## DpenSYS 70/150/200

Video measuring system
MA 183-042, MA 185-021 \& MA 186-022


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.
- 1.3 Mpx USB 3.0 color camera.
- LED circular illuminator.
- Computer with $24^{\prime \prime}$ monitor.
- Glass chromium deposit calibration ruler.
- Wide choice of measuring and comparison software.

| Technical specifications |  |  |  |
| :---: | :---: | :---: | :---: |
|  | OpenSYS 70 | OpenSYS 150 | OpenSYS 200 |
| $X-Y$ table range [mm] | $70 \times 70$ manual | 150x70 manual | $200 \times 100$ manual |
| Table precision [mm] |  | 0.003 / 100 |  |
| Z column range [mm] | 150 manual | 150 manual | 150 manual |
| Column precision [mm] |  | 0.030 / 100 |  |
| X-Y axis rulers | Acu-Rite | Heidenhain | Heidenhain |
| Display resolution [mm] |  | 0.001 |  |
| Maximum height of part to measure [mm] |  | 150 |  |
| Weight (kg) | 24 | 53 | 104 |
| Dimensions column lowered (W x D x H) [mm] | $410 \times 370 \times 550$ | $550 \times 440 \times 550$ | $650 \times 550 \times 650$ |


| Optical choice 1 |  |
| :--- | :---: |
| Optics | 12 X zoom / 8 indexes with or without coaxial illuminator |
| Magnifications * | 25 X to 280X |
| Camera | Color 1.3 Mpx USB 3.0 |
| Fields of view $[\mathrm{mm}]$ | $17.5 \times 14.0$ to $1.4 \times 1.1$ |
| Focal length $[\mathrm{mm}]$ | 86 |
| Pixel resolution $[\mu \mathrm{m}] * *$ | 13.6 to 1.1 |


| Optical choice 2 |  |
| :--- | :---: |
| Optics | 12 X zoom / 8 indexes with or without coaxial illuminator |
| Magnifications * | 45 X to 540X |
| Camera | Color 1.3 Mpx USB 3.0 |
| Fields of view $[\mathrm{mm}]$ | $8.8 \times 7.0$ to $0.7 \times 0.6$ |
| Focal length $[\mathrm{mm}]$ | 86 |
| Pixel resolution $[\mu \mathrm{m}] * *$ | 6.9 to 0.6 |


| Optical choice 3 |  |
| :--- | :---: |
| Optics | 6.5 X zoom / 4 indexes with or without coaxial illuminator |
| Magnifications * | 25 X to 180 X |
| Camera | Color 1.3 Mpx USB 3.0 |
| Fields of view $[\mathrm{mm}]$ | $14.5 \times 11.6$ to $2.2 \times 1.8$ |
| Focal length $[\mathrm{mm}]$ | 92 |
| Pixel resolution $[\mu \mathrm{m}] * *$ | 11.3 to 1.8 |

* = Indicated magnifications are calculated on 24 " monitor and may be reduced by up to $12 \%$ according to the software configuration.
** = Camera pixel size / (sensor size / field of view)

| Software |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Functions |  |  |  |  |  | 1 <br> 0 <br> $\sum_{0}^{0}$ <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 |  |  |
| Displaying a reticle / cross | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Saving an image | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Saving measurements | $\checkmark$ | $\checkmark$ | - | - | $\checkmark$ | - | - | - |
| Measuring / displaying angles | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | - | - |
| Distance measurement | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | - | - | - |
| Depth measurement | $\checkmark$ | $\checkmark$ | - | - | - | - | - | - |
| Importing and comparing DXF drawing | $\checkmark$ | $\checkmark$ | $\checkmark$ | - | - | $\checkmark$ | - | - |
| Diameter and radius measurement | $\checkmark$ | $\checkmark$ | $\checkmark$ | - | $\checkmark$ | - | - | - |
| Measurement protocol | $\checkmark$ | $\checkmark$ | - | - | $\checkmark$ | - | - | - |
| Display of X and Y axis | $\checkmark$ | $\checkmark$ | - | - | - | - | - | - |
| Display of Z axis | $\checkmark$ | $\checkmark$ | - | - | $\checkmark$ | - | - | - |
| Automatic measurement by image processing | $\checkmark$ | $\checkmark$ | - | - | - | - | - | - |
| Displaying and moving up to 2 pairs of lines | - | - | - | - | $\checkmark$ | - | - | - |
| Displaying and moving up to 3 pairs of lines | - | - | - | - | - | - | $\checkmark$ | - |


| Choice of axis display |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Axis Display | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| M1 | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| QC100 | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| QC200 | - | - | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |


| Options |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Concentricity measuring tool for T-slot <br> MA 143-007-02 (70) <br> MA 145-003-02 (150) <br> MA 146-003-02 (200) |  | Cast iron rotary table with graduation MA 145-15-70G (150) |
|  | Concentricity control for T-slot <br> MA 145r (150) <br> MA 146r (200) |  | Aluminum rotary table with graduation MA 143-6-70G (70) MA 145-16-70G (150) |
|  | Manual divider for T-slot <br> MA 145d (150) <br> MA 146d (200) |  | Aluminum rotary table MA 145-16-70 (150) |
|  | $\pm 15^{\circ}$ rotating between centers clamping bracket for T-slot <br> MA 145a (150) <br> MA 147a (200) |  | Vice (capacity 15 mm ) <br> MA 143b-004 (70 / 150 / 200) |
|  | Prism with clamping flange for T-slot <br> MA 145e (150) <br> MA 146e (200) |  | Adjustable vice (capacity 15 mm ) MA 143b-005 (70 / 150 / 200) |
|  | Crocodile-pliers for T-slot <br> MA 145b (150) <br> MA 146b (200) |  | Crocodile-pliers on round support MA 143-010-01 |
|  | Clamp with parallel jaws for T-slot <br> MA 145b-001 (150) <br> MA 146b-001 (200) |  | Clamp with parallel jaws on round support MA 143-010-02 |
|  | Collet holder for T-slot <br> MA 145bZ (150) <br> MA 146bZ (200) |  | Collet holder on round support MA 143-010-03 |
|  | V-block with spring clip for T-slot <br> MA 145c (150) <br> MA 146c (200) |  | V-block with spring clip on round support MA 143-010-04 |
|  | Ø40mm diaphragm for transmitted illuminator 45-030-01 (150) |  | Digital ruler Z-axis MA 461-170 (150) |
|  | Digital calculator QC200 MCA-120-193 (150 / 200) |  | Measuring software M2 |

