

PTZ-35x140MS & SR-35x140MS

Thermal Security Cameras



SR-35X14OMS AND PTZ-35X14OMS

Dual field-of-view, multi-sensor thermal camera systems for medium- to long-range security applications

The best thermal security cameras in the business

The SR-35x14OMS and PTZ-35x14OMS are powerful multi-sensor (MS) thermal camera systems for medium- to long-range security applications. In addition to a high-quality TV camera, the fixed SR variant and the pan/tilt (PTZ) variant each have two thermal imagers: a 35mm camera for wide-angle surveillance, and a long-range 140mm camera. Both 35x14OMS camera systems have the performance of military-grade camera systems at a fraction of the cost. Security operators can field them as portable stand-alone cameras, or integrate them into a camera network.



- Detect man-sized threats out to 1.8 miles
- See in total darkness, through smoke, dust and light fog
- Advanced mapping, geo-location, and slew to cue available
- Presents telephoto picture within wide-angle picture
- Dual field-of-view (FOV) thermal imaging with continuous zoom
- Network ready with Pelco D control, IP control and MPEG digital video
- Composite video output for use with a broad range of video management and display systems

Perfect for:

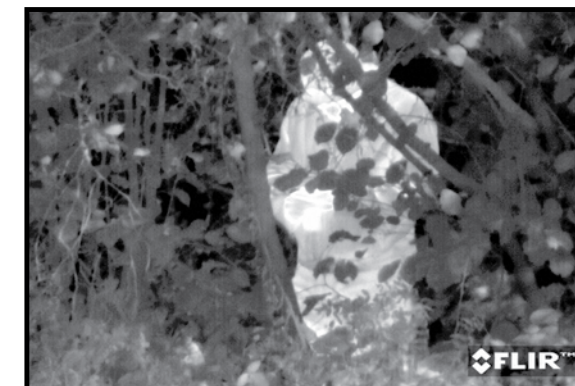
- Monitoring dimly lit or unlit entries and exits
- Indoor and outdoor parking lots and structures
- Warehouses, waterfronts, large open areas
- Residential properties and gated communities
- Anywhere you need to see at night

WHY THERMAL?

Thermal security cameras compliment and complete your existing security camera network

You won't believe what you haven't been seeing

Today's security professional must detect and counter threats arrayed against their valuable assets and personnel – thermal security cameras are the most effective tools for this job. Providing maximum image contrast, thermal cameras are the technology of choice for military security forces, made affordable for today's civilian security community by FLIR.



Thermal sees heat

Thermal security cameras make pictures from heat energy that is invisible to the naked eye. Everything in the color image below is giving off heat – even the ice cubes she is holding in her left hand, and the circle she traced on the wall with her right.



See day and night

Because everything generates heat, thermal security cameras can see as well at night as they can during the day. Cameras dependent on visible light are useless at night or in poor visibility without supplementary illumination from lights or lasers. Thermal security cameras overcome this problem by seeing heat, not light, so you're never in the dark.

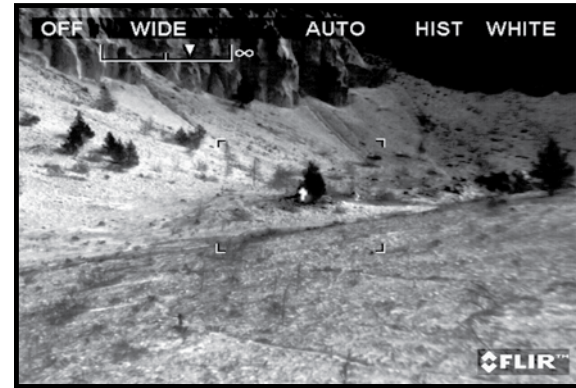


THERMAL & RANGE

Thermal security cameras see things from farther away – night or day – than comparable visible-light TV cameras

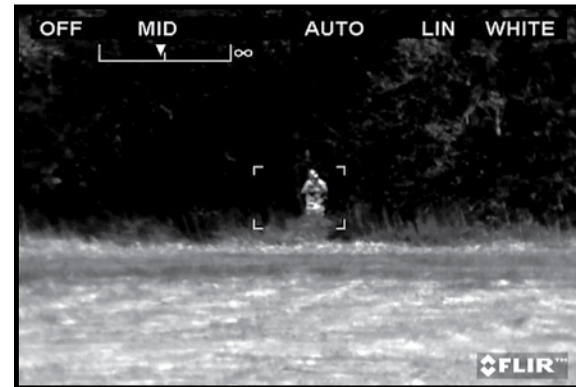
TV cameras are naturally range-limited

A conventional daylight/lowlight TV camera relies on scene contrast to detect a threat. That contrast, in turn, depends on the amount of light illuminating the threat, and the color contrast in the scene of interest. If a person is wearing clothes that allow him to blend into his background, or if there is not enough light to draw out a scene's contrast, a TV camera's ability to see a threat is drastically reduced.

