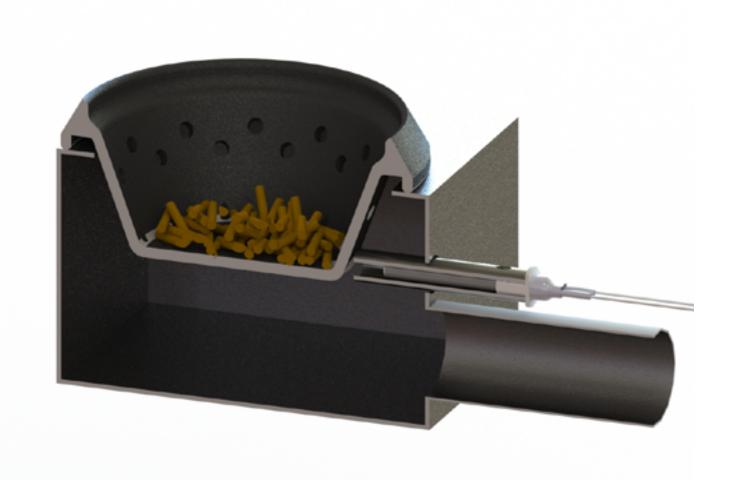


# **Alumina ceramic** high temperature igniter



# A revolutionary way to ignite biomass and wood pellet













## FKK Corporation Eco solution

**Fast lighting** 

Made to last

**Reduce emission** 



# 150,000 cycles pass



With a time to ignition of 60~90 seconds (according to burner) at 300W, PSx series alumina ceramic igniters are the most performant ignition system to light wood pellet, wood chips or other biomass.

PSx alumina ceramic igniters are made to last for good and reduce maintenance. This type of igniter have pass 150,000 cycles test and some are in use in pellet stove for more than 15 years.

Thanks to high surface temperature of 950~1000°C it allows high temperature of combustion and thus burn combustion residues more efficiently and reduce harmful emission.

**Original technology** 

Japan quality

Wide range

Since 80's



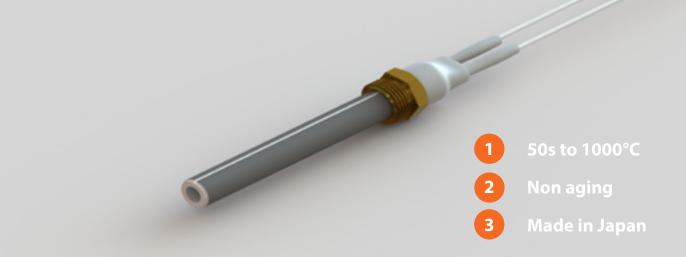
30+ models

FKK Corporation has the longest history and experience of producing alumina tube igniters. The company first production back from 80's for solid fuel and kerosene heater industry in Japan.

All PSx alumina ceramic igniters are 100% made in Japan with components from Japanese companies.
Besides, the PSx igniters are fully complying with TUV Rheinland company's testing.

PSx ceramic igniters for biomass and wood pellet ignition count now more than 30 different models and can easily be customized according to your requirements for wiring and ceramic flange.

### Biomass hot surface igniters



Introducing the PSx<sup>®</sup> series ceramic biomass igniters range, an advance in ignition technology for solid fuels.

FKK Corporation specialises in ceramic hot surface igniters and has many years of experience of working closely with customers to develop bespoke solutions for innovative appliances manufacturers. We are a trusted supplier of hot surface igniter products to many biomass/pellet stoves, burners and boilers manufacturers.

These advanced igniters are simply the best for lighting wood pellet and biomass burners. They use only a fraction of the energy required by hot air fans and ignition blowers and will light all fuel types. Ideal for wood pellets, wood chips, log, corn, maize, etc.

With a considerably higher temperature, around twice that of traditional metal sheathed products, ignition times are reduced to as little as 60 seconds. This makes them significantly more economical in use.

All our range can be customized to fit perfectly in your appliance.

