

DESCRIPTION

Stereozoom microscopes are optical microscopes that give a three-dimensional (3-D) view of a sample and generally operate at low magnification. The 3-D image allows surfaces to be examined with greater clarity and permits the precise manipulation of samples during magnification.

**TRINOCULAR HEAD****BINOCULAR HEAD**

ACUPSZM is a research level Stereo Zoom Microscope with infinite Parallel Galileo optical system. Based on Galileo optical system, it can provide real and perfect microscopic images on details. The excellent ergonomics and user-friendly operating system can truly allow users to experience a simple and comfortable work.

Stereozoom microscopes are used in a wide variety of fields like surgery, medical science, biotechnology, genetics, biological sciences, geology, mineralogy, archaeology, semiconductor industry, metallurgy, and textile industry, food science, marine biology, embryology, environmental science, and forensic science. In pharmaceutical and biotechnology labs, these microscopes are commonly used for magnifying biological samples such as plant tissues and organ samples. In Veterinary these microscopes are used for vitro tissue/embryo culture purpose. Wider industry applications include microsurgery, geology and microelectronics, including the examination of circuit boards and microchips.

TECHNICAL SPECIFICATION

Optical System & Design Principle

- Common Main Objective (CMO) & two Parallel Zoom Optical Path telescope system based Stereoscope with **Galilean optical system having Infinity Corrected, Multiple coated & Lead Free Optics for Research.**
- Bright Field Observation mode.
- Upgradable to Dark Field, Fluorescence, Polarization, Teaching Head & Drawing Intermediate Tube, Discussions Tube Attachment.

Observation Head : Binocular (ACUPSZM050B) Or Trinocular (ACUPSZM050T)

	<ul style="list-style-type: none"> • Vertical phototube by Beam Splitter for micro photography & documentation with C Mount adaptor (For Trinocular Head). • Trinocular Observation Tube having switchable split between eyepiece & camera for 100%:0, 0:100% or 50%:50% or 100%:0, 20%:80% or 100%:100% light distribution between optical path.
ACUPSZMBOH20	<ul style="list-style-type: none"> • Fixed Binocular Observation Tube inclined at ergonomic viewing angle 20° for comfortable view, rotatable at 360°, Inter-pupillary distance adjustment from 48mm to 76mm.
ACUPSZMBOH30	<ul style="list-style-type: none"> • Fixed Binocular Observation Tube inclined at ergonomic viewing angle 30° for comfortable view, rotatable at 360°, Inter-pupillary distance adjustment from 48mm to 76mm.
ACUPSZMBOH35	<ul style="list-style-type: none"> • Fixed Binocular Observation Tube inclined at ergonomic viewing angle 35° for comfortable view, rotatable at 360°, Inter-pupillary distance adjustment from 48mm to 76mm.
ACUPSZMBOH45	<ul style="list-style-type: none"> • Fixed Binocular Observation Tube inclined at ergonomic viewing angle 45° for comfortable view, rotatable at 360°. Inter-pupillary distance adjustment from 48mm to 76mm.
ACUPSZMTOH	<ul style="list-style-type: none"> • 0°~50° Tilting Ergo Binocular Observation head. Inter-pupillary distance adjustment from 50mm to 105mm.

Eyepiece

	<ul style="list-style-type: none"> • Diopter adjustment facility in both eyepieces suitable for both eyeglass and non eyeglass wearers. • Focusable Compensating Lead Free, Distortion- free & adjustable with exchangeable eyecup & ESD Compatible. • Having proper pupil aberration control & appropriate positioning in the eye point for comfortable observation. • Builtin Reticule Holder with 0.1mm least count (Optional)
ACUPSZMPEP10X22	<ul style="list-style-type: none"> • Focusable Wide field 10X (paired) F.O.V.22mm, Field Number 22
ACUPSZMPEP10X23	<ul style="list-style-type: none"> • Focusable Extra Wide field 10X (paired) F.O.V.23mm, Field Number 23 (Optional)
ACUPSZMPEP10X24	<ul style="list-style-type: none"> • Focusable Super Extra Wide field 10X (paired) F.O.V.24mm, Field Number 24 (Optional)
ACUPSZMPEP15X16	<ul style="list-style-type: none"> • Focusable Extra Wide field 15X (paired) F.O.V.16mm, Field Number 16 (Optional)
ACUPSZMPEP20X12	<ul style="list-style-type: none"> • Focusable Extra Wide field 20X (paired) F.O.V.12mm, Field Number 12 (Optional)
ACUPSZMPEP30X8	<ul style="list-style-type: none"> • Focusable Extra Wide field 30X (paired) F.O.V.8mm, Field Number 8 (Optional)
ACUPSZMPEP40X6	<ul style="list-style-type: none"> • Focusable Extra Wide field 40X (paired) F.O.V.6mm, Field Number 6 (Optional)

