



PROFESSIONAL THERMAL IMAGER

PRO TI-20 / PRO TI-21

PRODUCT INTRODUCTION

The Metravi Pro TI-20 and TI-21 Thermal Imagers combine advanced thermal imaging technology, intelligent AI enhancement, and a superior user experience to deliver fast, accurate, and efficient thermal inspections.

Equipped with a 256×192 infrared detector and real-time AI Super-Resolution technology, the cameras enhance image quality to an impressive 512×384 resolution, allowing users to identify faults, hot spots, and temperature anomalies with exceptional clarity.

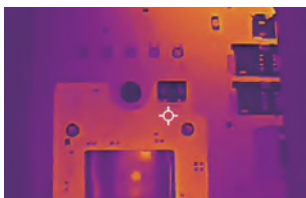
With a highly sensitive thermal detector offering a NETD as low as 40mK, the Pro TI-20 and Pro TI-21 can detect even the smallest temperature differences, making them ideal for electrical inspections, predictive maintenance, HVAC diagnostics, industrial troubleshooting, building inspections, solar PV testing, and mechanical condition monitoring.

A large 3.5-inch HD display presents thermal images in vivid detail, while the upgraded laser pointer enables quick and accurate targeting of inspection points. The Pro TI-21 further enhances productivity with an integrated laser rangefinder, providing precise distance measurement and 3D spatial positioning of thermal anomalies for faster and more effective inspections.

Designed for field professionals, both the instruments features 18W fast charging, built-in Wi-Fi connectivity, UVC image transmission, and comprehensive analysis software for seamless image sharing, reporting, and advanced temperature analysis across mobile and PC platforms.

APPLICATIONS

- Electrical Panels & Switchgear Inspection
- Transformer & Substation Maintenance
- Solar PV System Testing
- Industrial Preventive Maintenance
- Motor & Generator Monitoring
- HVAC Inspection & Diagnostics
- Building Energy Audits
- Mechanical Equipment Condition Monitoring
- Process Industry Troubleshooting
- Facility Maintenance & Safety Inspections



Circuit Maintenance



Power Maintenance



HVAC Leak Detection



Equipment Maintenance



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FEATURES

High-Resolution Thermal Imaging with AI Enhancement

- 256 × 192 infrared detector resolution
- Real-time AI Super-Resolution enhances images to 512 × 384 resolution
- Sharper thermal images for improved fault identification
- Enhanced image detail without compromising inspection speed

Exceptional Thermal Sensitivity

- NETD $\leq 40\text{mK}$
- Detects minute temperature differences and early-stage faults
- Ideal for preventive maintenance and condition monitoring

Large 3.5" HD Display

- Bright, high-resolution display
- Clear visualisation of thermal images and temperature data
- Improved usability in field environments

Advanced Laser Targeting

- Integrated laser pointer for rapid identification of inspection points
- Faster and more accurate fault localisation

Exclusive Pro TI-21 Laser Rangefinder

- Built-in laser rangefinder for precise distance measurement
- Supports 3D spatial positioning of thermal anomalies
- Improves inspection efficiency and documentation accuracy

Enhanced User Experience

- 18W fast charging for extended field productivity
- Reduced downtime between inspections
- Designed for demanding professional applications

Wireless Connectivity

- Built-in Wi-Fi for quick image transfer and sharing
- UVC image transmission support
- Seamless integration with computers and mobile devices

Professional Analysis Software

- Complete PC Client and Mobile App included
- Advanced temperature analysis and reporting tools
- Secondary analysis of stored thermal images
- Generate professional inspection reports quickly and efficiently



*Images and Specifications are subject to change without prior notice



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TECHNICAL SPECIFICATIONS

FEATURE / FUNCTION	SPECIFICATIONS	
	PRO TI-20	PRO TI-21
Detector Type	12μm	
Infrared Resolution	256×192 px	
Super Resolution	512×384 px	
Spectral Band	7.5-14μm	
NETD	<40mK	
Infrared Frame Rate	25Hz	
Focal Length	3.2mm	4.3mm
FoV	56°×42°	40°×30°
Spatial Resolution (IFoV)	3.8mrad	2.79mrad
Focus Mode	Fixed focus	
Minimum Imaging Distance	0.3m	0.7m
Measurement Range	Low temperature range: -20°~150°C High temperature range: 100°~ 550°C ; auto switching	
Measurement Accuracy	±2% or ±2°C of readings, whichever is greater	
Display	3.5-inch, 480×640 px resolution	
Visible Light Camera	2 megapixels	
Digital Zoom	2X, 4X	
Colour Palettes	7	
Image Modes	Infrared, Fusion, PIP, Visible Light	
Temperature Width Stretch	Automatic/Manual	
Analysis Functions (built-in)	Central point Highest temperature point Lowest temperature point 3 custom points Temperature difference	Central point Highest temperature point Lowest temperature point 6 custom points Temperature difference
Laser Pointer	Available	
Laser Rangefinder (Class 1)	None	Max detection range: 4m
Supporting Software	PC (Infrared Analysis Software) or Mobile (iOS/ Android APP)	
Storage / Memory	32GB Internal Memory	
Temperature Alarm	Support full-frame highest/lowest temperature alarm; Automatic image capture at alarm time (with temperature data)	
Alarm Types	Image pop-ups, flash prompts	
Video Transmission	UVC (including full-frame temperature data) + Wi-Fi (excluding full-frame temperature data)	
Communication Interface	USB, Wi-Fi	

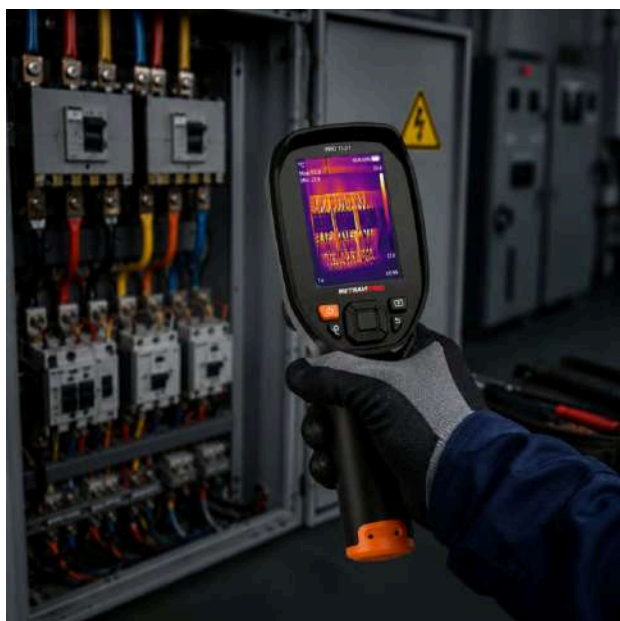
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GENERAL SPECIFICATIONS

FEATURE / FUNCTION	SPECIFICATIONS
Auto Power-off	Adjustable (Automatic shutdown, 5 min, 10 min, 20 min, 120 min)
Power Supply	Built-in rechargeable lithium-ion battery
Battery Life (single charge)	6 hours approx.
Charging Mode	USB Type-C
Tripod Socket	Available
Operating Environment	-10°C ~ +50°C; 10% ~ 95% RH (non-condensing)
Storage Environment	-20°C ~ +60°C; 10% ~ 95% RH (non-condensing)
Protection	IP54; 2m drop-tested Shock: 25g (IEC 60068-2-27); Vibration: 2.5g (IEC 60068-2-6)
Weight	500 gms
Dimensions	246×101×85mm
Accessories	USB Cable, User Manual, Charger, Carrying Case



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