

KOLVER®

K-TESTER & K-TORQUE ANALYZER

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HERMES
TOOLS

HRMS/v1/12.12. 2023

K-TESTER

Our new torque analyser with an external transducer



Self-powered unit with lithium battery
(up to 10 hours)

External
transducer with
cable connection



K-TESTER



External rotary
transducer with
cable connection

Self-powered unit with lithium battery
(up to 10 hours)

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FEATURES

Up to **64 different programs**

Auto-detection of the different external transducers

Static external transducers
(need joint simulator):

1 - 5 - 20 - 50 - 100 Nm
(8.8 - 885 lbf-in)

Different torque options available on request





FEATURES

Up to **64 different programs**

Auto-detection of the different external transducers

Rotary external transducers:

5 - 25 - 50 - 100 Nm
(42 - 885 lbf-in)

Different torque options up to 500Nm available on request

Torque and angle rotary transducer available soon



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FUNCTIONALITY

Works in **program mode** or **free-run mode**

Torque displaying: **peak value** or **real-time tracking**

Real-time **graph** visualization, both directly on the control unit as well as on any tablet or PC running the **K-Torque Analyzer** companion software

Advanced reporting capabilities, including archiving to USB





STATIC MODELS

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K-TESTER Complete Kit	Kit part number (reader + KTI transducer + joint simulator)	KTI transducer	Part number	Joint simulator	Part number
K-TESTER KTI1	021406/F1	KTI1 0,1 - 1 Nm	023001/1	M4	240640
K-TESTER KTI5	021406/F5	KTI5 0,3 - 5 Nm	023005/1	M6	240600
K-TESTER KTI20	021406/F20	KTI20 0,5 - 20 Nm	023020/1	M8	240800
K-TESTER KTI50	021406/F50	KTI50 2 - 50 Nm	023050/1	M12 3/8"	240901
K-TESTER KTI100	021406/F100	KTI100 5 - 100 Nm	023100/1	M12 1/2"	240902

ROTARY MODELS



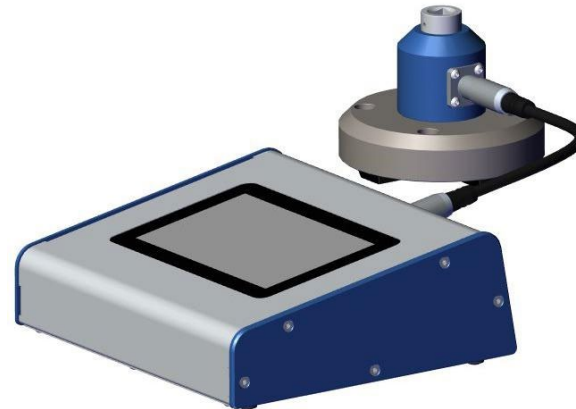
K-TESTER

K-TESTER Complete Kit	Kit part number (reader + KTE transducer + KTEI board)	KTE transducer	Part number	KTEI board part number
K-TESTER KTEI5	021406/R5	KTE5 0.5 – 5.0 Nm	022405	020079
K-TESTER KTEI25	021406/R25	KTE25 2.0 – 25 Nm	022425	020079
K-TESTER KTEI50	021406/R50	KTE50 5.0 – 50 Nm	022450	020079
K-TESTER KTEI100	021406/R100	KTE100 10.0 – 100 Nm	022411	020079

JOINT SIMULATORS

Included M4, M6, M8, M12 joint simulators

- _ M4 slim with bearings and cup washers (new)
- _ M6 & M8 with cup washers
- _ M12 with bearings and cup washers (new)





JOINT SIMULATORS - LOW & MICRO-TORQUE

1 Nm, Slim M4 joint simulator with bearings and cup washers

Code	Model	Max Torque	Input	Output	Included with	Optional on-request
240640	Hex 13-1/4" M4	8.8 lbf-in	Hex 1/4" male	Hex 13mm female	KT1 KT11	MiniK1 K1



Microtorque threaded-hole joint simulators, M1.6, M2, M3 (special order only)

Code	Model	Input	Output	Special order, only for
240620	Hex 13/M1.6	Female threads M1.6	Hex 13mm female	MiniK1 K1 KT1 KT11
240621	Hex 13/M2	Female threads M2		
240622	Hex 13/M3	Female threads M3		