Objective (Thread Mounting Screw Type): Achromatic or PLAN Achromatic or PLAN Apochromatic Infinity-corrected, lead-free, Distortion- free, Outer Dia 60mm

ACUPSZMOBJ1XA	<ul style="list-style-type: none"> • Objective 1X, Working Distance 78-81mm, NA 0.1, Resolution 346lp/mm.
ACUPSZMOBJ1XB	<ul style="list-style-type: none"> • Objective 1X, Working Distance 91mm, NA 0.1, Resolution 309lp/mm.
ACUPSZMOBJ0.3X	<ul style="list-style-type: none"> • Objective 0.3X, Working Distance 165mm. (Optional)
ACUPSZMOBJ0.5X	<ul style="list-style-type: none"> • Objective 0.5X, Working Distance 126mm. (Optional)
ACUPSZMOBJ0.63X/0.8X	<ul style="list-style-type: none"> • Objective 0.63X/0.8X, Working Distance 78mm. (Optional)
ACUPSZMOBJ1.25X/ 1.5X/1.6X	<ul style="list-style-type: none"> • Objective 1.25X/1.5X/1.6X, Working Distance upto 28mm, NA 0.15, Resolution 500lp/mm (Optional)
ACUPSZMOBJ2XA	<ul style="list-style-type: none"> • Objective 2X, Working Distance 20mm, Resolution 618lp/mm. (Optional)
ACUPSZMOBJ2XB	<ul style="list-style-type: none"> • Objective 2X, Working Distance 33.5mm. Max resolution: 1211 Lp/mm (Optional)

Zooming Range & Ratio

ACUPSZMZR	<ul style="list-style-type: none"> • Horizontal Handle Knob system Zoom Drive with Click stop for repeatable task & Manually adjustable Zoom 0.8 X to 6.5X with magnification ratio of 8:1
ACUPSZMZR1	<ul style="list-style-type: none"> • Horizontal Handle Knob system Zoom Drive with 8 Click stop for repeatable task & Manually adjustable Zoom 0.75 X to 6.0X with magnification ratio of 8:1
ACUPSZMZR2	<ul style="list-style-type: none"> • Horizontal Handle Knob system Zoom Drive with Click stop for repeatable task & Manually adjustable Zoom 0.8 X to 8.0X or 0.63X to 6.3X with magnification ratio of 10:1

ACUPSZMZR3	<ul style="list-style-type: none"> Horizontal Handle Knob system Zoom Drive with Click stop for repeatable task & Manually adjustable Zoom 0.8 X to 5.6X with magnification ratio of 7:1
ACUPSZMZR4	<ul style="list-style-type: none"> Horizontal Handle Knob system Zoom Drive with Click stop for repeatable task & Manually adjustable Zoom 0.8 X to 10X with magnification ratio of 12:1

Magnification Range

ACUPSZMM865	<ul style="list-style-type: none"> 8X-65X with 10X eyepiece pair and 1X Objective. 4X to 390X with Combination of different eyepiece & objectives used. (Optional)
ACUPSZMM756	<ul style="list-style-type: none"> 7.5X-60X with 10X eyepiece pair and 1X Objective. 3.75X to 480X with Combination of different eyepiece & objectives used. (Optional)
ACUPSZMM663	<ul style="list-style-type: none"> 6.3X-63X with 10X eyepiece pair and 1X Objective. 3.15X to 378X with Combination of different eyepiece & objectives used. (Optional)
ACUPSZMM880	<ul style="list-style-type: none"> 8X-80X with 10X eyepiece pair and 1X Objective. 2.4X to 480X with Combination of different eyepiece & objectives used. (Optional)
ACUPSZMM856	<ul style="list-style-type: none"> 8X-56X with 10X eyepiece pair and 1X Objective. 2.4X to 336X with Combination of different eyepiece & objectives used. (Optional)
ACUPSZMM810	<ul style="list-style-type: none"> 8X-100X with 10X eyepiece pair and 1X Objective. 2.4X to 400X with Combination of different eyepiece & objectives used. (Optional)

