

05

TORQUE WRENCHES



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Why is controlled fastener tightening important?

Anyone involved in modern engineering will already know how important controlled tightening is. To ensure safe, dependable threaded joints, clearly defined tightening forces are essential, irrespective of whether the forces to be applied are large or small (such as is the case with light-weight materials with a low yield point).

The decision on the correct tightening force is subject to a number of factors. These include the fastener's thread pitch, the friction in the thread and the material under the nut or screw head. Once all the relevant factors have been taken into account, this results in the required tightening force that will ensure the bolted joint will not become loose even under dynamic loading. By the same token, this tightening force must not be too high as this can also cause the bolted joint to fail.

What exactly is torque?

Torque is a physical quantity in mechanics. The international unit of measure for moment of force, or torque, is the newton metre, N m.

Torque is defined as a force acting perpendicular to a moment arm.

$$M = F \cdot r$$

A torque wrench is constructed in such a way that it is operated by applying force to the handle. If the lever ratio is changed in any way, this will result in incorrect torque values – a key issue that is referred to in the documentation for all ELORA torque wrenches.

Screw tightening using torque and tightening angle

In many cases, it is sufficient to tighten a bolt or screw to a certain defined torque. To ensure the application of accurate, defined tightening forces, special expanding screws are used. Screws of this type may only be used once. In the first stage, they are tightened to a defined torque and then a specified tightening angle is applied to tighten the screw beyond the elastic limit of the bolt.

This enables a much more accurate tightening force to be achieved.

In addition to an ELORA torque wrench, angle controlled tightening requires a mechanical angle measuring instrument (ELORA no. 2184...).

Calibration and the calibrating interval

The calibration process determines and documents how large any deviation between the torque wrench and a predefined, prescribed standard measuring instrument is. If the result of the test shows that the tool is outside the permitted tolerance, the torque wrench can be adjusted and, where appropriate, recalibrated in accordance with DIN EN ISO 6789. According to that standard, a torque wrench has to be recalibrated after 12 months or 5000 load-changes, whichever happens first.



ELORA works certificate

Every ELORA torque wrench leaves the factory accompanied by an ELORA works certificate in accordance with DIN EN ISO 6789. ELORA Customer Services will service and recalibrate your torque wrench quickly and for a reasonable price. If required, we can also supply a DKD calibration certificate.

2179-...

TORQUE WRENCH, WITH VERNIER SCALE

- for controlled torque application from 10 – 335 Nm
- main measurement unit for Nm with vernier scale, auxiliary measurement unit for ft-lb
- click type torque wrench
- safe locking of the set torque value
- for clockwise fixing
- with robust, matt steel tube
- all models with reversible ratchet and robust ELORA D-ratchet mechanism
- very noticeable and hearable („click“) signal
- calibration accuracy of +/- 3% of the pre-set torque value, exceeds the requirement of the norm (+- 4%) for your safety
- classified according to DIN EN ISO 6789:2003 Type II Class A, with traceable factory calibration certificate

Product features

- Broad range of applications
- High degree of availability
- Highly economical
- Very service-friendly
- Complies with DIN/ISO 6789 2014

10	12,5
3/8"	1/2"



Code	Number	□	Head	Measuring range Nm	Measuring range ft.lb.	l/mm	Pieces	Weight/g
2179000601000	2179-60	3/8"	Reversible ratchet	10-60	9-45	360	1	820
2179001251000	2179-125	1/2"	Reversible ratchet	25-125	15-75	438	1	900
2179002001000	2179-200	1/2"	Reversible ratchet	40-200	30-150	460	1	1002
2179003351000	2179-335	1/2"	Reversible ratchet	65-335	50-250	520	1	1160

The perfect torque wrench – latest updates

German industrial standard DIN ISO 6789 is binding on manufacturers of torque wrenches. The ISO committee has reworked the standard and the new version is due to come into force at the end of 2014. As a result, the latest ELORA torque wrenches numbered 2179-... have been designed in such a way that they fully comply with the comprehensive requirements of the new ISO 6789 2014.

The most important requirements

The torque wrench should be accurate to within $\pm 4\%$ of the preset value. The working range covers 20-100% of the maximum torque. The torque wrench should be able to produce a tightened joint to within 4% of the target torque at the first "click".

The scale gradation should be designed in such a way that a user can set the target torque without making mistakes. Access to the adjustment screw should be simplified to enable adjustments to be made quickly and therefore at lower expense.

