



***HINDUSTHAN THERMOMETERS***  
**SUPERIOR** Engineering **EXPERT** Craftsmanship



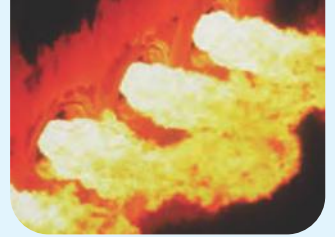


## About us

Founded in 1985, Hindusthan Thermometers is a uniquely diversified manufacturing company. Since years, we have been involved in developing one of the best igniter systems, TruFire, for thermal power plants, oil refineries and flares in India and overseas. Our world class manufacturing facility is situated in Ambala, Haryana, India covering an area of over 30,000 sq. feet. We design, develop and manufacture quality products by partnering custom ideas with our engineering and manufacturing expertise at our unit. Our mission for over 31 years has been to supply superior products and services to our customers at a competitive price.



**In-house Manufacturing Facilities with latest CNC Machines**



### TruFire™ - HEA Igniter System

The HEA (High Energy Pulsed ARC) Igniter System is designed to ignite a variety of fuels ranging from high speed diesel to heavy fuel oil and gases. The equipment produces high intensity electrical sparks which readily ignite the oil/gaseous particles surrounding the spark, thus creating a flame pocket in the oil spray required for a successful ignition. TruFire HEA Igniter is used for direct spark ignition of oil, gas igniters and all type of burners.

The Energy output of the Igniter which refers to the energy of each spark is rated in Joules. The Standard Power Pack of 12 Joules produces about 4-8 sparks per second. The HEA Spark Tip is a self-cleaning highly reliable and maintenance free product. The intermittence can range from 3 to 16 sparks per seconds and each spark can have an energy ranging of 4 to 30 Joules, which can be preset according to specific requirement.

### The HEA Igniter System consists of following :

1. HEA Exciter Box (Power Pack)
2. HEA Spark Rod - Rigid or Flexible
3. HEA Spark Tip (Spark Plug/ Igniter Probes)
4. HEA Flexible Cable Assembly (Igniter Power Cable)
5. HEA Retractor Assembly
6. HEA Guide Pipe Assembly

### ADVANTAGES

- Starts with a highly reliable Self-cleaning operation
- Quicker cold Starts
- Considerable fuel savings
- Maintenance Free
- Simple retrofit conversion
- Customized designs for Tilting Burners
- Customized designs with Battery Operation
- Customized designs for Flare Pilots
- Customized Solid State Technology (Spark Gap & Thyristor controlled)
- Lower Ignition Cost
- Quick Service Support
- Very High Energy Power Packs available
- Quick changing/replacing of Spark Rod
- Quick delivery process
- One stop solution for Multiple products.

### APPLICATIONS

- Thermal Power Plants
- Oil Refineries
- Aircrafts
- Chemical Plants
- Cement Plants
- Heating Plants
- Waste Management Plants
- Industrial Purpose





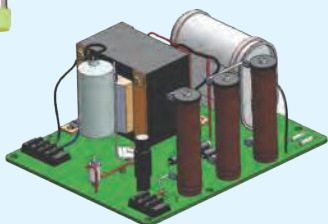
## 1. HEA Exciter Box (Power Pack Unit)

HEA Exciter Power Pack is a unique high energy spark gap controller or Thyristor controller with capacitors having a pulse rate of approximately 4 to 8 sparks per second. Its high reacting transformer and full wave charging circuit provides an extended duty service. In fact, TruFire is one of the most powerful and reliable Igniter System available with 4 to 30 Joules. It's a highly adaptable maintenance free Exciter offering lowering Ignition costs and is also safe for end user with no risk of electric shock.

- AC and DC inputs are available
- Certified Enclosure for Hazardous environments including ATEX, CCOE, DGMS, Ex-Proof, Ex-d, Class I, Class II, Division-1 & 2, Group A to G
- Suitable for Harsh conditions such as high moisture etc.
- Compact Designs
- Spark Gap Technology without Radioactive material
- Thyristor Technology without gas discharge tubes or radioactive material
- Battery Operated Power Pack is also available for remote operations

### \*(NOTE -1) Standard Specifications

Standard Energy	: 12 Joules
Spark Rate per second	: > 5 Sparks
Input Voltage	: 110 or 230V AC, 50/60 Hz
Duty Cycle	: 15 Minutes ON, 15 Minutes OFF (1:1)
Fuel Applied	: HFO, LDO, Crude Oil, Fuel Gases
Maximum Current	: 5 Amp.





<b>Part No.</b>	<b>HT-HEA-SC-12J</b>
Exciter Type	Spark Gap
Enclosure	Weather Proof, NEMA 4
Protection Class	IP 65
Dimensions(HxWxD)	300x300x155mm /400x300x210mm
Other Energy available	6 to 24 Joules
Operating Temperature	-25°C to 75°C
<b>Internal Circuit No.</b>	<b>HT-DX-22-1</b>

Standard Specification applies Refer Note -1






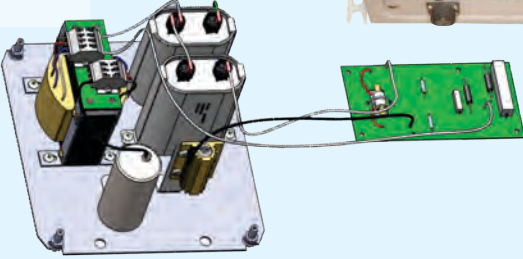




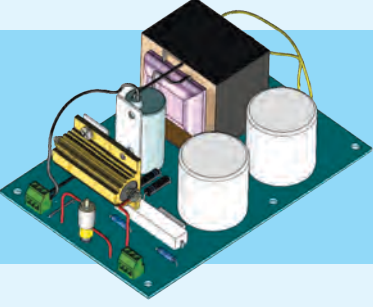
Part No.	HT-HEA-SC-12J-T
Exciter Type	Spark Gap
Enclosure	Weather Proof, NEMA 4
Protection Class	IP 65
Dimensions(HxWxD)	300x300x155mm
Other Energy available	6 to 30 Joules
Operating Temperature	-25°C to 75°C
Internal Circuit No.	HT-DX-12-1-T

