

Motorized Scanning Video Microscope



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Scanning Video Microscope



BNC | model | 1420



Revolutionary Value in Motorized Microscopy

- 30 seconds acquisition buffer
- No mechanical controls or knobs to stress
- Bottom-up viewing and illumination
- Motionless stage for unperturbed microsystems
- 30 fps color or B&W, 640x480 pixels

TRAVERSE

Motorized x-y traverse and focus are controlled through the software and the front panel.

PROPERTY	RANGE	RESOLUTION
X-traverse	50 mm	10 μ m
Y-traverse	75 mm	10 μ m
Focus	8 mm	1 μ m

SAMPLE STAGE

A fixed sample stage is attached to the top surface of the enclosure. Constructed of black Delrin with a stainless steel top plate, the sample stage can be removed and machined for custom applications.

DIMENSIONS	
Width	140 mm (5.5")
Length	175 mm (7.0")
Height	12 mm (0.5")
Opening	55 mm x 80 mm

CAMERA MODULE

Snap-in module with CCD camera, optional fluorescence filter and threading for standard DIN microscope objective.

RS-170-BW - High sensitivity analog black & white camera with 640 x 480 pixels, 600 lines of resolution, 30 frames per second

RS-170-C - Bayer-pattern analog color camera with 640 x 480 pixels, 490 lines of resolution, 30 frames per second, S-Video output

OBJECTIVE

10X semi-plan (standard)
4X and 20X (optional)

INPUTS & OUTPUTS**Analog (camera dependent):**

- Composite video (NTSC)
- S Video

Digital (used for synchronization and coordination):

- 4 programmable inputs
- 3 programmable outputs
- External LED/Laser illuminator trigger/

ILLUMINATOR MODULE

Four-channel array of 24 high-brightness LEDs.

LED-B 3 blue channels and one white channel

LED-G 3 green channels and one white channel

LED-R 3 red channels and one white channel

LED-W 4 white channels

LED-X one channel each of blue, green, red and white LEDs.

PHYSICAL

DIMENSIONS	
Width	210 mm (8.3")
Length	270 mm (10.5")
Height	85 mm (3.3")
Power	Voltage 90-264 VAC, 47-63 Hz

The Model 1420 Scanning Video Microscope is a research-grade, inverted fluorescence video microscope for applications in many fields. This general purpose microscope combines some of the most advanced features with portability and value pricing. With a synchronously pulsed illuminator, sensitive 30-fps camera, and powerful video analysis software, the Model 1420 is a workhorse for many academic, industrial, R&D and research activities. Extensive filter, camera, illumination and objectives options let you tailor the system for your research.

Motorized traverse and focus, and software-configurable image-based "soft triggers" make the Model 1420 perfect for μ TAS prototypes and miniature process automation. The Model 1420 is sized and priced to be dedicated to a single user or experiment, even in a crowded lab.

The Model 1420 microscope excels precisely where it counts: getting high-quality experimental data onto a hard drive. With fulling motorized optics, remote capabilities and an event trigger-n-store capability, the Model 1420 brings a variety of specialized features to everyday applications.

Laboratory Automation

The Model 1420 can be configured seamlessly into a variety of laboratory applications. Our input and output options allow you to automate sample analysis, which increases throughput. Its motionless sample stage simplifies physical interfacing and ensures unperturbed microsystems. Motorized focus and X/Y traverse can be fully automated using LabView or scope PRO, the included software developers kit. Standard composite and S-Video analog outputs and USB and RS232 digital ports simplify electronic interfacing. Using the 4 digital input modules, the Model 1420 can be synchronized with digital controllers, a Model 575 pulse generator, interlock switches, sensors or many other devices. Remote operation is also handy for forensics laboratories, clean-room projects, or elements requiring special handling or storage conditions.