Wide range of applications

The torque wrench must work accurately even when subjected to extreme fluctuations in temperature and in environments in which dust and moisture are commonly encountered. This is why ELORA torque wrenches are intensively tested under all conceivable operating conditions at ELORA's own calibration laboratory. The latest generation of ELORA torque wrenches, series 2179-... and 2034, have all passed the tests with flying colours.

A particularly important feature is the temperature accuracy of our calibration to ISO 6789 of $\pm 4\%$ at temperatures from -15 to $+40^\circ\text{C}$. The design of the tool, the torquing mechanism and the choice of components and materials are further evidence of ELORA's innovative approach to professional products enabling efficient working.

High availability and economy

ELORA has succeeded in achieving the ambitious objective of increasing the periods of effective use between re-adjustments to considerably more than 5000 "clicks" with no errors or loss in accuracy. Extensive long-term tests have demonstrated convincingly that the torque wrenches managed 8000 "clicks" with no problems.

2185-...

TORQUE WRENCH 1/2"

- for controlled torque application from 20 - 350 Nm / 15 - 250 ft-lb.
- dual measurement scale for Nm and ft.lb.
- scale slider and window with magnifier for quick setting of the target torque value
- locking screw for safe locking of the set torque value
- for clockwise fixing
- with robust, matt steel tube
- all models with fine tooth, reversible ratchet
- very noticeable and audible ("click") signal
- calibration accuracy of +- 3% of the pre-set torque value
- classified according to DIN EN ISO 6789:2003 Type II Class A, with traceable factory calibration certificate

12,5

1/2"



Code	Number	□	Head	Measuring range Nm	Measuring range ft.lb.	l/mm	Pieces	Weight/g
2185001002000	2185-100	1/2"	Reversible ratchet	20-100	15-80	450	1	1200
2185002002000	2185-200	1/2"	Reversible ratchet	40-200	30-150	450	1	1200
2185003502000	2185-350	1/2"	Reversible ratchet	60-350	42-250	590	1	1400

2130 - 2160

TORQUE WRENCH

- for controlled torque application from 2,5 - 2000 Nm
- quad measurement scale for Nm, kgm, in-lb and ft-lb
- click type torque wrench with very noticeable and audible ("click") signal
- with rigid push through square drive for controlled bi-directional fixing
- extra solid, matt-chrome plated steel construction
- adjustable and safe lockable by crank and the top end of the handle
- calibration accuracy of +- 4%
- classified according to DIN EN ISO 6789:2003 Type II Class A, with traceable factory calibration certificate

10

12,5

20

25

3/8"

1/2"

3/4"

1"



Code	Number	□	Measuring range Nm	Measuring range kgm	Measuring range in.lb.	Measuring range ft.lb.	Graduation Nm	Graduation kgm	Graduation in.lb.	Graduation ft.lb.	l/mm	Pieces	Weight/g
2130000112000	2130-11	3/8"	2,5-11	0,3-1,2	20-100	2-8	0,5	0,2	10	0,5	301	1	560
2130000332000	2130-33	3/8"	5-33	0,5-3,4	40-300	4-24	1	0,2	10	1	410	1	690
2130000682000	2130-68	3/8"	12-68	1,2-7	100-600	10-50	2	0,2	20	2	482	1	1000
2140000682000	2140-68	1/2"	12-68	1,2-7	100-600	10-50	2	0,2	20	2	482	1	1000
2140001352000	2140-135	1/2"	25-150	2,5-15	200-1300	20-110	5	1	50	2	560	1	1700
2140002252000	2140-225	1/2"	50-250	5-25	450-2200	40-180	10	1	50	5	610	1	2300
2140003302000	2140-330	1/2"	70-350	7-35	500-3100	50-260	10	1	100	10	780	1	3000
2150008102000	2150-810	3/4"	150-800	15-80	1400-7000	120-580	20	2	200	20	940	1	6500
2160009402000	2160-940	1"	200-1000	20-100	1800-8500	150-750	25	2,5	250	25	1030	1	9700
2160020002000	2160-2000	1"	500-2000	50-200	4500-17500	350-1500	50	5	500	50	1410	1	18000

You will find slip on ratchets 1/2", reversible on page 145



You will find slip on ratchets 3/4", reversible on page 176



2070-...

