BMS Controllers

OVER 350 MILLION HOURS OF SAFE BURNER CONTROLS

SureFire
iBURNER MANAGEMENT SYSTEMS

SureFire offers three Burner Management Systems for burners up to 10 million Btu, and for flares and combustors. They are reliable in the harshest conditions and use SureFire's Sparkless Ignition technology for the safest operations. From simple flare igniters to remotely controlled units via RTU/PLC and modbus, SureFire has a Burner Management System for any process with a naturally aspirated burner.

STANDARD FEATURES

- Easy Installation and Startup, with Auto Relight, Remote ON/OFF, LED Display Screen
- Shutdowns – Ignition Failure, Flame Failure, Flame Sensor Failure and Igniter Failure
- Indicators – System ON / OFF, Battery Voltage, Status Code, Flame Strength, Audible Ignition
- Polycarbonate Enclosure – NEMA 4X meets IP66 criteria, UL listed, UV resistant keypad
- Two-year warranty

APPLICATIONS

Dehydrators • Separators • Horizontal / Vertical Treaters • Line Heaters • Tank Heaters • Combustors • Flare Stacks • Incinerators

OPERATING SPECS

- Battery Voltage — 11-15 volts DC
- Solar Panel Voltage — 12 volts DC
- Solar Panel Current — 8 amps maximum
- Igniter Voltage — 13-14 volts DC adjustable
- Igniter Amps — 6.5 amps inrush, 2.0 amps nominal (during ignition only)
- Ambient Temperature — -40°F / +130°F (hardware only)

BMS-100

For combustor or flare applications, with second stage control.

FEATURES*

- Pilot Maintainer
- Flame Sensing:
  - Igniter
  - Thermocouple
- Daughter Card Options:
  - Thermocouple High Temp
  - 4-20 mA Input
  - Data Logging Flame Sensor

*See comparison chart of features and specifications other side

BMS-300

For naturally drafted heaters. Monitors target temperatures with an RTD circuit. Controls both the pilot and main burner gas valves — piloted or pilotless mode.

FEATURES*

- Modbus Option (Read Only)
- Flame Sensing:
  - Flame Rod
  - Igniter

BMS-350

For naturally drafted heaters. Monitors target temperatures with a thermocouple or RTD circuit. Controls both the pilot and main burner gas valves — piloted or pilotless mode.

FEATURES*

- Modbus Option (Read/Write)
- Flame Sensing:
  - Flame Rod
  - Thermocouple

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Designed and manufactured in the U.S.A.

over **350**
MILLION HOURS
of safe burner control

BMS Product Comparison

Features	BMS-100	BMS-300	BMS-350
POWER			
12 Volt DC Output	✔	✔	✔
12 or 24 Volt DC Input (limited to 90 watts)	✔	✔	✔
Solar Panel Input for Battery Charging	✔	✔	✔
INPUT FUNCTIONS			
Flame Sense – Flame Rod		✔	✔
Flame Sense – Igniter	✔	✔	
Flame Sense – Thermocouple (T/C)	✔		✔
Shutdowns	✔ (2)	✔ (2)	✔ (1)
Standbys	✔ (2)	✔ (3)	✔ (2)
Alternate Sensing (w/ pressure, level switches, etc.)		✔	✔
Temperature Control w/ Resistance Temperature Detector (RTD)		✔	✔
Temperature Control w/ Thermocouple (T/C)			✔
Thermocouple (T/C) Safety Shutdown	✔		✔
4-20 mA Input	✔		
OUTPUT FUNCTIONS			
1st Stage Solenoid	✔	✔	✔
2nd Stage Solenoid	✔	✔	✔
Actuator	✔	✔	✔
Modbus		✔	✔
4-20mA Output		✔	✔
Alarm Output	✔		✔
Run Status	✔	✔	✔
OPERATIONS			
Adjustable Extreme High Temp Delta (EHTD)			✔
Attempts & Successes (A/S) Readout		✔	✔
Attempts & Successes (A/S) Resettable			✔
Adjustable Flame Proof Timing (FPT)		✔	✔
Adjustable Solenoid Timing		✔	✔
Battery Volts Readout	✔	✔	✔
Days Burner On Counter			✔
Hours Burner On Counter		✔	
System Days Unit On Counter			✔
Flame Strength Indication	✔	✔	✔
Flame Strength Threshold - Adjustable		✔	✔
Igniter Volts Display		✔	
Indicator LEDs	✔	✔	✔
Pilot Mode Intermittent		✔	✔
Pilot Mode Standing	✔	✔	✔
Single Stage Capable	✔	✔	✔
2 Stage Capable	✔	✔	✔
Status Code	✔	✔	✔
Status Code History			✔
Adjustable Pre-Purge Timing	✔		
Adjustable Re-Ignition Attempts	✔		
Data Logging	✔		

CLASS I DIVISION 2 GROUPS C, D, T6
UL STD 61010-1 • UL STD 61010-2-030
UL STD 121201:2017 Ed.9 • UL STD 121201(Ed.9)
BMS 300 & 350 are also NFPA 87 and B149.3 COMPLIANT

Intertek | ETL LISTED US

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