JOINT SIMULATORS MID TORQUE

5 Nm, M6 threads with cup washers (existing 240600 model)

20 Nm, M8 threads with cup washers (existing 240800 model)

Code	Model	Max Torque	Input	Output	Included with
240600	Hex 13- 1/4" M6	44 lbf-in	Hex 1/4" male	Hex 13mm female	MiniK1-5 K1-5 KT5 KTi5
240800	Hex 13- 1/4" M8	177 lbf-in	Hex 1/4" male	Hex 13mm female	MiniK20 K20 KT20 KTi20



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JOINT SIMULATORS - HIGH TORQUE

50 & 100 Nm, M12 threads with bearing and cup washers

Code	Model	Max Torque	Input	Output	Included with
240901	3/8" M12	442 lbf-in	Sq 3/8" female	Sq 3/8" male	KT50 KT150
240902	1/2" M12	885 lbf-in	Sq 1/2" female	Sq 1/2" male	KT100 KT1100



K-TESTER



TARGET TORQUE MODE

In **target torque mode** you can set one or more programs to use, and display & archive all results, statistics and reports



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TARGET TORQUE MODE

SETTINGS

TARGET, MIN, MAX

TOLERANCE (%): used for stats generation

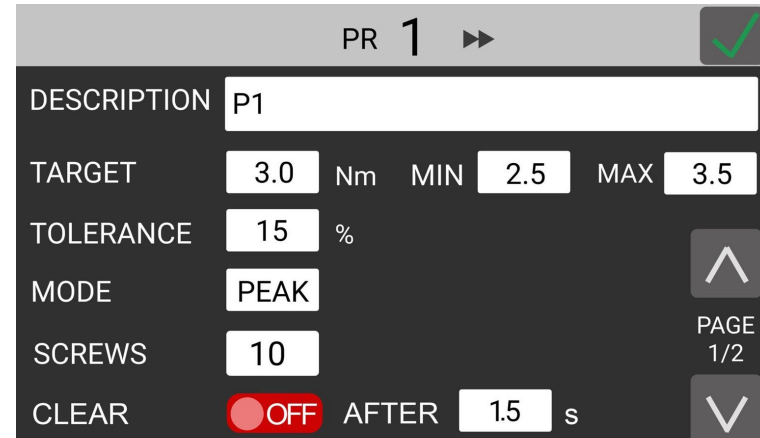
MODE:


peak: shows the max value

track: shows the value in real time

SCREWS: screw count for current program

CLEAR: how long until value on display is cleared



PR 1 

DESCRIPTION	P1					
TARGET	3.0	Nm	MIN	2.5	MAX	3.5
TOLERANCE	15	%				
MODE	PEAK					
SCREWS	10					
CLEAR	<input type="checkbox"/> OFF	AFTER	1.5	s		

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TARGET TORQUE MODE

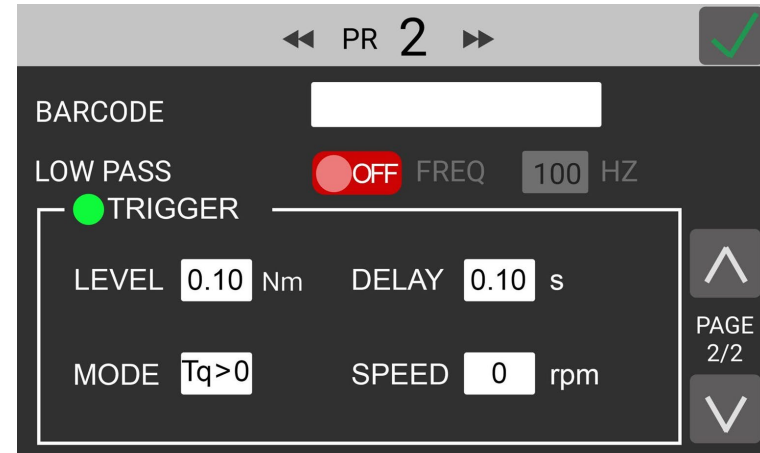
BARCODE: load programs via barcode scan

LOW PASS: noise-reduction filters

ON with lower value leads to smoother graph

OFF is same as ON with 2000 Hz (max frequency)

effect is mostly only evident when looking at the graphs in the included PC software