TORQUE WRENCH 3/4" WITH VERNIER SCALE

- for controlled torque application from 11 - 2000 Nm
- excellent readable measurement unit for precise, correct adjustment
- main measurement unit for Nm with vernier scale, auxiliary measurement unit for ft-lb
- safe locking of the set torque value
- bi-directional fixing
- push through ratchet 3/4" with 10° smallest swivel angle
- with robust, matt steel tube
- wear-free mechanism made from hardened special tool steel
- with very noticeable and audible ('click') signal
- ergonomic, impact resistant plastic handle
- calibration accuracy of +- 4%
- classified according to DIN EN ISO 6789:2003 Type II Class A, with traceable factory calibration certificate

20

3/4"



Code	Number	Head	Measuring range Nm	Measuring range ft.lb.	Graduation Nm	Fine dial Nm	l/mm	Pieces	Weight/g	
2070005001000	2070-500	3/4"	Push through ratchet	100-500	75-375	25	5	822	1	3800
2070008001000	2070-800	3/4"	Push through ratchet	160-800	120-600	40	5	1022	1	4660
2070010001000	2070-1000	3/4"	Push through ratchet	200-1000	150-750	50	5	1320	1	5660

2080-2100

TORQUE WRENCH 1" WITH VERNIER SCALE

- for controlled torque application from 400 - 2100 Nm
- excellent readable measurement unit for precise, correct adjustment
- main measurement unit for Nm with vernier scale, auxiliary measurement unit for ft-lb
- safe locking of the set torque value
- bi-directional fixing
- push through ratchet 1" with 6° smallest swivel angle
- with robust, matt steel tube
- wear-free mechanism made from hardened special tool steel
- with very noticeable and audible ('click') signal
- ergonomic, impact resistant plastic handle
- calibration accuracy of +- 4%
- classified according to DIN EN ISO 6789:2003 Type II Class A, with traceable factory calibration certificate

25

1"



Code	Number	Head	Measuring range Nm	Measuring range ft.lb.	Graduation Nm	Fine dial Nm	l/mm	Pieces	Weight/g	
2080021001000	2080-2100	1"	Reversible ratchet	400-2100	300-1500	100	10	2050	1	14500

2178-20

TORQUE RATCHET, 1/4" WITH VERNIER SCALE

- for controlled torque application from 4 - 20 Nm
- main measurement unit for Nm with vernier scale, auxiliary measurement unit for in-lb
- click type torque wrench
- safe locking of the set torque value
- for clockwise fixing
- with robust, matt-chrome plated steel tube
- reversible ratchet
- very noticeable and audible ("click") signal
- classified according to DIN EN ISO 6789:2003 Type II Class A
- calibrated accuracy of +-4%, with traceable factory calibration certificate

6,3

1/4"



05

Code	Number		Measuring range Nm	Measuring range ft.lb.	l/mm 	Pieces 	Weight/g
2178000201000	2178-20	1/4"	4-20	3,3-14,4	320	1	640

2010-...
TORQUE SCREWDRIVER, 1/4" WITH VERNIER SCALE

- for controlled torque application from 2 cNm - 10 Nm
- with 1/4" female bit adaptor for bits according to DIN 3126-C 6,3
- using adapter ELORA-No. 4140 also suitable for 1/4" sockets according to DIN 3126
- bi-directional tightening
- with a very noticeable and audible ("click") signal when the set torque value is reached
- accuracy of +- 4% of the set torque value.
Exceeds the requirement of the norm (+- 6%) for your safety
- ELORA No. 2010-30 with finger rest
- ELORA No. 2010-1000 with additional T-handle for better power transmission
- classified according to DIN EN ISO 6789:2003 Type II Class D, with traceable factory calibration certificate

6,3

1/4"



Code	Number	Measuring range cNm	Graduation cNm	l/mm	Pieces	Weight/g
2010000301000	2010-30	2-30	0,2	96	1	45
2010001201000	2010-120	20-120	0,5	160	1	150
2010005001000	2010-500	100-500	2,5	200	1	440

2011-1000
TORQUE SCREWDRIVER, 1/4" WITH VERNIER SCALE

- for controlled torque application from 2 Nm - 10 Nm
- male square drive according to DIN 3120-A 6,3, ISO 1174, with ball locking device
- bi-directional tightening
- with a very noticeable and audible ("click") signal when the set torque value is reached
- safe locking of the set torque value
- accuracy of +- 6% of the pre-set torque value
- 1/4" female square at the top end of the handle for supporting power transmission by any 1/4" operation tool
- classified according to DIN EN ISO 6789:2003 Type II Class D, with traceable factory calibration certificate

6,3

1/4"

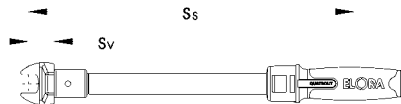


Code	Number	Measuring range Nm	Graduation cNm	l/mm	Pieces	Weight/g
2011010001000	2011-1000	2-10	0,2	160	1	280

2034-...

