

# Seek G300

ALL-IN-ONE THERMAL MONITORING SOLUTION FOR EARLY FIRE DETECTION, CONDITION MONITORING, AND PROCESS CONTROL.

## CAMERA HIGHLIGHTS

- 320 x 240 Thermal sensor
- 4°F to 1,022°F (-20°C to 550°C) detection range
- Web browser set up, configuration, and viewing
- Power and communication over Ethernet
- On-camera analytics and alarm functionality
- IP67 rating for harsh environments

Seek<sup>®</sup>  
thermal

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### Part Numbers

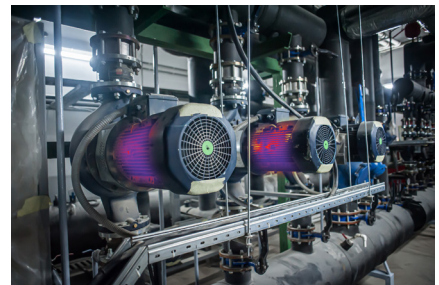
With 4mm Lens: **GQ-4ACX**

With 9mm Lens: **GQ-9ACX**

Seek G300 is your all-in-one thermal monitoring solution for early fire detection, condition monitoring, and process control. The G300 lets you detect potential issues before they escalate with real-time temperature monitoring. Conveniently set up and operate the camera through the web browser interface with no additional software or hardware required. Receive instant notifications and alerts when temperature thresholds are exceeded, or unusual patterns are detected.

Whether used as a standalone system or integrated into existing solutions, Seek G300 is the ideal choice for fixed-mount thermal monitoring.

Designed and Manufactured in the USA with Global Components. NDAA Compliant.



## KEY FEATURES

### 320 x 240 Thermal Sensor with SV1

76,800 temperature pixels with Seek's SV1 Image Optimization delivers higher detail, better contrast, and more edge clarity.

### Monitor Multiple Areas of Interest

Set up multiple zones and points of interest in a single scene with customizable temperature thresholds, warnings, and alarms.

### Mixed Gain Mode

Observe high and low temperatures simultaneously with low noise and maximum image clarity.

### Web Browser Configurator

Easy set up, configuration, and viewing with no extra software or additional hardware required.

### IP67 Rated For Harsh Environments

Ruggedized M12 PoE connector and durable housing. Compatible with 3rd party enclosures for extreme environments.

## BENEFITS

### Early Fire Detection

Built-in alarm analytics enable swift and accurate fire detection at its earliest stages, enhancing safety measures in various environments.

### 24/7 Condition Monitoring

Identify heat-related problems before they escalate, minimizing downtime and optimizing operational efficiency.

### Customizable Solutions

Use pre-built features through the web configurator or take advantage of RESTful APIs for custom integration with existing systems.

### Safeguard Assets and Improve Safety

Quickly retrieve thermal data to catch potential failures before they occur.

### Monitor Machinery to Detect Failures

Enhance situational awareness and detect faults or fires before signs of flames or smoke.

## Introducing Seek Live View

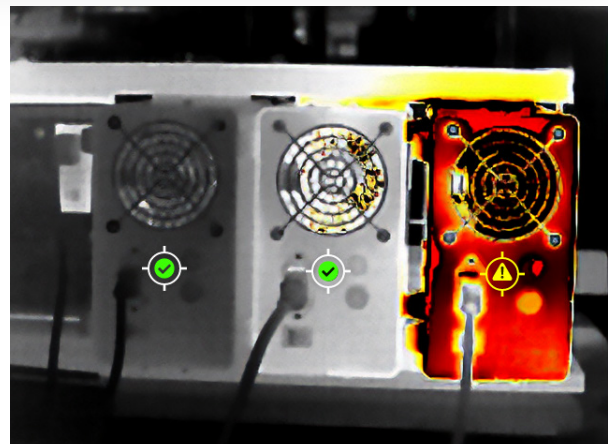
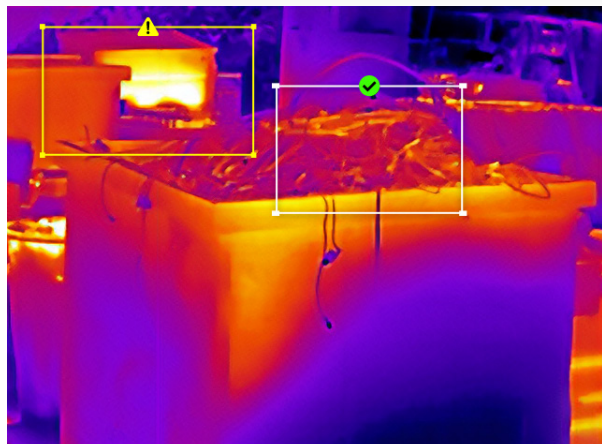
Included with the **G300** is **Seek Live View**. It simplifies the control, setup, and monitoring of your **G300**'s operations. The inclusion of historical logs ensures you'll capture and retain all the information you need. Benefit from advanced analysis tools and automated alerts, with key features such as:

