

Axioskop FS

Upright microscope with objective focusing and Fixed Stage for experimental microscopy on living specimens

Axioskop FS - the upright microscope for experiments in a wide variety of research fields in animal and plant physiology, especially electrophysiology of both transparent and thick, opaque specimens, such as:

- living brain and spinal marrow sections: electrophysiologic recording of ionic currents in neurons using the *slice-patch-clamp* technique

- nephrons for the examination of osmotic regulation mechanisms

- single plant and animal cells: leakage currents of voltage-dependent ion channels.

- Main features of the upright microscope *Axioskop FS* for examinations of living specimens:

● Objective focusing

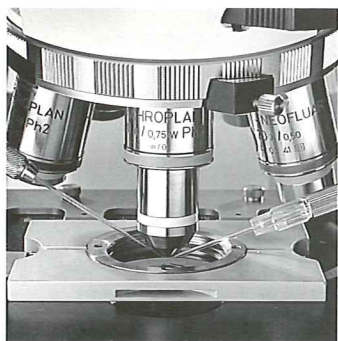
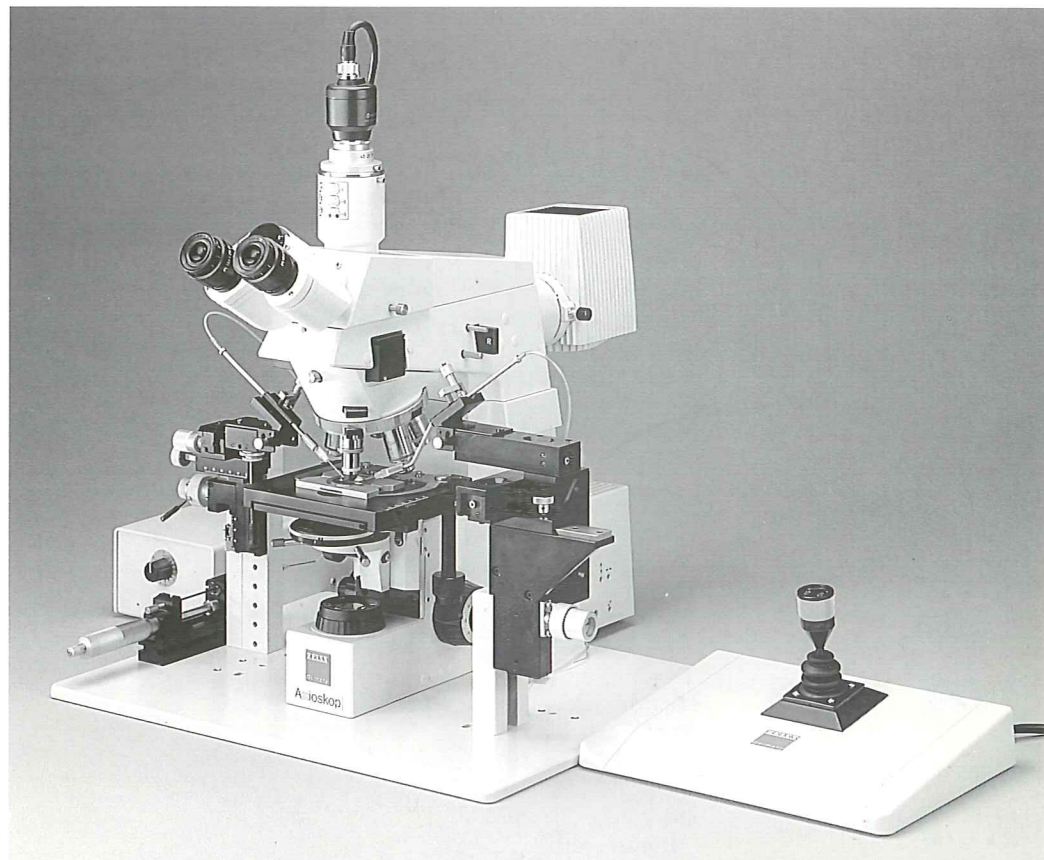
Instead of the stage focusing normally used with upright microscopes, the *Axioskop FS* uses objective focusing to obtain a sharp image of the specimen: the upper part of the *Axioskop FS* microscope stand can be moved by 25 mm, together with the 5x H DIC (W 0.8) nosepiece and the objectives inserted.