TORQUE WRENCH WITH RECTANGULAR INTAKE

- for use with ELORA interchangeable spanner heads
- main measurement unit for Nm with vernier scale, auxiliary measurement unit for ft-lb
- safe locking of the set torque value
- bi-directional fixing
- with robust, matt steel tube
- with very noticeable and audible (‘click’) signal
- 2 component Quatrolit handle
- factory depth gauges: $S_v = 17,5$ mm (9 x 12 mm) and $S_v = 25$ mm (14 x 18 mm)
- calibration accuracy of +- 3% of the set torque value. Exceeds the requirement of the norm (+- 4%) for your safety
- classified according to DIN EN ISO 6789:2003 Type II Class A, with traceable factory calibration certificate



Code	Number	Drive mm	S_s mm	Measuring range Nm	Measuring range ft.lb.	Graduation Nm	l/mm	Pieces	Weight/g
2034000601000	2034-60	9x12	314,5	10-60	9-45	2,5	345	1	720
2034001251000	2034-125	9x12	370,5	25-125	15-75	2,5	438	1	900
2034002001000	2034-200	14x18	410,0	40-200	30-150	2,5	455	1	920
2034003351000	2034-335	14x18	470,0	65-335	50-250	2,5	515	1	1060

Expert knowledge on insert tools

When using insert tools, it is essential to take into account the stated extension.

If the extension for the insert tool to be used is exactly the same as the work calibration extension ($S_s = 17.5$ mm for 9 x 12 mm mounts and $S_s = 25$ mm for 14 x 18 mm mounts) of the torque wrench, the torque level you have set will be correct.

Where insert tools having a different extension value are to be used, the set torque M_i will have to be calculated to ensure that the required target torque (M_s) is, in fact, achieved.

This can be done using the following formula:

$$\frac{M_s \times l_s}{l_s + S_v - S_s} = M_i$$

Where:

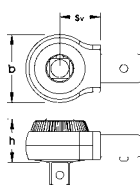
- M_s target torque
- l_s lever length of the torque wrench + works calibration extension
- S_v extension of the insert tool
- S_s works calibration extension ($S_s = 17.5$ mm for 9 x 12 mm mounts and $S_s = 25$ mm for 14 x 18 mm mounts)
- M_i torque setting on the wrench

2072-..., 2076-1

RATCHET INSERT TOOL, FINE TOOTH

- with small robust head
- forged, fine tooth gear wheel with handy metal switching disc
- 5° smallest swivel angle
- with locking pin
- chrome vanadium 31CrV3 / 1.2208
- male square according to DIN 3120, ISO 1174, with ball locking device

6,3	10	12,5
1/4"	3/8"	1/2"



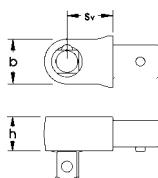
Code	Number	■	Drive mm	S _v mm	b mm	h mm	Pieces	Weight/g
2072000010000	2072-1	1/4"	9x12	17,5	25	16	1	69
2072000020000	2072-2	3/8"	9x12	17,5	34	22	1	143
2072000030000	2072-3	1/2"	9x12	17,5	34	23	1	154
2076000010000	2076-1	1/2"	14x18	25	41	30	1	300

2074-..., 2078-1

FIXED SQUARE INSERT TOOL

- forged with locking pin
- chrome-plated
- chrome vanadium 31CrV3 / 1.2208
- male square according to DIN 3120, ISO 1174, with ball locking device

6,3	10	12,5
1/4"	3/8"	1/2"

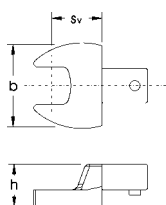


Code	Number	■	Drive mm	S _v mm	b mm	h mm	Pieces	Weight/g
2074000010000	2074-1	1/4"	9x12	17,5	13	12	1	39
2074000020000	2074-2	3/8"	9x12	17,5	19	16	1	74
2074000030000	2074-3	1/2"	9x12	17,5	19	16	1	81
2078000010000	2078-1	1/2"	14x18	25	25	19	1	179

2052-..., 2056-...

