M7500

Fixed-Installation Thermal Imaging Camera for Industrial and Scientific Applications
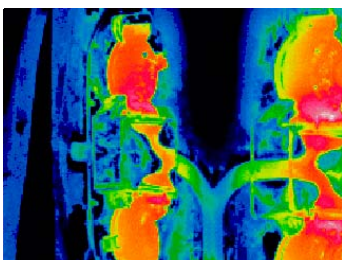
MIKRON®
INFRARED

Affordable, high performance, infrared camera with digital image transfer and remote monitoring capabilities for demanding real-time imaging applications

The M7500 represents another milestone in innovative infrared thermometry. Designed with advanced maintenance-free electronics and Industrial Protective Packaging, the M7500 offers unparalleled accuracy for demanding industrial and scientific applications. With an unmatched array of protective accessories, the M7500 demonstrates Mikron's commitment to long-term trouble-free operation of these instruments. The M7500 quickly measures temperature without contact in even the most adverse environments.

System Features

- *Affordable Price*
- *Real Time Digital Image Transfer 100BaseT Ethernet*
- *Remote Monitoring via Local Area Network [Optional]*
- *NEMA-4 housing [Optional]*
- *Maintenance Free operation*
- *Process Control Applications in Factory Production Environment*
- *Ambient temperatures to 100°C (212°F) with optional cooling*
- *High Accuracy ±2% or 2°C of reading*
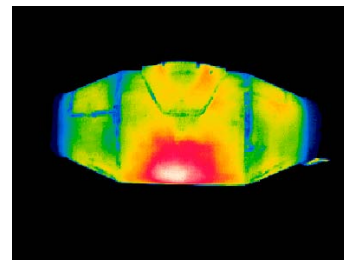- *Standard Long Wavelength, Less Affected by Sunlight and Factory Lighting*

Mold Uniformity

Furnace Door Seal
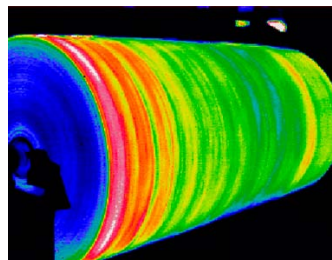
Paper wind up

Refractory Degradation

Mikron has been an innovative leader in the field of infrared non-contact temperature measurement since 1969. Mikron offers Value Imageering to help customers solve their most challenging application problems. Value Imageering is a turnkey package, consisting of complete engineering, design, and installation services to meet the most severe and difficult thermal imaging system requirements. Today, the company provides industrial customers and R&D laboratories with accurate instrumentation ranging from convenient portable cameras to complete thermal imaging systems.

THE INFRARED PROS

M7500		
Detector Unit	Temperature and Spectral Range Configurations	Config. 1: -40°C to 120°C and 50°C to 500°C 　　　　　8.0 to 14.0 µm (standard) Config. 2: 200°C to 2000°C 8.0 to 14.0 µm (optional) Config. 3: 400°C to 1600°C with flame filter 3.9 µm (optional) Config. 4: 400°C to 1600°C 4.8 to 5.2 µm (optional)
	Measurement Accuracy:	±2% or 2°C of reading
	Field of View:	21°(H) x 16°(V)
	Focus Range:	30 cm to infinity
	Instantaneous FOV:	1.2 mrad
	Detector:	320 x 240 Uncooled Focal Plane Array (Microbolometer)
	Image Update Rate:	30 Frames/sec
	Sensitivity / NETD:	0.06°C @ 30°C
	A/D Resolution:	14 bit
	Ambient Correction:	Provided (Including interval NUC)
	Interface:	100 Base T Ethernet
Environmental	Operating Temperature:	-15°C to 50°C
	Storage Temperature:	-40°C to 70°C
	Shock Resilience:	30G (IEC60068-2-29/JIS C 0042)
	Vibration Resilience:	3G (IEC60068-2-6/JIS C 0040)
Electrical	Power Supply:	12V DC 12W (Nominal)
	Power Consumption:	Approx. 10W (Typical)
Physical Characteristics:	Camera Dimensions:	3.25" x 3.25" x 6" (82 mm x 82 mm x 152 mm)
	Camera Weight:	3 lb. (excluding protective housing)
Functionality Available Through Optional OnLine Thermal Image Processing Software	Remote Camera Control Functionality:	Allows selection of the camera type, mode range, temperature scale and lens. It also allows non-uniformity correction (NUC) to be performed as well as adjustments to be made for focusing, emissivity, ambient calibration, and percentage of transmission loss.
	Real-time Image Acquisition:	Allows large amounts of data to be captured at a user-adjustable capture rate of up to 30 frames per second. Live images can be captured with full temperature data and stored to a sequence file. The maximum number of frames is dependent upon the amount of available memory in the computer. Individual snap shot images can also be stored to files with full temperature data for later analysis.
	Object Data (ROIs):	Multiple Regions of Interest (ROIs) allow for processing and computing of the Minimum, Maximum and Average Temperatures for up to 32 Regions of Interest (ROIs). The ROIs can be resized and moved on the live image display. There are 10 different ROI shapes (Point, Line, Broken Line, Free Line, Circle, Annulus, Rectangle, Rotated Rectangle, Polygon, and Region). A custom formula ROI type is also available which allows temperatures to be computed using typical Excel™ formulas.
	Alarms:	Each ROI has a minimum and a maximum alarm set point that can be configured to generate software and digital output alarms. These alarms can be recorded to a Text or Comma Separated log file for later review.
	Display Color:	Multiple Color Palettes offer flexibility for optimal image clarity.
	Isotherm Overlay:	Provides a visual representation of the temperature breakdown on the image. Three Isotherm channels are offered where temperature ranges can be set to display specific colors on the image display.
	Image Averaging and Subtraction:	Allows comparisons to be made of the current input image to that of a snapped or loaded reference image.

Mikron reserves the right to change specifications to reflect the latest changes in technology and improvements at any time without notice. These changes will be reflected in subsequent editions of our literature when warranted.

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Specifications are subject to change without notice.