

MICROSCOPES, CAMERAS & MAGNIFIERS

Biological Compound Microscopes

Upright Microscopes



BA310E

Motic BA310E Upright Microscope, Binocular, Brightfield
1100100402631 \$1,849.00

- Widefield 10X/20 eyepieces; both diopter adjustable
- Binocular, 30° inclined, Siedentopf design viewing head has extensive 48-75 mm interpupillary adjustment; eyetubes swivel upward to increase viewing height up to 40 mm
- CCIS EC plan achromat 4X, 10X, 40XR, and 100XR objectives
- 5-place, inward-facing nosepiece
- Rackless mechanical stage with x-y torque adjustment measures 18 cm(W) x 17 cm(D)
- Coaxial coarse and fine focus controls; coarse has tension and quick-stop adjustments
- Abbe condenser, N.A. 1.25, is centerable and focusable; iris diaphragm scaled in N.A.; slider accessory slot
- Interchangeable 30W halogen or 3W LED Koehler-type illumination
- Color balancing interference filter provided
- 40 cm(D) x 22 cm(W) x 41 cm(H)
- 5-year mechanical & optical/1-year electrical warranty

Motic BA310E Upright Microscope, Trinocular, Brightfield
1100100402641 \$2,049.00

- Trinocular version of microscope described above
- Light split 100:00/20:80 (visual:photo)

BA410E



Motic BA410E Upright Microscope, Binocular, Brightfield
1100100404301 \$3,708.00

- Widefield 10X/22 eyepieces; both diopter adjustable; 25 mm reticle holder
- Binocular, 30° inclined, Siedentopf design viewing head has extensive 48-75 mm interpupillary adjustment; eyetubes swivel upward to increase viewing height up to 62 mm
- CCIS EC-H plan achromat 4X, 10X, 40XR, and 100XR objectives mount on 6-place inward-facing nosepiece with analyzer and compensator slots
- Rackless stage with ceramic insert, x-y torque adjustment, and 2-slide specimen holder; 18 cm(W) x 17 cm(D)
- Coaxial coarse and fine focus controls; coarse has tension and quick-stop adjustments
- Achromat swing-out condenser, N.A. 0.90, is centerable and focusable; iris diaphragm scaled in N.A. increments
- Variable 3W LED housed in external lamphouse provides true Koehler illumination; Auto ON/OFF and light memory features
- 55 cm(D) x 24 cm(W) x 43.5 cm(H)
- 5-year mechanical & optical/1-year electrical warranty

Motic BA410E Upright Microscope, Trinocular, Brightfield
1100100404311 \$3,919.00

- Trinocular version of microscope described above
- Light split 100:00/20:80 (visual:photo)



MT4200H

Meiji

MT4200H Upright Microscope, Binocular, Brightfield \$3,000.00

- Widefield 10X/20 eyepieces
- Binocular, 30° inclined, Siedentopf design viewing head has single diopter; 53-75 mm interpupillary adjustment
- Infinity-corrected, plan semiapochromat 4X, 10X, 40XR, and 100XR objectives on 5-place, inward-facing nosepiece
- Ball-bearing, ceramic coated mechanical stage is 17 cm(W) x 14 cm(D)
- Coaxial coarse and fine focus controls; coarse has tension and up-stop adjustments
- Centerable Abbe condenser, N.A. 1.25, has rack and pinion focusing, and iris diaphragm
- 30 watt halogen Koehler-type illuminator
- 39 cm(D) x 21 cm(W) x 41 cm(H)
- Limited lifetime mechanical & optical/90-day electrical

