

## DOTSCOPE ECO

### PRODUCT DESCRIPTION

**SOPRIN**  
solutions for the printing industry

The **DotScope eco** is a 3D microscope specially optimized for measuring anilox rolls. Robust, easy to use, fast in 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. With the **DotScope eco** you can measure microscopic structures, e.g. anilox rolls or flexographic printing plates.

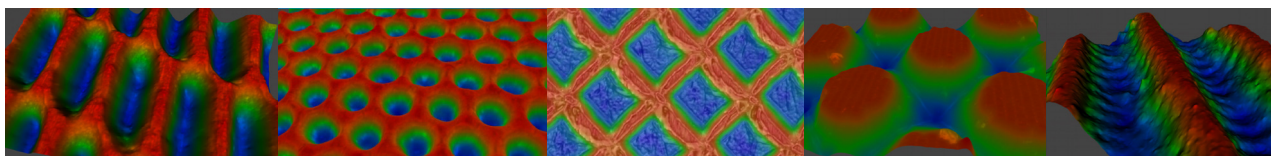


The operation is very simple: Set the unit to the point to be measured, manually move nearly to the highest measuring point. Then click the start button. The illumination is automatically optimally adjusted and within a few seconds the 3D profile is determined. In addition, the tread depth, the surface 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, depth and profile sections are available.

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. 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.

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

The **DotScope eco** 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 $\mu\text{m}^2$ | 1,10 $\mu\text{m}$ / pixel | 15 - 60 l/cm  |
| 10x NA 0,25 | 700 x 530 $\mu\text{m}^2$   | 0,55 $\mu\text{m}$ / pixel | 30 - 240 l/cm |
| 20 x NA 0,3 | 350 x 260 $\mu\text{m}^2$   | 0,27 $\mu\text{m}$ / pixel | 60 - 500 l/cm |

- Weight: 1,9 kg
- Maximum vertical scan range: 1,8 mm, 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:
  - 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 1 lens,
- DotScope software on USB stick, dongle, USB cable and transport case

### OPTIONS

- more lenses
- automatic 2D measurement of gravure cells
- software maintenance
- calibration target xy
- calibration target z

### PRODUCT VARIANT

- **DotScope mini** with additional xy adjustment and control buttons on the device.