

SureFire II™ High Energy Spark Igniters



SUREFIRE™

THE HIGH ENERGY SPARK IGNITERS (HESI)

The Surefire II High-Energy Ignition System is used for direct spark ignition of most gas or liquid fuels used in oil or gas pilots or main burners. The High-Energy Ignition System is available in various versions.



The Surefire II versions include:

- Integrated power pack with spark rod.
- Split Power pack and separate spark rod.
- ATEX, Power pack, and spark rods.
- Optional Co-axial Retractors, with / without integrated solenoid valve.
- ATEX Solenoid

The HESI is classified as being a class 3 special igniter (NFPA regulations).

Typical applications

- Petro chemical, and refineries, (frequently ATEX style).
- Heaters, Reformers. Metal industries, Kilns.
- Power burners, Steam raising plants.
- Direct, and pilot ignition. Paper industry
- Black liquor boilers

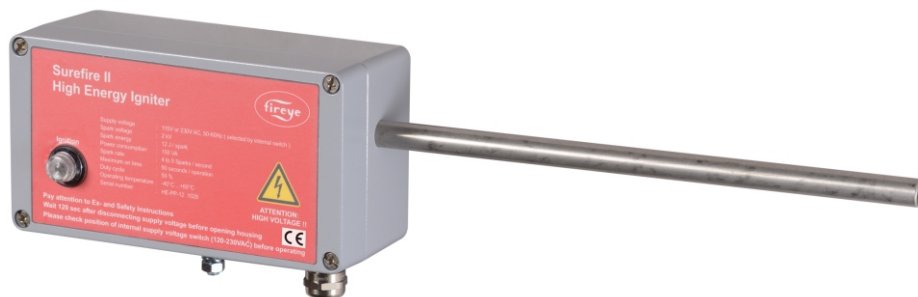
FEATURES:

- Selectable voltage (115/230 vac).
- Visual indication of spark operation
- Proof of spark relay
- Choice of system, Integrated Kit or Kit with Quick Disconnect
- Thermal cutout protection integrated in transformer
- ATEX options
- Compact "co-axial" retractors
- Safety bleed resistor discharges

NOTE: Please refer to Bulletin SF-2001 for more complete



HIGH ENERGY SPARK IGNITER



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Specifications

High-Energy Ignition Unit

Casing:	die-cast aluminum
Dimensions (LxWxH):	220x120x95 mm
Weight:	3.25 kg
Protection class:	IP 65
Ambient temperature:	-40°C to +60°C
Temperature monitoring (power transformer):	120° C
Power supply (ignition in):	115VAC or 230VAC (switchable)
Rated current: approx.	1300 mA at 115 V or 650 mA at 230 V
External protection:	4A / type D
Power input:	approx. 150 VA
Output voltage:	2000 VDC
Ignition pulses:	approx. 4-5 pulses / second
Ignition energy:	12 joule / pulse (48 to 60 joule / second)
Duration:	50% ED
Continuous operation:	300 sec
Integrated ignition monitoring:	Proof of spark relay, potential free contact (maximum contact load: 120V/230VAC @ 10A or 24VDC @ 8A)
Electrode Material:	stainless steel (1.4571)
Diameter:	16 mm
Standard length full ignition electrode:	1000 mm to 3000 mm
Length exchangeable ignition tip:	200 mm or 675 mm
HESI tip (HE-S, HE-L) thread:	9/16"-18 tpi- unf
Maximum temperature ignition tip:	800°C (1000°C for max. 10 sec)
Ignition tip service life:	approx. 400,000 ignitions
Main HESI rod and Extension rods:	M14, 1mm Depth
Junction box threads:	M14, 1mm Depth
GTD service life:	approx. 200,000 sparks (depending on usage)

Power supply cable to be provided by the customer, incl. ignition spark monitoring:

Cable type (standard or similar):	BiHF(K)-J (with 6 individual wires 1,5 mm ² incl. PE wire)
Temperature range:	- 25°C to at least + 135°C
Oversheath:	oil resistant, halogen-free, flame retardant and self-extinguishing.

ATEX Power pack

Housing material Aluminum die casting.
Stainless steel option available.
Dimensions 309x313x225mm (Nom 12.2"x12.3"x8.9")
Environmental Zone 1 Eexd IIC T5, T6 IP66
Weight 22 kg for aluminum enclosure
48 kg for stainless steel, (special order only)
Operating temperature -40°C to +60°C (-40°F to +140°F)
Internal over temperature protection at 100°C (212°F) 120°C Temperature
Fuse integrated in transformer

ATEX HESI rod

Terminal box Aluminum die casting.
Stainless steel option available.
Environment IP66/IP67 Zone 1 EExd IIC T6
HESI rod Length Maximum 3.5 Meters (11.5') x 16mm (5/8") diameter. For lengths greater than 3.5 m contact factory.
Material Stainless Steel (1.4301/304) up to 800°C (1000°C for max 10 sec.)

Fireye is a leading manufacturer of flame safeguard controls and burner management systems for commercial and industrial applications throughout the world. Our products can be found in a variety of public buildings, commercial properties, power plants, pulp and paper mills, petrochemical facilities and food processing plants. Fireye is a part of Carrier (NYSE: CARR).



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