Continued

MT5300H



Meiji

MT5200H Upright Microscope, Binocular, Brightfield..... \$3,300.00

- Widefield 10X/22 eyepieces
- Binocular, 30° inclined, Siedentopf design viewing head has single diopter; 53-75 mm interpupillary adjustment
- Infinity-corrected, plan semiapochromat 4X, 10X, 40XR, and 100XR objectives on 5-place, inward-facing nosepiece
- Ball-bearing, ceramic coated mechanical stage is 19 cm(W) x 14 cm(D)
- Coaxial coarse and fine focus controls; coarse has tension and up-stop adjustments
- Centerable Abbe condenser, N.A. 1.25, has rack and pinion focusing, and iris diaphragm
- 30 watt halogen Koehler-type illuminator
- 39 cm(D) x 21 cm(W) x 41 cm(H)
- Limited lifetime mechanical & optical/90-day electrical

MT5300H Upright Microscope, Trinocular, Brightfield..... \$3,650.00

- Trinocular version of MT5200H
- 38 mm ISO photoport includes 1X C-mount coupler
- 39 cm(D) x 21 cm(W) x 46.5 cm(H)



168-ASC

169-ASC



National

168-ASC Upright Microscope, Binocular, Brightfield..... \$939.00

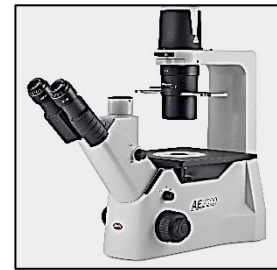
- Widefield 10X/18 eyepieces
- Binocular, 30° inclined, Jentsch design viewing head with dual diopters; 54-76 mm interpupillary adjustment
- DIN, super high contrast achromat 4X, 10X, 40XR, and 100XR objectives on 4-place, inward-facing nosepiece
- Rackless x-axis mechanical stage is 14 cm(W) x 13.5 cm(D); up-stop adjustment is provided
- Coaxial coarse and fine focus controls; coarse has tension adjustment
- Abbe condenser, N.A. 1.25, has rack and pinion focusing, iris diaphragm, and swing-out filter holder
- Centered 3 watt variable LED illuminator, corded
- 24 cm(D) x 18.5 cm(W) x 40 cm(H)
- Limited lifetime mechanical & optical/3-year electrical warranty

169-ASC Upright Microscope, Trinocular, Brightfield..... \$1,199.00

- Trinocular version of 168-ASC; 3-position beamsplitter
- 0.5X C-mount adapter included

Inverted Microscopes

AE2000



Motic AE2000 Inverted Microscope, Binocular, BF/Ph

1100103800268 \$3,099.00

- Widefield 10X/20 eyepieces; both diopter adjustable
- Binocular, 45° inclined, Siedentopf design viewing head has extensive 48-75 mm interpupillary adjustment; eyetubes swivel upward to increase viewing height up to 40 mm
- CCIS plan achromat phase 4X, 10X, and LWD 20X objectives
- 4-place, side-facing nosepiece
- Fixed stage with metal and glass inserts measures 20 cm(W) x 23.9 cm(D)
- Coaxial coarse and fine focus controls; coarse has tension adjustment and up-stop adjustments
- ELWD condenser (W.D. 72 mm), N.A. 0.30; iris diaphragm marked in N.A. graduations; 3-position slider with dedicated phase ring for 4X objective, open brightfield position, and common phase ring for objectives 10X-20X
- Variable 3W LED illuminator
- Filters provided: green interference, color balancing interference, and neutral density
- 55.6 cm(D) x 21.8 cm(W) x 49.6 cm(H)
- 5-year mechanical & optical / 1-year electrical warranty

Motic AE2000 Inverted Microscope, Trinocular, BF/Ph

1100103800267 \$3,599.00

- Trinocular version of microscope described above
- Light split 100:00/20:80 (visual:photo)



