



**PORTABLE, LONG-RANGE, PAN/TILT
MULTI-SENSOR**

FLIR Ranger MS™-LRTI-NS™

The Ranger MS-LRTI-NS™ pan/tilt surveillance system builds on the impressive capabilities of the Ranger MS-UC DefendIR™. Equipped with a day/low-light CCD camera and cooled InSb thermal imager, the Ranger MS-LRTI-NS features continuous thermal optical zoom of 19mm to 275mm, which provides operators with options for wide-area surveillance or long-range threat detection. With Digital Detail Enhancement (DDE) to sharpen contrast for easier detection of low-contrast targets, the Ranger MS-LRTI-NS monitors vast areas in real time.

A pan-tilt design capable of 360° continuous panning, -80° to +80° tilt, and ruggedized to withstand temperatures from -40°C to 60° C, LRTI-NS is easy to integrate out of the box. Tap into existing fiber, wireless, or IP networks, or interface with VMD, radar, UGS, or other trigger sensors for a slew-to-cue solution. Weighing less than 30 pounds, LRTI-NS also includes VisionSense™ image blending for viewing through glass, glare, and light foliage.

FEATURES

MAXIMIZE THREAT DETECTION AND ASSESSMENT

Visible camera video overlays onto the 640x512 cooled thermal imagery through continuous optical zoom from 2° to 30° in real time, with adjustable video mix from 0 to 100%.

ENHANCED VISIBILITY

Blend imagery from the cooled IR and CCD cameras with VisionSense™ to penetrate glare and see through glass or water.

PTZ IN A RUGGEDIZED HOUSING

With continuous zoom, wide tilt, and 360° pan—and sealed to MIL-STD-810, NEMA 4, and IP66 specifications—LRTI-NS is ready for covert or non-covert deployment.

LOW-CONTRAST ENHANCEMENT

Reduce the risk of missing low-contrast targets with Digital Detail Enhancement (DDE) to improve threat visualization.

TURNKEY INTEGRATION

Connect to existing fiber, wireless, or IP networks and with VMD, radar, UGS, or other trigger sensors for powerful “slew-to-cue.”

APPLICATIONS

FORCE PROTECTION

BORDER SURVEILLANCE

TACTICAL RECONNAISSANCE

TRAINING RANGE APPLICATIONS

FIXED AND MOBILE SECURITY

TARGET TRACKING

LONG RANGE SURVEILLANCE

SPECIFICATIONS

RANGER® MS-LRTI-NS

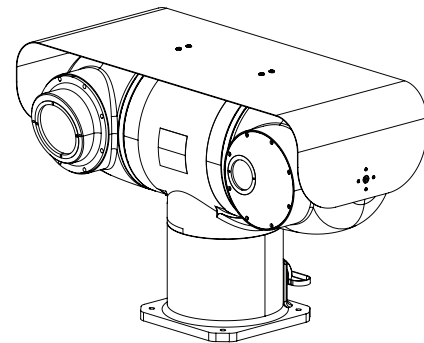
Video Output	RS-170 (NTSC) or CCIR (PAL)
Serial Interface	RS-422 and 10/100 Ethernet
Operating Temperature	-40° to +60° C
Environmentally Sealed	MIL-STD-810, NEMA 4 & IP66
Pan & Tilt Slew Rate	0.1 to 30°/sec controlled
Elevation Control	+80°/-80°
Azimuth Control	Continuous 360°
Pointing Accuracy & Repeatability	Pan ± 0.25°, Tilt ± 0.1°
Power Input	24 VDC ± 20%
Power Consumption	22W Nominal (25W with Heaters) / 45W Maximum
Weight	30 lbs (13.6kg)

Thermal Camera

Detector	Cooled 640x512 InSb 15 µm
Frame Rate	30 Hz
Resolution	640 x 512
Spectral Response	MWIR (3-5µm)
IR Lens	19-275mm, 2 to 30 degree field of view with continuous optical zoom
IR Digital Zoom	Continuous 1x to 4x
Focus	Motorized Remote focus
Gain / Level Controls	Automatic or manual

CCD Camera

CCD Lens	3.5mm (Wide FOV 42°), 91mm (Narrow FOV 1.6°)
Image Stabilization	Optional
Zoom	Optical: 26x, Digital: 12x, Total: 312x
Minimum Illumination	0.6 lux typical, 1/60 sec (NTSC) 0.04 lux typical 1/4 sec (NTSC)



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19-0028-SUR-LRTI-NS-Specsheet LTR



The World's Sixth Sense®