OPEN END SPANNER INSERT TOOL

- attention, changes setting value for ELORA-Nr. 2052-14 -19 and 2056-27 - 41
- forged
- with locking pin
- chrome-plated
- chrome vanadium 31CrV3 / 1.2208

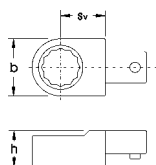


Code	Number	Ø mm	Drive mm	S _v mm	b mm	h mm	Pieces	Weight/g
2052000070000	2052-7	7	9x12	17,5	20,7	14,7	1	37
2052000080000	2052-8	8	9x12	17,5	22	14,7	1	38
2052000090000	2052-9	9	9x12	17,5	23,5	14,7	1	37
2052000100000	2052-10	10	9x12	17,5	24,8	14,7	1	42
2052000110000	2052-11	11	9x12	17,5	26	14,7	1	40
2052000120000	2052-12	12	9x12	17,5	27,5	14,7	1	41
2052000130000	2052-13	13	9x12	17,5	28,8	14,7	1	46
2052000140000	2052-14	14	9x12	20	31,5	14,7	1	55
2052000150000	2052-15	15	9x12	20	33,5	14,7	1	56
2052000160000	2052-16	16	9x12	20	36	14,7	1	58
2052000170000	2052-17	17	9x12	20	37,7	14,7	1	58
2052000180000	2052-18	18	9x12	20	39	14,7	1	60
2052000190000	2052-19	19	9x12	20	41,6	14,7	1	64
2056000130000	2056-13	13	14x18	25	29,6	21,5	1	117
2056000140000	2056-14	14	14x18	25	31,3	21,5	1	120
2056000150000	2056-15	15	14x18	25	33,4	21,5	1	117
2056000160000	2056-16	16	14x18	25	35,8	21,5	1	128
2056000170000	2056-17	17	14x18	25	37	21,5	1	138
2056000180000	2056-18	18	14x18	25	38,6	21,5	1	136
2056000190000	2056-19	19	14x18	25	40,6	21,5	1	140
2056000210000	2056-21	21	14x18	25	45,2	21,5	1	160
2056000220000	2056-22	22	14x18	25	47,3	21,5	1	163
2056000240000	2056-24	24	14x18	25	50,8	21,5	1	169
2056000270000	2056-27	27	14x18	32,5	58,7	21,5	1	240
2056000300000	2056-30	30	14x18	32,5	62,7	21,5	1	250
2056000320000	2056-32	32	14x18	32,5	65,2	21,5	1	248
2056000340000	2056-34	34	14x18	32,5	66,5	21,5	1	253
2056000360000	2056-36	36	14x18	32,5	66,5	21,5	1	245
2056000380000	2056-38	38	14x18	32,5	66,5	21,5	1	230
2056000410000	2056-41	41	14x18	40	82,5	21,5	1	316

2062-..., 2066-...

RING SPANNER INSERT TOOL

- attention, changes setting value for ELORA-Nr. 2066-27 to 41
- forged
- with locking pin
- chrome-plated
- chrome vanadium 31CrV3 / 1.2208



Code	Number	mm	Drive mm	S _v mm	b mm	h mm	Pieces	Weight/g
2062000070000	2062-7	7	9x12	17,5	13,1	14,7	1	37
2062000080000	2062-8	8	9x12	17,5	13,1	14,7	1	37
2062000100000	2062-10	10	9x12	17,5	17,6	14,7	1	39
2062000110000	2062-11	11	9x12	17,5	19	14,7	1	42
2062000120000	2062-12	12	9x12	17,5	20,3	14,7	1	51
2062000130000	2062-13	13	9x12	17,5	21,1	14,7	1	51
2062000140000	2062-14	14	9x12	17,5	23,4	14,7	1	53
2062000150000	2062-15	15	9x12	17,5	24,4	14,7	1	54
2062000160000	2062-16	16	9x12	17,5	26,4	14,7	1	55
2062000170000	2062-17	17	9x12	17,5	27,4	14,7	1	56
2062000180000	2062-18	18	9x12	17,5	28,9	14,7	1	60
2062000190000	2062-19	19	9x12	17,5	31	14,7	1	63
2062000210000	2062-21	21	9x12	17,5	33,4	14,7	1	68
2062000220000	2062-22	22	9x12	17,5	35	14,7	1	71
2066000130000	2066-13	13	14x18	25	21	21,5	1	130
2066000140000	2066-14	14	14x18	25	23	21,5	1	132
2066000150000	2066-15	15	14x18	25	26	21,5	1	132
2066000160000	2066-16	16	14x18	25	26	21,5	1	137
2066000170000	2066-17	17	14x18	25	27,5	21,5	1	141
2066000180000	2066-18	18	14x18	25	29,5	21,5	1	139
2066000190000	2066-19	19	14x18	25	31	21,5	1	145
2066000210000	2066-21	21	14x18	25	33	21,5	1	152
2066000220000	2066-22	22	14x18	25	35	21,5	1	157
2066000240000	2066-24	24	14x18	25	38	21,5	1	162
2066000270000	2066-27	27	14x18	31	42	21,5	1	204
2066000300000	2066-30	30	14x18	31	45,1	21,5	1	205
2066000320000	2066-32	32	14x18	31	48	21,5	1	214
2066000340000	2066-34	34	14x18	31	51	21,5	1	226
2066000360000	2066-36	36	14x18	31	53	21,5	1	230
2066000410000	2066-41	41	14x18	31	59,3	21,5	1	235

