

**Garant****Electronic torque wrench / rotational angle wrench, maximum torque: 12N·m****Order data**

Order number	655013 12
GTIN	4062406577889
Item class	61D

**Description****Version:**

- **Display:** Large sharp contrast illuminated 2.8 inch TFT display with double scale with viewing angle stability. With battery display and memory display. Torque and rotational angle both displayed at the same time.
- **Display:** Peak and Track function modes.
- **Modes:** Displaying torque, triggering torque, triggering rotational angle, triggering rotational angle with rotational angle monitoring, triggering rotational angle with torque monitoring. Up to 100 screw tightening profiles can be programmed. Recurrent screw tightening profiles can be summarised into a procedure (up to 10 procedures each with up to 10 screw tightening profiles). Screw tightening profiles and procedures can be programmed directly on the wrench.
- **Memory capacity:** 1000 measurement values with timestamp (incl. date and time).
- **Data output:** Available via USB-C. The data can be exported as a .csv file.
- **Password protection:** available as protection against unauthorised access to the menu (master password) and for verifying screw-tightening cases and procedures. In addition, you can set that reworking a screw connection that has been performed incorrectly requires input of a password.
- **Warning signal outputs** are haptic (vibration), visual (change of colour at the display, visible through 360° in any direction due to the LED ring with "traffic light function") and acoustic (buzzer, beep sound). The pre-warning point can be configured individually. Haptic and acoustic warning signals can be disabled if desired.
- **Easy input of reference dimensions:** For tools with a different pitch setting simply input the new pitch. No laborious calculations with formulae.
- **Protection class IP40**

- **The 2-component handle of the torque / rotational angle wrench ensures specially good ergonomics and high torque transmission.**
- **Resistant to oils, grease, fuel, brake fluid and Skydrol.**
- **Languages: German, English, Spanish, Italian, French.**
- **Factory settings: The wrench can be reset to the factory settings.**
- **Display of the software version with serial number, load cycle counter and calibration date.**
- **Calibration reminder: after number of load cycles.**
- **Units of measure: Nm, lbfft, lbt-in.**

**Standard:**

Geprüft nach DIN EN ISO 6789.

**Accuracy:**

**Torque:** Clockwise  $\pm 2\%$ , anticlockwise  $\pm 3\%$ .

**Rotation angle:**  $\pm 1^\circ$  for the measurement range up to  $100^\circ$ ,  $\pm 1\%$  for the measurement range  $100^\circ$  and beyond.

**Cutting dataa:**

**Legend for drawing and formula:**

$l_1$  = Lever length without plug-in head

$l_2$  = Adjusted reference dimension on the torque wrench

$l_3$  = Lever length including factory calibration reference dimension

$l_4$  = Reference dimension of the plug-in head

L = Total length of the tool

$T_1$  = Torque to be set

$T_2$  = Specified torque

**Supplied with:**

USB-C data cable, plug-in ratchet (reversible) with ejector, 1 commercially available Li-ion battery type 18650 3.6V / 3400 mAh (can be charged directly within the tool via the USB-C port). Supplied in a sturdy plastic case.

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**Note:**

Suitable additional batteries can be found under No. 081574 size 3500. Charger for 4 batteries available as options under: 081590 size 4ULTRA.

## Technical description

Measuring accuracy rotational angle	$\pm 1\%$
Measurement technology	electronic
Torque range	1.8 - 8.85 lbfft
Release signalling	haptisk

Release signalling	haptisk
Release signalling	acoustic
Weight	735 g
Power supply	Rechargeable battery-powered
Overall length L	370 mm
maximum torque	12 Nm
Lever length without plug-in head [I <sub>1</sub> ]	282 mm
Display diagonal	2.8 in
Torque range	2.4 - 12 Nm
Interface	USB interface
Lever length including factory calibration reference dimension [I <sub>3</sub> ]	303 mm
Adjustable trigger value	adjustable
Standard	DIN EN ISO 6789
Test certificate	Manufacturer's test certificate
Measurement process	Rotation angle
Measurement process	Torque
Battery capacity	3.4 Ah
Adjusted reference dimension on the torque wrench [I <sub>2</sub> ]	21 mm
Torque range	21.2 - 106.2 lbf·in
Direction of tightening	For right and left-hand tightening
Resolution	0.01 Nm
Connection format	for plug-in heads (rectangular socket)
Nominal voltage	3.6 V
Trigger principle	Vibration motor
Measuring accuracy rotational angle	±1 degrees
Socket for plug-in head	9×12 mm
Data can be recorded	yes
Type of rechargeable battery	Lithium-ion
Setting the trigger value	digital, adjustable

Angular resolution	0.1 degrees
Square drive	1/4 in
Battery type	18650
Calibration	O5
Calibration	O3
Reversible reading	lbf·in
Reversible reading	lbf·ft
Reversible reading	Nm
Number of rechargeable batteries contained	1
Feedback	displaying
Torque measuring accuracy	±2 %
Torque measuring accuracy	±2 %
Exchangeable tool	Plug-in head
Display	digital
Type of product	Torque Wrench

## Services

CalibrationTorque wrench clockwise / anti-clockwise maximum torque 400/2 N·m	020030 400/2
CalibrationRotation angle Type W	020070 W
DAkkS calibrationTorque wrench clockwise / anti-clockwise maximum torque 1000/2 N·m	020040 1000/2

## Accessories

Electronic torque wrench / rotational angle wrenchHCT maximum torque 12 N·m	655010 12
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