

DOTSCOPE MINI 3D

PRODUCT DESCRIPTION

SOPRIN
solutions for the printing industry

The **DotScope mini** is a 3D microscope specially optimized to the needs of the printing industry. Robust, easy to use, fast in the measurement and still precise.

As measuring method, the focus variation is used. In this method, images are recorded at different focus settings. Then a 3D model is calculated from the different local sharpness values. Typical applications for the DotScope 3D are the measurement of microscopic structures on gravure cylinders, flexo plates, sleeves or anilox rolls.



The operation is very simple: Set the unit to the point to be measured, manually move nearly to the highest measuring point. Then click the start button. The illumination is automatically optimally adjusted and within a few seconds the 3D profile is determined. In addition, the tread depth, the surface volume, the grid and the screen angles have been determined without further user intervention. A typical measurement takes 10-15 seconds.

For further investigations additional tools for the measurement of transverse and longitudinal diagonals, channels, wall widths, profile sections and the stylus angle are available.

The **DotScope mini** is robust, very lightweight and easy to handle, ideal for daily use under production conditions. The integrated xy adjustment helps to find special details in the engraving. For stylus engravings a 2D mode is available, which automatically measures with one click the crossdiagonals of all cells in the image in less than one second.

The measurements can be stored and later processed further, e.g. additional profile sections or geometry measurements can be performed. For documentation purposes or quick email sending jpg images can be saved. To monitor your cylinders, a history function is built in which documents the trend of the dip volumes of the time.

The software generates a report which is highly configurable:

The logo can be replaced, user-specific fields are definable and multiple images or measurements per report are possible. In addition, the layout can be changed and carried out over several pages if necessary.

The nosepiece with three lenses can quickly moved between measurement tasks. This saves the time handling around with other lenses.

The DotScope mini is only connected via USB to a PC. There are no other (supply) lines required. The low power consumption allows with a notebook easily a multi-hour off-grid use.

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TECHNICAL DATA

- Image resolution: 768 x 576 pixel
- Roll diameter: From 60 mm to flat
- Optics:

Lens	Max. measuring field	Min. optical resolution	Screen range
5x NA 0,1	1400 x 1060 μm^2	1,10 μm / pixel	15 - 60 l/cm
10x NA 0,25	700 x 530 μm^2	0,55 μm / pixel	30 - 240 l/cm
20 x NA 0,3	350 x 260 μm^2	0,27 μm / pixel	60 - 500 l/cm

- Weight: 2,9 kg
- Maximum vertical scan range: 1800 μm , optional other ranges possible
- Environmental conditions:
 - Operating temperature: 15°C - 35°C
 - Storage temperature: 10°C - 40°C
 - Humidity: 30% - 60%
- Minimum PC requirements:
 - Operating System Microsoft Windows 7 / Windows 10
 - Intel / AMD x86 oder x64 processor
 - 4 GB RAM
 - Screen resolution 1024x720
 - 2 free USB 2.0 ports
- Recommended PC requirements:
 - 8 GB RAM,
 - Processor e.g. Intel Core i5, > 2 GHz
- Data export: .m2d, .m3d (measurement with all measured data), .jpg, .x3p
- Illumination: Coaxial and radial LED illumination
- Cable lenght: Optionally 2m, 3m or 4,5m
- Included in delivery: DotScope camera with 3 lenses, DotScope software on USB stick, dongle, USB cable and transport case