Standard Specification applies Refer Note -1

Part No.	HT-HEA-12J-N
Exciter Type	Spark Gap
Enclosure	Weather Proof, NEMA 4
Protection Class	IP 65
Dimensions(HxWxD)	300x300x210mm
Operating Temperature	-25°C to 75°C
Internal Circuit No.	HT-12-0-00

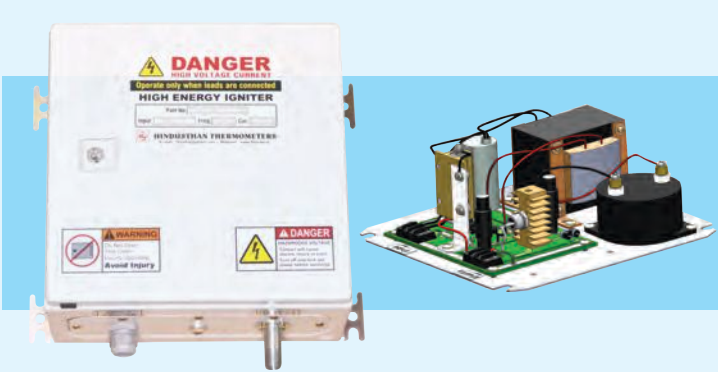
Standard Specification applies Refer Note -1

Part No.	HT-HEA-SC-12J-XX2
Exciter Type	Spark Gap
Enclosure	Weather Proof, NEMA 4
Protection Class	IP 65
Dimensions(HxWxD)	300x200x155mm /300x300x155mm
Other Energy available	4 to 18 Joules
Operating Temperature	-25°C to 75°C
Internal Circuit No.	HT-HEA-XX2

Standard Specification applies Refer Note -1

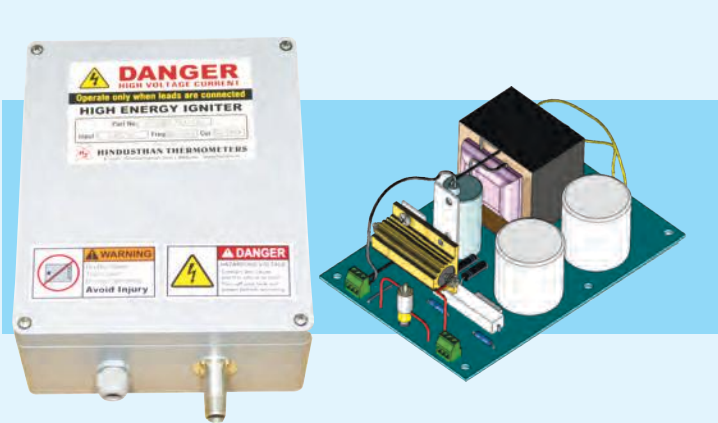


Part No.	HT-HEA-SC-12J-TSS
Exciter Type	Thyristor/Solid State
Enclosure	Weather Proof, NEMA 4
Protection Class	IP 65
Dimensions(HxWxD)	300x300x155mm
Other Energy available	12 to 24 Joules
Operating Temperature	-25°C to 75°C
Internal Circuit No.	HT-TSS-277

Standard Specification applies Refer Note -1

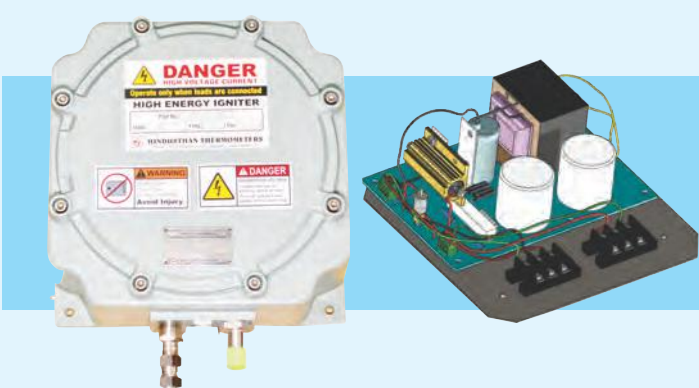
Part No.	HT-HEA-ALD-EXP-12J-T
Exciter Type	Spark Gap
Enclosure	ATEX Approved Ex - Proof Available*
Protection Class	IP 65 or IP 66
Dimensions(HxWxD)	300x230x180mm
Other Energy available	6 to 30 Joules
Operating Temperature	-25°C to 90°C
Internal Circuit No.	HT-DX-12-1-T

Standard Specification applies Refer Note -1



Part No.	HT-HEA-ALD-12J-XX2
Exciter Type	Spark Gap
Enclosure	ATEX Approved
Protection Class	IP 65 or IP 66
Dimensions(HxWxD)	280x230x110mm
Other Energy available	4 to 18 Joules
Operating Temperature	-25°C to 90°C
Internal Circuit No.	HT-HEA-XX2

