

PRODUCT CATALOG

2025



surefirebms.com



System ON

System OFF

Igniter On

Burner Running

Note: If any lights are Blinking,
please check Status Code.



BMS-300

Status Codes:

Run Codes:

- 00 System Running
- 24 Pre-Purge on Startup
- 01 Waiting for startup signal
- 08 Purge between Ignition Attempts
- 09 Waiting for main valve to open

Standby Codes:

- 02 Standby Interlock
- 03 Spare Standby 1
- 04 Spare Standby 2

Shutdown Codes:

- 11 Manual / Remote Shut Off
- 12 Max Retries Exceeded
- 13 Low Battery Volts
- 14 Igniter Short Circuit
- 15 Igniter Open Circuit
- 16 Flame Sensed Before Startup
- 18 Extreme High/Low Temp, Check RTD
- 19 Shutdown Interlock
- 20 ESD Activated
- 21 Main Fuel Valve Failure
- 22 Flame Sensor Problem

For technical support,
contact SureFire @ 505-333-2876
www.SureFire-Controls.com

↑	High Temp	Flame Sensor Threshold	Flame Sensor
↓	Low Temp	Igniter Volts	RTD/PS
ON	Status Code Editor Mode	F/C	SV EHTD
OFF	A/S FPT	Hours On	FSV Igniter Status

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SPARKLESS IGNITION TECHNOLOGY

Paving the way for **pilotless burner** technology.



FLAME-FRONT TECHNOLOGY

Protecting **critical components** from unnecessary damage.



SIMPLE OPERATION

Keeping **trouble-shooting** and **operation** easy and simple.

BMS CONTROLLERS

Simple Operation



Get to know the SureFire BMS controller.

SureFire offers multiple Burner Management Systems for natural draft burners up to 10 million BTU, as well as for flares and combustors. Engineered for reliability in the harshest conditions, these systems utilize **SureFire's Sparkless Ignition technology** to ensure the safe and reliable operation. From flare pilots to a 1.5mm BTU heater treater with remote monitoring, SureFire provides a Burner Management System for any process.

Key Features:

- **Easy Installation & Startup** – Simple wire termination and parameter setup.
- **Reliability** – Hot surface ignition, temperature control, and valve control.
- **Safety** – Integrated safety protocols to ensure personnel and equipment safety.
- **Indicators** – Displays for System ON/OFF, Battery Voltage, Status Codes, Flame Strength, and Audible and Visual feedback.
- **Industry Leading Three-Year Warranty**



SF-50

Pilot Maintainer for Firetube and Pit Flare Applications.

Features:

- Igniter Flame Sensing
- Pilot Valve Control
- Integrates with multiple applications
- Digital Readout
- Run Status Output
- Data Logging



BMS-100

For combustor or flare applications with a continuous pilot and second-stage control.

Features:

- Pilot Maintainer
- Thermocouple Flame Sensing
- Valve Control
- Standby/Shutdown Input
- Modbus RS485 (Read Only)*
- High-Temperature Thermocouple*
- 4-20 mA Input*
- Data Logging*



BMS-300

For naturally drafted heaters. Monitors target temperatures using an RTD circuit and controls the fuel train in either pilotless or piloted arrangement.

Features:

- Temperature Control
- Flamerod
- Flame Sensing
- Standby/Shutdown Input
- Modbus RS485 (Read Only)*
- Valve Control



BMS-350

For naturally drafted heaters. Monitors target temperatures using a thermocouple or RTD circuit. Controls the fuel train in either pilotless or piloted arrangement.

Features:

- Multiple-Temperature Inputs
- Valve Control
- T/C OR Flame Rod Flame Sensing
- Standby/Shutdown Input
- Modbus RS485 (Read/Write)*

*Feature integrated in adder card



CLASSI DIVISION 2 GROUPS C. D. T6
 UL STD61010-1 • UL STD 61010-2-030
 UL STD 121201:2017 Ed.9 • UL STD 121201(Ed.9)
 BMS 300 & 350 are also NFPA87 and B149.3 COMPLIANT

SurefireBurner Management Systems
 1910 Rustic Place
 Farmington, New Mexico 87401
 505.333.2878





SAVE LIVES

Increased safety protocols



REDUCE EMISSIONS

EPA COMPLIANT

& 0000b/0000c COMPLIANCE



SAVE MONEY

Lower operating costs

FT IGNITION UNITS

Pilotless Burner Assemblies & Patented
Sparkless Technology



No adjustment. No cleaning required.