TARGET TORQUE MODE

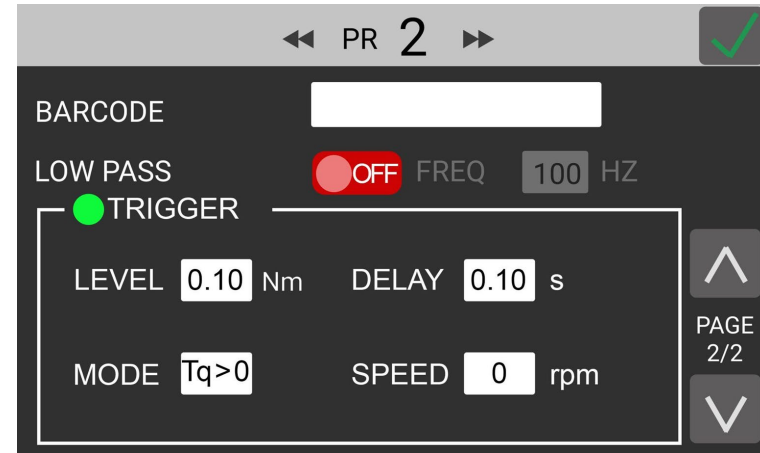
TRIGGER: defines start and stop points for each measurement

level: value above which tightening is considered to have begun. Anything below this threshold is ignored

delay: time interval from the last read value (above the trigger level) after which the tightening is considered finished

mode: display positive or negative values depending on rota

speed: min speed (for rotational transducers only); anything under this speed is ignored.





FREE-RUN MODE

When the target torque is not set (OFF), the device will display the **peak value** encountered

No statistics are shown



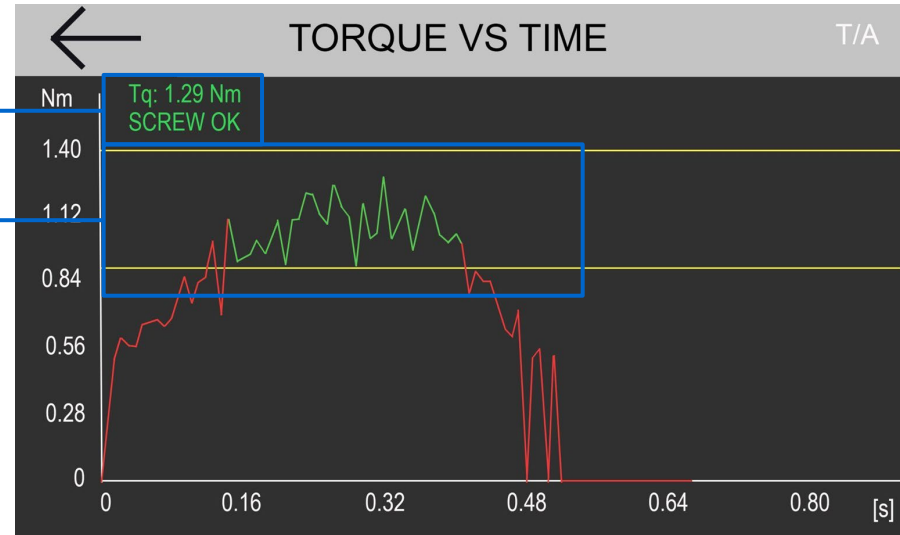
GRAPHS

The graphs is plotted in **real time**

If working in target torque mode, the **min/max boundaries** are shown

Graph colors:
green when within min/max boundaries
red when outside min/max boundaries

When working in **peak mode**, the maximum value is shown, as well as the OK/NOK result of the tightening operation





REPORTING

K-TESTER records all torque values, tightening results and graphs

Reports available for:

_ **current program** (saved to internal RAM memory)

_ **previous programs** (saved to USB) - swiped left and right to move between programs