AE31E

Motic AE31E Inverted Microscope, Binocular, BF/Ph

1100100200861 \$4,019.00

- Widefield 10X/22 eyepieces; both diopter adjustable; 25 mm reticle holder
- Binocular, 45° inclined, Siedentopf design viewing head has extensive 48-75 mm interpupillary adjustment; eyetubes swivel upward to increase viewing height up to 62 mm
- CCIS plan achromat objectives: brightfield 4X, phase 10X, and phase LWD 20X
- 5-place, side-facing nosepiece
- Fixed stage with metal and glass inserts measures 20 cm(W) x 23.9 cm(D)
- Coaxial coarse and fine focus controls; coarse has tension and up-stop adjustments
- ELWD condenser (W.D. 72 mm), N.A. 0.30, is centerable and focusable; iris diaphragm marked in N.A. graduations; 3-position slider provided with universal phase ring for objectives 10X-40X, and open brightfield position
- 3W LED Koehler-type illuminator
- 55.6 cm(D) x 20 cm(W) x 52.9 cm(H)
- 5-year mechanical & optical/1-year electrical warranty

Motic AE31E Inverted Microscope, Trinocular, BF/Ph

1100100200841 \$4,538.00

- Trinocular version of microscope described above
- Light split 100:00/20:80 (visual:photo)

Metallurgical Compound Microscopes

Inverted Microscopes



IM7100



IM7200

Meiji

IM7100 Inverted, Binocular, BF/Polarized Light..... \$7,750.00

- Widefield 10X/22 eyepieces
- Binocular, 30° inclined, Siedentopf design viewing head with depolarizer has single diopter; 53-75 mm interpupillary adjustment
- Infinity-corrected, plan achromat E5X, E10X, E20X, and E50X objectives on 5-place, side-facing nosepiece
- Fixed stage measures 18 cm(W) x 24.5 cm(D)
- Coaxial coarse and fine focus controls; coarse has tension adjustment
- 30 watt halogen incident (reflected) light Koehler illuminator
- Filters provided: polarizer and rotatable analyzer, blue, green, and neutral density
- Camera port is built into front of cast aluminum alloy body
- 55.9 cm (22") x 25.4 cm (10") x 41.3 cm (16.25")H
- Limited lifetime mechanical & optical/1-year electrical

IM7200 Inverted, Trinocular, BF/Polarized Light..... \$7,980.00

- Trinocular version of IM7100
- 55.9 cm (22") x 25.4 cm (10") x 47.5 cm (18.75")H

Optional components that can be purchased for the IM7100/IM7200 models include eyepieces, viewing heads, 100X objective, attachable mechanical stage, eyepiece and stage micrometers, and camera adapters.

Student Microscope



National

131-RLD Student Microscope, Monocular, DIN..... \$294.00

- Widefield 10X eyepiece w/ pointer accepts optional reticle
- Monocular, 45° inclined viewing head rotates 360°
- DIN achromat 4X, 10X, and 40XR objectives
- Stage provided with safety stop to protect slides & objectives
- Low positioned coarse and fine focus; tension adjustment
- In-stage 0.65 N.A. condenser with 5-place disc diaphragm
- LED illuminator, rechargeable batteries (equivalent to a 20 watt tungsten bulb)
- 36 cm (14") tall
- Lifetime mechanical and optical/3-year electrical warranty
- Grades K

Stereo Microscopes



440-440PLL

National

440-440PLL Stereoscope, Binocular, 7.5-45X Zoom \$999.00

- Widefield 10X/20 eyepieces; 23 mm reticle holder
- Binocular, 45° inclined head with dual diopters rotates 360°; 55-75 mm interpupillary adjustment
- Paired achromat objectives provide continuous 7.5-45X total magnification; working distance of 110 mm with supplied 1X objective
- Heavy-duty rack and pinion focusing features a slip clutch and tension adjustment
- Dual 3W LED illuminators with intensity control offer cool light from top only (directional beam), bottom only, or both top and bottom.
- Post stand with locking support collar
- Frosted glass and reversible black/white plastic stage plates included
- 24.2 cm(D) x 17.1 cm(W) x 43.3 cm(H)
- Limited lifetime mechanical and optical/3-year electrical

