

# InSight® II

## Flame Scanners for Marine Applications



### Integrated Flame Scanner with stainless steel housing 95DSS3-1CEXSS

#### Dual cell scanner with stainless steel enclosure for extreme environments

The Fireeye Insight II flame scanner utilizes advanced techniques for discrimination and integrates the flame detection, amplification, safety determination and flame switch functions into a single detection head. No separate amplifier or flame switch module is therefore required to interface with the main burner management system.

This dual-cell scanner utilizes ultraviolet (UV) and infrared (IR) detectors and a stainless steel housing that includes CE and ATEX ExdIIC approvals when suitable connectors and fittings are used. It also includes the alpha-numeric VFD display and keypad.

Standard features include two independently adjustable flame relays that can be selected to operate from the UV sensor, the IR sensor, or both sensors, 21 choices of modulation frequency, adjustable sensor gain, adjustable flame relay on/off thresholds, two 4-20 mA analog signal strength outputs (one for FR1 and one for FR2), fault relay, four selectable programmable files (e.g. for different fuels or firing rates), and auto config capability with manual override.

Remote communication capability is available via optional "Fireeye Explorer" PC software.

#### Features

- Both IR and UV sensors
- Two flame relays
- VFD display and keypad included
- Fault relay
- Two 4-20 mA outputs
- Four memory files
- Communications
- Auto config
- IP66 housing



INSIGHT II  
scanners



60-2693-x  
stainless mounting flange  
(ordered separately)

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### Specifications

#### MECHANICAL

Housing Material	316 stainless steel with zinc primer, gray epoxy midcoat, polyurethane topcoat
Housing Weight	21.3 lbs. (9.66kg) stainless steel model
Environmental	IP66, Ex db IIC T6, T5, T4; Ex tb IIIC T85, T100, T135°C
Mounting	Requires one threaded mounting flange, ordered separately (see below)
Mounting Flange	316 stainless steel (without heat-insulating threaded insert) with zinc primer, gray epoxy midcoat, polyurethane topcoat 1.86 lbs. (0.84kg)
P/N 60-2693-3	1" NPT female pipe mount with 3/8" NPT female cooling air connection
P/N 60-2693-2	1" BSP female pipe mount with 3/8" BSP female cooling air connection

#### COOLING/PURGE AIR REQUIREMENTS

Source	Clean, dry, cool
Volume	4SCFM (113 l/min) at 3/8" threaded mounting flange, or 1" "Y" fitting, mounted on scanner sight pipe. Temperature near the upper limit of the scanner operating range and/or use with dirty/dusty fuels may require up to 15 SCFM (425 l/min)
Pressure	Adequate to overcome furnace or windbox pressure
Temperature Rating	-40°F to +150°F (-40°C to +65°C)
Humidity	0% to 95% relative humidity, non-condensing

#### ELECTRICAL

Input Power	24 Vdc, +10%, -15% supply current 0.35 A, 8.5 V A, output rise time must be 20 msec maximum Fireye power supply 60-2685 is recommended
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#### CABLE SPECIFICATION

P/N 59-546	Multi-core, 8 conductor (color coded); #18 AWG with foil wrap and overall braided shield and drain wire; PLTC-ER rating; cable jacket PVC/black (flame retardant, RoHS compliant); temperature rating -40°F to +221°F (-40°C to +105°C) Nominal outer diameter: 0.44" (11.2mm) Maximum outer diameter: 0.48" (12.2mm) Maximum cable length: 1,000 ft. (305m)
P/N 59-547	Multi-core, 12 conductor (color coded); #18 AWG with foil wrap and overall braided shield and drain wire; PLTC-ER rating; cable jacket PVC/black (flame retardant, RoHS compliant); temperature rating -40°F to +221°F (-40°C to +105°C) Nominal outer diameter: 0.52" (13.2mm) Maximum outer diameter: 0.56" (14.2mm) Maximum cable length: 1,000 ft. (305m)

### Dimensions

