THE EFFICIENCY OF SCREW-DRIVERS WITH INTEGRATED TRANSDUCER

K-DUCER screwdrivers represent the most advanced evolution in KOLVER fastening systems, designed to ensure the highest level of precision and high repeatability in assembly processes. They are the ideal solution to optimize productivity by guaranteeing error-proof fastening, with full traceability of results.

K-DUCER systems are flexible and intelligent, providing clear and comprehensive feedback on every fastening operation thanks to real-time monitoring of torque and angle parameters. Fully designed and manufactured in Italy, they are certified for use in ESD (electrostatic discharge) protected environments, ensuring high-quality standards even in the most critical applications.

The KOLVER® solution with transducer offers:

- Class-A fastening precision
- Real-time torque and angle control and monitoring
- Prevailing torque compensation
- Ergonomic design and lightweight construction
- Extensive programmability with up to 200 programs and 24 sequences
- Intuitive touch-screen interface with data and graph visualization
- Multiple communication ports for integration into production systems

Advanteges of KOLVER® screwdrivers with transducer:

- Maximum reliability and repeatability of the fastening process
- Complete traceability of fastening data
- Advanced error control
- Seamless integration into automated lines and robotic systems





KDS Hand-held Screwdrivers | Torque range 0.44 – 620 lbf-in

The K-DUCER is our A-class intelligent transducerized assembly system. The system consists of an advanced state-of-the-art controller and a range of handheld and fixtured electric screwdrivers with torque up to 620 lbf-in.

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 torque transducer provides closed-loop 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 (see ~~page~~ 12 for further information).

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 effortless, thanks to 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 or push to 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 177 lbf-in, with start and reverse buttons.



Inline KDS Screwdrivers, ESD-safe

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
165050	KDS-NT70	0.4 - 6.2	20 - 700	8.8 x 1	0.7	Hex 1/4"
165050/HM	KDS-NT70/HM	0.4 - 6.2	20 - 700	8.8 x 1	0.7	Half moon 0.16 in
165120	KDS-NT120	1.7 - 10.6	20 - 400	8.8 x 1	0.7	Hex 1/4"
165120/HM	KDS-NT120/HM	1.7 - 10.6	20 - 400	8.8 x 1	0.7	Half moon 0.16 in
175015/ESD	KDS-MT1.5/ESD	0.9 - 13.3	50 - 850	10 x 1.6	1.5	Hex 1/4"
135003/ESD	KDS-PL3/ESD	3.5 - 26.6	50 - 1800	9.9 x 1.6	1.5	Hex 1/4"
135006/ESD	KDS-PL6/ESD	4.42 - 53	50 - 850	9.9 x 1.6	1.5	Hex 1/4"
135010/ESD	KDS-PL10/ESD	7.1 - 88.5	50 - 600	9.9 x 1.6	1.5	Hex 1/4"
135015/ESD	KDS-PL15/ESD	4.42 - 133	50 - 320	9.9 x 1.6	1.5	Hex 1/4"
135020S	KDS-PL20S	17.7 - 177	20 - 240	10.3 x 1.6	1.5	Hex 1/4"
135020	KDS-PL20	17.7 - 177	20 - 210	11.7 x 1.9	2.9	Sq 3/8"
135035	KDS-PL35	26.6 - 310	10 - 140	12.5 x 1.7	3.9	Sq 3/8"
135050	KDS-PL50	44.3 - 443	10 - 90	12.7 x 1.7	3.9	Sq 1/2"

Inline KDS Screwdrivers with front LED lights, ESD-safe

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
175015/LED/ESD	KDS-MT1.5/LED/ESD	0.9 - 13.3	50 - 850	10 x 1.6	1.5	Hex 1/4"
135003/LED/ESD	KDS-PL3/LED/ESD	3.5 - 26.6	50 - 1800	9.9 x 1.6	1.5	Hex 1/4"
135006/LED/ESD	KDS-PL6/LED/ESD	4.42 - 53	50 - 850	9.9 x 1.6	1.5	Hex 1/4"
135010/LED/ESD	KDS-PL10/LED/ESD	7.1 - 88.5	50 - 600	9.9 x 1.6	1.5	Hex 1/4"
135015/LED/ESD	KDS-PL15/LED/ESD	4.42 - 133	50 - 320	9.9 x 1.6	1.5	Hex 1/4"