Standard Specification applies Refer Note -1

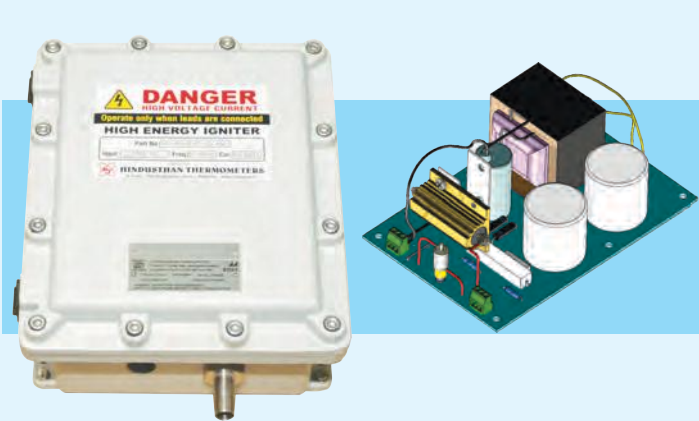


Part No.	HT-HEA-EXD-12J-H07-D
Exciter Type	Spark Gap
Enclosure	CCOE, DGMS, Flameproof
Protection Class	IP 65 or IP 66
Dimensions(HxWxD)	320x320x150mm
Other Energy available	4 to 18 Joules
Operating Temperature	-25°C to 90°C
Internal Circuit No.	HT-HEA-XX2

Standard Specification applies Refer Note -1

Part No.	HT-HEA-ALC-12J
Exciter Type	Spark Gap
Enclosure	Weather Proof, NEMA 4
Protection Class	IP 65
Dimensions(HxWxD)	260x160x115mm
Other Energy available	4 to 18 Joules
Operating Temperature	-25°C to 90°C
Internal Circuit No.	HT-HEA-XX2

Standard Specification applies Refer Note -1



Part No.	HT-HEA-EXD-12J-XX2
Exciter Type	Spark Gap
Enclosure	CCOE, ATEX, Flameproof
Protection Class	Exd IIB + H2 T6 - IP 66
Dimensions(HxWxD)	270x320x166mm
Other Energy available	4 to 18 Joules
Operating Temperature	-25°C to 90°C
Internal Circuit No.	HT-HEA-XX2

Standard Specification applies Refer Note -1





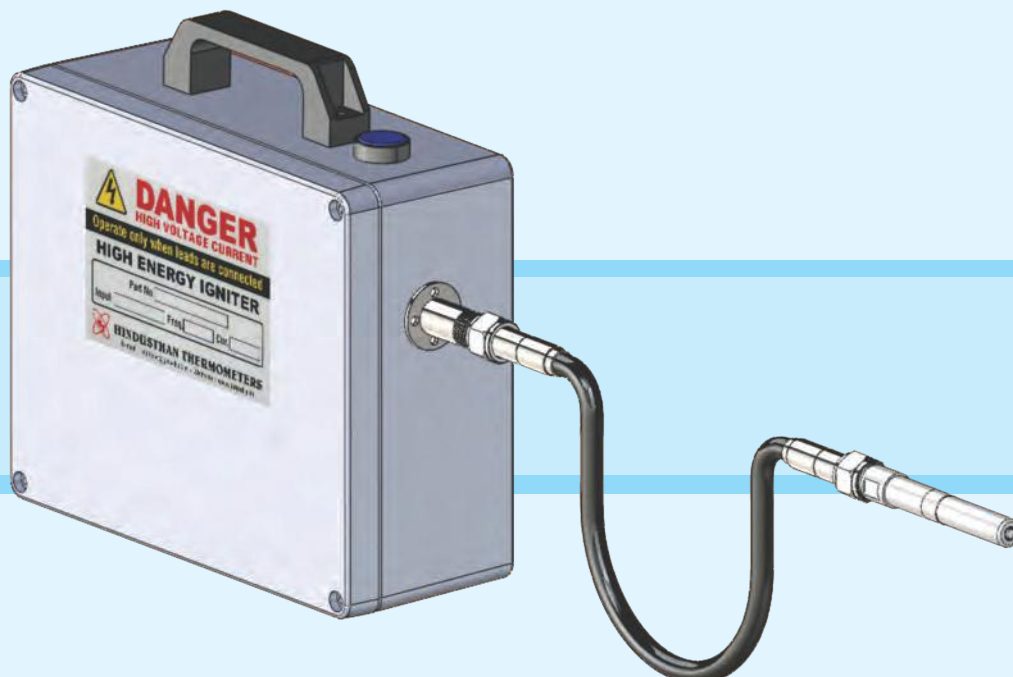
## PORTABLE BATTERY OPERATED HEA IGNITER

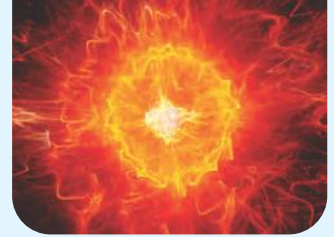
Portable Battery Operated HEA Igniter is a compact and lightweight designed ignitor, a handy system suitable for remote applications for the ignition of Boilers and flare pilots. It delivers reliable performance in a convenient portable system. A portable system may be used to ignite a number of burners where the installation of a separate, permanent igniter on each boiler would be uneconomic. It is extensively used as a standby ignition system, always handy and ready, if there is any failure on a standard system.

