

OPTICAL MICROSCOPE

- **METROLOGY** Optical Microscopes come with new innovative design in structural quality, functionality, and accuracy, a total upgrade to satisfy your upmost demand.
- High resolution, sharp image, wide-view eyepiece with adjustable focus. Easy to observe, and operate.
- Multiple modules configuration, can be configured with varies accessories for special requirements, such as data transfer, file editing, geometric element measuring.
- Image data can be imported to computer for saving file, editing, transfer, and calculations. End result can be printed.



- **Applications:**
Inspection & Analysis
Zoology, Phytology, Entomology, Histology, Mineralogy, Archaeology, Geology, Biochemistry, Biology, Agriculture, Forestry, Medical service, Hospital, School education, Eyeglass, Textile, Chemical, Jewelry, Electronics, Metal & non-metal, Industry product, Authenticating documents, Currencies, Jewelries and etc.
- **Assembling & Measuring**
IC electronic, Lead frame, Semiconductor, PC board, Film, Screen printing, Wire-cut EDM, Rubber, Plastic, Precise mold, Dies, Press, Spring, Screw, Tool, Valve, Camera, Bicycle, Motor.

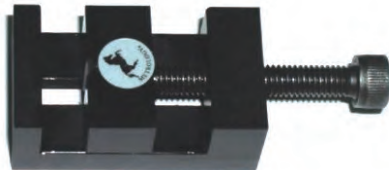
Optical accessories

■ Eyepiece



| Model No. | Description |
|---------------|--|
| OP-EL10S | 10X Small type |
| OP -EL10L | 10X Large type |
| OP -EL10G1 | 10X Cross line |
| OP -EL10G2 | 10X Cross line with 10mm scale |
| OP -EL10G3 | 10X Cross line with angle & radius scale |
| OP -EL15 | 15X |
| OP -EL15 (HM) | 15X (for HM only) |
| OP -EL20 | 20X |

■ Small vise



| Model No. | Description |
|-----------|-------------------------|
| OP-VS | Clamp length : max.18mm |

■ V-clamp



| Model No. | Description |
|-----------|------------------------|
| OP-VC | Clamp dia. : max.Φ18mm |

■ Objective lens



| Model No. | Description |
|-----------|----------------------|
| OP-OL0.3 | 0.3X (For FM/ZM/M/L) |
| OP-OL0.5 | 0.5X (For FM/ZM/M/L) |
| OP-OL0.6 | 0.6X (For X/S) |
| OP-OL1.5 | 1.5X (For FM/ZM/M/L) |
| OP-OL2.0 | 2.0X (For FM/ZM/M/L) |

■ Color CCD



| Model No. | Description |
|-----------|---|
| OP-CCDH | 1/3" High resolution color CCD Pixels : 811(H)*508(V) 0.41M |
| OP-CCDS | 1/3" Super high resolution color CCD Pixels : 1280(H)*1024(V) 1.3M |

■ Image capture units



| Model No. | Description |
|-----------|-----------------------|
| OP-IC | With cable & software |

Optical accessories

■ XY axis-measuring table



| Model. No | Measuring Range |
|-----------|-----------------|
| OP-XY22 | 50*50mm |

*With rotary table 360°

■ X-Y stage



| Model No. | Description |
|-----------|----------------------|
| OP-STAGE1 | 75*50mm Flat plate |
| OP-STAGE2 | 75*50mm Light unit |
| OP-STAGE3 | 300*250mm Flat plate |
| OP-STAGE4 | 300*250mm Light unit |

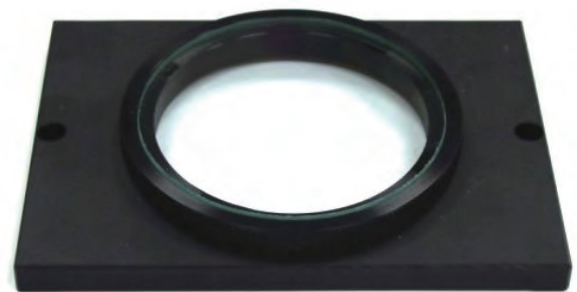
*With XY coaxial adjustment knob

■ Micrometer head



| Model No. | Description |
|-----------|----------------------------|
| OP-MH25 | 25*25 / 0.01mm |
| OP-MH50 | 50*50 / 0.01mm |
| OP-30F | 25*25 / 0.001mm / 0.00005" |
| OP-31F | 50*50 / 0.001mm / 0.00005" |

■ Rotary table



| Model No. | Description |
|-----------|-------------|
| OP-RT4 | Φ100mm |
| OP-RT6 | Φ150mm |
| OP-RT8 | Φ200mm |
| OP-RT10 | Φ250mm |
| OP-RT12 | Φ300mm |

*With base plate

■ Cross-line generator



| Model No. | Description |
|-----------|--------------------------------------|
| OP-CG2 | Multi-line style & color, auto-edge. |

