

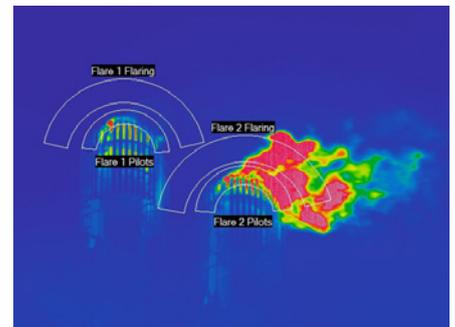
FLARESPECTION

Infrared camera system for continuous pilot flame and flare stack monitoring in hazardous areas.



Flare tips in close proximity cause interference from adjacent flare tip interposing flames. The Advanced Energy FlareSpection™ system is designed to provide the clearest flare image and pilot flame monitoring for applications with multiple flare tips.

The FlareSpection thermal imaging system enables users to confirm flare operation remotely and automatically, detecting differences in heat signatures of the flare stack. Designed with special spectral ranges, calibrations, and optics, the FlareSpection camera is able to focus clearly through moisture, heavy rain, and fog at even great distances.



Thermal image taken by camera

PRODUCT HIGHLIGHTS

- Superior image quality using a telephoto (200 mm) lens enabling detailed view of flares from distances at 300 m and beyond
- High resolution 640 x 480 pixel thermal imager, providing unmatched spatial resolution
- Stainless steel enclosure designed for hazardous area
- Industry's most advanced software enabling automated and seamless integration with plant DCS
- Easy installation and maintenance from remote mounted location



FlareSpection system view

FLARE SPECTION

OVERVIEW

With an adjustable mount and base, the powerful lens and high resolution camera offer a clear view of flare details from a convenient ground mounting location. The camera is protected in a stainless steel enclosure with an integrated site tube to prevent dust and dirt on the window, allowing for uninterrupted use with minimal maintenance.

The software includes the capability to log performance for audits, record video for reviewing of historical events, and set up alerts for measurements that may fall outside of the plant's preset limits. The software also easily connects to the plant DCS via protocols such as Modbus and OPC, as well as connections to pilot ignitors via traditional I/O relay modules.

TECHNICAL DATA

Performance Specifications

Image Update Rate	9 Hz
A/D Resolution	16 bit
Pixel Pitch	17 μ m
Detector	640 x 480 Uncooled Microbolometer

Optical Specifications

Lens Focal Length	200 mm
Field of View (FOV)	3° (H) x 2.3° (V)
Digital Zoom	1 to 8x using LumaSpec RT software

Interface Specifications

Network Connection	Gigabit Ethernet
Power	12 VDC and 24 VDC
Options	Junction Box with universal power input and fiber optic connection ports

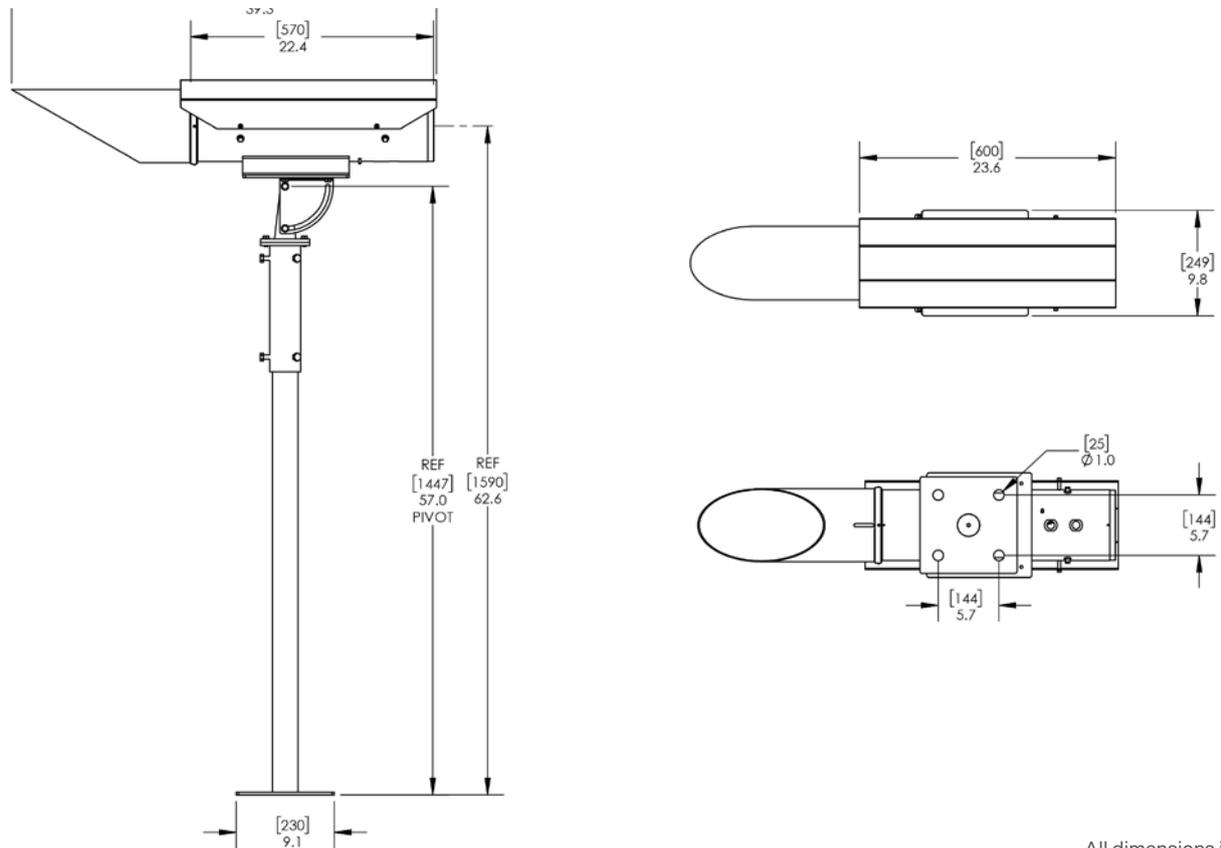
Environmental Specifications

Operating Temperature	-30 to 50°C (-22 to 122°F)
Storage Temperature	-20 to 70°C (-4 to 158°F)
Weight	38 kg (~84 lbs)
Housing	316L stainless steel suitable for hazardous areas
Compliance	CE, RoHS

Scope of Delivery

FlareSpection camera with 200 mm lens, FlareSpection stainless steel enclosure, adjustable, stainless steel pan-tilt mount, stainless steel base, and LumaSpec RT software.

DIMENSIONS



All dimensions in mm

SOFTWARE KEY FEATURES

- Automated image analysis and alarms
- Support for up to 24 cameras
- Historical video recordings easily retrieved for study or analysis
- Integrated protocols for alarm and status reporting to DCS or PLC
- Lock-in scene registration feature to keep image analysis accurate when flare stack moves or sways
- Archive to files or database
- Intuitive user interface
- Support to view images simultaneously at any location on plant network



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ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

AE's power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

PRECISION | POWER | PERFORMANCE

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