

FEEL THE FORCE

STAHLWILLE eClick



MADE IN CRONENBERG
MADE IN GERMANY

THE BEST OF BOTH WORLDS. DIGITAL MEASUREMENT. MECHANICAL FEEDBACK.

Feel precision and experience efficiency with eClick.

Electromechanical eClick torque tools from STAHLWILLE combine the best of both worlds: the digital accuracy of modern electronics and the familiar, mechanical feedback provided every time they are used. For anyone who wants to feel the precision and not just measure it.



Simply universal.

MANOSKOP® 714 eClick: universal angle-controlled torque wrench with four measuring modes and high-resolution OLED display. Available for torque ranges between 1 and 1,000 N·m.



TORSIOTRONIC eClick

For sensitive bolted joints.

TORSIOTRONIC® eClick: electromechanical torque screwdrivers with 1/4" square drive. Available for four different torque ranges between 0.12 and 10 N·m.



Simply precise.

MANOSKOP® 730D eClick: versatile, indicating and clicking torque wrench, available for several torque ranges between 1 and 1,000 N·m.



This is how eClick works!

eClick from STAHLWILLE is based on an innovative measuring and patented clicking system. The applied force changes the electrical resistance of the strain gauges. The change of the electrical resistance causes the voltage to change, which is measured and used to accurately measure the torque. A special electrical circuit ensures that this change in resistance is converted into N·m or other torque units. If the set target torque is reached, the electronics are triggered by a solenoid and a mechanism that operates with virtually no inertia.

For torque and angle-controlled torque wrenches, the solenoid releases the switching mechanism. The hammer lever rapidly moves upwards coming to a noticeable and audible stop – the trusted click. The defined slipping angle ensures that no continued load is applied in this range following the click. This secures the bolting process further.

In the torque screwdriver, the slipping clutch principle is applied via a ball-bearing mechanism that is triggered by a solenoid. This system generates the characteristic sensation of the mechanical click and also prevents further unintentional loading.



How eClick works on torque wrenches:
qr.stahlwille.com/eh18lg



How eClick works on torque screwdrivers:
qr.stahlwille.com/70lh38



Download the whitepaper now!

Read the whitepaper 'The bolt tightening revolution: from mechanics to mechatronics' and learn how innovative, electromechanical torque tools are changing the future of bolted joints.

qr.stahlwille.com/7jh60d

ONE TECHNOLOGY LOTS OF HIGHLIGHTS

eClick from STAHLWILLE is impressing an increasing number of companies. During and after the bolt tightening process, this technology shows its particular strengths, including convenient, digital, and accurate preliminary parametrisation, through to efficient use and exact measurement, as well as the storage of tightening data for quality assurance and documentation purposes.

By using eClick, companies are relying on patented premium technology that meets the demands of modern production standards, digital process documentation, and reliable quality assurance.

eClick



Perfect feedback.

- In addition to digital displays, the mechanical click provides noticeable and audible feedback – perfect when working overhead, in loud or bright working environments
- Real-time display of the torque actually applied
- Additional evaluation of the bolt tightening on the display (traffic light colours) and via LEDs on the side



Efficient precision.

- Pre-programmable bolted joints, complete sequence plans, and digital data acquisition reduce set-up times and accelerate assembly processes
- Correct measurement of the torque even if the gripping position is incorrect (model dependent)
- The digital input ensures there are no parallax effects and no inaccuracies
- Automatic calculation of the adjusted setting value if a different extension length is used



Comprehensive documentation.

- Saves the tightening torques actually achieved
- Easy data transfer to the PC via cable or wireless connection
- Convenient further processing in STAHLWILLE software solution
- Secure documentation to protect against recourse or complaints

Practical example: efficient bolted joints in the rail industry

At Knorr-Bremse in Mödling, Austria, more than 140 torque tools, including eClick angle-controlled torque wrenches and torque screwdrivers are used to achieve accurate and documented bolted joints, as well as smooth production processes. The result: maximum process reliability, noticeably increased efficiency, and a new level of ease of use for users.

This success story highlights how digitalisation and practical experience complement one another perfectly, and how eClick makes a difference when every torque and angle of rotation counts.

Read the complete success story at the link below.



qr.stahlwille.com/0124pe



WHY eClick IS THE BETTER OPTION

The sturdy design and trusted click of the mechanical torque wrenches have been impressing customers for decades. However, in modern production processes, these tools are reaching their limits. Electronic torque wrenches provide digital accuracy and comprehensive documentation, but often require users to give up the ease of use they are accustomed to. The following comparison illustrates why STAHLWILLE eClick offers decisive advantages in comparison to mechanical and electronic torque wrenches, and is thus defining the future of bolted connections.

