

# 48 Joule HESI

*Forney's High Energy Spark Igniter (HESI) provides a highly reliable, non-fouling source of ignition for oil or gas igniters or small burners.*

## Product Overview

The High Energy Spark Igniter (HESI) is a Class 3 Igniter used for direct spark ignition of oil or gas igniters or small burners. Forney's HESI provides a highly reliable source of ignition for a wide range of industry igniters / warm-up guns utilizing a 48 joule per second source of energy delivered to the spark tip (5 sparks per second) which easily ignites the fuel.

The High Energy Spark Igniter consists of three major components: a power unit, spark rod assembly and cable assembly.

The power unit is packaged in a NEMA-4 or 4X enclosure suitable for wall mounting at the burner front as a standard. Additional enclosures are available to meet specific application demands. The power unit develops 48 joules per second of energy delivered to the spark tip through the use of heavy duty electrical components. It has a 15-minute on and 30-minute off maximum fire cycle at temperatures up to 140°F (60°C).

The spark rod is available in the standard rigid design or in a flexible configuration for use in a tilting tangential burner application. The spark rod features a self-cleaning surface-gap spark tip that is easily replaceable via a threaded connection. Both rigid and flexible spark rods can be provided with an optional retraction assembly to allow the spark tip to be inserted and retracted from the firing position.

The cable assembly consists of heavy duty 12-gauge, 3,000-volt wire sheathed in a 1/2" (12.7 mm) flexible conduit terminated with quick release, military-grade connectors.

Designs are available for both Class I Div 2 and Class I Div 1 area applications.

## Features & Benefits

- **NON-FOULING SPARK TIP**  
The surface gap spark tip emits a self-cleaning, highly reliable, 48 joule per second energy over 5 sparks 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.
- **APPLICATION FLEXIBILITY**  
Standard, flexible and retractable HESI models are available to fit a variety of igniter or burner types.
- **COST EFFECTIVE SOLUTION**  
Proven technologies at an affordable price. Pre-packaged, pre-engineered product minimizes cost and lead time.
- **SAFE OPERATION**  
Heavy duty, flexible cable connects the power unit to the spark rod assembly ensuring operator safety.



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## Specifications

Igniter Class:	Class 3 Special
Approval:	Factory Mutual
Input Voltage:	240 VAC, 50 Hz
Input Power:	240 VAC @ 0.75A (1-A fuse)
Output Voltage:	2000 VDC
Output Energy:	48 joules per second
Spark Rate:	5 per second (approximately)
Spark Rod Diameter:	0.625 in. (1.6 cm)
Spark Tip Type:	Gas tight, surface gap
Spark Tip Material:	High temperature alloy with a silicon carbide insulator
Operating Tip Temperature:	1112°F (600° C); Higher temperature during duration of light-off
Power Unit Temperature Ratings:	-40°C to 60°C ( -40°F to 140°F )
Power Cable Lengths:	6' (1.82 m), 12' (3.66m), 15' (4.57 m) *15' (4.57 m) is standard
Maximum Firing Cycle:	15 minutes on and 30 minutes off (maximum ambient temperature of 60°C (140°F))
Power Unit Enclosure:	NEMA-4 or 4X approved
Power Unit Dimensions:	10" x 8" x 4.25" (25.4 cm x 20.32 cm x 10.8 cm)