2063-...

OPEN RING SPANNER INSERT TOOL

- forged
- with locking pin
- chrome-plated
- chrome vanadium 31CrV3 / 1.2208



Code	Number	Ø mm	Drive mm	S _v mm	b mm	h mm	Pieces	Weight/g
2063000100000	2063-10	10	9x12	17,5	21,2	14,5	1	52
2063000110000	2063-11	11	9x12	17,5	22,6	14,5	1	52
2063000120000	2063-12	12	9x12	17,5	24,1	14,5	1	53
2063000130000	2063-13	13	9x12	17,5	25,2	14,5	1	53
2063000140000	2063-14	14	9x12	17,5	27,3	14,5	1	58
2063000160000	2063-16	16	9x12	17,5	30,1	14,5	1	59
2063000170000	2063-17	17	9x12	17,5	31,6	14,5	1	60
2063000180000	2063-18	18	9x12	17,5	33,3	15	1	65
2063000190000	2063-19	19	9x12	17,5	34,6	15	1	65
2063000210000	2063-21	21	9x12	17,5	37,7	15	1	70
2063000220000	2063-22	22	9x12	17,5	39,3	15	1	70

2071-...

ADAPTER

- attention, changes setting value
- for use with insert tools 9x12 mm and 14x8 mm
- forged
- chrome-plated
- chrome vanadium 31CrV3 / 1.2208



Code	Number	Female Square mm	Male Square	S _v mm	b mm	h mm	Pieces	Weight/g
2071000010000	2071-1	9x12	14x18	22	22	17	1	80
2071000020000	2071-2	14x18	9x12	35,25	30	23	1	120

2420-...

ELOTRONIC TORQUE WRENCH

- indicating torque wrench for controlled tightening from 20 - 340 Nm
- measurement units: Nm, ft-lb or in-lb
- bi-directional fixing
- huge easy to read 4 digit numerical LCD Display
- audible buzzer and optical signal (3 bright LED's) when target torque is reached
- 2 different measurement modes (Track Mode, Peak Hold)
- Battery operated (4xAA batteries)

12,5

1/2"



- serial computer interface, 2 way communication with computer, printer (protocol RS232C 9600BPS, 8,1,n)
- forged, fine tooth gear wheel with handy metal switching disc
- 5° smallest swivel angle
- male square according to DIN 3120 A 12,5, ISO 1174, with ball locking device
- calibration accuracy of +- 2% of the set torque value. Exceeds the requirement of the norm (+- 4%) for your safety
- classified according to DIN EN ISO 6789:2003 Type I Class B, with traceable factory calibration certificate

Code	Number	■	Measuring range Nm	Measuring range in.lb.	Measuring range ft.lb.	l/mm	Pieces	Weight/g
2420002002000	2420-EDS200	1/2"	20-200	180-1800	15-150	458	1	1260
2420003402000	2420-EDS340	1/2"	34-340	300-3000	25-250	559	1	1550
2420500602000	2420-RS	Contents: 4 rechargeable batteries, cable for serial port RS 232, power supply					1	500

2400-...

ELOMETER TORQUE WRENCH WITH DRAG INDICATOR

- indicating torque wrench with dial gauge and drag indicator
- for controlled tightening from 0,7 - 2800 Nm
- measurement units: Nm, ft-lb or in-lb
- with fixed head square according to DIN 3120, ISO 1174
- ELORA No. 2400 UDS 1400 and 2400-UDS 2800 with additional audible buzzer
- calibration accuracy of +- 3% of the set torque value. Exceeds the requirement of the norm (+-6%, respectively +- 4%) for your safety
- the calibrated accuracy will be reached starting from 20% of the measuring range
- classified according to DIN EN ISO 6789:2003 Type I Class B, with traceable factory calibration certificate