USB reports can be exported to csv

K-TESTER



←		REPORT				🗑️	📱
PR 1	STATS						
OK 8/10	MAX 3.15	USL 3.57	AVG 3.30	CM 1.01	SPREAD 0.30		
NOK 2/10	MIN 1.85	LSL 3.11	TOL 10%	CMK 1.1	STD 0.0115		
N	TIME	TARGET	ACTUAL	UNIT	MODE	RESULT	
1	11/08/2022 13:15:21	3.00	3.05	Nm	Peak	OK	
2	11/08/2022 13:15:27	3.00	3.15	Nm	Peak	OK	
3	11/08/2022 13:15:35	3.00	3.11	Nm	Peak	OK	
4	11/08/2022 13:15:45	3.00	3.01	Nm	Peak	OK	
5	11/08/2022 13:15:55	3.00	3.00	Nm	Peak	OK	
6	11/08/2022 13:16:04	3.00	1.85	Nm	Peak	NOK	
7	11/08/2022 13:16:20	3.00	3.05	Nm	Peak	OK	

INTERFACE

Intuitive interface with touch-screen display

K-TESTER

The screenshot shows the K-TESTER interface with the following elements and annotations:

- Previous tightenings:** PR 1 3/10
- Stats:** A box containing AVG 3.22, CM 1.1, CMK 1.2, and STD 1.01.
- Current program's description:** Prg 1 description
- Measured torque:** A list of values (3.10, 3.45, 3.15) and a large green display showing 3.10 Nm with a target of 3 Nm.
- Result:** A green checkmark icon and the text SCREW OK.
- Bottom navigation:** Includes a graph icon, a RESET button, and a lock icon.



GENERAL SETTINGS

TARGET TORQUE MODE: toggle on/off to switch between this and free-running mode

MODEL / SERIAL NUMBER / CYCLES: not editable

FATc: calibration factor (not editable)


UNIT: cNm, Nm, kgf.cm, lbf.in



RESET: applies to current screw or entire program



BARCODE

NETWORK SETTINGS

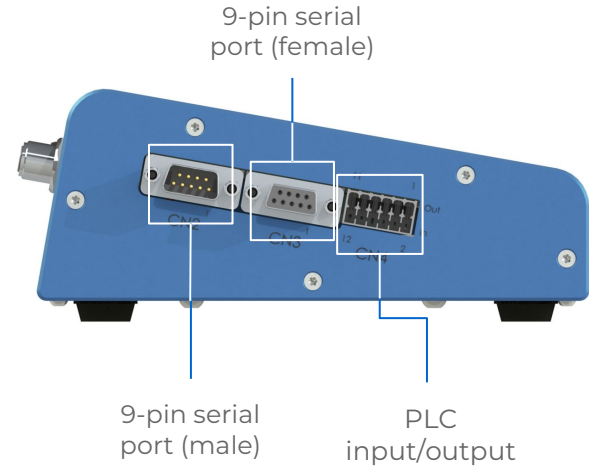
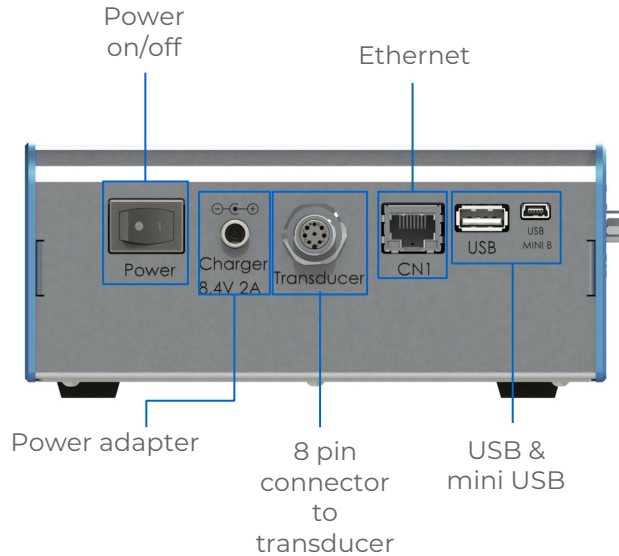


GENERAL SETTINGS 

TARGET TORQUE MODE	
SHOW AVG	
MODEL	KDS-PL6
SERIAL NUMBER	1817366
CYCLES	1324
FATc	905
UNIT	< NM >

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PORTS/CONNECTIONS





K-TORQUE ANALYZER

K-TORQUE ANALYZER is the **companion software** for managing the K-TESTER and visualizing graphs & reports from a tablet/pc connected via ethernet