### HEA EXCITER : Part No. HT-HEA-ALD-BO-12J

Exciter Type	: Spark Gap
Energy	: 12 Joules
Spark Rate per second	: 3-5 sparks
Battery Type	: Rechargeable 12V DC, 7.8 AH
Input Supply for Battery Charging	: 110-230V AC
Battery Backup	: 2 Hours approx.
Output Voltage	: 2000V DC
Duty Cycle	: 10 Min. ON, 2 Min. OFF
Enclosure	: Weather Proof, NEMA 4, Aluminum alloy
Protection Class	: ATEX Approved, Ex II 2G, II 2 D, IP 66
Other Energy Available	: 7 Joules, 18 Joules
Operating Temperature	: -25°C to +90°C
Fuel Applied	: HFO, LDO, Crude Oil, Fuel Gases

- Easy to use
- Push Button facility
- Handle
- Battery Charger





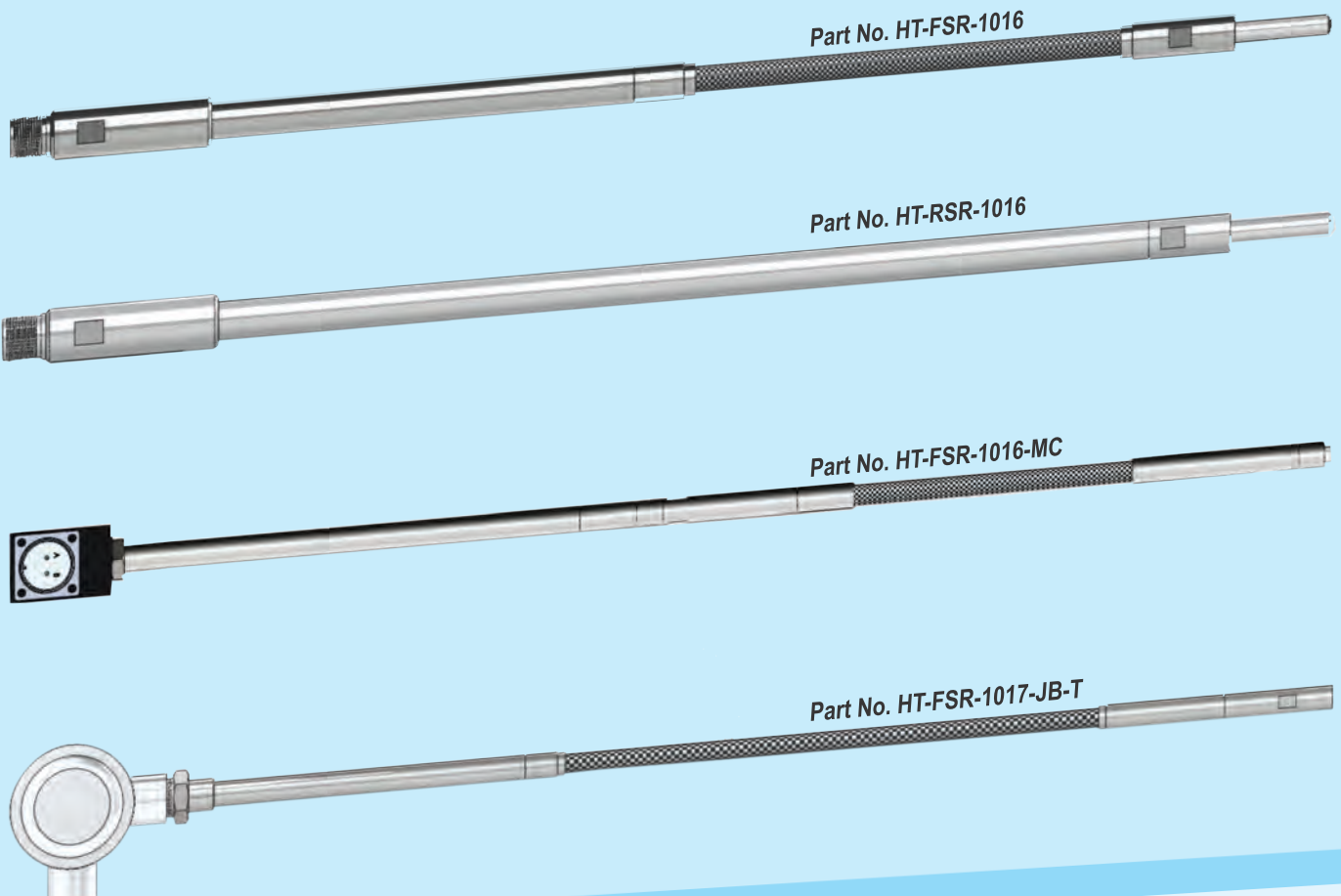
## 2. HEA SPARK ROD - Rigid or Flexible

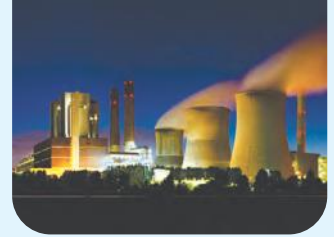
The Spark Rod assembly connects the Spark Tip to the Flexible Cable so as to transmit the electrical discharges to the Spark Tip.

- Standard Diameter : 15.9 mm
- Flexible Spark rods for tilting type burners
- Rigid Spark Rods for Pilot Burners, Refineries, Cement Plants, Chemical Plants etc.

### SPECIFICATIONS

Type	: Rigid or Flexible
Material	: S.S 304 Tube, S.S. 304 Braided
Length	: 84", 93", 100", 108", 126" *(Refer note:2)
Diameter	: 16,17,18,22mm *(Refer note:3)
End Connection	: Threaded, Quick Fit with 2 pin connector
Voltage Rating	: Suitable for working up from 1000 V DC to 3600V DC (Maximum 4000V DC)
Temperature Rating	: 450° C continuous





### 3. HEA Spark Tip (Spark Plug/Igniter Probes)

The Spark Tip converts the electrical discharge into High Energy Sparks to ignite a wide range of fuels such as Heavy Fuel Oil (HFO), Light Fuel Oil (LFO), Natural Gases, Fuel Gases, Diesel etc. The Spark Tip can easily be replaced as it is screwed onto the end of the Spark Rod.

