension
010681/TLS1	LINAR1/TLS1	25	184	665	6 mm
010682/TLS1	LINAR2/TLS1	50	184	665	6 mm
010683/TLS1	LINART/TLS1	25	114	740	7 mm

Ellier of the follow	wing capies must be specified at time of purchase
260003/1	Cable to connect TLS system to EDU1FR/SG controller
260004/1	Cable to connect TLS system to EDU1BL/SG, EDU2AE, EDU2AE/HPro, EDU2AE/TOP or EDU2AE/TOP/TA controller
260004/KDU	Cable to connect TLS system to KDU controller

## Folding and Linear Positioning Arms with Autoadvance Kit

Code	Model	Arm Weight kg	Piston Stroke mm	Min Reach mm	Max Reach mm	screws (max extension)
010682/TLS1/A	LINAR2/TLS1/A	50	0 - 50	184	665	6
Either of the follow	ing cables must be sp	ecified at time of purch	ase			
0000004						

	•	•	•
260003/1	0-61-4-		- +- EDIHED/00

260003/1	Cable to connect TLS system to EDU1FR/SG controller
260004/1	Cable to connect TLS system to EDU1BL/SG, EDU2AE, EDU2AE/HPro, EDU2AE/TOP or EDU2AE/TOP/TA controller
260004/KDU	Cable to connect TLS system to KDU controller
Autoadvance Kit	

The Autoadvance kit can be supplied separately - to be installed on LINAR2/TLS1 and LINART/TLS1 to convert them into /A models.

# **Telescopic Positioning Arms**

020099

Code	Model	Max Torque Nm	Min Reach mm	Max Reach mm	Min distance between screws at max extension
010663/TLS1	CAR281/TLS1	25	490	950	9 mm
010664/TLS1	CAR282/TLS1	25	730	1650	15 mm
010665/TLS1	CAR501/TLS1	50	490	950	9 mm
010666/TLS1	CAR502/TLS1	50	730	1650	15 mm

#### Either of the following cables must be specified at time of purchase

260003/1	Cable to connect TLS system to EDU1FR/SG controller
260004/1	Cable to connect TLS system to EDU1BL/SG, EDU2AE, EDU2AE/HPro, EDU2AE/TOP or EDU2AE/TOP/TA controller
260004/KDU	Cable to connect TLS system to KDU controller

#### **Suspended Positioning Arms**

Code	Model	Max Torque Nm	Arm Weight kg	Vertical Stroke Z mm	Vertical Stroke X mm	Vertical Stroke Y mm
010690/XYZ/TLS1	SAR15 XYZ/TLS1	15	8	885	692	376
Tool holders for SAR	arm					
010695	Tool holder for PLU	JTO and RAF series ir	nline screwdrivers			
010698	Tool holder for FAB	, NATO & MITO serie	s inline screwdrivers			
010695/P	Tool holder for righ	t angle PLUTO screw	drivers (up to 15 Nm	1)		
010695/UNI	Universal Tool Hold	ler for any screwdrive	er (max diametre 47	mm)		
Either of the following	g cables must be spec	ified at time of purcl	hase			
260003/1	Cable to connect T	LS system to EDU1F	R/SG controller			
260004/1	Cable to connect T	LS system to EDU1B	L/SG, EDU2AE, EDU	2AE/HPro, EDU2AE/TOP or	EDU2AE/TOP/TA controller	
260004/KDU	Cable to connect T	LS system to KDU co	ontroller			

IMPORTANT: A diameter reduction adapter (code 234545) is required when LINAR and CAR arms are used with PLUTO35 or PLUTO50 screwdrivers (Ø 57 mm).

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





# Hand-held Transducerized Screwdrivers / K-Ducer Series





# KDS Hand-held Screwdrivers | Torque range 0.05 - 70 Nm

K-Ducer is the new A-class intelligent transducerized assembly system from Kolver®, the electric tool pioneer since 1989. The system consists of an advanced state-of-the-art controller and a range of handheld and fixtured electric screwdrivers with torque up to 70 Nm.

# **Finest accuracy and precision**

KDS transducerized electric tools cover all assembly line requirements for an accurate, high-quality torque and angle-controlled tightening experience.

A built-in compact transducer provides torque control with excellent repeatability.

#### **Excellent ergonomics**

KDS screwdrivers feature unsurpassed ergonomics, soft touch design, status LED, temperature protection combined with full traceability and error-proofing capabilities.

Available in straight, pistol and fixture configuration

## **Connectivity and Industry 4.0**

KDS tools are the ideal solution for your Industry 4.0 production line. Integrating the K-Ducer in your smart factory will be , thanks to effortless the built-in Modbus TCP and Open Protocol connectivity.

Built-in LED lights provide immediate feedback on each tightening process, i.e. you'll be able to check at a glance whether the part is correctly tightened or not.

KDS screwdrivers work in combination with KDU control units to gather, analyse and process detailed assembly information.

Their built-in transducer continuously reads torque and position of the screw and sends the gathered data to the KDU controller for analysis.

