

THERMAL CONDITION-BASED MONITORING SYSTEM

REMOTE SAFETY MONITORING AND TEMPERATURE MEASUREMENT

With its non-contact method of measuring temperatures, the FMX 300X thermal imaging camera assists in 24/7 security surveillance, fire detection, high temperature monitoring, and other condition monitoring applications. Detect area and tripwire intrusions, define alarm settings, and capture/send media on alarm triggers to protect facilities and maintain safe working environments.

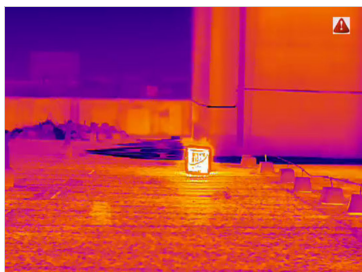


FMX 300X P-Series



24/7/365 SECURITY MONITORING

The FMX 300X thermal camera combines network functionality with thermal imaging to meet the requirement of 24/7 security monitoring. Alarm functions can capture video and image and send e-mail notifications for monitoring assets.



EARLY FIRE DETECTION

Fire can destroy buildings or installations within an extremely short time frame. The FMX 300X features a state of the art fire detection algorithm and measures from -20 °C to 550 °C (-4°F to 1022°F) to prevent fires by detecting hot spots before they ignite. Built-in alarm features actively work 24/7 to keep personnel, property, and assets safe.



NETWORK COMMUNICATION

Stream over a network connection and keep constant communication with the field with a 2-way intercom system. Automatic alarm outputs let employees know of potential hazards. SDK is available for development.



The FMX 300X camera combines network functionality with thermal imaging to meet the requirement of 24/7 security monitoring. Detects trip wire intrusions, captures and sends media on alarm trigger, and features a fire detection algorithm to keep assets and perimeters safe. View up to 20 channels at one time and review scenes with professional temperature analysis tools. The FMX 300X provides high temperature measuring from -20°C to 550°C (-4°F to 1022°F) with an accuracy of $\pm 2^\circ\text{C}$ ($\pm 3.6^\circ\text{F}$) or $\pm 2\%$.

Features

- State of the art fire detection algorithm
- Detects area and tripwire intrusions
- Alarm temperature threshold settings
- Capture, record, and email alarm notifications
- Stay safer with audio and visual alarms
- Supports 2-way voice intercom communication
- RJ45 10M/100M network connectivity
- Customized point/line/area temperature analysis
- High-temperature measuring
- SDK available for development

Applications

- Security monitoring
- Building security
- Perimeter defense
- Fire detection and monitoring
- Real-time inspections
- Day/Night surveillance
- High temperature monitoring

Lens Options

- 9.1 mm: Fixed, F#1.0, 28°×21°
- 13 mm: Fixed, F#1.0, 20°×15°
- 19 mm: Fixed, F#1.0, 13°×10°
- 25 mm: Fixed, F#1.0, 10°×7.9°



Specifications

- **Pixel Resolution:** 384 x 288
- **Accuracy:** $\pm 2^\circ\text{C}$ ($\pm 3.6^\circ\text{F}$) or $\pm 2\%$
- **Temperature Range:** -20°C to 550°C (-4°F to 1022°F)
- **Operation Range:** -40°C to 70°C (104°F to 158°F)
- **Storage Range:** -20°C to 60°C (-4°F to 140°F)
- **Detector Array:** FPA (VOx)
- **Pixel Pitch:** 12 μm
- **FOV:** lens dependent
- **Focal Length:** lens dependent
- **Focus:** fixed
- **Spectrum Range:** 8 μm to 14 μm
- **Thermal Sensitivity (NETD):** < (40 mK) 0.04°C at 25°C (77°F)
- **Frame Rate:** 50 Hz - 60 Hz
- **Humidity:** 95% relative
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 25 G/2.5 G
- **Dimensions (without lens):**
319.5 mm x 121.5 mm x 103.6 mm (L x W x D ± 0.5 mm)
(12.58" x 4.78" x 4.08" (L x W x H ± 0.02 "))
- **Weight (without lens):** 1.8 kg (3.97 lbs)
- **Power:** 12V DC or PoE (802.3at); ≤ 4 W
- **Interface:** 1 RJ45 10M/100M port, 1 channel audio in/out, 2 channel alarm in/out, 1 RS485 channel (supports Pelco)
- **Network:** IPv4, HTTP, HTTPS, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP
- **Interoperability:** ONVIF, GB28181, SDK
- **Video Format:** H.264/H.265
- **Audio Format:** G.711a/G.711u/AAC/PCM
- **Image Format:** JPG, 1280×1024 max resolution
- **Image Polarity:** 20 options
- **Image Modes:** Thermal
- **Memory:** MicroSD card (up to 256 GB)
- **IP Rating:** IP66
- **Language:** multi-language
- Automatic alarms
- On alarm settings: capture video and image; send email; audio and visible alarms; fire alarm
- Receive network disconnection notifications, IP address conflicts, memory errors, and illegal access warning
- Supports viewing up to 20 channels
- 2-way voice intercom
- Support IE and Chrome browser

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Thermal Lenses				
Model No.	ICIFMX300XP-I-28	ICIFMX300XP-I-20	ICIFMX300XP-I-13	ICIFMX300XP-I-10
Lens	9.1 mm	13 mm	19 mm	25 mm
F#	1.0	1.0	1.0	1.0
Focus Type	Fixed	Fixed	Fixed	Fixed
FOV (HxV)	28°×21°	20°×15°	13°×10°	10°×7.9°
Ifov	1.32 mrad	0.92 mrad	0.63 mrad	0.48 mrad

Operating Distance*						
Lens	Detection		Recognition		Identification	
	Vehicle	Human	Vehicle	Human	Vehicle	Human
9.1 mm	1163 m	379 m	291 m	95 m	145 m	47 m
13 mm	1661 m	542 m	415 m	135 m	208 m	68 m
19 mm	2428 m	792 m	607 m	198 m	303 m	99 m
25 mm	3194 m	1042 m	799 m	260 m	399 m	130 m

Operating Distance of Smart Features*						
Lens	Recognition		Temperature Measurement		Fire Detection	
	Vehicle	Human	2 m x 2 m	1 m x 1 m	2 m x 2 m	1 m x 1 m
9.1 mm	218 m	71 m	253 m	126 m	1011 m	506 m
13 mm	311 m	102 m	361 m	181 m	1444 m	722 m
19 mm	455 m	148 m	528 m	264 m	2111 m	1056 m
25 mm	599 m	195 m	694 m	347 m	2778 m	1389 m



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* Recommended distance of detecting, recognizing and identifying humans (1.8×0.5m) and vehicles (1.4×4.0m).