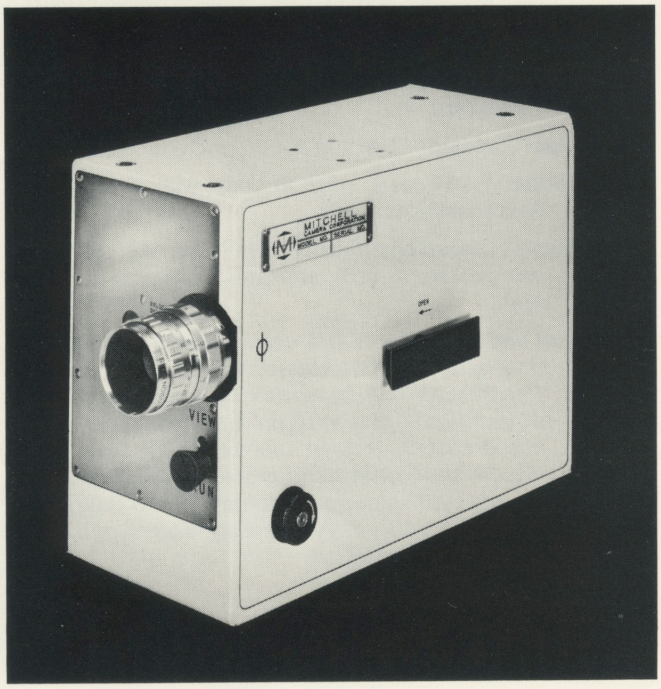
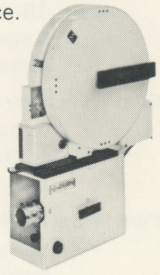
Mitchell Monitor series 16mm camera

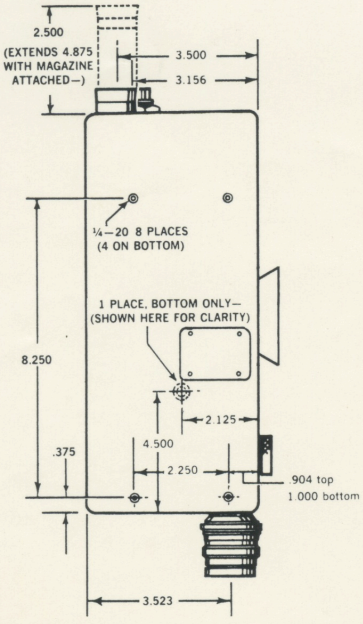
For all precision-motion photo instrumentation projects—the most reliable, sophisticated high-speed reflex camera in the world.

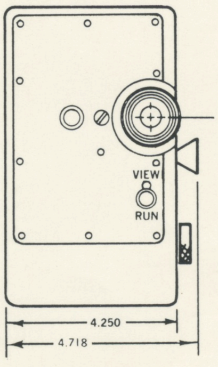


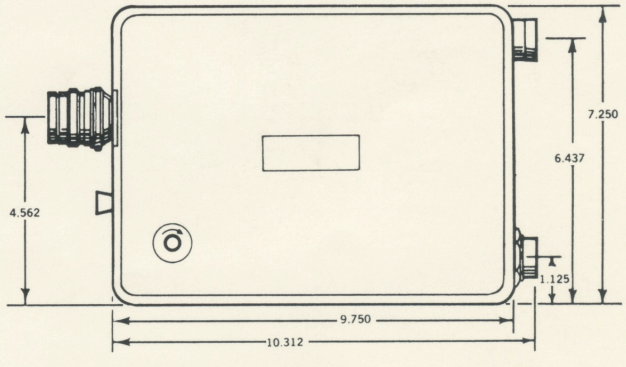
Mitchell HS-16E4 Monitor 16mm cameras offer many unique, new features to the instrumentation photography field. Not only are they exceptionally fast, but also they are human-engineered for extremely easy use, service, and maintenance. Both models (500 and 600) have 400-foot internal capacity and convert quickly to accept a 1,200-foot external magazine featuring a breakaway take-up chamber that permits removal of exposed footage only. Standard Monitor features include:



- Frame rates from 6 fps up to 500 or 600 fps
- Dual registration pins for highest degree of steadiness
- Variable speed control (by 1-frame increments if needed)
- Integral reflex boresighting without film removal
- Universal motor—no motor changing, less down-time
- Integral shutter adjustable from outside of camera
- Remote or programmed operation for stop, start, speed change
- Modular construction for simplicity of maintenance and service







Data subject to change without notice.

FORMERLY A PRODUCT OF CINERAMA CAMERA CORPORATION

MITCHELL

Mitchell Camera Corporation / 666 West Harvard Street, Glendale, California 91204 / Phone: (213) 245-1085 / Cable: MITCAMCO

Litho in U.S.A. / 6-65

MONITOR 16MM SERIES SPECIFICATIONS

Camera Body: Cast aluminum with integral midrib.

Frame Rates and Rate Selection: Any speed between 6 fps and maximum selectable—during camera operation or at standstill—by external, digitized dial that locks positively. Maximums are 500 or 600 fps, depending on model, with speed control constant within ±1% or 1 fps, whichever is greater.

Input Voltages: Universal motor uses either 28 VDC or 120 (+5, —10) VAC-DC, 50 to 1,000 cycles standard. Bendix Pygmy connectors for power supply and remote, programmed control.

Power Requirements: At 600 fps with standard integral film load: 16 amp (20 amp surge) at 28 V; 4.5 amp (6 amp surge) at 120 V. At 600 fps with 1,200-foot magazine: 18 amp (22 amp surge) at 28 V; 6 amp (7.5 amp surge) at 120 V. Note: Values decrease at lower frame rates.

Film Transport: Movement is modular, dynamically balanced, intermittent type, with double pin registration for both horizontal and vertical positioning. Timing of pins and pull-down claws keep film captive at all times.

Film Path: Tandem feed sprocket guides film into movement in same plane as aperture. This feature and the dual register pins eliminate film weave even under G-loads.

Boresight: Integral reflex boresight permits through-the-lens framing and focusing without disturbing film load or removing film transport. *NOTE:* Standard viewing system can be used only when camera is *not* operating. Continuous system, for reflex viewing with camera in operation, can be factory-installed as an optional feature.

Shutter: Balanced rotary disc type, adjustable from outside of camera from 0° to 120° equally about apex; timing is not affected by changing shutter angle.

Timing Lights: Two NE-2J neon. (Alternates available.)

Footage Counter: Resetable digital type, visible from rear of camera.

Runout Switch: Shuts off control voltage and stops camera at film's end or if film breaks.

Film Supply and Take-Up Mechanisms: Supply spool mounts on disc equipped with demand brake to prevent overrun when slowing or stopping camera. Multiple disc clutch controls take-up spool; output is varied by cam actuated by tension roller. Film tension stays constant throughout run.

Lens Mount: Standard "C" mount (1"-32 pitch).

Tripod Socket: ⅜"-16 steel insert in body, with ¼"-20 removable adaptor bushing.

Environmental Characteristics: Operates from —65° to 150° F with heaters, in 95% humidity; at altitudes to 60,000 feet.

Accessories and Options: 1,200-ft. coaxial magazine; timing display system; quick-release mount; TV camera unit (for through-the-lens monitoring during operation or at standstill); correlation pulse system; hand remote speed control; footage counter switch (one switch closure per foot of film exposed); continuous reflex viewing system; custom automatic speed control; RFI filter (120 VAC); carrying cases; heaters; and Conex (automatic iris control).

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