440T-440PLL Stereoscope, Trinocular, 7.5-45X Zoom \$1,129.00

- Trinocular version of 440-440PLL-10

M30TZ-SM99CL



Swift

M30TZ-SM99CL Stereoscope, Trinocular, 7.5-45X Zoom \$1,219.00

- Widefield 10X/23 eyepieces; accept 24.95 mm reticle
- Trinocular, 45° inclined head with dual diopters rotates 360°; 55-75 mm interpupillary adjustment
- Paired achromat objectives provide continuous 7.5-45X total magnification; working distance of 113 mm with supplied 1X objective
- Heavy-duty rack and pinion focusing features a slip clutch and tension adjustment
- Dual 3W LED illuminators offer cool light from top only (directional beam), bottom only (variable control), or both top and bottom
- Post stand has a large ergonomic base and locking support collar
- Frosted glass and reversible black/white plastic stage plates included
- Lifetime mechanical and optical/3-year electrical warrant

Fiber Optic Illuminator

Please call regarding availability of items not listed



Fiber optic light source with dual gooseneck and two focusing lenses is shown. Items are sold separately.

Fiber Optics, Fiber-Lite™, Dolan-Jenner

Light Source, 150W EKE lamp, rheostat. **MI-150** \$700.00
(FL150/115) Warranty: 3 years

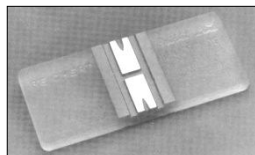
Gooseneck, Dual, chrome plated, 23" long. **EEG2823M** \$450.00
(FL150/05) Warranty: 1 year

Focusing Lens, each. **LH-759** \$80.00
(FL150/50) Warranty: 1 year

Accessories & Parts

Counting Chambers

Bright-Line®
Hemocytometer



- Hemocytometer**, Bright-Line®, molded borosilicate glass, **USA**
Reduced Thickness/phase counting chamber (3.5 mm thick)
Chamber with 2 Coverslips, Hausser. **1475** \$305.00
- Howard Mold Chamber**, Hausser, **USA**
Requires Howard Disc - see RETICLES & STAGE MICROMETERS
Chamber with 2 Coverslips (5080 & 5090). **3820** \$383.00
Coverslip only, 28 x 33 x 0.5 mm (thin), each. **5080** \$46.80

- England Field Finder**, 1 mm thick, **USA**. **KR-834** \$253.00

- Eyepiece Pointer**, wire. **14301** \$2.00



- Eyetebe Sleeve**, 23.2 mm increased to 30 mm. **14320** \$35.00

Lens Tissue

- Fine, 10 x 15 cm sheets, Bk/50 Sheets. **LENSF-46-50** \$3.85
Type 1, Class 1, lintless
Premium, 7.5 x 15 cm sheets, Pk/50 Sheets. **77605** \$4.00



- Microscope Cleaning Kit**. **77600** \$30.00
Replacement Items
Blower Bulb. **77602** \$10.50
Brush, 1½", polyester. **77603** \$3.00
Cleaning Stick. **77604** \$2.00
Lens Tissue, Premium, 7.5 x 15 cm, 50 sheets. **77605** \$4.00
Solvent Jar, (Empty). **77607** \$2.50
Utility Box. **77608** \$9.00



Protect your microscope from dust, light, and moisture with a durable rip-stop nylon, washable cover.