Advantages compared to mechanical torque wrenches

- **Bolted joint evaluation** – the torque actually applied is displayed directly. Faulty bolted joints can be detected immediately.
- **Storage and documentation** – all of the tightening torques can be saved for the purpose of quality assurance and traceability.
- **Accurate adjustment** – digital torque values can be set quickly and accurately without any inaccuracies caused by the parallax effect or analogue scales.
- **Greater measuring accuracy** – thanks to strain gauges
- **Fewer accuracy deviations** – $\pm 2\%$ in comparison to $\pm 3\text{--}4\%$ for mechanical torque wrenches, for example
- **Real-time display** – visual feedback (traffic light colours, display) in addition to the click.
- **Smart technology** – calculation of the adjusted setting value if a different extension length is used and automatic correction of an incorrect hand position (lever compensation).*
- **Standardised processes** – bolted joints and sequence plans can be pre-programmed. This increases process reliability.*

* Model dependent



MECHANICAL

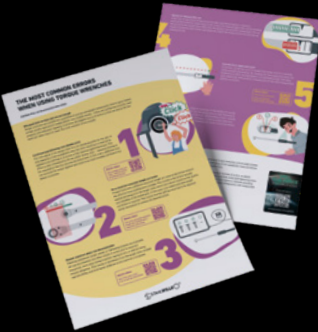
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ELECTRONIC



Advantages compared to electronic torque wrenches

- **Noticeable and audible feedback** – the trusted click, just like that of a mechanical wrench, ensures safety, as well as intuitive and fast work processes.
- **High level of user acceptance** – workers do not have to fully rely on purely digital signals, such as vibrations, acoustic feedback, or visual displays, but retain the sense of the tool they are accustomed to.
- **Sturdy and practical** – designed to be used reliably in day-to-day production.
- **Increased process reliability** – fewer operating errors thanks to double safeguards: noticeable click and visual evaluation.
- **Perfect for overhead applications** – clear, noticeable feedback, even during difficult applications.
- **No immediate additional load after clicking** due to the free pivot angle.



The most frequent user errors and how they can be avoided.

To learn how to avoid assembly errors and significantly increase your process reliability, read the information document "The most frequent application errors and how modern torque technology eliminates them".

qr.stahlwille.com/1wm40h

ANGLE-CONTROLLED TORQUE WRENCH MANOSKOP® 714 eClick

MANOSKOP® 714 / 714R eClick is a universally applicable, electromechanical angle-controlled torque wrench that detects minor deviations and is available for different torque ranges between 1 and 1,000 N-m. Bolted joints are also evaluated via the display and by traffic light colours via the two LEDs positioned on the side. MANOSKOP® 714 eClick is a versatile electromechanical torque wrench.

- Electromechanical angle-controlled torque wrench with eClick technology
- Angle of rotation accuracy $\pm 1^\circ$, ± 1 digit up to 100° , $>100^\circ$ at least 1%, ± 1 digit; torque accuracy $\pm 2\%$, ± 1 digit)
- 'Click', 'Peak Hold', and 'Track' operating modes
- QuickRelease locking system protects against loss of tools
- Saves up to 2,500 pieces of tightening data with a time stamp and 200 bolted joints in 25 sequence diagrams
- Automatic extension length correction
- Clockwise and anticlockwise tightening (insert tool must be flipped over for anticlockwise tightening in 'Click' mode)
- Displays the torque and angle of rotation while tightening the bolt
- Measurement regardless of the force application point (for sizes 1, 2 and 4)
- Optional communication modules for Bluetooth LE and WLAN



The versatile option.

MANOSKOP® 714 eClick has four measuring modes: torque, angle of rotation, and the combined methods of torque with 'angle of rotation' monitoring variable, and angle of rotation with 'torque' monitoring variable. The angle-controlled torque wrench can thus be used for simple, as well as demanding bolting processes.

Maximum process reliability.

A major advantage of the combined methods is that two independent measuring systems work in parallel, ensuring that incorrect measurements are virtually eliminated.

Comprehensive quality assurance.

MANOSKOP® 714 eClick is perfect for modern assembly processes that must be documented. Up to 2,500 bolting processes can be saved, and subsequently read out and analysed via interfaces.

ONE PIECE OF SOFTWARE, MANY ADVANTAGES SENSOMASTER

The SensoMaster software was developed so that users could benefit from the maximum safety, precision, and efficiency of digital torque tools from STAHLWILLE. It is the perfect addition to eClick torque tools.

- Complete solution for setup, parametrisation, management, and documentation tasks
- Intuitive user interface with self-explanatory tabular structure
- Fast and simple programming of electronic and electromechanical tools
- Automatic tool detection and synchronisation with the PC
- Secure documentation of tightening data
- Extensive options to evaluate data as part of quality assurance processes
- Optional live curve measurement



Simple tool configuration.

SensoMaster enables you to configure all of the digital torque tools on one PC. Simply prepare bolted joints/sequence plans and wrench parameters on the PC, and transfer them to the tools. This saves time, eliminates sources of error, and guarantees consistent results.