- Produces highly reliable Sparks
- A self-cleaning surface gap spark tip
- Standard Spark rate is more than 5 sparks per second
- Type: Surface Gap (Aircraft)
- Long Life and maintenance free

#### STANDARD SPECIFICATIONS

Type	: Shunted surface semiconductor pin connection to Spark Rod
Length	: $177.5 \pm 3\text{mm}$ , *(Refer note: 2)
Thread	: $\varnothing 9/16 - 18 \text{ UNF} - 2\text{A}$ *(Refer note: 2)
Front Diameter	: $15.2 \text{ mm}$ *(Refer note: 3)
Overall Diameter	: $16, 17, 18, 22 \text{ mm}$ *(Refer note: 3)
Material	: PIN : Inconel, CASING : Stainless Steel 304
Maximum Temp.	: $649^{\circ}\text{C}$







Part No. HT-ST-1012



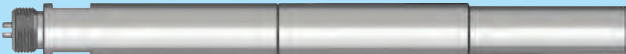
Part No. HT-ST-1012-A



Part No. HT-ST-1012-M10



Part No. HT-ST-1012-CDM



Part No. HT-ST-17/190



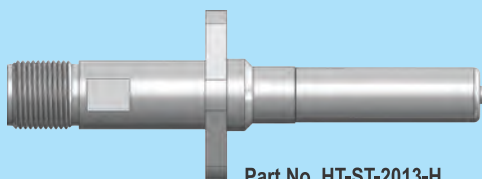
Part No. HT-ST-1016-PNG



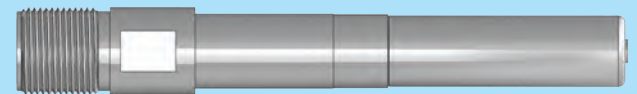
Part No. HT-ST-1018



Part No. HT-ST-1018-XC



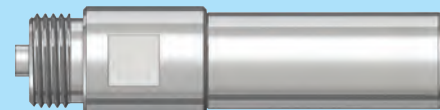
Part No. HT-ST-2013-H



Part No. HT-ST-2013



Part No. HT-ST-1022



Part No. HT-ST-2014-65/PNP



Part No. HT-ST-41122



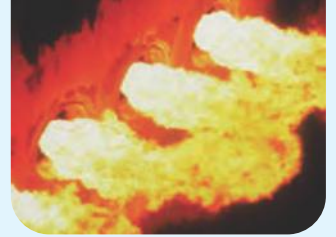
Part No. HT-ST-90258



Part No. HT-ST-E93135



Part No. HT-ST-F145-19-1

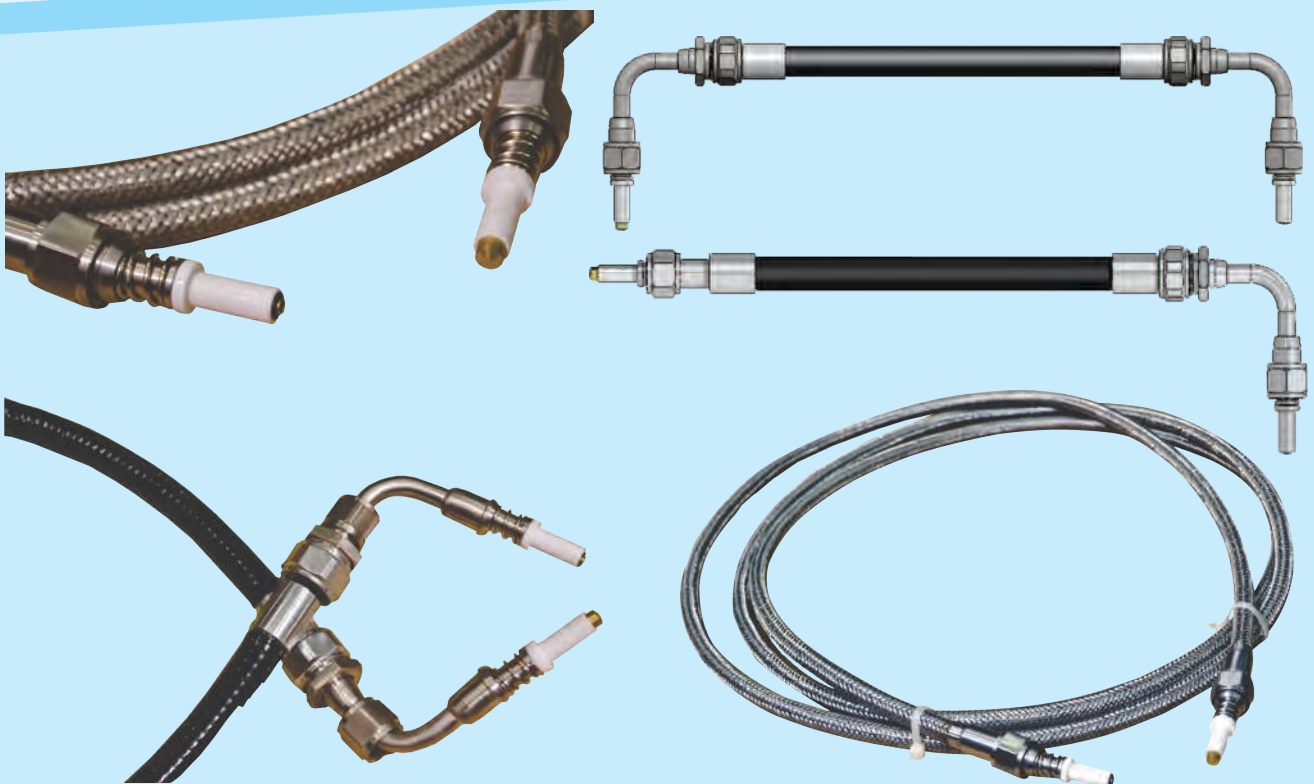


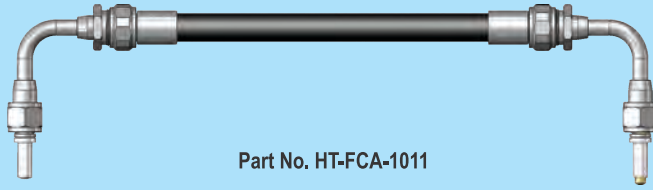
#### 4. HEA Flexible Cable Assembly (Igniter Power Cable)

The HEA Flexible Cable assembly connects the HEA Exciter Power Pack to the HEA Spark Rod.