- **Easy Setup:** Get up and running quickly with customizable options, minimizing downtime
- **Smart Control:** Set up alarms that work seamlessly with your equipment, giving you better control
- **Custom Inspections:** Tailor areas of interest with simple pass/fail settings, allowing you to monitor objects and processes simultaneously
- **Flexible Monitoring:** Check temperature data anytime, anywhere - continuously, intermittently, or remotely - to suit your needs

The screenshot displays the Seek Live View software interface. On the left is a navigation menu with sections for Measurement Tools (Select tool, Temperature Spots, Areas of Interest, Exclusion zones), Imaging Tools, Viewing Tools, and Global Parameters. The main area shows a thermal camera feed of a power line tower with three measurement spots labeled 1, 2, and 3, with average temperatures of 52°F, 50°F, and 63°F respectively. A color scale on the right ranges from 20°F to 120°F. On the far right, a data panel shows a table of Temperature Spots and Areas of Interest (AOI) with their respective values and alarm status.

Name	Value	Alarm
<b>Temperature Spot</b>		
Spot 1	85°F	🔔
Spot 2	84°F	🔕
Spot 3	86°F	🔕
<b>Area of Interest (AOI)</b>		
AOI 1	Min 23°F Max 88°F Avg 52°F	🔔
AOI 2	Min 28°F Max 87°F Avg 50°F	🔔
AOI 3	Min 23°F Max 91°F Avg 63°F	🔔

At the bottom of the interface, it displays: Internal Camera temperature: 93°F, Time: 11:30:17 PM, Date: Fri, July 28 2023, Camera ID: Project Irvine Admin Camera, and Number of Active Alarms: 11.



Technical Specifications - G300		
Sensor Resolution	320 x 240	
Microbolometer	Uncooled Vanadium Oxide	
Pixel Pitch	12 $\mu$ m	
Spectral Response	7.8 - 14 $\mu$ m	
Sensor Frame Rate	> 25 Hz	
Object Measurement Range	-20°C to 550°C (-4°F to 932°F)	
Object Imaging Range	-20°C to 550°C (-4°F to 932°F)	
Accuracy <sup>1</sup>	The greater of $\pm 5^\circ\text{C}$ ( $\pm 9^\circ\text{F}$ ) or 5% between 5°C to 100°C scene temperatures Typical performance $\pm 10\%$ between 100°C and 550°C scene temperatures	
Sensor Sensitivity	< 35 mK @ 25°C w/ SV1 Image Optimization	
Power	Power Over Ethernet, PoE IEEE 802.3af class 0	
Power Consumption	3.5 W typical	
Connector Type	M12 X-coded	
Optics		
Focal Length	4.0 mm	9.1 mm
Spatial Resolution (IFOV, center)	3.00 mrad	1.32 mrad
Field of View (H x V)	56° x 42°	24° x 18°
Focus	Fixed	
Lens Protective Window Material	Silicon	
Measurement Analysis		
Temperature Spots	10 measurement spots	
Areas of Interest (AOI)	5 boxes (with min/max/average temperature measurements)	
Exclusion Zones	3 masks (blank out/ignore pixels)	
Alarms		
Alarm functions	Above/Below threshold temperature	
Alarm output	RESTful API, store image, store video, store alarm log	
Interfaces		
Configuration	Web interface, browser based	
Ethernet Protocols	DHCP, HTTP, IEEE 1588, RESTful API	
Image Streaming	RTSP	
Environmental		
Encapsulation	IP 67	
Operating Temperature Range	-10°C to 60°C (14°F to 140°F)	
Storage Temperature Range	-40°C to 80°C (-40°F to 176°F)	
EMC	EN 61000-6-2:2005/AC:2005 (Immunity) EN 61000-6-4:2007/A1:2011 (Emission) FCC CFR 47 Part 15 Subpart B Class A (Emission)	
Vibration Resistance	IEC 60068-2-6 (0.15mm amplitude 10–58Hz, 2g accel. at 58–500Hz sinusoidal)	
Shock Resistance	IEC 60068-2-27 (25 G)	
Corrosion Resistance	IEC 60068-2-11 (salt mist)	
Physical Data		
Camera Size (L x W x H)	105 x 50 x 50 mm (4.13 x 1.97 x 1.97 in.) incl. connector	
Camera Weight	340 grams (0.75 lbs)	
Mounting (base)	4x M4 mounting 1x 1/4-20" UNC	

<sup>1</sup> At ambient temperature 25°C (77°F) with calibration geometry

Specifications and undocumented specifications are subject to change without notice.



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Seek Thermal engineers, designs and manufacturers high quality thermal imaging products and core platforms for consumer, commercial, and heat sensing IoT data applications. With headquarters in Santa Barbara, California, the global hub of thermal imaging innovation, the company has developed breakthrough thermal imaging camera cores that will enable a range of affordable products for use at home, work and play. For more information visit [thermal.com](http://thermal.com) and follow #seekthermal on Instagram and @seekthermal on Twitter.