

Phoenix Series 2 Flame Scanners



Integrated Flame Scanner 85UVF / 85IRF

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

The Fireeye Phoenix Series 2 type 85UVF/IRF flame scanners are microprocessor-based devices utilizing a solid-state flame detection sensor. The flame scanners incorporate an internal flame relay with automatically set ON/OFF thresholds, thereby eliminating the need for a remote flame amplifier or flame switch.

The Phoenix scanners detect the amplitude of the modulations (the flame "flicker") that occur within the targeted flame, over a wide frequency. During the scanner setup procedure, the amplitudes of the target flame are automatically stored by the flame scanner, together with optimum ON/OFF criteria. The appropriate sensor gain is automatically selected. Phoenix scanners incorporate full self-diagnostics and electronic self-checking.

Features

- Solid state dual UV or IR sensors
- Flame relay
- Fault relay
- 4-20mA outputs
- 8-pin electrical quickdisconnect (QD)
- Auto or manual configuration
- SIL 3 certified

Options

- K3 option, increased UV range upto 500nm
- Remote communication (Remote programming)
- ATEX / IECEx ExdIIC T6 versions
- Marine grade stainless steel versions
- Fiber-optic compatible

Typical Applications

- Duct Burners
- Industrial Gas Burners
- Refinery Applications
- Low NOx Burners
- Waste Gas Units
- Incinerators



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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	85XXF1A-1QD, 85XXF1A-2QD, 85UF-F1A-XQDK3, 85XXF4A-XQDWR, 85UV-F4A-XQDK3WR : Class I Div 2, Groups A, B, C, D; Class II Div 2, Groups F & G 85XXF1-1CEX, 85UVF1-1CEX-K3, 85XXF1-1CEXSS, 85UVF1-1CEXK3SS : 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	8-pin screw-type quick-disconnect (non-CEX). CEX models have terminal blocks
Flame Relay Output	SPST (N.O.)

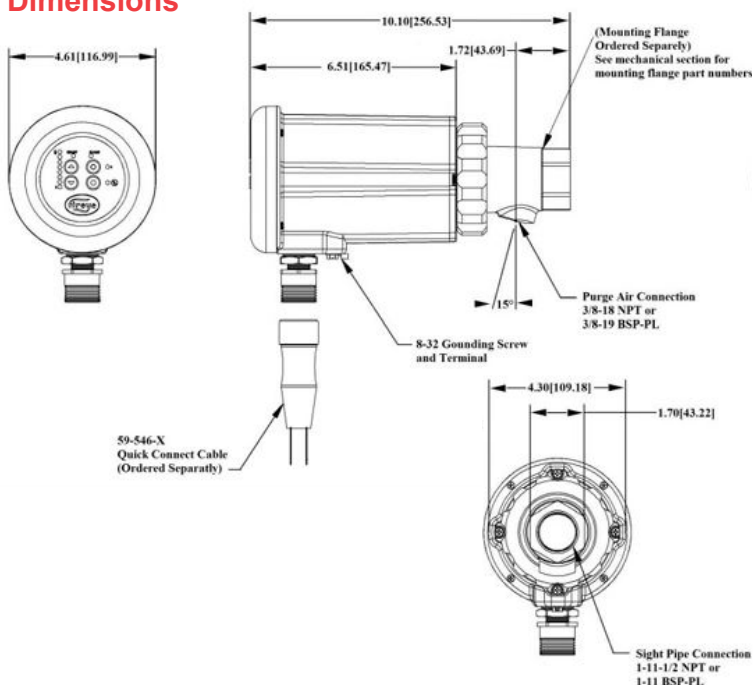
ELECTRICAL

Contact Rating	Minimum (all models): 10 mA @ 5 Vdc Maximum (Series 4E-1WINC models only): 1 A @ 30 Vdc, 1 A @ 50 Vdc Maximum (all other models): 1 A @ 30 Vdc, 1 A @ 230 VAC
Analog Output	Optically isolated 4-20mA dc current, referenced to 24 Vdc common, maximum connected load 750 ohms
Operator Interface	Multiple LED indication for flame signal strength, flame relay, ready, target, background select and fault codes

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, 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.

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