FLIR FH-Series™ R PTZ

Multi-Spectral Pan-Tilt-Zoom Camera for
Fire Detection and Monitoring of Surface Temperature Thresholds

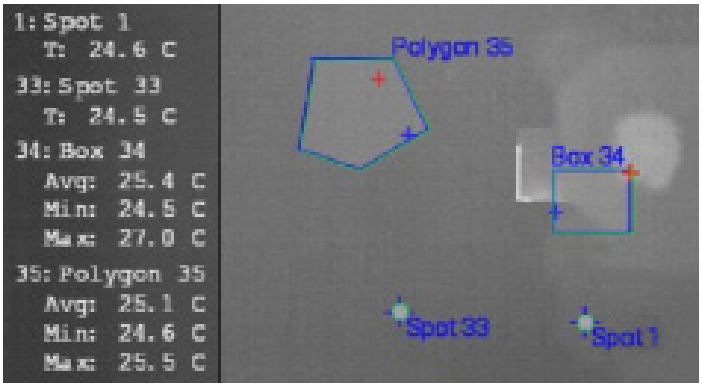
www.flir.com/products/FH-series-R-PTZ

Key Features

- Integrates a high-resolution radiometric <35 mK NETD thermal sensor with a 1080p visual, 30x zoom camera for hot spot detection and visual verification
- Measures surface temperatures and processes temperature differences in real time
- Onboard radiometry delivers minimum, maximum, average and differential temperature measurement in user-defined spots, box and polygon shaped areas

Main Applications

- Hot spot and fire detection
- Pan-tilt-zoom coverage, protecting large and small areas
- Intelligent monitoring of remote sites for general fire safety



SPECIFICATIONS

Thermal Camera				
	FH-669 R PTZ	FH-644 R PTZ	FH-625 R PTZ	FH-617 R PTZ
Field of view	69° × 56°	44° × 36°	25° × 18°	17° × 14°
Focal length	9 mm	13 mm	25 mm	35 mm
f/number	f/1.4	f/1.0	f/1.1	f/1.1
Frame rate	30 Hz or 9 Hz			
Detector	Long-life, uncooled Vox microbolometer			
Sensor resolution	640 × 512			
Pixel pitch	17 µm			
Sensitivity	<35 mK @ 25°C (77°F), f/1.0			
Spectral range	7.5 µm to 13.5 µm			
Visible Camera				
Focal length	4.5 mm to 135 mm			
Field of view	HFOV: 2.34° to 59.8° / VFOV: 1.48° to 40.5°			
Optical zoom	Up to 30x			
f/number	f/1.6–f/4.4			
Sensor resolution	Full HD 1080p (1920 × 1080)			
Sensitivity	Color: 0.2 Lux @ f/1.6 (AGC On, 30 fps) B/W: 0.09 Lux @ f/1.6 (AGC On, 30 fps)			

Measurement	
Object temperature range	High Gain Mode: 0°C to 160°C (32°F to 320°F) Low Gain Mode: 0°C to 380°C (32°F to 716°F)
Accuracy	Target below 100°C (212°F): ±5°C (±9°F) Target below 150°C (302°F): ±5% Target above 150°C (302°F): ±15% Measured at 25°C ambient temperature. Inaccuracy can increase at extreme temperatures
Video	
Streaming resolutions	Primary and Secondary Streams Thermal: VGA (640 × 512) Visible: 1080p (1920 × 1080), 720p (1280 × 720), VGA (640 × 480)
Video frame rate	NTSC: 5-30 fps / PAL: 5-25 fps
Video type	IP or analog
Video compression	H.264/H.265/MJPEG: four independent streams (2 visible, 2 thermal)
Thermal AGC Region of Interest (ROI)	Default, presets, and user-definable to ensure optimal image quality on subjects of interest
Thermal image settings	Auto AGC, Digital Detail Enhancement (DDE), brightness, contrast
Image uniformity optimization	Automatic flat-field correction (FFC) - thermal and temporal triggers

Specifications subject to change. For the most up-to-date specifications, please visit flir.com.

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SPECIFICATIONS, CONT.

Internal storage	microSD card slot: up to 512 GB on a Class 10 microSD/microSDHC/microSDXC card (minimum 8 GB)
System Integrations and Network	
Network APIs	NEXUS SDK, NEXUS CGI, ONVIF Profiles S, G, and T
Supported protocols	IPv4, HTTP, HTTPS, UPnP, DNS, NTP, RTSP, TCP, UDP, ICMP, IGMP, DHCP, ARP, IEEE 802.1X
Digital I/O	Input: two dry alarm contacts Output: two relay contacts, 1A max and 24 V AC/30 V DC Normally open or normally closed (configurable)
Ethernet	100/1000 Mbps
Environment	
Storage temperature	FH R PTZ camera: -55°C to 85°C (-67°F to 185°F) PT unit: -40°C to 70°C (-40°F to 158°F)
Operating temperature range	-35°C to 65°C (-31°F to 149°F)
Enclosure	FH R PTZ camera: NEMA 4X PT unit: aluminum alloy
IP rating	IP66
Corrosion	FH R PTZ camera: MIL-STD 810G, 1000 hr salt spray PT unit: PH 6.5 to 7.2, continuous spraying for 48 hours without surface change
Humidity	FH R PTZ camera: 0-95% relative humidity PT unit: <90% relative humidity
Surge immunity on AC power lines	EN 50130-4:2011+A1:2014
Surge immunity on signal lines	EN 50130-4:2011+A1:2014
Surge protection	FH R PTZ camera: TVS 6000 V lightning protection, surge protection, voltage transient protection PT unit power: 2000 V (line to ground 2000 V, line to line 1000 V) Video signal: 1000 V (line to ground 1000 V, line to line 500 V)
Vibration	IEC 60068-2-64 (FH R PTZ camera only)
Shock	IEC 60068-2-27 (FH R PTZ camera only)
Vandal resistance	IK10 (except windows; FH R PTZ camera only)
Size (L × W × H)	246 × 227 × 471 mm
Weight	18.1 kg (41.4 lbs)

Security, Compliance, and Certifications	
Cybersecurity	IEEE 802.1X TLS / HTTPS User authentication Access control via firewall User credentials with policy enforcement Digest authentication
Compliance and certifications	FCC Part 15 (Subpart B, class A); CE Marked; RoHS; WEEE ONVIF Profile S, G, T IEC 62368
FH-Series R PTZ	
Preset position	Supports 200 valid preset bits
Preset position accuracy	±0.1° accuracy
Pan angle	360° continuous
Pan speed	0.1°/s to ~55°/s
Tilt angle	-75° to ~40°
Tilt speed	0.1°/s to ~25°/s
Protocol	Pelco D
Input voltage	24 V AC (±10%) 24 V DC (±10%)* *Ensure power supply is capped correctly to avoid overheating
Power consumption	≤150 W

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ORDERING INFO

Part Number	Model Description
FH617R30PTU	FH-617 R PTU - 35 mm
FH617R9PTU	FH-617 R PTU - 35 mm, <9 Hz
FH625R30PTU	FH-625 R PTU - 25 mm
FH625R9PTU	FH-625 R PTU - 25 mm, <9 Hz
FH644R30PTU	FH-644 R PTU - 13 mm
FH644R9PTU	FH-644 R PTU - 13 mm, <9 Hz
FH669R30PTU	FH-669 R PTU - 9 mm
FH669R9PTU	FH-669 R PTU - 9 mm, <9 Hz

For more information about FLIR FH-Series R PTZ, please scan or visit:

For technical or sales support, please visit:
www.flir.com/about/general-inquiries

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