### **Ceramic ignition technology benefits**

- Time to ignition 60~90 seconds
- Long lasting (nearly non aging)
- Tested to 150,000 cycles, 40 years of market feedback and enhancement
- A fraction of the energy consumption compared to conventional igniter
- Reduces appliance particles emission tanks to shorter ignition phase
- Easy to install and retrofit
- Fits any steel tube with an inner diameter of ≥18mm
- 1000°C at steady-state temperature
- Cannot overheat even with blower failure
- Available in 100V / 120V / 230V AC
- Fully electrically insulated with no exposed electric contacts
- Impervious to oxidation and corrosion
- Ignite wood pellet, wood chips, split logs, straw and other biomass
- Comply with RoHS, REACH, CE regulation
- UL certified wiring possible (200 to 500°C heat resistant wire)

### Systems

- Wood pellet stove
- Wood pellet boiler
- Wood pellet burner
- Wood chips burner
- Wood pellet BBQ/grill
- Other biomass burner

#### Certification

- TUV Rheinland EN 60335
- TUV Rheinland RoHS













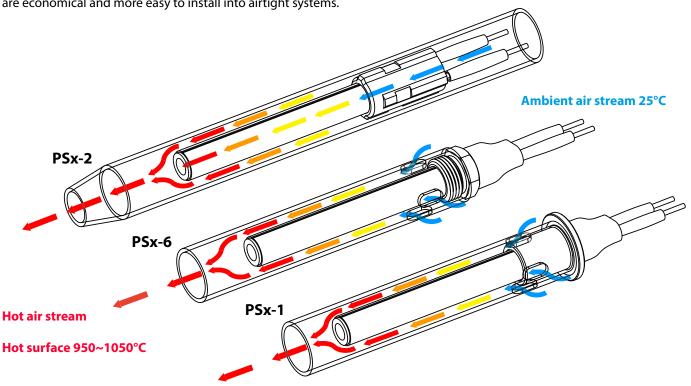
### A revolutionary way to ignite biomass

### Faster, better, stronger.

PSx series igniters revolutionize biomass heating appliances ignition process. FKK developed several types to fit in every appliances.

Tubular radiant structure type (Blowing air system: PSx-2 /PSx-7) ceramic igniters have a through hole that let air through the heating element body. With this structure, ignition performance can be increase by 1.4 times compare to metal cartridge heater.

Hermetic radiant structure type (PSx-1 / PSx-6) ceramic igniters heat the surround air for indirect ignition of pellet. These models are economical and more easy to install into airtight systems.

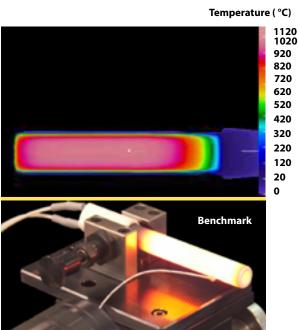


### Rising surface temperature

#### 1150 5.5 1100 1050°C @ 240V 5.0 1050 1000 4.0 1011°C @ 230V 950 Temperature (°C) 900 3.0 850 Current (A 800 2.0 1.45A @ 240V 750 700 1.0 1.40A @ 230V 650 600 180 210 240 270 300 30 60 90 120 150 Time (seconds)

Nominal resistance:  $44.64\Omega$  Inrush current: 5.05A (@240V/50Hz) Current: 1.45A (@240V/50Hz)