Optical accessories

■ Lamp



| Model No. | Description |
|-----------|--------------------------------|
| OP-5WBF | 5W Fluorescent bulb (Base) |
| OP-8WCF | 5W Fluorescent bulb (Circular) |
| OP-15WBT | 15W Tungsten bulb (Base) |
| OP-15WTC | 15W Tungsten bulb (Cup) |

■ Illuminators



OP-8W



OP-150WD



OP-LEDDS



OP-LEDGF



OP-LEDB



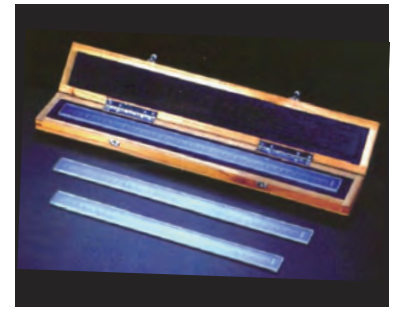
OP-LED

| Model No. | Description |
|-----------|---|
| OP-8W | 8W Circular fluorescent light |
| OP-150WD | 150W Double optical fiber |
| OP-150WC | 150W Circular optical fiber |
| OP-LED | LED circular light |
| OP-LED4 | Four -zone LED circular light |
| OP-LEDGF | LED ground glass filter (for OP-LED only) |
| OP-LEDB | 2"x2" LED back light |
| OP-LEDDS | 24V DC4W LED dual spot light |

Optical accessories

■ Standard glass scale

- High quality optical glass
- Laser calibration/system uncertainty : $(0.2+1.5/1000 \times L)\mu\text{m}$
- Glass expansion co-efficients : $7.2 \times 10^{-6} (-60^{\circ}\text{C} \sim +20^{\circ}\text{C})$ $7.6 \times 10^{-6} (20^{\circ}\text{C} \sim 120^{\circ}\text{C})$



| Model No. | Range | Graduation | Accuracy | Size (LxWxT) |
|-----------|-------|--------------------|----------------------|--------------|
| OP-SS4 | 100mm | 0.5mm or 1mm | $\pm 1.7\mu\text{m}$ | 130x36x5mm |
| OP-SS6 | 150mm | | $\pm 1.8\mu\text{m}$ | 180x36x5mm |
| OP-SS8 | 200mm | | $\pm 1.9\mu\text{m}$ | 230 x36x5mm |
| OP-SS10 | 250mm | | $\pm 2.0\mu\text{m}$ | 280 x36x5mm |
| OP-SS12 | 300mm | | $\pm 2.1\mu\text{m}$ | 330 x36x5mm |
| OP-SS16 | 400mm | | $\pm 2.3\mu\text{m}$ | 430 x36x5mm |
| OP-SS20 | 500mm | | $\pm 2.5\mu\text{m}$ | 530 x36x5mm |

| Model No. | Range | Graduation | Accuracy | Size (LxWxT) |
|-----------|--------|------------|----------------------|--------------|
| OP-SS24 | 600mm | 1mm | $\pm 2.7\mu\text{m}$ | 630 x36x5mm |
| OP-SS28 | 700mm | | $\pm 2.9\mu\text{m}$ | 730 x36x5mm |
| OP-SS32 | 800mm | | $\pm 3.1\mu\text{m}$ | 830 x36x5mm |
| OP-SS36 | 900mm | | $\pm 3.3\mu\text{m}$ | 930 x36x5mm |
| OP-SS40 | 1000mm | | $\pm 3.5\mu\text{m}$ | 1030 x36x5mm |

■ Reading glass scale

- Specially designed with a standard scale to calibrate the lens magnification accuracy of optical projector

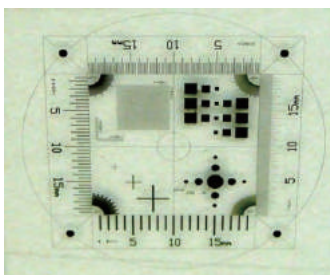
| Model No. | Range | Graduation | Accuracy | Size (LxWxT) |
|-----------|-------|------------|---------------------|--------------|
| OP-RS310 | 310mm | 0.5mm | $\pm 20\mu\text{m}$ | 340x28x4.5 |
| OP-RS360 | 360mm | | | 390x28x4.5 |
| OP-RS410 | 410mm | | | 440x28x4.5 |

■ Standard glass checker



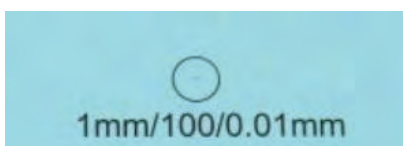
| Model No. | Range | Graduation | Accuracy | Size (LxWxT) |
|-----------|---------------------------|------------|----------|--------------|
| OP-CP814 | X: 140mm/6" Y: 80mm/3" | 1mm | 4um | 170x100x5mm |