2400-UDS2800

6,3	10	12,5
1/4"	3/8"	1/2"
20	25	
3/4"	1"	



Code	Number	■	Measuring range Nm	Measuring range in.lb.	Measuring range ft.lb.	Graduation Nm	Graduation in.lb.	Graduation ft.lb.	Signal	l/mm	Pieces	Weight/g
2400000302000	2400-UDS3	1/4"	0,7-3,5	6-30	-	0,1	1	-	-	270	1	725
2400000920000	2400-UDS9	1/4"	1,8-9	15-75	-	0,2	1	-	-	270	1	725
2400001820000	2400-UDS18	3/8"	3,6-18	30-150	-	0,5	2	-	-	270	1	725
2400003020000	2400-UDS30	3/8"	6-30	50-250	-	0,5	5	-	-	270	1	725
2400007020000	2400-UDS70	3/8"	14-70	-	10-50	2	-	1	-	270	1	725
2400002402000	2400-UDS240	1/2"	48-240	-	35-175	5	-	5	-	560	1	1400
2400003502000	2400-UDS350	1/2"	70-350	-	50-250	10	-	5	-	560	1	1400
2400004802000	2400-UDS480	3/4"	96-480	-	70-350	10	-	10	-	675	1	3200
2400008002000	2400-UDS800	3/4"	166-800	-	120-600	25	-	10	-	1180	1	4500
2400014002000	2400-UDS1400	1"	280-1400	-	200-1000	25	-	20	optical and audible	1970	1	9000
2400028002000	2400-UDS2800	1"	560-2800	-	400-2000	50	-	40	optical and audible	3200	1	21000

2184-...
TORQUE ANGLE GAUGE

- for controlled screw tightening with fitting torque wrench at specified torque and torque angle
- torque angle from 0 – 360°
- 1/2" reading accuracy 2 degrees, 3/4" reading accuracy 5 degrees
- maximum load 1/2" 390 Nm, 3/4" 1330 Nm
- with flexible magnetic holder
- square with ball locking device
- attention, do not exceed the maximum torque of the specific torque wrench!

12,5

20

1/2"

3/4"



Code	Number	□	■	Graduation	∅	l/mm	Pieces	Weight/g
2184000012000	2184-1	1/2"	1/2"	20	68	360	1	225
2184000022000	2184-2	3/4"	3/4"	50	90	380	1	225

2440-ETM

ELOTRONIC TORQUE METER

- to use with ELORA No. 2455-MTT or 2446-STT for testing and calibration of all torque wrenches
- Display: huge easy to read LCD Display
- Power supply: commercial quality 9V NiCd-battery corresponding wall plug transformer (both included)
- Memory: up to 1350 torque values in format data: dataset, torque value and measuring unit
- Serial computer interface, 2 way communication with computer, printer (protocol RS232C 9600BPS, 8,1,n)
- Working modes: Track Mode, Peak Hold and First Peak Hold (for calibration of click type torque wrenches)
- Nm, ft-lb in-lb, oz-in, cNm, kgf-lb
- Setting of Tolerances: the setting of the tolerance is all time visible on the LCD Display during the work. Target tolerance value from 1 - 99% or smallest and biggest value
- Display of Tolerances: throughout 3 LED's and audible buzzer is indicated if the measuring value is below (yellow) within (green) or above (red) the tolerance
- Erase of Display: it is possible to define if the measured value is automatically, after a programmable time of 1 - 9 sec. or manually erased
- Frequency Filter: 5 adjustable frequency filter(170Hz, 250Hz, 500Hz, 1500Hz und 3600Hz) (e.g. for calibration of power tools)
- Transducer Recognition: by a built in Smart chip all data of the ELORA Transducer will be read in automatically (plug and play). Of course all data can also be manually calibrated.



Code	Number	Width mm	Height mm	Depth mm	Pieces	Weight/g
2440000000000	2440-ETM	83	185	32	1	420

2445-...

ELOTRONIC INLINE TRANSDUCER MTT

- for use with Torque Meter ELORA No. 2440-ETM ELOTRONIC
- by a built in Smart chip all data of the ELORA Transducer will be read in automatically (plug and play)
- accuracy +-1% of the set value

12,5	20
1/2"	3/4"



Code	Number	Ø	□	Measuring range Nm	Measuring range in.lb.	Measuring range ft.lb.	l/mm	Pieces	Weight/g
2445000302000	2445-MTT 30	3/8"	3/8"	3-30	25-250	-	66	1	190
2445000702000	2445-MTT 70	3/8"	3/8"	7-70	-	5-50	66	1	190
2445003402000	2445-MTT 340	1/2"	1/2"	34-340	-	25-250	270	1	295

2446-...