### **Heat distribution**



### PSx series igniters line up

A simple and efficient solution for biomass ignition

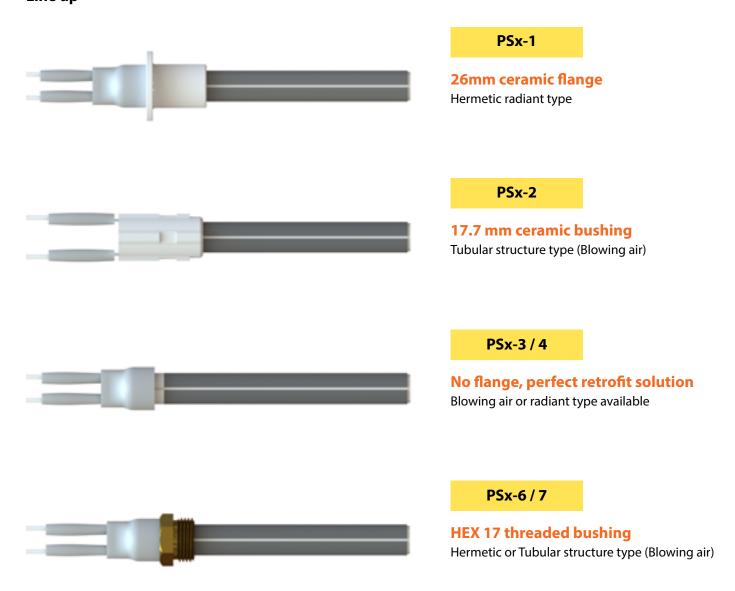
### **Application**

Igniters suitable for ignition of biomass, wood pellet, wood chips, wood log, for stoves, boilers and burners.

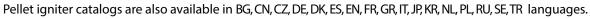
### **Features**

- Tested to 150,000 ON/OFF cycles.
- Fast ignition time (60~90s to ignite pellet according to burner)
- Totally customizable solution, many design available
- 240W and 300W type
- Available in 100V, 120V, 230V
- Wiring available in UL or CE certified version

### Line up



All drawings and data-sheets are available for download at : www.plug.fkk-corporation.com/en/download Scan the QR code to go directly to the related page.

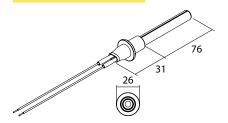




Line up Unit (mm)

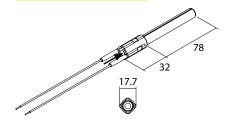
### 300W Class - Black coating alumina heaters (B)

### PSx-1-240-B



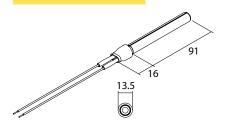
300W - 1000°C Hermetic type

PSx-2-240-B



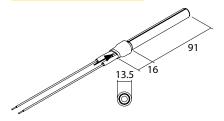
300W - 1000°C Tubular structure type (Blowing air)

PSx-3-240-B



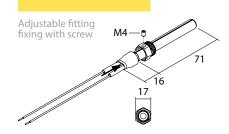
300W - 1000°C Hermetic type

### PSx-4-240-B



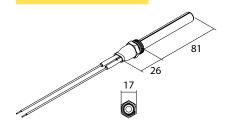
300W - 1000°C Tubular structure type (Blowing air)

PSx-5-240-B



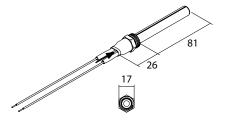
300W - 1000°C Tubular structure type (Blowing air)

### PSx-6-240-B



300W - 1000°C Hermetic type

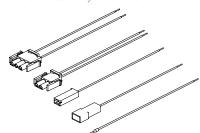
### PSx-7-240-B



300W - 1000°C Tubular structure type (Blowing air)

### **Custom model**

From 500 pcs all models can be customized with the cables and connector of your choice



Туре	Reference	Flange type	Heater length (mm)	Available voltage (V)	Cable length (mm)
300W	PSx-1-240-B	Ceramic 26mm	107	230V	350mm  *All lengths and connectors type available upon request.
	PSx-2-240-B	Ceramic bushing 17.7 mm	110	230V	
	PSx-3-240-B	Flange less - Retrofit	107	230V	
	PSx-4-240-B	Flange less - Retrofit	107	230V	
	PSx-5-240-B	G3/8" bushing - Retrofit	107	230V	
	PSx-6-240-B	G3/8" bushing 17mm	107	230V	
	PSx-7-240-B	G3/8" bushing 17mm	107	230V	
240W	PSx-1-120-W	Ceramic 26mm	107	120V	
	PSx-2-120-W	Ceramic bushing 17.7 mm	110	120V	
	PSx-4-120-W	Flange less - Retrofit	107	120V	
	PSx-7-120-W	G3/8" bushing 17mm	107	120V	

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