Pistol grip KDS Screwdrivers with bottom connector, ESD-safe

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
175016/ESD	KDS-MT1.5P/ESD	0.9 - 13.3	50 - 850	7.3 x 6.8 x 2	1.5	Hex 1/4"
135004/ESD	KDS-PL3P/ESD	3.5 - 26.6	50 - 1800	7.3 x 6.7 x 2	1.5	Hex 1/4"
135007/ESD	KDS-PL6P/ESD	4.42 - 53	50 - 850	7.3 x 6.7 x 2	1.5	Hex 1/4"
135011/ESD	KDS-PL10P/ESD	7.1 - 88.5	50 - 600	7.3 x 6.7 x 2	1.5	Hex 1/4"
135016/ESD	KDS-PL15P/ESD	4.42 - 133	50 - 320	7.3 x 6.7 x 2	1.5	Hex 1/4"
135020S/P	KDS-PL20S/P	17.7 - 177	20 - 240	7.9 x 6.7 x 2	1.5	Hex 1/4"

Pistol grip KDS Screwdrivers with top connector, ESD-safe

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
175016/U/ESD	KDS-MT1.5P/U/ESD	0.9 - 13.3	50 - 850	7.3 x 6.8 x 2	1.5	Hex 1/4"
135004/U/ESD	KDS-PL3/U/ESD	3.5 - 26.6	50 - 1800	7.3 x 6.7 x 2	1.5	Hex 1/4"
135007/U/ESD	KDS-PL6P/U/ESD	4.42 - 53	50 - 850	7.3 x 6.7 x 2	1.5	Hex 1/4"
135011/U/ESD	KDS-PL10P/U/ESD	7.1 - 88.5	50 - 600	7.3 x 6.7 x 2	1.5	Hex 1/4"
135016/U/ESD	KDS-PL15P/U/ESD	4.42 - 133	50 - 320	7.3 x 6.7 x 2	1.5	Hex 1/4"
135020S/PU	KDS-PL20S/PU	17.7 - 177	20 - 240	7.9 x 6.7 x 2	1.5	Hex 1/4"

2D and 3D drawings available on kolver.com // IMPORTANT: Continuous use over 80% of torque range is not recommended.

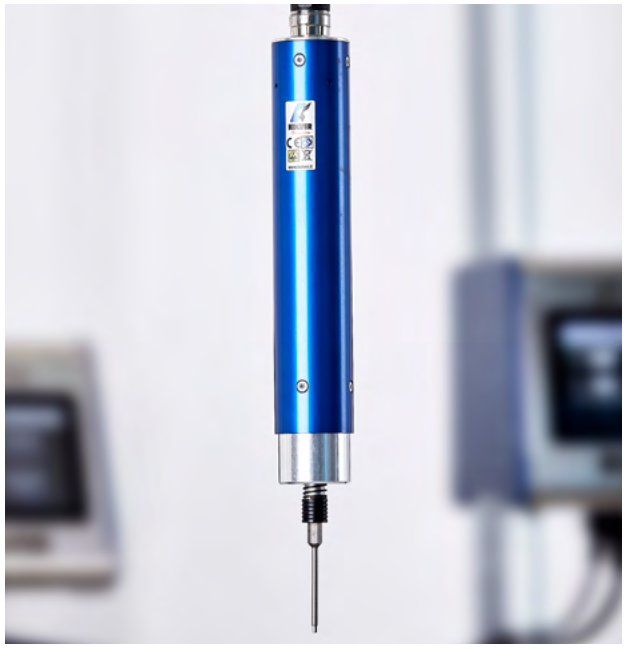
KDS Screwdrivers work in combination with KDU series controllers. See page 14 for further information.

