

Tensometric friction coefficient measuring software RK-WIN



Trigger measurement screen F1

The Software RK-WIN is an efficient measurement and analysis program to determine the friction coefficient μ in the thread-solid body and thread-thread measurement.

The effect of different preparations on the running characteristics of yarns, threads, wires, etc. and the surface characteristics of yarn feeders and friction elements can be determined.

The Software RK - WIN is matched with the Tensometric friction meter RK.

The measurements and results are presented in the clearly arranged screen and printed graphics.

Online measurement screen "ALL"





Measurement screen "Histogram"

The screen display can also be changed during a measurement, RK – WIN continues processing in the background.

The measured values are provided as numerical values and graphically.

At the touch of a button test results are entered into a database. Material specific measurement configurations (projects) can be saved and activated at a later date.

We distinguish the time-triggered (trigger) and the result-dependent (auto) measurement.

Online - Measurement:

The screens are continuously displaying the measured values.

Trigger - Measurement:

Start of measurement at a defined time, automatic stop of measurement after a preselected period of time.

Auto - Measurement:

Start of measurement at a defined time. If the coefficient of friction μ remains 5 sec within its predetermined tolerance range, the measurement is stopped. This gives the possibility of a desired accuracy of the friction coefficient μ to be determined by a tolerance range. The calculation of the friction coefficient can be switched between the formula Eithelwein and the formula Parussel.

Formula Eithelwein:

Formula Parussel:

$$\mu = \frac{1}{\alpha} \log \left(\frac{F2}{F1} \right)$$

 $\mu = F1/c$

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F1 = tension before friction body

 μ = coefficient of friction a = angle of deflection

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F2 = tension after friction body

c = constant (weight force of the loading plate)

The evaluation of the measurement can be read directly in a continuously updated result set.

The measurement protocol is automatically copied to the clipboard. Thus, it is easy to insert it into a word processing program.

Communication between measuring program RK - WIN and friction meter via USB interface.

Min. requirements for PC: Windows 7 operating system installed

Screen: Adjust input channels



Measurement report:



Functional overview:

Friction coefficient μ , - and stick-slip measurement.

The following input channels are digital, as a chart recorder and a nominal - distribution (Histogram) in chart recorders displayed individually or together:

Thread tension before the friction body "F1" Thread tension after the friction body "F2" Friction coefficient μ

The recorder is drawing a line for each input channel, one each for the MIN - value the average - and the MAX – value

Each line can be switched invisible / visible by mouse click.

Take off speeds are digitally displayed.

Control of the take-off and stick-slip motor by RK- WIN software.

Start of measurement only at closed security door of the friction measuring device RK.

Options:

Automatic stick-slip velocity change

Additional setup for measuring in water bath