KEISOKKI
EVENNESS TESTER

model KET-V++/C & KET-QTV

Evenness testing for filament yarn
The Keisokki Evenness Tester Model KET-V++/ C for filament, the new face operating on Windows 10 (64bit), succeeds to the legacies of the former models. KET-V++/ C, as well as the former models, reveals the characteristics of filament yarn in the terms of CV%, U%, AVE%, CV(L)% etc.

What are obtained from KET-V++/ C?

Numerical data from each individual test
- CV% (coefficient of variation) and U% (mean deviation) of mass variations
- AVE (relative yarn count, or mean cross section)
- Max% and Min% (maximum and minimum cross-sectional deviation from AVE)
- R/2 (the half of the range which is the sum of Max% and Min%)
- CV(L)% with 4 reference lengths

Graphic data from each individual test
- Diagram of mass variations
- Diagram of mass variations in inert or half-inert mode
- Spectrogram with 170 channels at maximum, up to 1000m wave length at maximum

Statistics
- Mean
- Range (R)
- Standard deviations (s)
- CVB%
- 95% confidence limits (Q95)

Others
- CV(L)%
- Overall spectrogram
- Histograms of CV% and AVE

Components

Main components are as follows. A diagram recorder as a physical device is no longer used. The diagram is displayed on the screen.

Measuring frame
Sensor unit, drive and power unit are fitted together in the measuring frame.

Software
KET-V++/ C software for Windows 7~10 for 64bit is provided by CD-ROM.

Analog Input PCB
An analog input board with full height PCI Express is provided.

Electronic tension device ETD-V
ETD-V gives a precise tension to the testing filament.

Stand
The measuring frame is put on the stand. In addition, the materials tested are collected in the stand.

Auto cop changer ACC (option)
ACC is available. Up to 24 bobbins can be automatically exchanged one after another.
Technical data

**Measuring specification**

Range of material:
approx. 10 to 10,000 denier or 11 to 11,000 dTex

Dynamic measuring range:
±100%, ±50%, ±25% and ±12.5%

Measuring mode:
either normal and half-inert modes or normal and inert modes

Material speed:
25, 50, 100, 200, 400 and 800m/min

Evaluation time:
00'10" to 19'50" at every increment of 10"
(Measuring yarn length: Max 2000m)

Twisting speed: 1,000 to 22,000 rpm

Twisting direction: S or Z

Significant CV% and U%: 0.20% to 99.99%

**Spectrogram (option)**

Number of chennels:
Max. 170 channels

Wavelengths analyzed:
1cm to 1km

Amplification setting:
Automatic

CV (L)%

Number of channels: 4 channels

Reference length: 0.20 to 10.00 m

Electronic tension device ETD-V (option)

Range of tension: 5cN to 50cN

Auto cop changer ACC (option)

Maximum number of bobbins: 24

Type of Knotter: automatic fishermen's knotter

Knotting cycle: about 3 seconds

Range of material: approx. 18 to 1,080 denier
or 20 to 1,200 dTex

**Power supply**

Voltage: either 100/110 Vac or 200/220 Vac

Frequency: 50/60 Hz

**Compressed air**

Measuring frame: 0.6 Mpa and about 4 m³/h

Auto cop changer: 0.6 Mpa and about 4 m³/h

**Size and Weight**

Measuring frame:
320 (W) x 646 (H) x 415 (D) mm and approx. 34kg

Stand:
340 (W) x 490 (H) x 450 (D) mm and approx. 14kg

Electronic tension device
320 (W) x 240 (H) x 147 (D) mm and approx. 5.5kg

Auto cop changer:
535 (W) x 250 (H) x 259 (D) mm and approx. 30kg
KET-QTV with 4 sensors

KET-QTV is an evenness tester for filament with 4 independent plug-in sensor units. Thus the user can test 4 bobbins at a time.

What does KET-QTV provide?

**Numerical data from each individual test**
- CV% (coefficient of variation) and U% (mean deviation) of mass variations
- Max% and Min% (maximum and minimum cross-sectional deviation from AVE)
- R/2 (the half of the range which is the sum of Max% and Min%)
- CV(L)% with 4 reference lengths
- CV(half-inert)% and U(half-inert)%

**Graphic data from each individual test**
- Diagram of mass variations
- Diagram of mass variations in half-inert mode
- Spectrogram

**Statistics**
- Mean
- Range (R)
- Standard deviations (s)
- 95% confidence limits (Q95)

**Technical data**

**Measuring specification**

- **Sensor**: capacitive sensor with one electrode
- **Sensor unit**: max. 4 plug-in units with one sensor each
- **Range of material**: on demand at the ratio “min. count / max. count = 1/6” out of the absolute range of 50 to 5,000 dTex, (for example 100 to 600 dTex or 200 to 1200 dTex)
- **Material speed**: 25, 50, 100, 200 and 400 m/min
- **Twisting speed**: 1,000 to 11,000 rpm
- **Twisting direction**: S or Z

**Size and Weight**

570 (W) x 1820 (H) x 630 (D)mm and approx. 150kg

**Components**

Sensor unit, drive and power unit are fitted together in the measuring frame. KET-QTV software for Windows 7~10 for 64bit is provided by CD-ROM. An analog input board and a digital I/O board with full height PCI Express are provided.

*The specifications and design are subject to change without notice*