Angle head KDS Screwdrivers, ESD-safe

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
175015/A/ESD	KDS-MT1.5ANG/ESD	0.9 - 13.3	50 - 850	11.3 x 1.6	1.5	Hex 1/4"
135003/A/ESD	KDS-PL3/ANG/ESD	3.5 - 26.6	50 - 1800	11.3 x 1.6	1.5	Hex 1/4"
135006/A/ESD	KDS-PL6/ANG/ESD	4.42 - 48.7	50 - 850	11.3 x 1.6	1.5	Hex 1/4"
135010/A/ESD	KDS-PL10/ANG/ESD	7.1 - 80	50 - 600	11.3 x 1.6	1.5	Hex 1/4"
135015/A/ESD	KDS-PL15/ANG/ESD	4.42 - 133	50 - 320	12.8 x 1.6	1.9	Sq 3/8"
135015/A/1-4/ESD	KDS-PL15/ANG/1-4/ESD	4.42 - 106	50 - 320	12.8 x 1.6	1.9	Hex 1/4"
135020/A	KDS-PL20/ANG	2 - 20	20 - 210	17.5 x 1.9	2.8	Sq 3/8"
135020S/ANG	KDS-PL20S/ANG	2 - 20	20 - 240	13 x 1.9	1.6	Sq 3/8"
135030/A	KDS-PL30ANG	26.6 - 266	10 - 140	17.6 x 1.9	4.6	Sq 3/8"
135045/A	KDS-PL45ANG	35.4 - 398	10 - 90	18.4 x 2.3	6.2	Sq 1/2"
135070/A	KDS-PL70ANG	62 - 620	10 - 50	18.5 x 2.3	6.2	Sq 1/2"
135070/A	KDS-PL70ANG	7 - 70	10 - 50	470 x 58	2.8	Sq 1/2"

2D and 3D drawings available on kolver.com // IMPORTANT: Continuous use over 80% of torque range is not recommended.

KDS Screwdrivers work in combination with KDU series controllers. See page 14 for further information.





KDS Screwdrivers for Automation | Torque range 0.44 – 443 in-lb

The KDS CA screwdrivers are part of the K-DUCER series for automated applications. They are the ideal solution for assembly lines with robots or any other machine requiring Industry 4.0 standards. The torque range covers 0.44 - 443 in-lb.

Excellent precision and accuracy

KDS transducerized screwdrivers are designed to ensure a high-quality torque and angle-controlled tightening experience.
The built-in transducer and torque-angle feature guarantee maximum precision and accuracy.

Perfect for automatic machines

KDS CA transducerized screwdrivers are very easy to install on robots, automatic machines and autofeeding systems.
KDS CA/FN models are supplied with flange and telescopic spindle specifically designed for demanding applications. Models with 90° angle heads for hard-to-reach screws are also available.

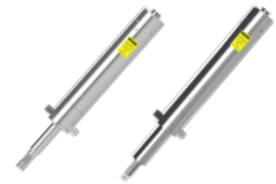
Designed for Industry 4.0

The K-Ducer series screwdrivers guarantee total traceability, according to Industry 4.0 standards. Their built-in LED signals provide immediate feed-back on each tightening process.
KDS screwdrivers work in combination with KDU control units to collect and analyse detailed assembly information. Integrating the K-Ducer in your smart factory will be effortless, thanks to the built-in Modbus TCP and Open Protocol connectivity.
The built-in transducer continuously reads torque and screw position and sends the collected data to the KDU control unit for analysis (more information on KDU features on page 14).

Available housings



ALUMINIUM BODY (KDS-PL CA) – Specifically designed for automation. Easy to install on any machine or robot.



ALUMINIUM BODY WITH FLANGE MOUNT (KDS-PL CA/FN) – Ideal for automated high volume/high duty applications.
Flange and telescopic spindle available together or separately.



Aluminium housing KDS Screwdrivers

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
165150	KDS-NT70CA	0.4 - 6.2	20 - 700	8.9 x 1	0.7	Hex 1/4"
165150/HM	KDS-NT70CA/HM	0.4 - 6.2	20 - 700	8.9 x 1	0.7	Half moon 0.16 in
165151	KDS-NT120CA	1.7 - 10.6	20 - 400	8.9 x 1	0.7	Hex 1/4"
165151/HM	KDS-NT120CA/HM	1.7 - 10.6	20 - 400	8.9 x 1	0.7	Half moon 0.16 in
175115	KDS-MT1.5CA	0.9 - 13.3	50 - 850	10 x 1.6	1.9	Hex 1/4"
135103	KDS-PL3CA	3.5 - 26.6	50 - 1800	9.8 x 1.6	1.9	Hex 1/4"
135106	KDS-PL6CA	4.42 - 53	50 - 850	9.8 x 1.6	1.9	Hex 1/4"
135110	KDS-PL10CA	7.1 - 88.5	50 - 600	9.8 x 1.6	1.9	Hex 1/4"
135115	KDS-PL15CA	4.42 - 133	50 - 320	9.8 x 1.6	1.9	Hex 1/4"
135020S/CA	KDS-PL20SCA	17.7 - 177	50 - 240	10.3 x 1.6	1.7	Hex 1/4"
135120	KDS-PL20CA	17.7 - 177	10 - 210	11.7 x 1.9	2.9	Sq 3/8"
135135	KDS-PL35CA	26.6 - 310	10 - 140	12.5 x 2.2	3.9	Sq 3/8"
135150	KDS-PL50CA	44.3 - 443	10 - 90	12.7 x 2.2	3.9	Sq 1/2"

