

DOTSCOPE SENSOR

PRODUCT DESCRIPTION

A new DotScope device that should be of particular interest to machine manufacturers. The DotScope sensor can be used as such in a new form for integration into machines. It is also a 3D measuring microscope, which is equipped with the familiar software. It is supplied with a selected lens. Its advantages are that the optical unit is very well protected against dirt ingress and that it cannot fall down due to the installation, which contributes to fewer repairs.



DOTSCOPE SENSOR

- Sensor head for integration into machines.
- Detection of 3D structures.
- Dip volume measurement and others.
- Connections : USB mini B (USB 2.0 Hi Speed) and DC 5V / 700mA.
- 1 lens , optionally either 5x, 10x or 20x.
- Software connection via DotScope software (as known).
- Working distance approx. 1mm.
- Remote control via Windows.

Messaging System:

- ▷ Determination of the handles via e.g. Microsoft Spy.
- ▷ Video image can be generated by copying a rectangle from the DotScope application.

External dimensions:

- ▷ Width 80 mm (+ 4mm s crew heads.
- ▷ Height 188 mm (+ USB and DC port.
- ▷ Depth 125mm (+ sensor head mounting).

BENEFITS

- The optics are well protected in the housing. There is only a small opening for the viewing area.
- When the head is installed in the machine, it is protected against falling. This means significantly fewer repairs and longer maintenance cycles.

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TECHNICAL DATA

- Camera sensor resolution: 1280 x 1024 pixels.
- Roll diameter: from 60 mm to flat.
- Lenses:

Lens	Max. measuring field	Min. optical resolution	Screen range	
5x	1400 x 1060 μm^2	1,10 μm / pixel	15 - 60 l/cm	38 - 150 lpi
10x	700 x 530 μm^2	0,55 μm / pixel	30 - 240 l/cm	75 - 600 lpi
20 x	350 x 260 μm^2	0,27 μm / pixel	60 - 600 l/cm	150 - 1520 lpi

- Other optics and measuring field sizes on request.
- Weight: approx. 2,0 kg.
- Maximum vertical scan range : 2600 μm .
- Environmental conditions:
 - ▷ operating temperature: 15 – 35 °C,
 - ▷ storage temperature: 10-40 °C,
 - ▷ humidity: 30-60%.
- Minimum PC requirements:
 - ▷ Operating system Windows 10 / Windows 11 (64 Bit),
 - ▷ USB ports:
 - 1x USB-A Port, min. USB 2.0 compatible for connecting the DotScope (USB C is possible with an adapter e.g. DELOCK,
 - 1x USB A port for connecting the dongle,
 - possibly 1x USB A for the mouse, a Bluetooth mouse could also be used here as an alternative.
 - ▷ ≥ 4 GB RAM.
 - ▷ Screen resolution $\geq 1024 \times 720$.
 - ▷ Intel or AMD x64 processor with min. 2 cores ≥ 2 GHz.
 - ▷ Hard disk with min. 1 GByte free disk space.
- Recommended PC requirements:
 - ▷ operating system Windows 10 / Windows 11 (64 Bit),
 - ▷ USB ports:
 - 1x USB A port, min. USB 2.0 compatible for connecting the DotScope (USB C is possible with an adapter e.g. DELOCK,
 - 1x USB A port for connecting the dongle,
 - possibly 1x USB A for the mouse, a Bluetooth mouse could also be used here as an alternative.
 - ▷ ≥ 8 GB RAM,
 - ▷ Screen resolution 1600x900...2560x1600, Form-Faktor 16:9 // 16:10,
 - ▷ CPU: Intel bzw. AMD x64-Prozessor with min. 4 cores ≥ 2 GHz,
 - ▷ SSD hard disk with min. 5 GByte free disk space.

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TECHNICAL DATA

- Data export:
 - ▷ 2D: .m2dx (measurement with all measured data), .sm2d series measurement), .jpg, .csv, .xml,
 - ▷ 3D: .m3dx measurement with all measured data), .sm3d series measurement), .jpg, .csv, .xml, .x3p,
 - ▷ Export to .xlsx,
 - ▷ Export to hotfolder (.xml und .jpg).
- Illumination : Coaxial illumination and ring illumination.
- Cable length : USB 2.0 max. 5m.
- Scope of delivery : DotScope sensor with one lens , DotScope software on a n USB stick and a dongle.
- Power supply 5V / 700mA via DC port 5,5mm/2,5mm.