ThermoVision® RANGER™ II

LONG-RANGE SURVEILLANCE SYSTEM

APPLICATIONS

- Coastal Surveillance
- Border Patrol
- Perimeter Security
- Port Security
- Vessel Traffic Monitoring
- Drug Interdiction
- Force Protection
- Training Range
- Fire Control

Maximizing long-range thermal imaging performance, the ThermoVision Ranger II advances thermal imaging into the next generation. Ranger II is rugged and weatherproof, optimized for medium or long-range surveillance in mobile systems or field installations. The powerful system delivers crisp imagery at multi-kilometer ranges, through a variety of obscurants and in total darkness.

LONG-RANGE 24/7 IMAGING

Ranger II offers crisp state-of-the-art imaging performance incorporating a third generation midwave focal plane array detector, 2x/4x digital zoom, and powerful dual field of view optics. Track vehicles at distances greater than 9 km, through smoke, dust, battlefield obscurants or poor weather conditions.

COMMERCIALLY DEVELOPED, MILITARY QUALIFIED

As with most FLIR Systems products, Ranger II is commercially developed and military qualified (CDMQ). Ranger II is rugged and environmentally sealed, making it at home in the desert, in maritime environments or in extreme cold. The MIL-STD-810F-qualified system withstands temperature extremes, dust, sand, water, ice and salt-spray, permitting deployment in severe climatic and weather conditions.

Built-in internal heaters keep Ranger II's front window clear in cold weather conditions. System components and design are maximized for long-term, unattended operation.

MISSION FLEXIBILITY

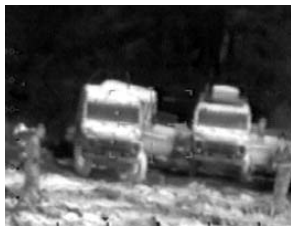
Adapt Ranger II to the mission. Its dual field of view lens, low power consumption, small size and light weight make Ranger II ideal for mobile or fixed operations. Easily install Ranger II as part of a conventional CCTV surveillance system to provide a long-range, night-piercing 24/7 capability. Ranger II is available as a turn-key system with an integrated pan/tilt head, or as a stand-alone sensor-head for use on your own platform or vehicle mount.

SIMPLE OPERATION

Ranger II eases operator workload with a variety of automatic functions, including Auto Image Optimization with Auto Gain and Auto Level. Sophisticated on-board processing provides digital zoom, histogram image equalization and a variety of color display modes. Switch between wide and narrow fields of view and leverage automatic digital image enhancement features, or freeze-frame on subjects of interest.

DIGITAL INTERFACE

Designed for rapid integration, the Ranger II offers a variety of industry-standard electrical interfaces, including RS-232, RS-422, RS-170 video, and S-video. Ranger accepts power input from 9 to 28 VDC, suiting a variety of common power sources.



FLIR SYSTEMS

SECURITY SYSTEMS
www.flir.com/stvsc

ThermoVision® RANGER™ II

SYSTEM SPECIFICATIONS		
Video Format	S-video, and RS-170 or CCIR	
Serial Interface	RS-422 or RS-232	
Power Requirements	9-28 VDC	
Heaters	Lens defroster 80 W@12 VDC	
Environmental Qualifications	Fully ruggedized/Mil-STD-810F-qualified for field operations	
Operating Temperature Range	32°C to +55°C (-26°F to +131°F)	
Camera Controls	On/Standby/Off, dual optical zoom FOV change, digital zoom 2x and 4x, front lens defroster, focus, polarity, reticle on/off, manual gain, manual level, NUC sensitivity adjustment, freeze frame, auto span with histogram equalization	
Mounting	¼-20 threaded base plate	
Dimensions	20" long x 6.5" diameter	
Weight	<20 lbs	
THERMAL IMAGER		
Detector	320 x 240 InSb FPA	
Spectral Band	3-5 µm	
Optics	f/4.0	
Nominal Field of View	Long Range	Extended Range
WFOV	50 mm, 11° x 8.2°	100 mm, 5.5° x 4.1°
NFOV	250 mm, 2.2° x 1.6°	500 mm, 1.1° x 0.8°
Digital Zoom	2x, 4x	
FPA Cooling	Closed-cycle Stirling	
Thermal Sensitivity	0.025°C @ 23.0°C	
ACCESSORIES		
Storage/Transport Case	Hard shell, lockable with fitted foam insert	
AC Adapter	110 VAC/220 VAC power supply	
Break Out Box	S-video, composite video, power, Ethernet, system cable, and hand controller	
System Controller	Push button hand controller	
System Cable	25' with molded connectors	
Power Supply Cable	10' with molded connectors	
SYSTEM OPTIONS		
Ethernet Connectivity	Establish system connectivity through Break Out Box Ethernet Port	
Hard Carbon Optical Coating	Front optical surface hard carbon coated for extreme environments	
Pan Tilt	System is available with pan/tilt and controller	

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