Aluminium housing KDS Screwdrivers with flange mount

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
165150/FN	KDS-NT70CA/FN	0.4 - 6.2	20 - 700	12.4 x 1.6	2.4	Hex 1/4"
165151/FN	KDS-NT120CA/FN	1.7 - 10.6	20 - 400	12.4 x 1.6	2.4	Hex 1/4"
175115/FN	KDS-MT1.5CA/FN	0.9 - 13.3	50 - 850	12.4 x 1.6	2.4	Hex 1/4"
135103/FN-1/4	KDS-PL3CA/FN-1/4	3.5 - 26.6	50 - 1800	13.8 x 1.6	2.4	Hex 1/4"
135106/FN	KDS-PL6CA/FN	4.42 - 53	50 - 850	13.8 x 1.6	2.4	Sq 3/8"
135106/FN-1/4	KDS-PL6CA/FN-1/4	4.42 - 53	50 - 850	13.8 x 1.6	2.4	Hex 1/4"
135110/FN	KDS-PL10CA/FN	7.1 - 88.5	50 - 600	13.8 x 1.6	2.4	Sq 3/8"
135115/FN	KDS-PL15CA/FN	4.42 - 133	50 - 320	13.8 x 1.6	2.4	Sq 3/8"
135020S/CA/FN	KDS-PL20SCA/FN	17.7 - 177	50 - 240	14.4 x 1.6	1.7	Hex 1/4"
135120/FN	KDS-PL20CA/FN	17.7 - 177	10 - 210	15.1 x 1.9	3.5	Sq 3/8"
135135/FN	KDS-PL35CA/FN	26.6 - 310	10 - 140	16.1 x 2.2	4.6	Sq 3/8"
135150/FN	KDS-PL50CA/FN	44.3 - 443	10 - 90	16.5 x 1.7	5.1	Sq 1/2"

Aluminium housing KDS Screwdrivers with angle head

Code	Model	Torque lbf-in	RPM min-max	Dimensions in	Weight lb	Bit Drive
135103/A	KDS-PL3CA/ANG	3.5 - 26.6	50 - 1800	11 x 1.6	1.5	Hex 1/4"
135106/A	KDS-PL6CA/ANG	4.42 - 48.7	50 - 850	11 x 1.6	1.5	Hex 1/4"
135110/A	KDS-PL10CA/ANG	7.1 - 80	50 - 600	11 x 1.6	1.5	Hex 1/4"
135115/A	KDS-PL15CA/ANG	4.42 - 106	50 - 320	11 x 1.6	1.9	Sq 3/8"
135120/A	KDS-PL20CA/ANG	2 - 20	20 - 210	12.3 x 1.9	2.9	Sq 3/8"

2D and 3D drawings available on kolver.com // IMPORTANT: Continuous use over 80% of torque range is not recommended.

KDS Screwdrivers work in combination with KDU series controllers. See page 14 for further information.



KDU Controllers | K-Ducer Power Units

The KDU Series of controllers give you full control of your fastening operation in an industry leading compact size.

Features

With features like touch screen color display, multiple programs and sequences, intuitive programming interface, torque & angle control, prevailing torque monitoring & compensation, and graphs output, our KDU units provide unmatched performance and value.
KDU-1A and KDU-NT controllers will operate, respectively, all KDS and KDS-NT screwdrivers.

Easy to use

Set-up and operation are really an easy task. Units may be programmed either through the touch screen or via our free K-Expand PC software, which also features data acquisition and statistical process control functionality.

Connectivity and Industry 4.0

Industry 4.0 – The Fourth Industrial Revolution – is driving the evolution of the assembly process. The digitalization of manufacturing and assembly means shifting the way we look at manufacturing in terms of production optimization and automation.

Our KDU advanced controllers feature Modbus TCP and Open Protocol connectivity through a built-in ethernet port. Most other industrial communication protocols are also available with the support of external modules.
Finally, all of our KDU controllers are ready to be paired with our K-TLS smart positioning system, no additional controller necessary!