FUNCTIONALITY

- **real-time displaying and archiving** of data from the K-TESTER
- **analysis and comparison** of tightening operations and torque data
- **reporting**
- managing of **device settings and programs**

K-TORQUE ANALYZER

INTERACTIONS

ACTIONS

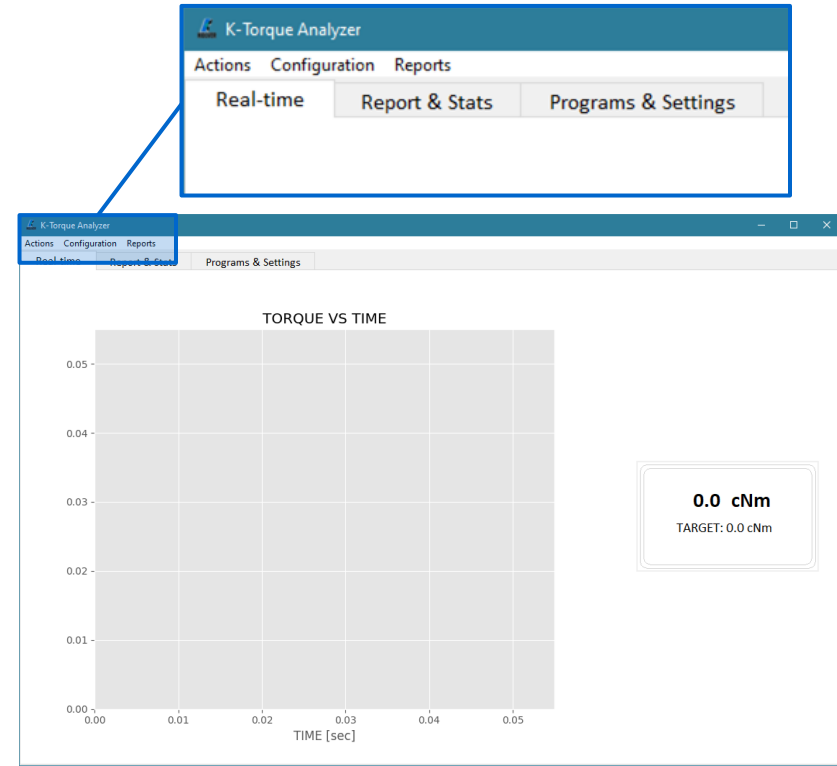
- _ connect/disconnect from controller
- _ download/upload configuration from/to controller

CONFIGURATION (programs and settings)

- _ import from file
- _ export to file

REPORTS

- _ save last program (i.e. last batch) results to CSV
- _ save all results to CSV
- _ enable/disable autosave
- _ clear all results



K-TORQUE ANALYZER

TABS

REAL TIME

Visualize the graph and results in real time
If working with **TORQUE TARGET** mode, relevant information such as min/max limit is displayed on the screen

Right-click on graph to navigate the graph via the available **functions**:

- _ **Home**: return to home view
- _ **Back**: return to previous view
- _ **Forward**: return to last view
- _ **Move**: pan the view
- _ **Zoom**: select an area to zoom
- _ **Save**: save a picture of the graph to a file

