

Thread counter

Optical examination methods for textiles are an indispensable special area of textile examination when it comes to identification, product development and clearance of damages in fibers and fabrics.



Picture 1 - LED version with adjustable needle at the base

The thread counter has been invented to review the quality of woven fabrics. In the textile industry the amount of warp and weft yarns within a certain fabric length are counted thereby. In carpet trade thread counters can be used to determine the amount of knots per area in case of tied carpets.

A thread counter (also called measurement magnifier) is a strong magnifier with three to twelve-fold magnifications. The physical distance between this one and the magnifying lens depends, because of construction reasons, from the focal length.

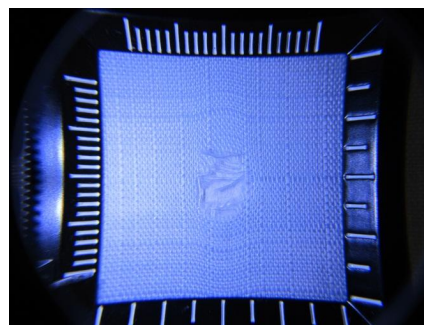
Commonly a thread counter is manufactured from three metal- or plastic surfaces which are foldable connected through two hinges. The height of the middle carrier area at the same time specifies the measure for the minimum focal length resp. depends on it.

Ready for use and well positioned the upper surface contains a mostly round hole as a frame for a strong magnifier (very seldom this is a double lens system). If folded, the magnifier lies between the other two surfaces and is thereby save for transport.



Picture 2 – thread counter folded up

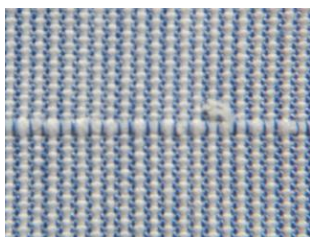
Using a good thread counter in reflected light with a 6-fold magnification yet a good proposition can be made. For our thread counters we pay attention to a great field of view for easy documentation with simple mobile phone cameras. Our thread counter version with LED is therefore very suitable.



Picture 3 – Picture through the lens

Areas of application

An area of application is in raw material control for assessing the thread counts as a quality parameter. Additionally a magnifier is often necessary for cleaning of raw fabrics. A wide area of application is also error detection and analysis in the field of fabric inspection,



Picture 4 – Picture through thread counter enlarged by zoom

quality control in printing for the examination of printing screens or contour and rapport. Moreover when it comes to coating and laminating mistakes can be detected and eliminated quickly using the thread counter.

Models

The model FDZ01 without LED lightning is especially suitable for areas in which a strong light is already present for observation such as on inspection tables in goods receiving control or final inspection as well as in the laboratory.



Picture 5 – Thread counter FDZ01

Thread counter	Ord.No. ZB-FDZ01e
enlargement	6-fold
version	metal case black
field of view	25 mm
lens	bi-convex from glass with Ø 28 mm
measurement area	15 x 15 mm
scale	mm and inch
package item	1 piece

The model with LED lightning is especially useful for the textile practitioners, who are often around in the company, such as electricians or product responsables. Because of the incorporated LED lightning there is always enough light to make sure a detailed examination can take place.



Picture 6 - LED thread counter FDZ02

Thread counter LED	Ord.No. ZB-FDZ02e
enlargement	6-fold
version	metal case black, with LED lightning
field of view	25 mm
lens	bi-convex from glass with Ø 28 mm
measurement area	15 x 15 mm
scale	mm and inch
package item	1 piece

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