The more informed you are, the better decisions you can make. Having smart tools on your line means that you have specific tightening information fed into the production system – information concerning critical details of your components, materials and tightening process. This provides a valuable opportunity to increase efficiency and results in pro-active problem solving, alongside with considerable energy savings from efficiency improvements.

KDU control units

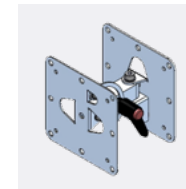
Code	Model	Description	Weight lb	Dimensions in
035001/A	KDU-1A	For KDS (non-NT)	5.5	7.5 x 8.1 x 4.7
033001	KDU-NT	For KDS-NT	3.3	7.2 x 6.7 x 2.7

Optional supports

A table stand or wall mount are available for KDU units.
Wall mounts can be easily installed on any vertical surface and allow KDU controllers to tilt up/down and left/right – place your KDU unit anywhere and adjust its position to best suit your needs.
A table stand ensures quick access to cables when placing your KDU unit on a flat surface. It is the best option in case you'd like to keep your KDU controller right at hand.



Pivoting table stand



Wall bracket

Supports for KDU control units

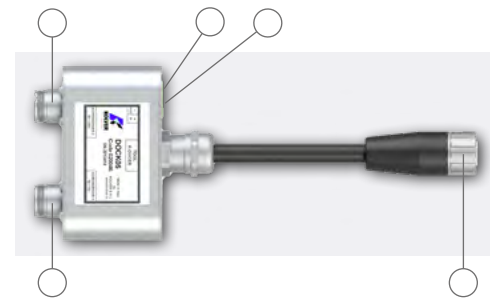
Code	Model	Description
010401	Wall mount tilting bracket	For wall or column use
010402	Pivoting table stand	For table use, tiltable

Features	**KDU-1A** For any KDS screwdriver (except for KDS-NT)	**KDU-NT** For KDS-NT screwdrivers
5" Touch Screen	•	•
Programs	200	64
Sequences	24	8
Digital Input	20	4
Digital Outputs	21	4
Torque & angle control	•	•
Real-time Torque graph	•	•
Bar code reading, linear and 2D	•	•
Multiple parameters	•	•
Prevailing Torque Monitoring & Compensation	•	•
Mini USB	•	•
USB Data Collection	•	•
Modbus TCP	•	•
Open Protocol	•	•
RS 232 (2)	•	
Industrial Protocols Support	•	•

Kolver's unique DOCK05 (code 020046) makes it possible to use two KDS screwdrivers with just one KDU-1A control unit – this means you can cut costs dramatically by purchasing one control unit instead of two.

Whenever two KDS screwdrivers are meant to be used one at a time, a DOCK05 is the best solution to maximize productivity at the lowest possible cost.

- Unique product – the first ever double output connector for transducerized tools in the market.
- Cut K-Ducer purchase costs by 40%.
- Fully compatible with KDU-1A – get the most out of your K-Ducer system.
- Instant tool recognition.
- Assign any KDU program or sequence to either screwdriver.

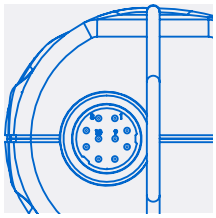


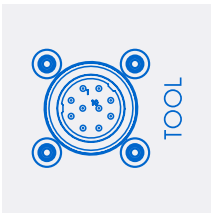




Cables | K-Ducer Screwdrivers and Control Units

Cables are required to complete any K-Ducer system, as they connect KDS screwdrivers to KDU control units.
They're made of sturdy materials to guarantee exceptional resistance to wear and tear.
Also, they're superquick to connect thanks to their one-click connector. Three different lengths are available to meet any production requirement.





Cables to connect KDS screwdrivers to KDU units

Code	Model	Description
250363	Cable 8ft for KDS-NT	8pin 8ft
250363/5	Cable 15ft for KDS-NT	8pin 15ft
250064	Cable 8ft	M16 10pin 8ft
250064/H	Cable 8ft, heavy duty	M16 10pin 8ft
250064/A	Cable 8ft, 90°, heavy duty	M16 10pin 8ft
250564	Cable 15ft	M16 10pin 15ft
250564/H	Cable 15ft, heavy duty	M16 10pin 15ft
250564/A	Cable 15ft, 90°, heavy duty	M16 10pin 15ft
250564/HS	Cable 15ft, spiral, heavy duty	M16 10pin 15ft
250764	Cable 21ft	M16 10pin 21ft