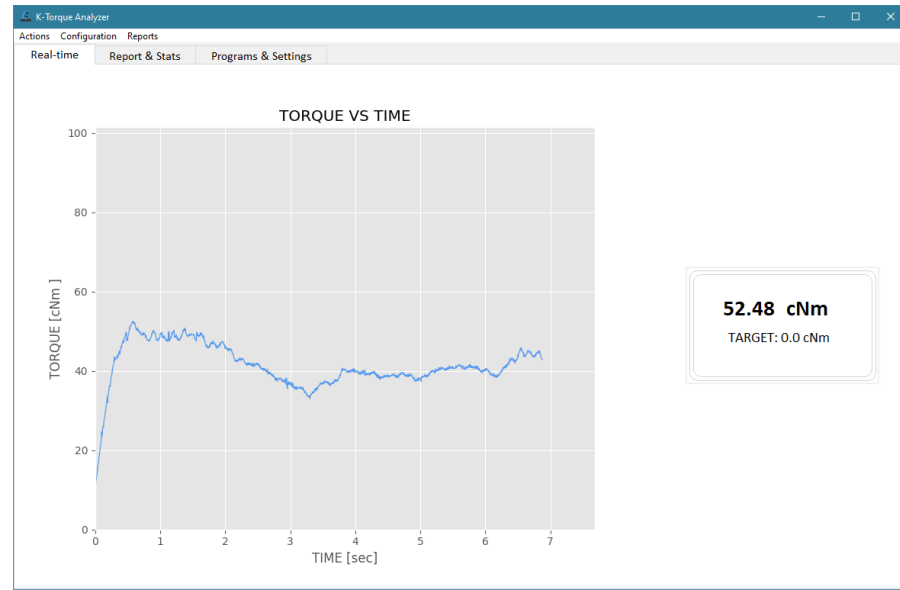


K-TORQUE ANALYZER

With **TORQUE TARGET** mode **OFF**, a plain graph is shown and the peak value is highlighted on the right side of the screen

Right-click on graph to navigate the graph via the available **functions**:

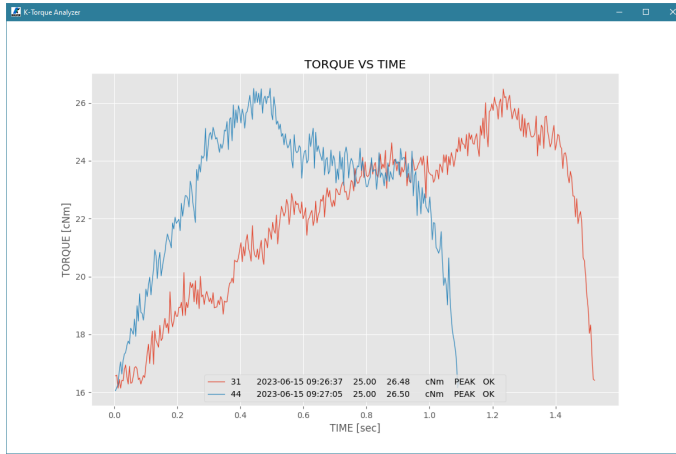
- _ **Home**: return to home view
- _ **Back**: return to previous view
- _ **Forward**: return to last view
- _ **Move**: pan the view
- _ **Zoom**: select an area to zoom
- _ **Save**: save a picture of the graph to a file



K-TORQUE ANALYZER

REPORTS AND STATS

Review all the recorded results so far, relevant statistics such as Cm and Cmk. Select one or more results to graph and visualize superimposed for comparison (right-click to bring up graph controls).