Microscope Dust Covers, rip-stop nylon, burgundy, **USA**

- AO100** \$23.00
4BIN \$10.00
Fits Binocular Head Only - 6½" x 8"(W)
- NBIN** \$10.00
Fits Binocular Head Only - 11" x 8"(W)
- NSML** \$25.00
Fits Nikon Alphaphot (1&2), SC; Stereos; National 420,162,168; Swift M15B-P
- NDFC** \$44.00
Fits Nikon Diaphot w/EPI-FL & Camera; Jenco BC-2A1, BC-364
- D200** \$44.00
Fits Nikon Diaphot 200/300; Olympus Vanox
- D2FC** \$44.00
Fits Nikon Diaphot 200/300 w/EPI-FL & Camera, Ti
- N400** \$30.00
Fits Nikon E400/E600/50i/55i, TS100; Jenco CP-2A1; Meiji IM7100; Olympus BX 40/41, CK2 w/mech. stage
- N4CA** \$30.00
Fits Nikon E400/E600 w/Camera; Meiji IM7200; Olympus BX 40/41 w/Camera, Zeiss Axioskop 2 w/Camera
- N4FL** \$30.00
Fits Nikon E400/E600 with EPI-FL
- NLAB** \$23.00
Fits Nikon Labophot (1&2), Optiphot (1&2), TMS/TMS-F, E200; Olympus CK2; Leica DME, DM500/DM750
- NLCA** \$30.00
Fits Nikon Labophot (1&2)/Optiphot (1&2) w/Camera; Meiji MT4300/5300
- NLFC** \$30.00
Fits Nikon Labophot (1&2)/Optiphot (1&2) w/EPI-FL & Camera
- NLTH- *** \$33.00
Fits Nikon Labophot (1&2)/Optiphot (1&2) w/TH-L
- NLTC- *** \$38.00
Fits Nikon Labophot (1&2)/Optiphot (1&2) w/TH-L & Camera
**Both TH-L covers include a cover for the student head. Specify opening as Right, Left, or Both sides using suffix.*
- NLMV** \$28.00
Fits Nikon Labophot (1&2)/Optiphot (1&2) w/Multi-View
- NLMC** \$30.00
Fits Nikon Labophot (1&2)/Optiphot (1&2) w/M-V & Camera

Microscope Filters, glass

29.8 mm Diameter

Blue, clear. MA289/05	\$50.00
Blue Frosted. MA289	\$50.00
Diffusion (frosted). MA288	\$50.00

32 mm Diameter

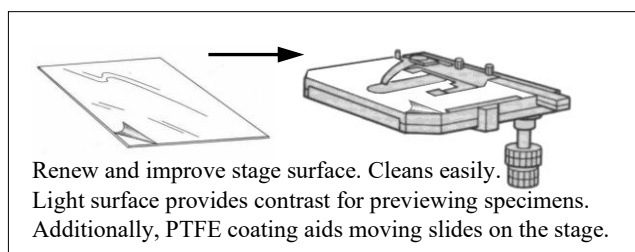
Blue, clear. 923-160	\$15.00
Blue Frosted. 3236	\$7.50
Diffusion (frosted). 3235-W	\$7.50
Green, clear. CM-0321-G	\$7.00

40 mm Diameter

Blue Frosted. MA563/05	\$70.00
Diffusion (frosted). MA566	\$70.00

45 mm Diameter

Blue, clear. 14671	\$10.40
Diffusion (frosted). 14673	\$35.00
Green Interference, 546/60, Nikon. MBN11200	\$52.00
Neutral Density, Nikon	
50% Transmittance, ND2A. MBN21802	\$42.00
12.5% Transmittance, ND8A. MBN21808	\$42.00



Microscope Stage Laminate, USA. 16251

6.25 x 7.75" sheet provided with a #10 scalpel.

White Teflon® (PTFE) on self-adhesive vinyl is 0.010" thick.

Object Marker Accessories

Refill Ink, black, 10 mL, Shachihata. **22112**

Adapters

RMS/45 to CFI60, 15 mm long. **14111**

RMS ID to 25 mm OD Thread, brass. **14115**

Microscopes with Nikon CFI60 infinity-corrected (∞) objectives require a 14111 adapter.

Microscopes with Leica 25 mm thread/45 mm parfocal length objectives require a 14115 adapter.

Microscopes with 160 mm tube length objectives do not require an adapter.