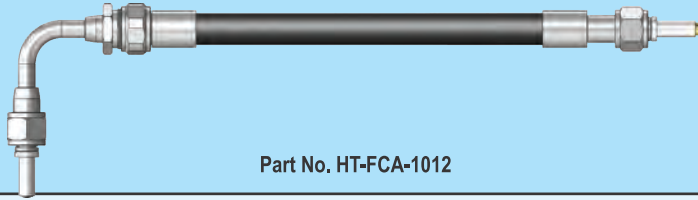
##### SPECIFICATIONS

Conduit	: Standard Coated Conduit / SS Braided Conduit / Special Co-axial Cable <ul style="list-style-type: none"><li>• <b>Standard Conduit</b> - Liquid-Tight Flexible Steel Conduit (UL/cUL Listed) Hot-dipped galvanized steel core, Size: 3/8" by square locked and a continuous copper bonding strip build into the core, Liquid Tight, Oil Resistant, Sunlight Resistant, Flame retardant, IP 67 with PVC-thermoplastic jacket. Dry up to 80° C, 75° C for Oil.</li><li>• <b>Stainless Steel Braided Conduit:</b> SS 304 Corrugated with SS 304 braided conduit is available. Working Temperature up to 125° C</li><li>• <b>Special Heavy Duty Co-axial Cable</b> for specific requirement.</li></ul>
Type	: Straight Cables (without Bend) / Single Bend / Dual Bend
Length	: 12 Feet *(Refer note: 4)
Connection	: PIN, Wired, 2 pin connectors
Voltage Rating	: Suitable for working up from 1000V DC to 3600V DC (Max. 4000V DC)
Temperature Range	: -55°C to 110°C





Part No. HT-FCA-1011



Part No. HT-FCA-1012



Part No. HT-FCA-1012-W-T



Part No. HT-FCA-1013-W



Part No. HT-FCA-1013-MC



Part No. HT-FCA-1020



Part No. HT-FCA-1021



Part No. HT-FCA-1023





## 5. HEA Retractor Assembly

The Retract Assembly is a pneumatically operated system to advance and retract the Spark Tip into the burner zone for a successful ignition or after the lapse of a preset time. The HEA Spark Rod with Spark Tip is inserted thru Guide tube until the Spark Tip extends into the Ignition zone.

- Double Acting Pneumatic Cylinder use with Dry and Clean Air Supply
- Solenoid Valves Coils available in Ex-proof or H Class
- Limit Switches or Proximity Sensors (also available for Hazardous areas)
- AC and DC inputs are available
- Long Life and maintenance free

## SPECIFICATIONS

### - Air Cylinder / Pneumatic Cylinder :

Stroke Length	:	100, 200, 300, 330 mm*
Diameter	:	40 mm
Operating Pressure	:	70 to 100 PSI

### -Solenoid Valve :

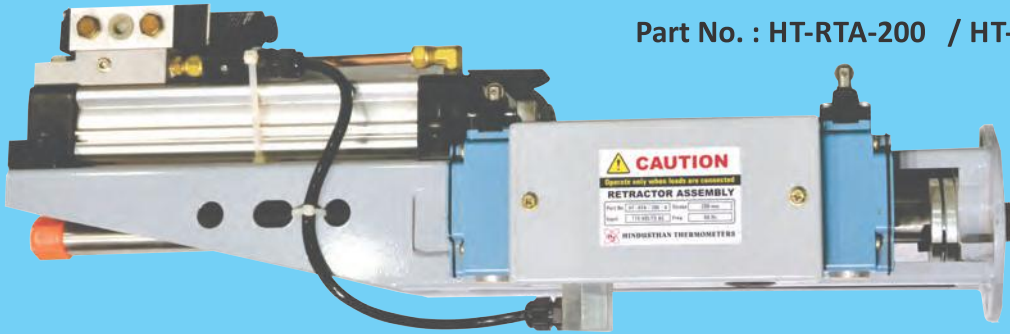
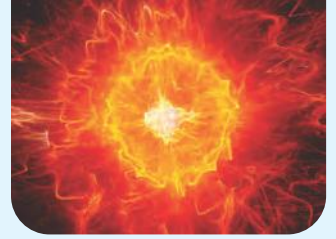
Coil Voltage	:	110VAC, 240V AC or 24V DC
Frequency	:	50 -60 Hz
Mechanical	:	1/4" NPT Ports

### Limit Switch /Proximity Sensors :

Voltage	:	110VAC, 240V AC or 24V DC
Frequency	:	50-60 Hz
Characteristic	:	SPDT/ DPDT
Current	:	10 AMPS Continuous
Temperature Range	:	-20°F to +225°F

### Junction Box

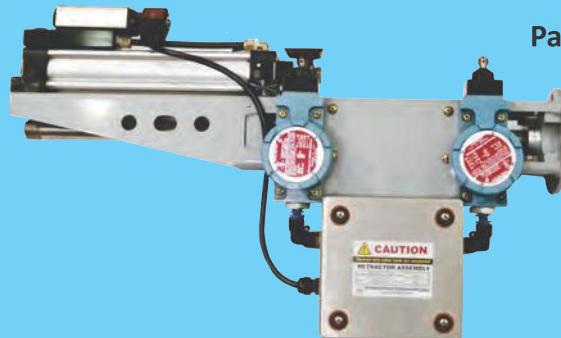
Enclosure	:	IP 65, IP 66, NEMA 4 for Safe Area (also available for Hazardous Areas)
Conduit Entry	:	Hole ø 22 mm



Part No. : HT-RTA-200 / HT-RTA-200A



Part No. : HT-RTA-330-T



Part No. : HT-RTA-AL-EXP-200



Part No. : HT-RTA-100-T-EXD



Part No.: HT-RTA-HC-330-L



## 6. HEA Igniter Guide Pipe Assembly

It can be welded directly onto the burner front plate, providing support to HEA Spark Rod.