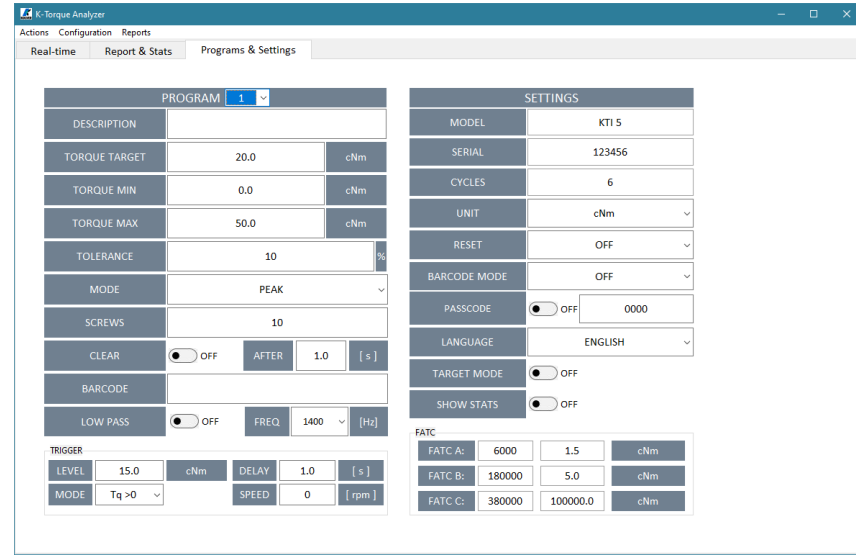


OK	24 / 99	MAX	46.39	USL	27.5	AVG	26.64	CM	0.21	SPREAD	23.69
NOK	8 / 99	MIN	22.69	LSL	22.5	TOL	10	CMK	0.07	STD	4.02
01	2023-06-14 16:14:38	25.00	46.39	cNm	PEAK	NOK					
02	2023-06-14 16:14:40	25.00	25.21	cNm	PEAK	OK					
03	2023-06-14 16:15:44	25.00	30.26	cNm	PEAK	NOK					
04	2023-06-14 16:15:45	25.00	24.68	cNm	PEAK	OK					
05	2023-06-14 16:15:47	25.00	27.95	cNm	PEAK	NOK					
06	2023-06-14 16:15:49	25.00	25.62	cNm	PEAK	OK					
07	2023-06-14 16:15:51	25.00	25.04	cNm	PEAK	OK					
08	2023-06-14 16:15:53	25.00	24.68	cNm	PEAK	OK					
09	2023-06-14 16:15:54	25.00	22.69	cNm	PEAK	OK					
10	2023-06-14 16:15:55	25.00	24.19	cNm	PEAK	OK					
11	2023-06-14 16:15:57	25.00	29.73	cNm	PEAK	NOK					
12	2023-06-14 16:15:58	25.00	24.35	cNm	PEAK	OK					
13	2023-06-14 16:15:59	25.00	25.38	cNm	PEAK	OK					
14	2023-06-14 16:16:01	25.00	26.52	cNm	PEAK	OK					
15	2023-06-14 16:16:02	25.00	27.98	cNm	PEAK	NOK					
16	2023-06-14 16:16:04	25.00	28.12	cNm	PEAK	NOK					
17	2023-06-14 16:16:05	25.00	23.94	cNm	PEAK	OK					
18	2023-06-14 16:16:07	25.00	26.69	cNm	PEAK	OK					
19	2023-06-14 16:16:08	25.00	25.90	cNm	PEAK	OK					
20	2023-06-14 16:16:14	25.00	26.29	cNm	PEAK	OK					
21	2023-06-14 16:16:16	25.00	25.43	cNm	PEAK	OK					
22	2023-06-14 16:16:18	25.00	24.01	cNm	PEAK	OK					
23	2023-06-14 16:16:20	25.00	24.04	cNm	PEAK	OK					
24	2023-06-14 16:16:22	25.00	26.50	cNm	PEAK	OK					
25	2023-06-14 16:16:24	25.00	25.36	cNm	PEAK	OK					
26	2023-06-14 16:16:25	25.00	25.91	cNm	PEAK	OK					
27	2023-06-14 16:16:27	25.00	25.19	cNm	PEAK	OK					
28	2023-06-14 16:16:28	25.00	25.87	cNm	PEAK	OK					
29	2023-06-14 16:16:30	25.00	25.68	cNm	PEAK	OK					
30	2023-06-14 16:16:33	25.00	25.13	cNm	PEAK	OK					

K-TORQUE ANALYZER

PROGRAM AND SETTINGS

View and modify all program parameters and settings



The screenshot displays the 'K-Torque Analyzer' software interface, specifically the 'Programs & Settings' tab. The interface is organized into two main columns: 'PROGRAM' and 'SETTINGS'.

PROGRAM 1

DESCRIPTION	VALUE	UNIT
TORQUE TARGET	20.0	cNm
TORQUE MIN	0.0	cNm
TORQUE MAX	50.0	cNm
TOLERANCE	10	%
MODE	PEAK	
SCREWS	10	
CLEAR	<input type="checkbox"/> OFF	AFTER 1.0 [s]
BARCODE		
LOW PASS	<input type="checkbox"/> OFF	FREQ. 1400 [Hz]

TRIGGER

LEVEL	VALUE	UNIT	DELAY	VALUE	UNIT
MODE	Tq > 0		SPEED	0	[rpm]

SETTINGS

MODEL	KT1 5
SERIAL	123456
CYCLES	6
UNIT	cNm
RESET	OFF
BARCODE MODE	OFF
PASSCODE	<input type="checkbox"/> OFF 0000
LANGUAGE	ENGLISH
TARGET MODE	<input type="checkbox"/> OFF
SHOW STATS	<input type="checkbox"/> OFF

FATC

FATC A:	VALUE	UNIT	FATC B:	VALUE	UNIT	FATC C:	VALUE	UNIT			
FATC A:	6000	1.5	cNm	FATC B:	180000	5.0	cNm	FATC C:	380000	100000.0	cNm



THANKS FOR WATCHING



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