Mechanical Body

ACUPSZM-MB1	<ul style="list-style-type: none"> Plain Track stand with fan type big base, Antishock feet & Clip for holding specimen. Diascopic & Episcopic i.e. Transmitted & Incident Reflected LED Focusing Stand with glass plate & White-Black plate 120mm. Large Focusing unit knobs on both sides with tension adjustable. Focusing stroke 120 mm Co-axial Coarse & Fine Focusing unit knobs on both sides with tension adjustable. (Optional)
ACUPSZM-MB2	<ul style="list-style-type: none"> Large base with antishock feet, dimensions at least 250 x 300mm or customized. The column focus drive length 450mm/620mm, column movement is 350mm/520mm and fine & Coarse focusing in the full length of the column. Load Capacity 15kg.
ACUPSZM-MB3	<ul style="list-style-type: none"> Dual Arms Heavy Base Boom Stand for better stability. Freely moveable Arm and can be adjusted to any location i.e 90° left and right, and Up and Down. Vertical Column length : 450mm Horizontal arm length: 450mm. Large Focusing knobs on both sides with tension adjustable.
ACUPSZM-MB4	<ul style="list-style-type: none"> Dimension of base: 331X257mm, Height of base: 35mm adjustable focus torque Large Focusing knobs on both sides with tension adjustable. Diascopic & Episcopic i.e. Transmitted & Reflected LED Focusing Stand with glass plate & White-Black plate.
ACUPSZM-MB5	<ul style="list-style-type: none"> Manual Diascopic White LED transmitted light illumination stand suitable for brightfield, darkfield application & variable angle oblique illumination contrast by built in condenser and adjustable rotatable & slidable reflecting mirror for changing the light signal directions provides high relief observation for the colorless samples. Compatible with Origio and IVF- Tech work stations. Coarse/fine drive with profile column of 450mm, min 10kg load capacity Wide stand dimensions 322x373x42mm or customized with transmitted light & manual intensity control, Mount with 76mm diameter support, Transparent Glass Stage & Plastic Arm Hand Rest
ACUPSZM-MB6	<ul style="list-style-type: none"> QUAD Position LED Transmitted Light Illumination Base with provision for Bright field, Oblique, Dark field and polarization illumination. Bright field standard cartridge, Dark field cartridge (Optional) Black and white reversible stage plate with ESD capability on black surface.
ACUPSZM-MB7	<ul style="list-style-type: none"> Ergonomically designed, Plan base with transmitted illumination, glass insert plate size: diameter 180mm, offers a huge space for sample holders, intuitive controls and an extremely low profile for easy access and reduced fatigue free body movement. Transmitted LED Illumination / LED diascopic illumination is designed to achieve high overall contrast and includes the innovative OIC (Oblique Illumination Contrast) system or OCC (Oblique coherent contrast) illumination system. It allows colourless and transparent samples to be observed in high relief, ideal for transparent structures. Compact slim type base enhances operation efficiency. Transillumination base with 90° white-light LED transmitted light, brightness knob, sprightly movable diaphragm and 3 position turrets for: <ol style="list-style-type: none"> Bright Field plus and oblique-light contrast by shift able diaphragm homogenous bright field all-side dark field, also unilateral by movable diaphragm.