Objectives, 160 mm tube length, DIN, Meiji, Motic, National

Super High Contrast Achromats, National

4X, N.A. 0.10. 704-160ASC	\$34.00
10X, N.A. 0.25. 710-160ASC	\$43.00
40X, N.A. 0.65. 740-160ASC	\$79.00
100X Oil, N.A. 1.25. 799-160ASC	\$117.00

Semi-Plan Achromats, National (unless noted)

2X, N.A. 0.05, Accu-Scope. 3193SP-00	\$70.00
4X, N.A. 0.10. 704-160SP	\$39.00
10X, N.A. 0.25. 710-160SP	\$40.00
40X, N.A. 0.65. 740-160SP	\$51.00
50X Oil, N.A. 0.95, Meiji. MA694	\$330.00
60X, Strain Free, N.A. 0.85. MA645	\$360.00
100X Oil, N.A. 1.25. 799-160SP	\$82.00

Plan Achromats, National (unless noted)

4X, N.A. 0.10. 704-160P	\$40.00
10X, N.A. 0.25. 710-160P	\$65.00
20X, N.A. 0.40. 720-160P	\$147.00
40X, N.A. 0.65. 740-160P	\$123.00
50X Oil, N.A. 0.95, Accu-Scope. 3190PL-00	\$315.00
60X, N.A. 0.85. 760-160P	\$232.00
100X Oil, N.A. 1.25. 799-160P	\$197.00

Protect spare microscope objectives.



Objective Case, DIN, polystyrene. 15601



Extender tubes do not contain lenses.

Objective Extender Tubes, RMS thread, brass, USA

10 mm Long. 14105	\$44.20
18 mm Long. 14106	\$42.75

Objective Shims, fit RMS thread (20.32 mm Dia.), USA

Parfocalize objectives with these stainless steel rings.

25 μ m (0.001") Thick, Pk/10. 10032061	\$16.15
50 μ m (0.002") Thick, Pk/10. 10032062	\$16.15
75 μ m (0.003") Thick, Pk/10. 10032063	\$16.15
100 μ m (0.004") Thick, Pk/10. 10032064	\$16.15
125 μ m (0.005") Thick, Pk/10. 10032065	\$16.15
Assortment Pack, pk/10. 100320630	\$19.80

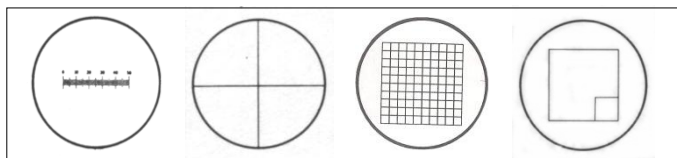
Includes two each of the following thicknesses: 25, 50, 75, 100, and 125 μ m.

Highly efficient, linear polarizing film has excellent color reproducibility. Transmission is 38% for a single polarizer, while extinction is better than 99.99% for crossed polars. Film is 0.76 mm thick.



Polarizing Film, 50 x 50 mm Pair w/Plastic Case, USA. 15751 \$15.00

Reticles & Stage Micrometers



Reticles, eyepiece, 1.5 mm thick, Klarmann Rulings, **USA**

*Specify reticle diameter using 2-digit suffix,

for example, use **KR-207-21** for 21 mm diameter reticle

5 mm/100 Parts. **KR-209-***\$105.00

10 mm/100 Parts. **KR-207-***\$105.00

Crossline 90°. **KR-301-***\$105.00

Crossline 90° with 10 mm/100 Parts Scale. **KR-257-***\$105.00

Indexed Square, 100 sqs, each 1 x 1 mm. **KR-406B-***\$105.00
1-10 on x-axis; A-J on y-axis