● Fixed Stage

Since the stage carrier is screwed on to the microscope stand, absolute stability of the microscope stage is guaranteed. The stage and condenser carriers form one unit and are an integral part of the microscope stand. However, the stage carrier is easy to remove for special-purpose attachments.

● External power supply

To prevent measuring results from being affected by electrical currents during electro-



physiological examinations (patch-clamp recording), the 12 V 100 W power supply unit of the transmitted-light illumination is no longer integrated into the stand. To obtain a good DIC-image even of thick, opaque specimens, the 12 V 100 W halogen lamps can be used instead of the standard 12 V 50 W lamps.

● 42 mm working distance for specimen manipulation

The microscope stage can be lowered by 17 mm. This provides a maximum working distance of 42 mm (objective focusing 25 mm + stage travel 17 mm).

● Micromanipulation using the *Axioskop FS* upright microscope

The simple mechanical and motorized micromanipulators from the Carl Zeiss line are easy to attach to the microscope base plate.

● SI design

The System Integration (SI) of the microscopes from Carl Zeiss permits the unrestricted attachment of microscope components from the *Axioskop* line, such as epi-fluorescence equipment and the binocular phototube. This

means that, in addition to the recommended stage with a short drive, permitting easy access to the focusing drive, the other available stages can also be used.

● ICS optics

Suitable optical components are available even for complicated electrode setups in the specimen for electrophysiological experiments. One example is the water immersion objective Achroplan for phase contrast with the magnification 40x, the numerical aperture of 0.75 and the relatively large working distance of 2 mm. Used in DIC-fitting equipment and the suitable DIC slider, the same objective can be used to perform DIC microscopy without difficulty.

Ordering data:

Microscope equipment
for brightfield,
phase contrast
and differential
interference contrast

Description	Cat. No.
Stand equipment for transmitted light	
Axioskop FS microscope stand with focusable upper part of microscope, 5x nosepiece H-DIC and stage and condenser carrier	451406
Sealing covers for reflected and transmitted-light	451495
Insert for transmitted-light illuminator	451451
Luminous field diaphragm insert with Iris	451435
Binocular Tube 30°/20	452905
Tube panel Axioskop	451480
Mechanical stage 75 x 30 R	453515
Specimen holder with spring clip R	473448
Dust cover G	459306
12 V 50 W illumination equipment	
HAL lamp housing with collector, reflector, lamp mount and heat-reflecting filter (length 1 m)	447218
Reflexions-Wärmeschutzfilter	467828
12 V 50 W halogen lamp	2x 380079 9550
Voltage stabilizer 100 up to 240/1,5...12 V, 50...60 Hz, 100 W	392585
Power cable with earth-contact plug, black	380137 6750
Optical equipment	
Objective Plan-Neofluar 10x/0.30 Ph 1	440331
Objective Plan-Neofluar 20x/0.50 Ph 2	440341
Objective Achroplan 40x/0.75 W Ph 2	440091
Eyepiece E-Pl 10x/20 Br.	444231
Eyepiece E-Pl 10x/20 Br. foc.	444232
Eyecup	2x 444801
Achromatic-aplanatic condenser 0,9 H, DIC	445241
Phase stop Ph 1	445269
Phase stop Ph 2	445270
DIC prism 0.5-1.4/0.9	445274
DIC slider 40x/0.75 W	444451
Analyzer slider D, fixed	433605
Polarizer D, fixed	453615
Auxiliary microscope, d = 30	444830
Microscope equipment, complete	491416 9801
Same as above, but with cable with American flat plug	491416 9901
Optional:	
For increased stability, the following is required for bulky microscope setups and the attachment of micromanipulators:	
Microscope base plate for micromanipulation	411819
Adapter for Micromanipulators MR/L mot and MMJ (right and left)	
Adapter for Micromanipulator MMJ for the Axioskop FS	411817
or	
Adapter for Micromanipulator MR/ML mot for the Axioskop FS	411818



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