

## + Overview

Walsn Flame Detection System is an essential detection system for coal fuel, gas, and oil Furnace Safeguard Supervisory System, which widely applies to power plants, steel and cement factories, chemical industries, and associated fields. Walsn Flame Detection System carries out real-time detection based on the physical property of flame. Once the flame status is abnormal or the flame is off, the signal will be given as a fault alarm or the logical judgment condition of FSSS to suspend fuel supply and avoid accumulating the combustible materials in the burner or pipe and prevent the burner from explosion.

## + Product Features

- + Able to store 8 sets of documents, applicable to various load, fuel and combustion technologies
- + PTFE insulation material is added to improve parameters of the equipment's heat resistance and extend the working life
- + Integrated and compact design – easy to locate and install
- + Our professional installation service team, will be shoulder to shoulder with you through the entire process.
- + Remote online tuning and parameters setting

## Typical Applications

- + Electric power, petrochemical, metallurgy, cement industry
- + Pulverized coal boiler, fluidized bed boiler, kiln and furnace
- + The gas/coke oven gas/blast furnace gas, light oil, heavy oil and coal

## + Specifications (FS-100)

Housing Material	Die-cast aluminium	Housing Weight	1.8kg
Installation Method	Screw Point	Ambient Temperature	-40 ~85°C
Humidity	0 ~95% relative humidity no condensing	Power Supply	24VDC, ±10% DC 0.35A
Protection level	IP66/NMEA 4X		
Analog Output	4 ~ 20mA		
Maximum Load	750Ω		
Contact Output	Flame Relay: NC Fault Relay: NC		
Contact Rating	2A 30VDC 0.6A 125V AC		
Cooling Air Volume	5 ~15SCFM (141.5 ~ 424.5Nm <sup>3</sup> /min)		
Cooling Air Pressure	6Kpa		
Spectrum range	190 ~ 380nm(UV) 700 ~1700nm(IR)		
Conduit angle	Coal flame detector 7° ~ 10° Oil flame detector 5° ~ 7°		

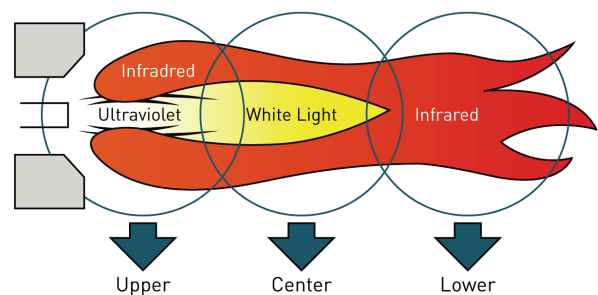


FS-100

## Principle

Coal burning process: the pulverized coal has been oxidized inside the furnace via the high-temperature of the oxygen. This process mainly occurs at the bottom of the burner; Even if flame is not a significant size, a high frequency of flicker will provide an optimal detection of flame.

Walsn Flame Detection System collects and enlarges the flame signal, estimates that whether the flame exists or not via a series of calculations. The system outputs different flame quality information regarding each burner in the real time.



## + Specifications (FDS-600)

### FDS-601

Housing Material	Die-cast aluminium	Housing Weight	0.5kg
Installation Method	Screw Point	Ambient Temperature	-40 ~85°C
Humidity	0 ~95% relative humidity no condensing	Power Supply	24VDC, 0.5A
Spectrum range	190 ~ 380nm(UV) 700 ~1700nm(IR)	Protection level	IP66/NMEA 4X
Cooling Air Pressure	6Kpa	Cooling Air Volume	5 ~15SCFM (141.5 ~ 424.5Nm <sup>3</sup> /min)
Conduit angle	Coal flame detector 7° ~ 10°; Oil flame detector 5° ~ 7°		

### FDS-602

Housing Material	ABS	Housing Weight	0.4kg
Ambient Temperature	0 ~50°C	Humidity	0 ~95% relative humidity no condensing
Power Supply	24VDC, ±10% DC 0.35A	Analog Output	4 ~ 20mA
Maximum Load	750Ω	Contact Output	Flame Relay: NC Fault Relay: NC
Contact Rating	2A 30VDC 0.6A 125V AC		



FDS-601



FDS-602

# Walsn Flame Detection System [FS-100 & FDS-600 & FSE-100]

## + Specifications (FSE-100)

Housing Material	Die-cast aluminium	Housing Weight	3.2kg
Installation Method	Screw Point	Ambient Temperature	-40 ~85°C
Humidity	0 ~95% relative humidity no condensing	Power Supply	24VDC, ±10% DC 0.33A
Protection level	IP65/NMEA 4X	Explosion-proof Grade	Exd II C T6Gb
Analog Output	4 ~ 20mA		
Maximum Load	500Ω		
Contact Output	Flame Relay: NC Fault Relay: NC		
Contact Rating	2A 30VDC 0.6A 125V AC		
Cooling Air Volume	5 ~15SCFM (141.5 ~ 424.5Nm <sup>3</sup> /min)		
Cooling Air Pressure	6Kpa		
Spectrum range	190 ~ 380nm(UV) 700 ~1700nm(IR)		
Conduit angle	Coal flame detector 7° ~ 10° Oil flame detector 5° ~ 7°		



FSE-100