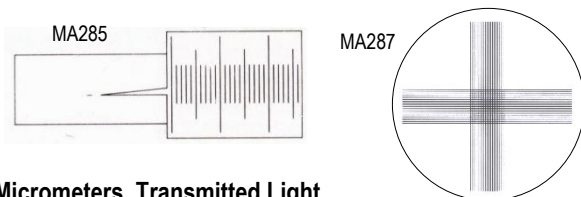
Miller Disc

★ Corner Square. **KR-802-***\$105.00

Central Square. **KR-802A-***\$105.00

Walton Beckett, G-22. **KR-827-1-***\$259.00

Whipple Disc. **KR-413-***\$105.00



Stage Micrometers, Transmitted Light

★ 1 mm/100 Parts Scale (0.01 mm), Meiji. **MA285**\$130.00

1 mm-0.01 mm/div on 1 mm thick slide, protected with microcoverslip. Preferred for compound microscopes.

10 mm/100 Parts Scale (0.1 mm), Meiji. **MA187**\$130.00

10 mm-0.1 mm/div on 1 mm thick slide, protected with 1 mm thick coverslip. Designed for stereo microscopes.

25 mm Scale, **USA**. **KR-812**\$230.00

25mm-1 mm/div, 5 mm-0.1 mm/div, 2 mm-0.02 mm/div on 3 mm thick slide. Preferred at magnifications below 400X. Ideal for large field stereo microscopes.

0.2 mm Square/400 Squares, Meiji. **MA287**\$130.00

20 vertical lines, 1 mm long and spaced 0.01 mm apart, intersect 20 similar horizontal lines to create a central 0.2 mm square consisting of 400 squares, each 0.01 mm.

1 mm thick slide is protected with microcoverslip.

Useful for x-y calibration.

0.04"/40 Parts Scale (0.001"), Meiji. **MA286**\$130.00

0.04"-0.001"/div on 1 mm thick slide, protected with microcoverslip.

Stage Micrometer, Reflected Light

1 mm/100 Parts Scale (0.01 mm), Meiji. **MA292**\$250.00

1 mm-0.01 mm/div on 3 mm thick metal slide

Digital Cameras



National

Moticam A5 Digital Camera\$495.00

- 5.0 MP (2592 x 1944) resolution with 1/2.8" sCMOS Sensor (scientific Complementary Metal Oxide Semiconductor)
- CS ring adapter
- 4-dot calibration slide
- MotiConnect imaging software

Requires Windows 10 operating system or higher



National

Moticam A8 Digital Camera\$529.00

- 8.0 MP (3840 x 2160) resolution with 1/3" sCMOS Sensor (scientific Complementary Metal Oxide Semiconductor)
- CS ring adapter
- 4-dot calibration slide
- MotiConnect imaging software

Requires Windows 10 operating system or higher

Accessories



Adapter, CS-Mount to C-Mount, 5 mm spacer. 17110\$15.00

Do not use this adapter ring on an existing C-mount camera, as it will negatively impact the quality and parfocality of the imaging system.



Couplers, Diagnostic Instruments, **USA**

1X C-Mount for 38 mm ISO Photoport. **D10NLC**\$135.00

Fits newer Nikon and Leica microscopes

Couplers, National

1X C-Mount for 23.2 mm ID Eyetube. **930-023**\$29.00

Lens free - this coupler is not parfocal

Magnifiers



Lenses are lightweight, water-clear, and shatterproof. Molded handles protect the lens and offer comfort and balance.

Magnifier, Handle, Ultra-Optix

2" Lens, 3X. SV-2P	\$5.45
3" Lens, 2X with 5X bifocal inset. SV-3P	\$7.45
4" Lens, 2X with 4X bifocal inset. SV-4P	\$12.55



Provides precise binocular viewing. Visor tilts out of the way when optical glass magnifiers are not needed. Adjustable headband is leather lined. Other magnifications and replacement lenses are available.

Magnifier, Headband, Optivisor®, **USA**

2.5X at 8", DA5. ELP-505.00	\$53.95
2.75X at 6", DA7. ELP-507.00	\$56.95
Light Attachment, Quasar™ LED. ELP-558.00	\$31.95