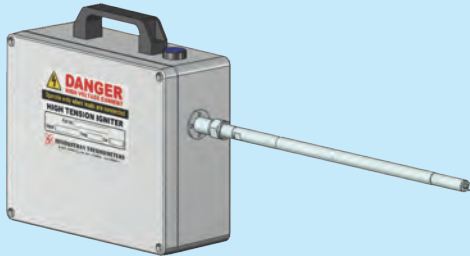
- Designs and Dimensions can be customized as per site requirement
- Tilting Type Burner
- Front Wall/Corner Fired Burners
- Heavy Duty corrosion resistant material





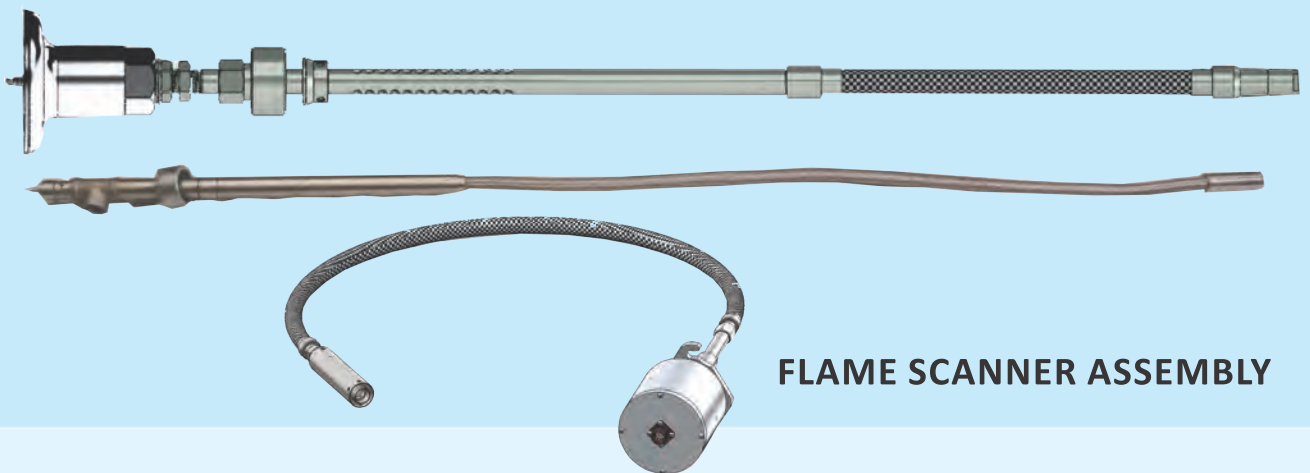
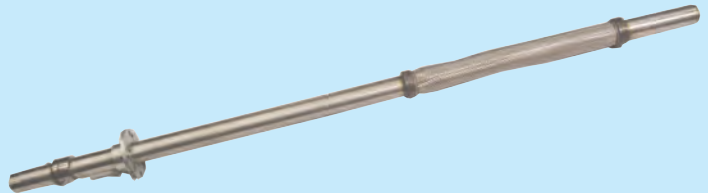


