

# SureFire™ High Energy Spark Igniter



## SUREFIRE™

### THE HIGH ENERGY SPARK IGNITERS (HESI)

CLASS 3 IGNITERS USED FOR DIRECT SPARK IGNITION OF OIL OR GAS IGNITERS AND SMALL BURNERS.

The 12 joules of power delivered to the spark tip (3 sparks per second) easily ignites the fuel.

The HESI igniters consist of three major components: a power pack, a spark rod assembly and a cable assembly.

The power pack is packaged in a NEMA-4 enclosure for wall mounting at the burner front. The power pack develops the 12 joules of power delivered to the spark tip through the use of heavy duty electrical components. It has a 100% duty cycle at temperatures up to 130°F ambient.

The spark rod features a self-cleaning surface gap spark tip that is easily replaceable through a threaded connection. The spark rods can come with an optional retraction assembly to allow the spark tip to be inserted and retracted from the firing position if necessary.

The cable assembly consists of heavy duty 12-gauge, 3,000 volt wire sheathed in a 1/2 inch flexible conduit terminated with quick release, military-grade connectors.

Refer to Bulletin SF-1 for complete information.



# HESI

HIGH ENERGY SPARK IGNITER

#### NON-FOULING SPARK TIP

- The surface gap spark tip produces a self-cleaning, highly reliable, 12 joule spark even in the presence of moisture, oil and carbon deposits.

#### REMOVABLE SPARK TIP

- The spark tip completely detaches from the spark rod through a threaded connection. Replacement of the spark tip is quick and easy.

#### SAFE OPERATION

- Heavy-duty, UL-approved flexible cable connects the power unit to the spark rod assembly ensuring operator safety.

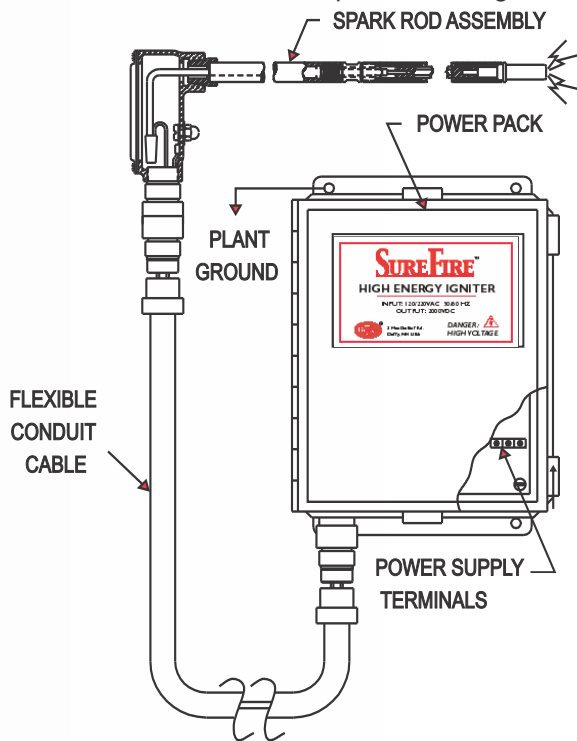
#### APPLICATION FLEXIBILITY

- Standard and retractable HESI models are available to fit a variety of igniter or burner types.



## HIGH ENERGY IGNITER SPECIFICATIONS

Igniter Class:	Class 3 interrupted (special)
Approval:	Factory Mutual
Input Voltage:	110 or 220 vac, 50/60 HZ
Output Energy:	12 joules per spark
Output Voltage:	2,000 vac
Spark Rate:	3 per second
Spark Rod Lengths:	14 in. (356mm) minimum 180 in. (4572mm) maximum
Spark Rod Diameter:	0.625 in. (16mm)
Spark Tip Type:	Surface gap (aircraft)
Spark Tip Length:	8.5 in (216mm) or 27 in. (686mm)
Spark Tip Resistance:	200 to 600 ohms (center electrode to outer case)
Spark Tip Material:	Stainless steel with a silicon carbide insulator
Maximum Recommended Tip Temperature:	1,000°F (538°C)
Power Pack Temperature Ratings:	0°F to 135°F (-18°C to 57°C)
Power Pack Enclosure:	NEMA-4 cabinet (NEMA-4X optional)
Power Pack Dimensions:	10 in. high x 8 in. wide x 4.25 deep (25.4cm x 20.3cm x 10.8cm)
Power Pack Mount Holes:	10.75 in. x 6.0 in. (27.3 cm x 15.2 cm)
Field Conduit Hole Diameter:	0.88 in. (2.2cm)
Power Cable:	12 gage, 3,000 v in 0.5 in. (1.3cm) flexible conduit
Power Cable Lengths:	6 ft., 9 ft., 12 ft., 15 ft. (1.8, 2.7, 3.7, 4.6m) 15 ft. is standard
Duty Cycle:	100% at temperature rating



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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