- True plug and play
- Time-saving simple installation
- Armored, flame resistant, conduit-ready wiring
- Ignition coil not required
- Compliant to API RP 12N flame arrestor testing
- Hot Surface Ignition

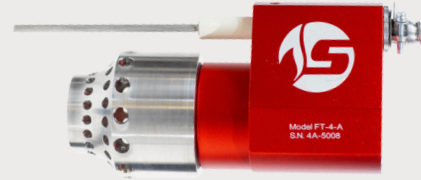
Key Features:

- SureFire Sparkless Ignition Technology
- Integrated Flame Sensor (Available in Two Configurations)
- Pilotless Burners for Firetube Applications
- Flame Front Technology for Flare and Combustor Applications



FT-2 Pilotless Ignition Unit

- Inlet: 1 inch NPT
- Direct ignition of main burner
- For use with 1 inch air/gas mixer @ 125,000 Btu/h
- Flame-sensing: Flame rod or Thermocouple



FT-4 Pilotless Ignition Unit

- Inlet: 2 inch NPT
- Direct ignition of the main burner
- Compatible with 2 inch air/gas mixer @ 500,000 BTU/h
- Flame-sensing: Flame rod or Thermocouple
- Nozzle options for horizontal or vertical firetube arrangements.



FT-6 Pilotless Ignition Unit

- Inlet: 3 inch NPT
- Direct ignition of the main burner
- Compatible with 3 inch air/gas mixer @ 1 mm BTU/h
- Flame-sensing: Flame rod or Thermocouple
- Nozzle options for horizontal or vertical firetube arrangements.



FT-8 Pilotless Ignition Unit

- Inlet: 4 inch NPT
- Direct ignition of the main burner
- Compatible with 4 inch air/gas mixer @ 1.5 mm BTU/h
- Flame-sensing: Flame rod or Thermocouple
- Nozzle options for horizontal or vertical firetube arrangements.

PATENTED TECHNOLOGY

The FTL-F flame-front technology removes critical components from the intense flare and combustor environment.

The FT-1 provides a reliable pilot burner for firetube applications rated over 1.5 million BTU/hr.



FTL-F-72, FTL-F-96 & FTL-F-200

- Flame-sensing with thermocouple
- Services Piloted Flares
- Gas Inlet: 1/4 inch NPT
- Pilot length variations are: 5ft, 7ft, and 17ft.



FTL-F-MINI

- Flame sensing with thermocouple
- Suitable for combustors and enclosed flares
- Gas inlet: 1/4 inch NPT
- Custom fitted assemblies to you applications.



FTL-F-30/ FTL-F-40

- Flame sensing with thermocouple
- Suitable for combustors and enclosed flares
- Gas inlet: 1/4 inch NPT



FT-1 Piloted Ignition Unit

- Flame sensing with thermocouple and flame rod
- Suitable for firetube applications.
- Gas Inlet: 1/2 inch NPT

PARTS/ACCESSORIES



Quality Parts:

The following section contains a comprehensive list of all compatible parts and accessories designed to work seamlessly with the products featured in the previous catalog sections. These components ensure optimal performance, maintenance, and customization of your equipment.



12 VOLT ACTUATOR
Part #51901065

Features:

- Controls the main fuel gas to the main burner
- Factory programmed and pre-wired – no adjustments necessary
- 3-wire termination for easy installation



1" SOLENOID VALVE
Part #51900605 K

Features:

- Fail-closed device
- No adjustment necessary
- Simple termination and installation



2" SOLENOID VALVE
Part #51900608 K

Features:

- Fail-closed device
- No adjustment necessary
- Simple termination and installation



1/4" ASCO SOLENOID VALVE

Features:

- Fail-closed device
- No adjustment necessary
- Simple termination and installation

Additional Accessories

RTDs
Thermocouple
Slow Flow Valve
Pressure Switch
Pressure Transducer
Coalescing Filter
Air/Gas Mixers
Pressure Regulators
Voltage Converters

Service Parts

Flame Rod Replacement Kits
Flame-Sensing Thermocouple Replacement Kits
Overlay Replacement Kits
CCA Replacement Kit
Igniter Replacement Kits



VENTLESS FUEL TRAINS

More gas through the Sales Line.



ELECTRONIC CONTROL DEVICES

Compatible with all SureFire BMS Systems.



ELIMINATE VOC VENTING

Protecting air quality and ensuring compliance with zero-emission solutions.

AIR COMPRESSORS

Eliminate Methane Emissions On Pneumatic devices.



Compliance with:

0000b/0000c



U.S. DEPARTMENT OF
ENERGY





ACP-100

- Enclosure
- 100 AH battery
- 200 watt solar panel
- 60 - 70 scf/d or less
- Solar charge controller
- Mounting stand
- 3 Gallon Storage Tank



ACP-200

- Enclosure
- 200 AH battery
- 400 watt solar panel
- 90 - 100 scf/d or less
- Solar charge controller
- Mounting stand
- 3 gallon storage tank

Low cost, long term solution.

Reduce emissions reporting.

Powered with clean, efficient compressed air.

Your path to safer burners starts here.

Save lives, reduce emissions, and save money.

Contact **SureFire** Now!

New Mexico Office

Address: **1910 Rustic Place Farmington, NM 87401**

Phone: **(505) 333-2878**

Email: **sales@surefirebms.com**

Technical Support Hotline Phone:

(505) 333-2876

For more information or to reach out via email, please visit surefirebms.com



**24/7 CARE FOR
OUR CLIENTS.**



INSTALLATIONS



INSTALLATIONS