ELOTRONIC STATIONARY TRANSDUCER MTT

- ▶ for use with Torque Meter ELORA No. 2440-ETM ELOTRONIC
- ▶ by a built in Smart chip all data of the ELORA Transducer will be read in automatically (plug and play)
- ▶ accuracy +-1% of the set value

6,3	10	12,5	20	25
1/4"	3/8"	1/2"	3/4"	1"



Code	Number	Ø	Measuring range Nm	Measuring range in.lb.	Measuring range ft.lb.	Pieces	Weight/g
2446000062000	2446-STT 6	1/4"	0,6-6	5-50	-	1	285
2446000112000	2446-STT 11	1/4"	1-11	10-100	-	1	300
2446000302000	2446-STT 30	1/4"	3-30	25-250	-	1	300
2446000702000	2446-STT 70	3/8"	7-70	-	5-50	1	455
2446001352000	2446-STT 130	1/2"	13-130	-	10-100	1	1210
2446003402000	2446-STT 340	1/2"	34-340	-	25-250	1	1260
2446006802000	2446-STT 680	3/4"	68-680	-	50-500	1	1350
2446008152000	2446-STT 815	3/4"	81-815	-	60-600	1	1365
2446014002000	2446-STT 1400	1"	140-1400	-	100-1000	1	9400
2446028002000	2446-STT 2800	1"	280-2800	-	200-2000	1	9400

2447-...

FIXING ANGLE

- ▶ for stationary fixing of the ELOTRONIC Transducer 2446-STT



Code	Number	suitable for Transducer	l/mm	Height mm	Depth mm	Pieces	Weight/g
2447001052000	2447-105	2446-STT 6, 11, 30, 70, 130, 340, 680, 815	105	105	105	1	2700
2447001522000	2447-152	2446-STT 1400, 2800	152	152	152	1	7900

2601-...

TORQUE MULTIPLIER

- up to 10.000 Nm
- planetary gear (1-, 2- or 3-stepped)
- specially hardened gear wheels
- permanent internal greasing
- sliding bearings on drive side and power take-off side
- overload protection (one additional sun wheel with overload cutout is included)
- exchangeable drive heads
- matt chrome-plated /phosphated surfaces
- torque multipliers 2601-3 until 2601-6 are all fitted with a return stop
- bi-directional actuation
- highest torque, high accuracy better than +-5% tolerance
- attention, only for mechanical actuation
- in waterproof case

Product-Features:

- for clockwise and anticlockwise use
- no extremely long levers required any more
- uniform transmission of forces protects nuts and bolts
- reduced risk of personal injury
- compact, durable construction
- low weight
- no external power supply required
- guaranteed accuracy: ±5%
- long-term accuracy
- low-maintenance construction
- good value for money
- ideal in conjunction ELORA torque wrenches
- a range of supports available



Code	Number	max. output capacitance Nm	max. input capacitance Nm	○	■	Torque Ratio	Gear reduction	Return stop	Ø mm	l/mm	Weight without case and brace support	Weight with case and brace support	Pieces
2601100010000	2601-1	1500	416	1/2"	1"	1:3,6	4:1	-	90	150	3000	5700	1
2601100020000	2601-2	1500	416	3/4"	1"	1:3,6	4:1	-	90	150	3000	5700	1
2601100030000	2601-3	3500	269	3/4"	1"	1:13	16:1	x	95	200	5200	10600	1
2601100040000	2601-4	4500	264	3/4"	1.1/2"	1:17	20:1	x	120	215	7700	14500	1
2601100050000	2601-5	7000	159	3/4"	1.1/2"	1:44	59:1	x	130	272	13000	25500	1
2601100060000	2601-6	10000	181	3/4"	1.1/2"	1:55	74:1	x	148	272	14500	27000	1

2602

TORQUE MULTIPLIER

- perfect tool for heavy duty vehicles
- 1 step planetary gear
- 2 braces included
- robust construction
- surfaces matt-chrome plated/ gunmetal-finish
- bi-directional actuation
- accuracy better than +-4%
- attention, only for mechanical actuation
- in black plastic case



Code	Number	○	■	max. output capacitance Nm	max. output capacitance ft. lb.	Gear reduction	Torque Ratio	Pieces	Weight/g
2602000001000	2602	3/4"	1"	2700	2000	5:1	1:4,33	1	7400