■ High magnification calibration glass scale

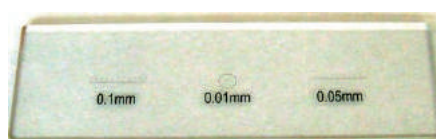


OP-HCM

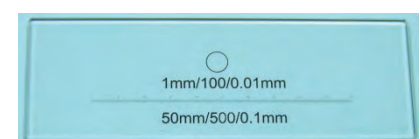
| Model No. | Range | Graduation | Size (LxWxT) |
|-----------|--------------|--------------------------|--------------|
| OP-HC1 | 1mm | 0.01mm | 75x25x1.8mm |
| OP-HC10 | 1mm 10mm | 0.01mm 0.05mm & 0.1mm | |
| OP-HC50 | 1mm/50mm | 0.01mm / 0.1mm | 42x42x1.8mm |
| OP-HCM | Length: 15mm | 0.01mm | |
| | Angle: 90° | 1° | |
| | Square | - | |
| | Circle | - | |



OP-HC1



OP-HC10



OP-HC50

Optical accessories

■ Linear scale



| Model No. | Range (mm) | Model No. | Range (mm) | Model No. | Range (mm) |
|-----------|------------|-----------|------------|-----------|------------|
| OP-LS50 | 50 | OP-LS300 | 300 | OP-LS800 | 800 |
| OP-LS100 | 100 | OP-LS400 | 400 | OP-LS900 | 900 |
| OP-LS150 | 150 | OP-LS500 | 500 | OP-LS1000 | 1000 |
| OP-LS200 | 200 | OP-LS600 | 600 | OP-LS1500 | 1500 |
| OP-LS250 | 250 | OP-LS700 | 700 | OP-LS2000 | 2000 |

*Resolution : 0.005mm 、 0.001mm 、 0.0005mm 、 0.0001mm by requirement

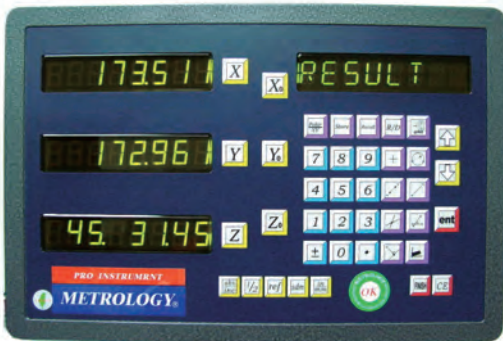
■ 2D Microprocessor digital readout



OP-ES2 Simple X-Y axis digital display
OP-ES3 Simple X-Y-Z axis digital display



OP-ES92 X-Y axis
2D geometric measuring function



OP-ES93 X-Y-Z axis
2D geometric measuring function



OP-ES15 X-Y axis
2D geometric measuring function (for projectors)



Circle



Line



Point



Distance



Angle



Intersection



Perpendicular point

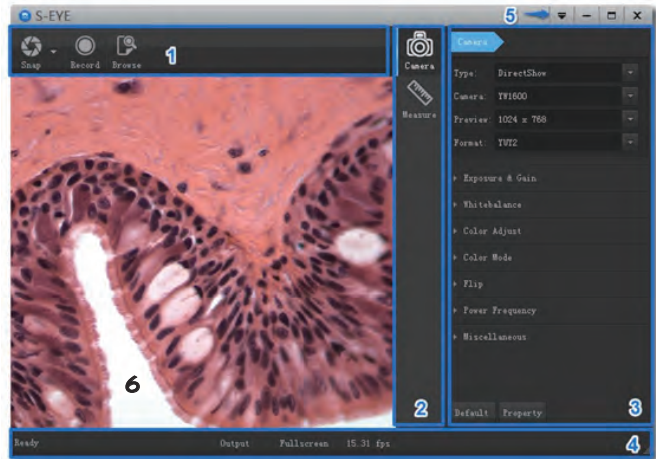


Print

■ HDMI Measuring Camera



OP-HMC309M



Software Interface:

1. Toolbar
2. Camera and measurement
3. Control panel
4. Status bar
5. Main menu
6. Image window

Camera Application:

Scientific research, education teaching · demonstration · academic exchanges, digital laboratory, medical research, Industrial visual, PCB examination, IC quality control, medical treatment, pathological observation, food microbial colony observation and counting, Aerospace, military high sophisticated weapons

Camera Features:

SONY imx335 sensor, Sensor size:1/2.8", Pixel size: 2um*2um
 Video resolution: 1080p (1920x1080) Photo resolution: 5Mp (2560x1920)
 Max preview & recording frame rate: 60fps Mouse control, Real time measurement
 Support USB drive storage and external SD card storage HDMI output
 Picture and video can be replay on the monitor without computer
 Power in: DC-12V/1A Dimensions: 50*50*58mm Net weight: 0.3kg

Camera function:

Exposure, Gain, Contrast, Saturation, Brightness, Sharpness, White balance, Color temperature adjustable, Zoom in & out, Image flip, Mono image, Freeze, Gridlines, Image comparison, Strong measuring functions

Measuring software function:

