## OpensYs 70/150

Video measuring system
MA 183 \& MA 185


This entry-level system offers great ease of measurement. Its small size and weight makes it particularly practical in a workshop. Its simplicity of use is an asset for any operator.

- Granit base.
- Manual X-Y table.
- Manual precision $Z$ column.
- Zoom-optics with indexes.
- 3.2 Mpx USB 3.0 color camera.
- LED circular illuminator.
- Computer with 27" monitor.
- Glass chromium deposit calibration ruler.
- Wide choice of measuring and comparison software.

| Technical specifications |  |  |
| :---: | :---: | :---: |
|  | OpenSYS 70 |  |
| X-Y table range [mm] | $70 \times 70$ manual | $150 \times 70$ manual |
| Table precision [mm] |  |  |
| Z column range [mm] | 150 manual | 150 manual |
| Column precision [mm] |  |  |
| X-Y axis rulers | Acu-Rite | Heidenhain |
| Display resolution [mm] |  |  |
| Maximum height of part to measure [mm] |  |  |
| Weight (kg) | 24 | 53 |
| Dimensions column lowered (W $\times \mathrm{D} \times \mathrm{H}$ ) [mm] | $410 \times 370 \times 550$ | $550 \times 440 \times 550$ |


| Optical choice 1 |  |
| :--- | :---: |
| Camera | Color 3.2 Mpx USB 3.0 |
| Optics | 12 X zoom / 8 indexes with or without coaxial illuminator |
| Magnifications * | 25 X to 310 X |
| Fields of view $[\mathrm{mm}]$ | $18.3 \times 13.7$ to $1.5 \times 1.1$ |
| Pixel resolution $[\mu \mathrm{m}] * *$ | 8.9 to 0.7 |
| Focal length $[\mathrm{mm}]$ | 86 |


| Optical choice 2 |  |
| :--- | :---: |
| Camera | Color 3.2 Mpx USB 3.0 |
| Optics | 12 X zoom / 8 indexes with or without coaxial illuminator |
| Magnifications * | 40 X to 465 X |
| Fields of view $[\mathrm{mm}]$ | $12.2 \times 9.2$ to $1 \times 0.7$ |
| Pixel resolution $[\mu \mathrm{m}] * *$ | 5.9 to 0.5 |
| Focal length $[\mathrm{mm}]$ | 86 |


| Optical choice 3 |  |
| :--- | :---: |
| Camera | Color 3.2 Mpx USB 3.0 |
| Optics | 6.5 X zoom / 4 indexes with or without coaxial illuminator |
| Magnifications * | 30 X to 200 X |
| Fields of view $[\mathrm{mm}]$ | $15.1 \times 11.4$ to $2.4 \times 1.8$ |
| Pixel resolution $[\mu \mathrm{m}] * *$ | 7.4 to 1.1 |
| Focal length $[\mathrm{mm}]$ | 92 |

* = Indicated magnifications are calculated on 27 " monitor and may be reduced by up to $12 \%$ according to the software configuration.
** = Camera pixel size / (sensor size / field of view)

| Software |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Functions |  |  |  |  |  |  |
| Displaying a reticle / cross | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Saving an image | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Saving measurements | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Measuring / displaying angles | $\checkmark$ | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Distance measurement | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Depth measurement | - | - | - | - | $\checkmark$ | $\checkmark$ |
| Importing and comparing DXF drawing | - | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Diameter and radius measurement | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Measurement protocol | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Display of X and Y axis | - | - | - | - | $\checkmark$ | $\checkmark$ |
| Display of $Z$ axis | - | - | - | - | $\checkmark$ | $\checkmark$ |
| Automatic measurement by image processing | - | - | - | - | - | $\checkmark$ |
| Displaying and moving up to 2 pairs of lines | - | - | - | - | - | - |
| Displaying and moving up to 3 pairs of lines | - | - | - | - | - | - |

Choice of axis display

| Axis Display | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{M x 1 0 0}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | - | - |
| $\mathbf{M x 2 0 0}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | $\boldsymbol{\nu}$ | - | - |


| Options |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Concentricity measuring tool for T-slot <br> MA 143-007-02 (70) <br> MA 145-003-02 (150) |  | Cast iron rotary table with graduation MA 145-15-70G (150) |
|  | Concentricity control for T-slot MA 145 (150) |  | Aluminum rotary table with graduation MA 143-6-70G (70) MA 145-16-70G (150) |
|  | Manual divider for T-slot MA 145d (150) |  | Aluminum rotary table MA 145-16-70 (150) |
|  | $\pm 15^{\circ}$ rotating between centers clamping bracket for T-slot MA 145a (150) |  | Vice (capacity 15mm) MA 143b-004 (70 / 150) |
|  | Prism with clamping flange for T-slot MA 145e (150) |  | Adjustable vice (capacity 15 mm ) MA 143b-005 (70 / 150) |
|  | Crocodile-pliers for T-slot MA 145b (150) |  | Crocodile-pliers on round support MA 143-010-01 (70 / 150) |
|  | Clamp with parallel jaws for T-slot MA 145b-001 (150) |  | Clamp with parallel jaws on round support MA 143-010-02 (70 / 150) |
|  | Collet holder for T-slot MA 145bZ (150) |  | Collet holder on round support MA 143-010-03 (70 / 150) |
|  | V-block with spring clip for T-slot <br> MA 145c (150) |  | V-block with spring clip on round support MA 143-010-04 (70 / 150) |
|  | Ø40mm diaphragm for transmitted illuminator 45-030-01 (150) |  | Digital ruler Z-axis MA 461-170 (150) |
|  | Digital display Mx100 MCA-300-101 (150) |  | Digital calculator Mx200 MCA-300-201 (150) |