## OTHER PRODUCTS



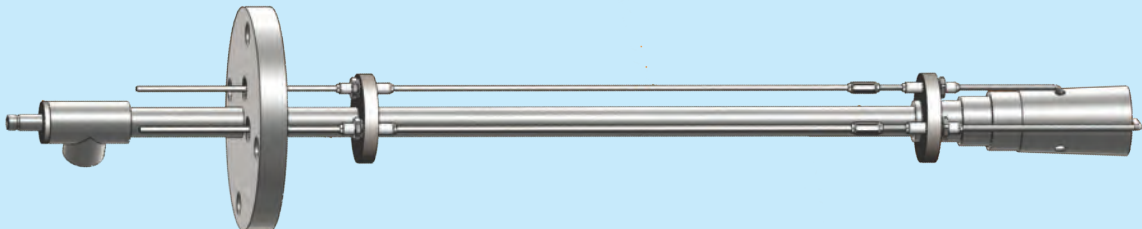
**HIGH TENSION LOW POWER**

**FLAME SCANNER GUIDE PIPE ASSEMBLY**

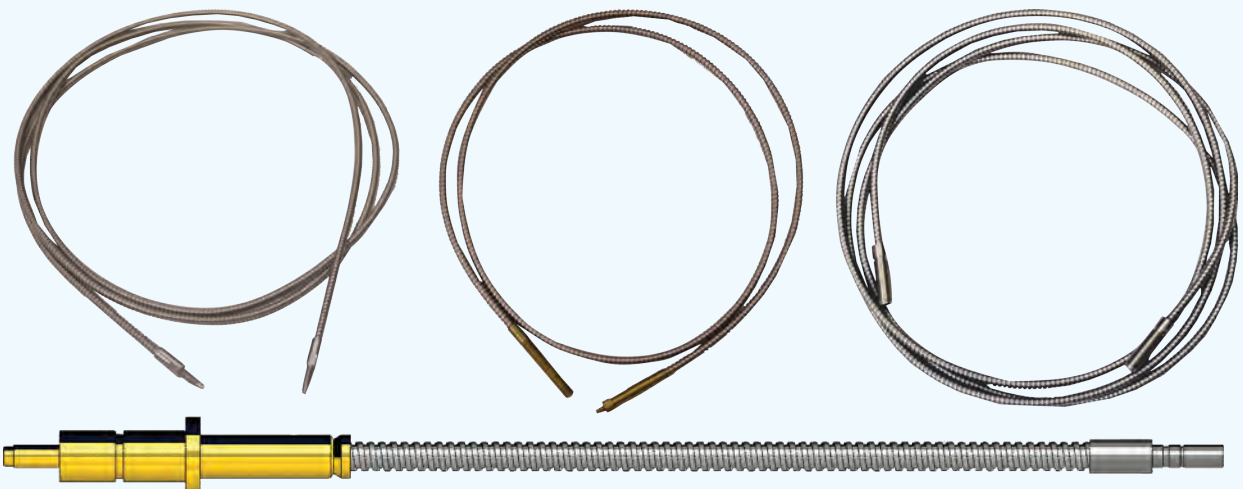


**FLAME SCANNER ASSEMBLY**

**PILOT BURNER**



**FIBRE OPTIC CABLE**





### Pre Sales Services

- According to customers demands we provide relevant technical guidance.
- Assist customers to select the appropriate model and make solutions considering technical feasibility.

### Service Promise



### After Sales Services

- Our company provides 1 year warranty of our products.
- We provide erection, commissioning and installation of our products at site.
- Engineers are available to provide services at site.



- With a policy of Continuous up-gradation of our products, Our company reserves the right to change design and specifications without prior notice.
- Product images displayed in the catalogue are only representation and may differ the actual product.

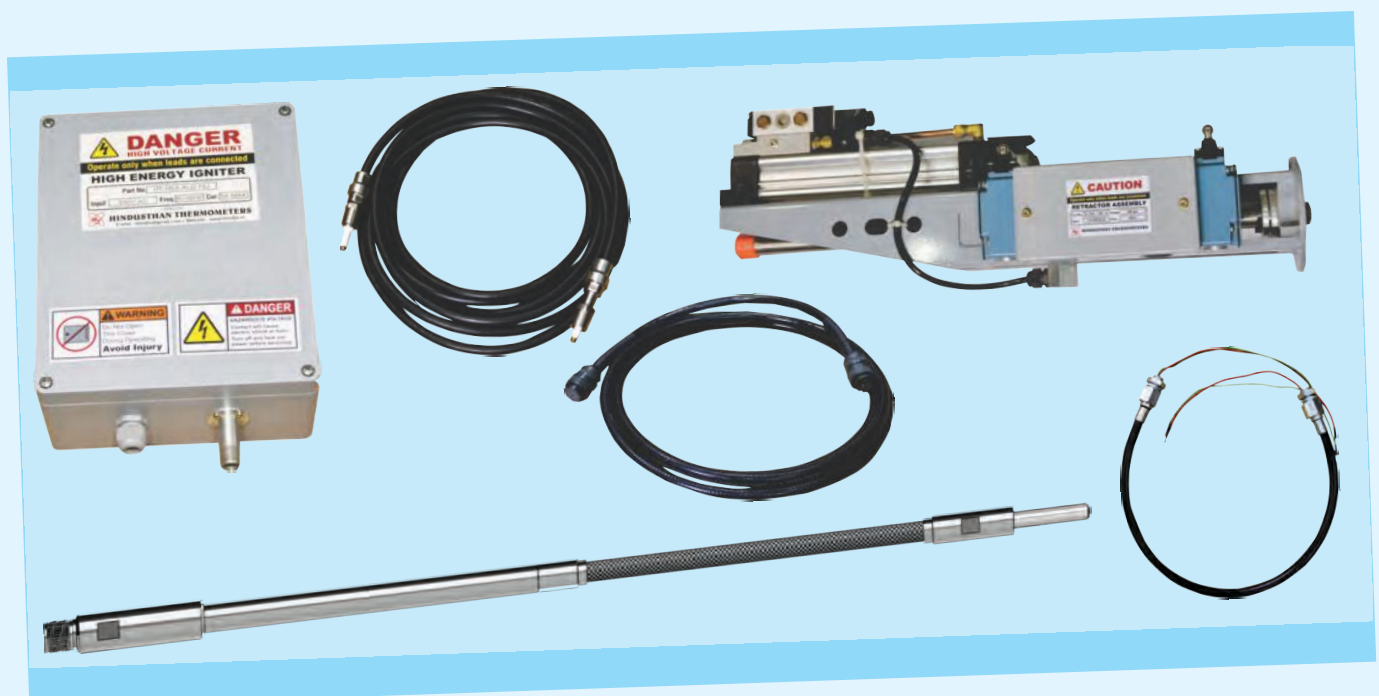


- All Rights of Designs or Invention of products are Reserved by our company.
- Any Reproduction or modification of the Design or Drawing is prohibited without Explicit Written Consent/ permission from us.



### \*Reference Notes:

- 1.HEA Exciter Box – Standard Specification applies as given on Page No.4
- 2.Customizable Lengths are available as per requirement.
- 3.Customizable Diameter are available as per requirement, subject to availability.
- 4.Customizable Cable Lengths from 1 meter to 30 meters as per requirement.







## Few of our Esteemed Customers






## *Hindusthan Thermometers*

 **Address :** 5, Industrial Estate,  
Ambala Cantt - 133 006 Haryana, India

 **Contact Nos. :** Ph: 91-171-2699237,  
Fax : 91-171-2699037, Mb. : 9416020237

 **Email :** [htindia@gmail.com](mailto:htindia@gmail.com), [info@htindia.in](mailto:info@htindia.in)  
**Website :** [www.htindia.in](http://www.htindia.in)



MAKE IN INDIA

