Motorized Torsion Test Bench TorkHeaDriver

ANDILOG TECHNOLOGIES

Rotary Torsion Tester with remote head

TorkHeadDriver

The TorkHeaDriver is a motorized torsion tester that is equipped with a rotary torque sensor allowing torque and angle measurements on complete system. This torsion meter is particularly well suited for measurements on knobs, valves, faders… installed on sets.

The measuring head of small dimensions includes the rotary torque sensor with its encoder and the motor. This test head can easily be moved and aligned in front of the test sample for testing. Thanks to its square male output, you can easily fixe standard or customized tooling as: chuck, socket, clamp…So it becomes easy to perform quality control on finished or semi-finished products, and not only during incoming inspection of the components.

The automatic TorkHeaDriver is a torsion test bench that includes in a single base system: the control command of the motor and the acquisition of the torque and angle sensor. The interactive colors touch screen plot the graph of your tests in real time and display calculations as average torque, First peak, break, statistical analysis… Its user friendly interface allows you to configure your test setup directly from the torsion meter.

As an option, the TorkHeaDriver can be automated from a computer using the software Califort, allowing to setup multiples sequences and advanced tests, collect test data and save the configurations.

Specifications

FEATURES	TORKHEADRIVER
Capacity	6 Nm
Torque accuracy	0,5 % FS
Torque resolution	1/10 000 FS
Angle resolution	0.001 revolution
Speed accuracy	0.005 revolution
Speed	3 to 20 rpm
Cycles	Up to 255
Sampling rate	1000 Hz
Units	Nm, kgcm, mNm, lbin
Both direction Peak measurements	√
Simultaneous display of the peak and the current reading	√
Programmable set point	√
Average and standard deviation calculations	√
Automatic return	√
RS232 Output	Current, peak, calculation, curve
TTL Output	6
TTL Input	2
Memory	1000 results or 1 curve
Calculations	√
Display curve torque	√
Power supply	110V / 220 V

Watch the latest video of the TorkHeaDriver on our website

TorkHeaDriver - Couplemètre motorisé
By ANDILOGTechno
Torsiomètre motorisé à mesure déportée
TorkHeaDriver
0:04 / 2:63
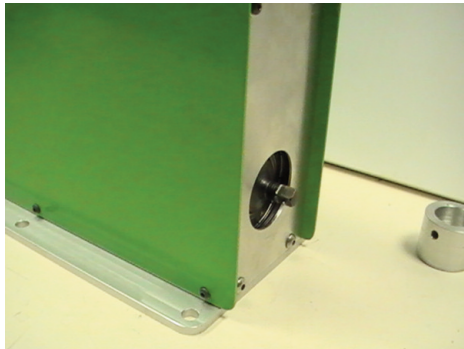
Motorized measuring head with rotary torque sensor

Measuring head equipped with the optional chuck
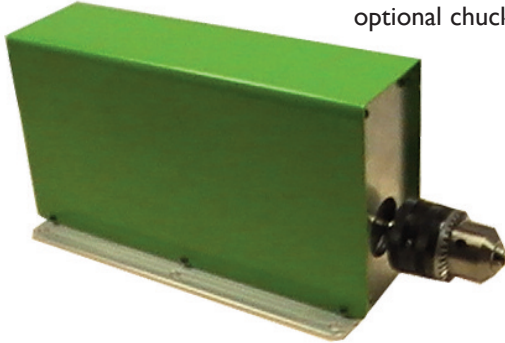
In its compact body, the measuring head of the TorkHeaDriver includes all the elements required for the measurement: rotary torque sensor, encoder and motor.

It is connected by cable to the main base which provides the motor control commands and collecting the data from the sensor. The cable length is 2 meters.

The measuring head is equipped with a ¼ square male output, which allow you to fixe grips and tooling accessory. It can be equipped with standard chuck, socket.

The rotary torque sensor used in the TorkHeaDriver includes an encoder, measuring the rotation angle. The torque and angle data are synchronized during the acquisition.

Measurement can be done in both directions: clockwise and counter clockwise. Capacity of the torque sensor is 6Nm and the resolution and the angle is 0.001 turn.

Standard square male output of the measuring head

Control command and acquisition system

The base of the TorkHeaDriver controls the motor and the acquisition of the measuring head. It is divided into two separate features:

- The motor control for adjusting and programming all the motor operations
- The acquisition, which displays the torque, angle and curve data

The test features of the command are:
- Adjust the motor speed between 3 to 20 rpm
- Stop or reverse the action on angle value
- Stop or reverse the action on time value
- Stop or reverse the action on torque value
- Cycles (up to 255)

Speed and torque values are permanently display on the command's screen.

The acquisition is done through the color touch screen, which is customizable. The values display can be setup in the menu in order to display the desired data during the test among the current values, curves, calculation, maximum, bargraph…

The embedded technology allows the acquisition of two sensors simultaneously at a rate of 1000Hz. In real time, the TorkHeaDriver plots the curve, calculates the maximum and minimum. In addition to the data, you can add 2 others calculation as the average torque, first peak….