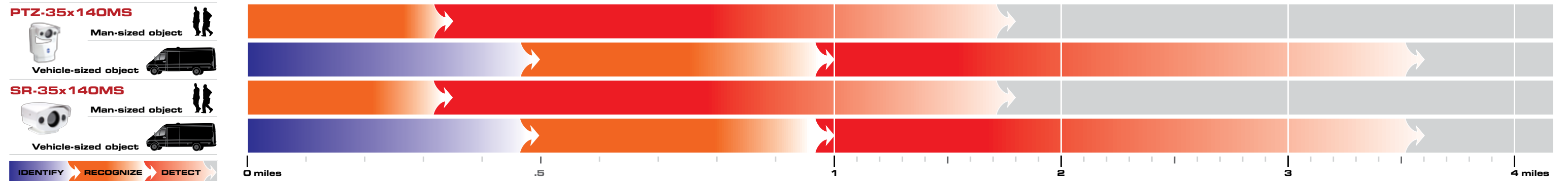


Thermal cameras see what TV cameras don't

With a thermal camera, an intruder will normally appear warm against a cooler background, creating its own contrast regardless of camouflage, time of day, and available lighting. This improved contrast allows thermal cameras to provide better range performance than TV cameras – night and day, in good weather and bad.



Range Chart This chart shows how far away the PTZ/SR 35x14OMS thermal cameras can detect and classify human and vehicle images. These are approximate ranges; your actual performance may vary, based on a variety of environmental factors.



NETWORK READY

35x14OMS camera systems take “plug-and-play” to a whole new level

No special adjustment or fine-tuning required

The PTZ-35x14OMS and SR-35x14OMS cameras come ready for video and control over IP, as well as traditional analog control with Pelco D, RS-422, and the Nexus software suite.

- DB9 connectors (2)**
For use with a Pelco D control & display matrix 2 DB9 connectors for use with a Pelco D control & display matrix. 1
- BNC connector**
For analog video output of active sensor. 2
- RJ 45 Ethernet**
For Nexus console connectivity – system control and display of WFOV IR, NFOV IR, and TV camera video. 3

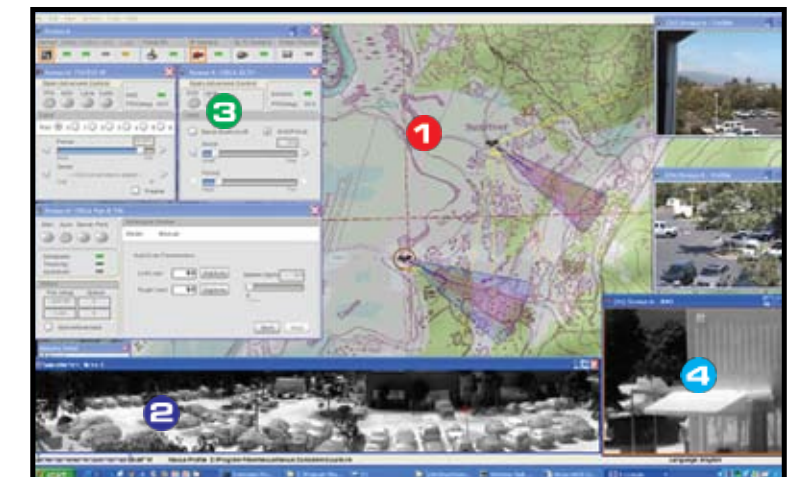


NEXUS

Network multiple cameras and multiple users to make your investment in thermal security cameras a truly integrated solution

35x14OMS thermal security cameras come with the powerful Nexus camera mapping, display and control software suite. The right choice for applications requiring display and control over the internet, Nexus allows system control over a laptop or other host PC, as well as outputting multiple video channels in mpeg4 format.