Complete documentation.

All of the tightening data can be read out, saved, and managed. Every bolted joint is documented in a traceable manner – perfect for quality assurance, certifications, or traceability in the event of complaints. This increases transparency and traceability.

Upgrades for analysis.

SensoMaster can be expanded to include SensoMaster Live, if required. This includes additional functions, such as the time-based recording of the torque and angle of rotation, as well as the graphic comparison of curves. Deviations during the bolting process are thus highlighted and the production quality is guaranteed.



TORQUE SCREWDRIVER TORSIOTRONIC® eClick

Torque screwdrivers are being used in an increasing number of areas. They guarantee precisely defined bolt tightening, especially when low torques are required. Anyone who does not want to forgo the feeling of a mechanical click can opt for the TORSIOTRONIC® with eClick.

- Electromechanical torque screwdriver with eClick technology and ¼" square drive; indicating and clicking
- Available for four different torque ranges between 0.12 and 10 N·m
- Can be used for clockwise and anticlockwise tightening
- Adjustable units of measurement cN·m, N·m, ft·lb, in·lb, and in·oz
- Tolerances to evaluate measured values can be defined individually
- Stores up to 2,500 bolting processes
- Integrated ratchet with 80 teeth and a working angle of 4.5°
- Optional communication modules for Bluetooth LE and WLAN



Precise bolted joints.

With a working range of 0.12 to 10 N·m, the TORSIOTRONIC® eClick is perfect for delicate bolted joints in electronics and precision mechanical components, for example. Extremely low torque ranges are recorded accurately so that the bolted joints on delicate components can be implemented safely and in a controlled manner.

Digital precision.

TORSIOTRONIC® eClick saves the actual torque values that were applied. A consistently high bolting quality is ensured by the direct evaluation of the results based on the pre-defined tolerance ranges.

No overtightening.

After the click, the slipping mechanism prevents the defined tightening torque from being exceeded. Overtightening the bolt is thus practically impossible.

4 versions | 12 to 1,000 cN·m

TORQUE WRENCH MANOSKOP® 730D eClick

The universally applicable MANOSKOP® 730D / 730DR eClick impresses with maximum precision and a deviation of just $\pm 2\%$ (± 1 digit), while simultaneously providing the trusted, haptic feedback when the target value is reached. It is suitable for a variety of assembly and service tasks. Optionally, the angle of rotation function can be added as an upgrade, ensuring that the MANOSKOP® 730D eClick can be flexibly adjusted to different process requirements.

- Electromechanical torque wrench with eClick technology
- High-resolution colour OLED display
- Intuitive user interface and clear design of the operator panel with four buttons
- Quick adjustment of the torque: direct adjustment of the target value without lengthy menu navigation
- Visual evaluation of the bolted joint using traffic light colours
- Clockwise and anticlockwise tightening (insert tool must be flipped over for anticlockwise tightening in 'Click' mode)
- Tolerance values can be defined individually for different bolt tightening processes
- No accidental adjustment thanks to automatic key lock
- Optional communication modules for Bluetooth LE and WLAN
- Extension length correction



Perfect introduction.

MANOSKOP® 730D eClick focuses on the essentials: accurate, digital torque measurement, simple operation, and intuitive control. It does not include additional functions, making it particularly compact, and easy to use with a clear design.

Upgrade flexibility.

If requirements change, the angle of rotation measuring method can be activated, if necessary. The range of applications of the 730D eClick is thus expanded without having to invest in additional tools.

Proven quality.

The storage of up to 2,500 pieces of tightening data and simple transfer via USB, Bluetooth LE, and WLAN provide completely traceable documentation which is important for audits, complaints, and internal QA specifications.

20 versions | 1 to 1,000 N·m



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eClick

6 reasons to switch to eClick

Maximum precision

Digital measurement can eliminate typical user errors, such as an incorrect force application point, the parallax effect, or an incorrect extension length calculation. Incorrect tightening values are immediately visible.

Comprehensive documentation

All of the torque values and bolted joint data can be saved, ensuring they are traceable and tamper-proof, and providing a significant advantage during audits and recourse claims.

Clear feedback

In addition to digital displays, the mechanical click provides noticeable and audible feedback – perfect when working overhead, in loud or bright working environments.

Increased process efficiency

Pre-programmable bolted joints, complete sequence plans, calculation of the adjusted setting value to be corrected if a different extension length is used, and digital data acquisition all reduce set-up times and accelerate assembly processes.

High level of acceptance by users

eClick torque tools feel the same as their mechanical equivalents, but include all of the advantages digital technology has to offer. It is easy for the worker to make the switch.

Future-proof investment

By opting for eClick, companies are investing in a patented premium technology that meets the highest requirements for quality assurance and modern production standards.

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