



In professional hands  
since 1886.

# Easy to use, precision work: Window clicker torque wrench



# Torque wrench with permanent ratchet



Magnifying window scale enables easy, accurate read-off.

Strong, reversible ratchet, 32 teeth, 11.25° pivot range.

A spring-loaded ball ensures the sockets are firmly attached and cannot fall off. The release mechanism enables sockets to be removed and changed quickly at the push of a button.

The required torque is quickly set via a pull-out setting knob in the handle.

When the preset torque is attained, the wrench produces both audible and tactile signals.

Right-hand turn for controlled screw tightening.




Accuracy is in accordance with DIN/ISO 6789.1993, EN26789.1994

User friendly designed, comfortable handle

Chromium-plated

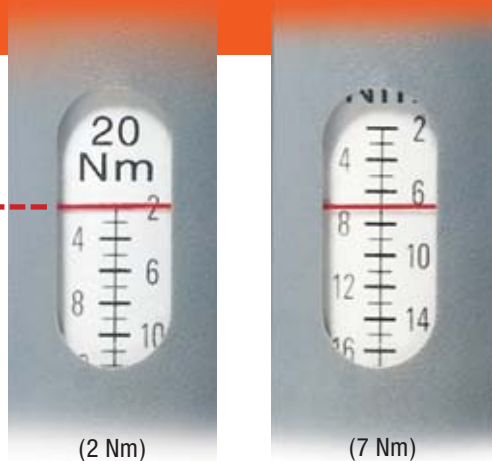
With test certificate in accordance with DIN/ISO 6789.1993, EN26789.1994

## Measuring Range in Nm = Newton-Metre

| Art. Code | EAN-Code |  | Capacity  | Graduation Scale | Handle | Drive  | Length mm |  |
|-----------|----------|---|-----------|------------------|--------|---|-----------|---|
| 7451-20   | 1845452  | 1   | 2-20 Nm   | 1 Nm             | 0.1 Nm | 3/8"  | 355       | 900   |
| 7451-100  | 1845469  | 1   | 10-100 Nm | 5 Nm             | 0.5 Nm | 3/8"  | 418       | 1000  |
| 7851-200  | 1845476  | 1   | 20-200 Nm | 10 Nm            | 1 Nm   | 1/2"  | 515       | 1300  |
| 7851-340  | 1845483  | 1   | 70-340 Nm | 20 Nm            | 2 Nm   | 1/2"  | 515       | 1300  |



# Torque wrench for interchangeable insert tools



(2 Nm)

(7 Nm)

The right torque readings at a glance





For all assembly jobs, especially where access with conventional sockets is not possible.

Right-hand turn for controlled screw tightening (the torque wrench can also be used for controlled left screw tightening, when turned over by 180°).

Accuracy is in accordance with DIN/ISO 6789.1993, EN26789.1994.

## Measuring Range in Nm = Newton-Metre

| Art. Code | EAN-Code<br>731415+ |  | Capacity  | Graduation<br>Scale | Handle | Insert<br>mm | Length<br>mm |  |
|-----------|---------------------|---|-----------|---------------------|--------|--------------|--------------|---|
| 6852-20   | 1845490             | 1   | 2-20 Nm   | 1 Nm                | 0.1 Nm | 9x12         | 355          | 800   |
| 7452-100  | 1845506             | 1   | 10-100 Nm | 5 Nm                | 0.5 Nm | 9x12         | 380          | 900   |
| 7852-200  | 1845513             | 1   | 20-200 Nm | 10 Nm               | 1 Nm   | 14x18        | 493          | 1300  |
| 7852-340  | 1845520             | 1   | 70-340 Nm | 20 Nm               | 2 Nm   | 14x18        | 493          | 1300  |



## Calculating scale settings where an extension arm is used with the torque wrench

Each torque wrench has been specifically designed for a specific maximum scale reading and tested at this level. For various reasons, it may be necessary in practice to add an extension arm. To this end it is necessary to adjust the programming.

The required settings may be calculated using the following formula: 
$$C = \frac{L1 \times T}{L1 + B}$$

L1 = Length of the lever arm on the torque wrench itself

B = Distance between the two pivot centres after attaching the extension

T = Tightening torque of the bolt

C = Setting value

Example:

L1 = 425 mm

B = 40 mm

T = 20 Nm

C = ?

$$C = \frac{0,425 \times 20}{0,425 + 0,040} = \frac{8,5}{0,465} = 18,28$$

$$C = 18,28 \text{ Nm}$$




## 7451-DEMO-KIT





# Torque Angle Gauge

Automotive manufacturers prescribe both torque and rotational angle settings for fastening elements used in vehicles. Angle controlled torquing gives initially “snug” torque, then turns the fastener a step further to the optimum torquing angle. Torque is measured to the maximum safe working load, while preventing overtorquing and damage to the fasteners.



Large, easy to read scale with oil resistant, non-reflective surface. The angle indicator clearly indicates the angular reading. The adjustable reference arm is firmly attached to a non-moving part of the machine and prevents the scale turning.

| Art.-Code | EAN-Code |  | Drive  |  |
|-----------|----------|---|--|---|
| 7851-DW   | 1846602  | 1   | 1/2"  | 155   |
| 8951-DW   | 1846619  | 1   | 3/4"  | 520   |



1/2"  female square drive on the input side.  
1/2"  male square drive on the output side.



3/4"  female square drive on the input side.  
3/4"  male square drive on the output side.

