

InSight® Series 4 Flame Scanners



Integrated Flame Scanner 95UVS4 / 95IRS4

Microprocessor flame scanner with solid-state infrared (IR) or ultraviolet (UV) sensors

The Fireeye InSight® Series 4 flame scanners (parts #: 95UVS4 & 95IRS4) are part of an established family of versatile fully microprocessor based, integrated flame scanners. The InSight Series 4 scanners hold multiple worldwide safety agency approvals (refer Fireeye Bulletin CU-120 for details). The InSight Series 4 scanners utilize advanced techniques for discrimination and integrate 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.

The InSight Series 4 scanners incorporate the superior detection and discrimination elements of the popular InSight II product with some enhanced features. The scanner measures the amplitude of the modulations (the flame "flicker") that occur within the targeted flame. During the scanner set-up procedure, the modulation frequency that yields the best flame ON/OFF discrimination is selected. The appropriate modulation frequency and sensor gain can be either manually or automatically selected. InSight Series 4 scanners are solid state detectors utilizing either a UV or IR detector, and two different available connectors which are compatible with either the 59-608, 59-547 and 59-497 (-1WINC models only) cables.

Features

- Solid state dual UV or IR sensors
- Flame relay
- Fault relay
- 4-20mA outputs
- Four memory files
- Auto or manual configuration
- SIL 3 certified

Options

- Remote communication (Remote programming)
- ATEX / IECEx ExdIIC T6 versions
- Marine grade stainless steel versions
- Fiber optic compatible



InSight Series 4 Flame Scanners

Specifications

MECHANICAL

Housing Material	Cast aluminum with gray polyester powder coat finish
Housing Weight	5.9 lbs. (2.69kg), 13.2 lbs. (5.98kg) "CEX" models, flange additional
Environmental	NEMA 4X, IP66
Area Classification	95XXS4-1WINC, 95XXS4E-1WINC, 95XXS4-1: Class I Div 2, Groups A, B, C, D; Class II Div 2, Groups F & G 95XXS4-1CEX: Ex d IIC T6
Mounting	Requires one of two threaded mounting flanges, ordered separately (see below)
Mounting Flanges	Contains an integral heat-insulating female thread insert (heat insulating nipple not required)
P/N 60-2919-1	1" NPT female pipe mount with 3/8" NPT female cooling air connection
P/N 60-2919-2	1" BSP female pipe mount with 3/8" BSP female cooling air connection
Mounting Flange Weight	0.62 lbs (0.28kg)

COOLING/PURGE AIR REQUIREMENTS

Source	Clean, dry, cool
Volume	4 SCFM (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)
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 0.25 A, 6.0 V A
Electrical Connection	12-pin screw-type quick-disconnect (non-CEX). CEX models have terminal blocks
Flame Relay Output	SPST (N.O.)
Fault Relay Output	SPST (N.C.)

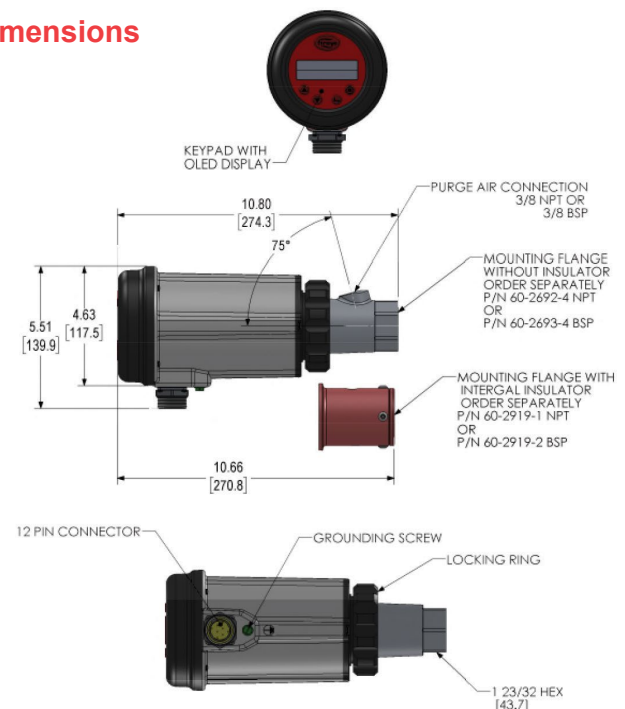
ELECTRICAL

Contact Rating	Minimum (all models): 10 mA @ 5 Vdc Maximum (Series 4E-1WINC models only): 2 A @ 30 Vdc, 2 A @ 50 Vdc Maximum (all other models): 2 A @ 30 Vdc, 2 A @ 230 VAC
Analog Output	Two 4-20mA dc current, referenced to 24 Vdc common, maximum connected load 750 ohms
Operator Interface	Alpha-numeric display with five pushbutton keys

CABLE SPECIFICATION

P/N 59-547	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, low smoke, zero halogen) Temperature rating: -40°F to +221°F (-40°C to +105°C) Nominal outer diameter: 0.52 in. (13.2mm) Maximum outer diameter: 0.56 in. (14.2mm) Maximum cable length: 1,000 ft. (305m)
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Dimensions



For more information, please [contact](#) your local Fireye Distributor.

fireye.com

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