	<ul style="list-style-type: none"> Co-axial Coarse & Fine Focusing unit on both sides with tension adjustable, coarse range: 50mm, fine precision 0.002mm
ACUPSZM-MB8	<ul style="list-style-type: none"> Flexible arm stand with table clamp for installing the mount on the work table. Counterbalance adj. weight range: 1.5 to 7 kg, Load range at 2.6 kg max, Table thickness: 100 mm, Max. extension: 995 mm (360° arc) Mountable focus Arm, 76 mm interface, pin diameter 15,8 mm (5/8"), max. focus travel 120 mm, max. 6 kg load.
ACUPSZM-MB9	<ul style="list-style-type: none"> Motorised Focus Column with Motorised Focusing and motorised travel range 420mm. User defined focus limits can be set

Illumination System (Diascopic & Episcopic)

ACUPSZM-I1	<ul style="list-style-type: none"> High Power Incident/Reflected and Transmitted Light Base with white LED lamps having lifetime more than 25000 hrs.constant colour temperature at any intensity. Regulated power supply for both lights with separate brightness controls. ON-OFF switching possible separately for both reflected and transmitted illumination. Additional Ring Light illumination & LED Dual Gooseneck Illumination system (Optional)
ACUPSZM-I2	<ul style="list-style-type: none"> Incident/Reflected and Encoded transmitted Light Base with white LED lamps. LED illumination having lifetime of more than 25000 hrs and suitable for bright field as well as one side Rottermann contrast or /equivalent contrast and dark field. Additional Reflected multiple LED's based ring light illumination with switchable segments and integrated control panel. High performance diffusor to remove glares from reflected surface samples.
ACUPSZM-I3	<ul style="list-style-type: none"> Incident/Reflected light systems with white LED lamps. Ring Light illumination with Ring Light Guide Adapter for Reflected illumination having Colour Temperature 6100K with service life of 50,000 hours & high brightness. Fiber Optics LED Dual Gooseneck Illumination system with Dual Interlock Light Guide for Reflected Light Illumination. (Optional) CLS illuminator stand & COLLECTOR LENS For Light Dual Guide
ACUPSZM-I4	<ul style="list-style-type: none"> LED stand with incident and transmitted light, 6100K color temperature 4-point ring light for high brightness, Multi-point arc light for oblique illumination. Transmitted light with centered LED for contrast enhancing
ACUPSZM-I5	<ul style="list-style-type: none"> Manual Diascopic White LED transmitted light illumination. Reflected illumination : 6200K color temperature min. 60,000 operating hours, flicker free light, silent fan control of intensity with Dual Arm Gooseneck LED Light Illumination & LED Ring illumination. (Optional) Reflected illumination :Cold Light Source with 15V/150W Halogen illumination with LCD display for brightness control with gooseneck light guide with focusing attachment and filter set (Optional)

Electronics : Universal Input (100-240)volts \pm 10%, 50-60Hz, single phase AC supply.

Standard Accessories : Operating Manual, Dust Cover, Guarantee Card and Styrofoam Molded pack.

FEATURES

- High quality optical components, providing sharp and striking contrast image and ensure flat image at big depth of field. Sharply focused over the whole magnification range.
- Distortion Free, Large Field of view and Extended Working distance.
- Ease the tiredness with ergonomic design. Well balanced 3D impression.
- With LED light for both incident and transmitted illumination, Providing even illumination.
- With complete eyepieces, objectives and accessories it is an ideal instrument for industry assembling, inspection and teaching field.
- Efficient stray light suppression for crisp three dimensional images.
- User interchangeable front optics. Flexible with different digital cameras.
- Compatible with multiple types of illumination techniques.
- Designed for vibration free observation and heavy workloads, using durable and reliable mechanics.
- Protection Class II, Protection Type :IP20. Electrical Safety Acc. To DIN EN 61010-1 (IEC 61010-1) & ISO, CE Certified.

OPTIONAL ACCESSORIES



Fibre Optics Illumination
LED or Halogen



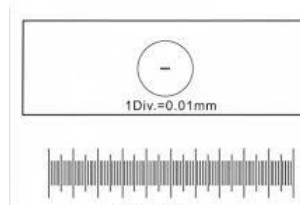
Ring Illuminator :
LED or Fluorescent



Polarizer/Analyzer



Dark Field Attachment



Calibration Slide



Micrometer Eye Piece



Fluorescence
Attachment



High Resolution
Microscopy Camera



Aperture Diaphragm