## **Available Housings**



INLINE (KDS-PL/ESD) - Inline versions available in lever start. ESD safe. KDS inline screwdrivers can also be supplied with built-in LED lights (KDS-PL/LED/ESD), which light up the area underneath while in use.



PISTOL GRIP - Trigger start, pistol grip available with top connector (KDS-PL P/U/ESD) or bottom connector (KDS-PL P/ESD). ESD safe.



ALUMINIUM HOUSING (KDS-PL) For torques over 20 Nm, with start and reverse buttons.



ANGLE MODELS (KDS-PL ANG/ESD) Inline models with angle head attached.

shown trademarks are property of their respective owners

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





# Hand-held Transducerized Screwdrivers / K-Ducer Series

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
165050	KDS-NT70	0.05 - 0.5	20 - 700	223 x 27	0.3	Hex 1/4"
165050/HM	KDS-NT70/HM	0.05 - 0.5	20 - 700	223 x 27	0.3	Half moon 4 mm
175015/ESD	KDS-MT1.5/ESD	0.1 - 1.5	50 - 850	254 x 40	0.7	Hex 1/4"
135006/ESD	KDS-PL6/ESD	0.5 - 6	50 - 850	251 x 40	0.7	Hex 1/4"
135010/ESD	KDS-PL10/ESD	0.8 - 10	50 - 600	251 x 40	0.7	Hex 1/4"
135015/ESD	KDS-PL15/ESD	0.5 - 15	50 - 320	251 x 40	0.7	Hex 1/4"
135020	KDS-PL20	2 - 20	10 - 210	297 x 43	1.3	Sq 3/8"
135035	KDS-PL35	3 - 35	10 - 140	318 x 43	1.8	Sq 3/8"
135050	KDS-PL50	5 - 50	10 - 90	322 x 43	1.8	Sq 1/2"

## Inline KDS Screwdrivers with front LED lights

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
175015/LED/ESD	KDS-MT1.5/LED/ESD	0.1 - 1.5	50 - 850	254 x 40	0.7	Hex 1/4"
135006/LED/ESD	KDS-PL6/LED/ESD	0.5 - 6	50 - 850	251 x 40	0.7	Hex 1/4"
135010/LED/ESD	KDS-PL10/LED/ESD	0.8 - 10	50 - 600	251 x 40	0.7	Hex 1/4"
135015/LED/ESD	KDS-PL15/LED/ESD	0.5 - 15	50 - 320	251 x 40	0.7	Hex 1/4"

## Pistol grip KDS Screwdrivers with bottom connector

Code	Model	Torque Nm	RPM min-max	<b>Dimensions mm</b>	Weight kg	Bit Drive
175016/ESD	KDS-MT1.5P/ESD	0.1 - 1.5	50 - 850	186 x 172 x 50	0.7	Hex 1/4"
135007/ESD	KDS-PL6P/ESD	0.5 - 6	50 - 850	186 x 170 x 50	0.7	Hex 1/4"
135011/ESD	KDS-PL10P/ESD	0.8 - 10	50 - 600	186 x 170 x 50	0.7	Hex 1/4"
135016/ESD	KDS-PL15P/ESD	0.5 - 15	50 - 320	186 x 170 x 50	0.7	Hex 1/4"

## Pistol grip KDS Screwdrivers with top connector

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
175016/U/ESD	KDS-MT1.5P/U/ESD	0.1 - 1.5	50 - 850	186 x 172 x 50	0.7	Hex 1/4"
135007/U/ESD	KDS-PL6P/U/ESD	0.5 - 6	50 - 850	186 x 170 x 50	0.7	Hex 1/4"
135011/U/ESD	KDS-PL10P/U/ESD	0.8 - 10	50 - 600	186 x 170 x 50	0.7	Hex 1/4"
135016/U/ESD	KDS-PL15P/U/ESD	0.5 - 15	50 - 320	186 x 170 x 50	0.7	Hex 1/4"

## **Angle head KDS Screwdrivers**

Code	Model	Torque Nm	RPM min-max	Dimensions mm	Weight kg	Bit Drive
175015/A/ESD	KDS-MT1.5ANG/ESD	0.1 - 1.5	50 - 850	288 x 40	0.7	Hex 1/4"
135006/A/ESD	KDS-PL6/ANG/ESD	0.5 - 5.5	50 - 850	288 x 40	0.7	Hex 1/4"
135010/A/ESD	KDS-PL10/ANG/ESD	0.8 - 9	50 - 600	288 x 40	0.7	Hex 1/4"
135015/A/1-4/ESD	KDS-PL15/ANG/1-4/ESD	0.5 - 12	50 - 320	326 x 40	0.9	Hex 1/4"
135030/A	KDS-PL30ANG	3 - 30	10 - 140	429 x 43	2.1	Sq 3/8"
135045/A	KDS-PL45ANG	4 - 45	10 - 90	450 x 43	2.8	Sq 1/2"
135070/A	KDS-PL70ANG	7 - 70	10 - 50	453 x 43	2.8	Sq 1/2"

IMPORTANT: Continuous use over 80% of torque range is not recommended.

shown trademarks are property of their respective owners.

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