For better integration into the manufacturing process and communication with other devices, the TorkHeaDriver is equipped with fast TTL outputs and inputs for communication with an automat for example, and with a RS232 output to collect the curve on continuous mode or data from the memory.
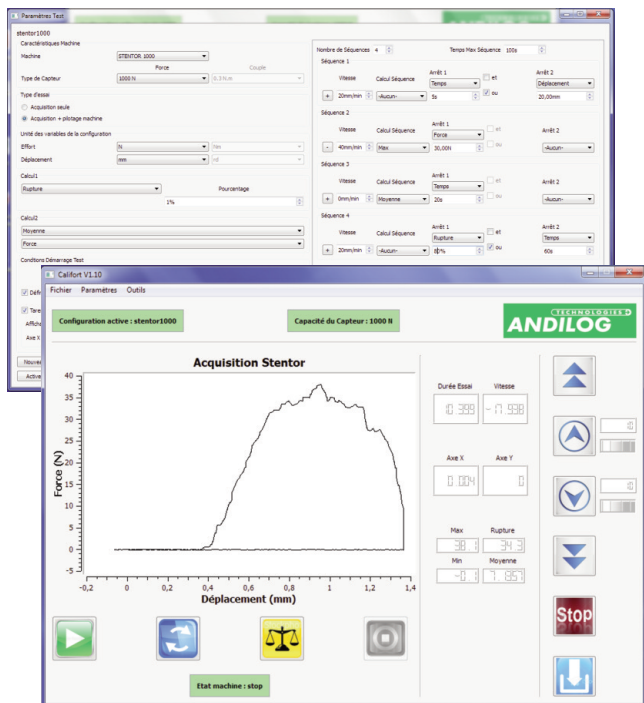

Acquisition Touch Screen display
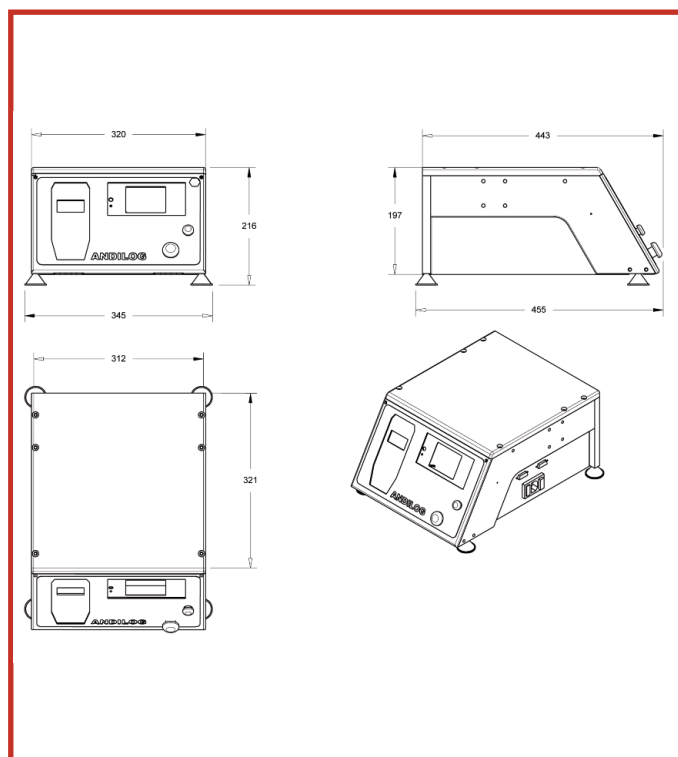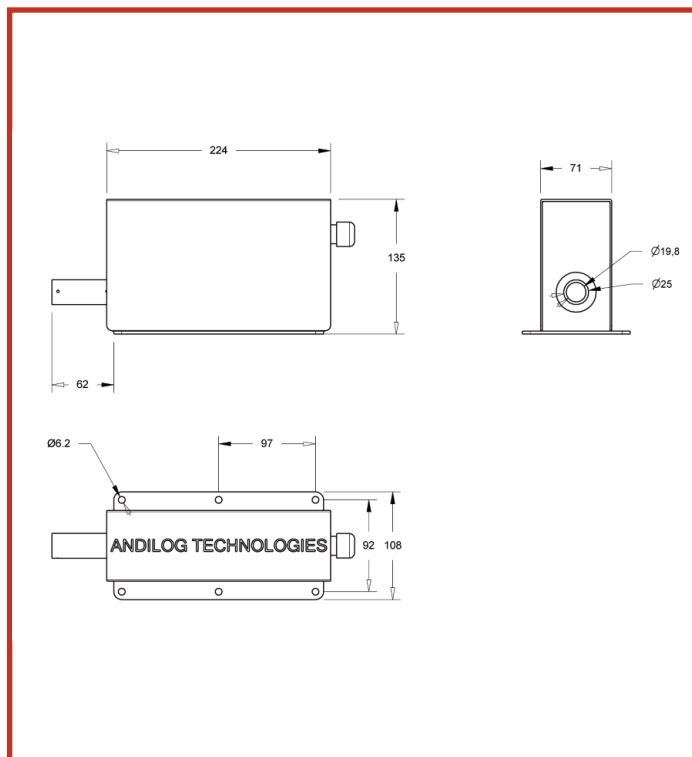
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Software

The TorkHeaDriver has several options to be connected to a computer in order to collect data or automated your tests:

RSIC: Allow real time communication as well as unloading the calculation values recorded in the Centor.

Caligraph: curve acquisition and reporting software for computer. Connects your equipment to Caligraph to achieve in real time the acquisition of your measurements and allow recording of your values on your computer.

Califort: The software CALIFORT has, as one of its main feature the power to use operation sequences to develop conventional test methods. The software follows a very simple operation sequence in which the user selects through windows basic parameters and so writes his test. The test is the description of a sequence of actions to be performed by your test system in order to achieve a determined result. Up to 10 individual sequences can be setup for each test configuration, and each ones as its own stop condition and calculation (peak, min, average). Califort also calculate the peak, minimum, break and average throughout the all the duration of the test.

This user friendly software allows saving test configurations, and guarantee repeatability of your tests and data.

Dimensions