- Map Overlay**
Camera FOV and pointing position are shown on map overlay. 1
- Panoramic image**
Area panorama provides situational awareness and sensor control. 2
- Threat geo-location**
Threat geo-location information is shown here in latitude/longitude format. 3
- Slew-to-cue**
Slew long-range imager to alarm cue for detailed threat assessment. 4



SYSTEM OVERVIEW

CAMERA PERFORMANCE



SR-35x140MS



PTZ-35x140MS

Thermal Camera

Sensor Type	2 320x240 VOx uncooled microbolometers
Spectral Range	7.5 - 13.5µm
Field-of-View Range	20° x 15° (wide) to 5° x 3.75° (narrow)
Focus	Automatic or Manual
Optical Zoom	2 FOV
Electronic Zoom	2x
Image Processing	Digital Detail Enhancement (DDE)

Visible-light Camera

Imager	Sony FCB EX-980S
Field-of-View Range	46° (h) to 1.6° (h) @ f3.8

SYSTEM SPECIFICATIONS

Mechanical (PTZ Only)

Field-of-Regard	360° Continuous Pan; +/- 60° Tilt
Pan/Tilt Slew Rate	120°/sec max Pan & Tilt
Position Accuracy	1 mrad

Power

Requirement	24 VDC or 24VAC (+/-10%)
Consumption	PTZ-35x140 MS: <50 W nominal; 130 W max; 270 W max w/ heaters SR-35x140 MS: <12 W nominal; <19 W max; 150 W max w/ heaters

Environmental

Operating Temp.	-26°F to +131°F (-32°C to +55°C)
Storage Temp.	-58°F to +185°F (-50°C to +85°C)
Automatic Window Defrost	Yes
MIL-Std 810E	Rain, Sand/Dust, Shock, Vibration
Encapsulation	IPX6

Physical

PTZ

Weight	<45 lb (20.4 kg)
Size	15 x 23 in (381(d) x 585 (h) mm)

SR

Weight	15 lb (6.8 kg)
Size	9 x 12 x 10 in (228 x 305 x 254 mm)
Video Output	NTSC or PAL -- thermal and visible
Connectors (provided on break-out cable)	BNC for output of video from active sensor RJ45 for network connectivity
VOIP	MPEG4 of simultaneous WFOV & NFOV IR and daylight TV
Interfaces	RS-422, TCP/IP, PelcoD

Standard Equipment

Pan/Tilt or fixed camera head with two integrated thermal imagers and a daylight TV camera; break-out cable with standard mating connectors (BNC, RJ45, DB9), Nexus (PTZ), Simple GUI (SR), Operator Manual. SR only: 24VDC power supply, 6' AC cord

Optional Accessories

Hard Shell carrying cases for camera head and accessories, 10' & 40' cable options, 24VAC power supply, Joystick assembly for Nexus console

ABOUT FLIR SYSTEMS

FLIR is the world leader in thermal imaging technology

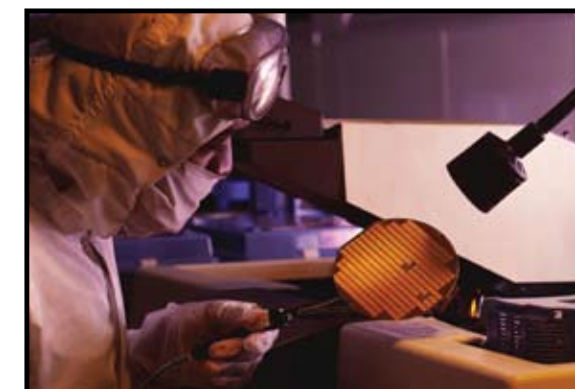
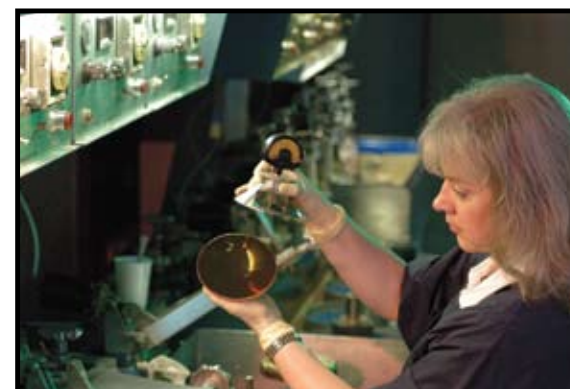
FLIR legacy

With thousands of systems fielded in military, scientific, law enforcement and security applications, FLIR offers unmatched experience and reliability to the security market. FLIR brings military hardened products to the security market at commercial prices.



Vertically integrated

FLIR designs and manufactures all of the critical technology inside our products, including detectors and special lenses, and it's all made here in the US. This ensures fast maintenance and support.



Volume production

FLIR thermal security cameras are mass-produced and can be found in a variety of applications including automotive vision enhancement, fire fighting and aviation. Our volume production allows us to extend lower prices to our customers.



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