

Burner Management Systems (BMS) Smart Solution

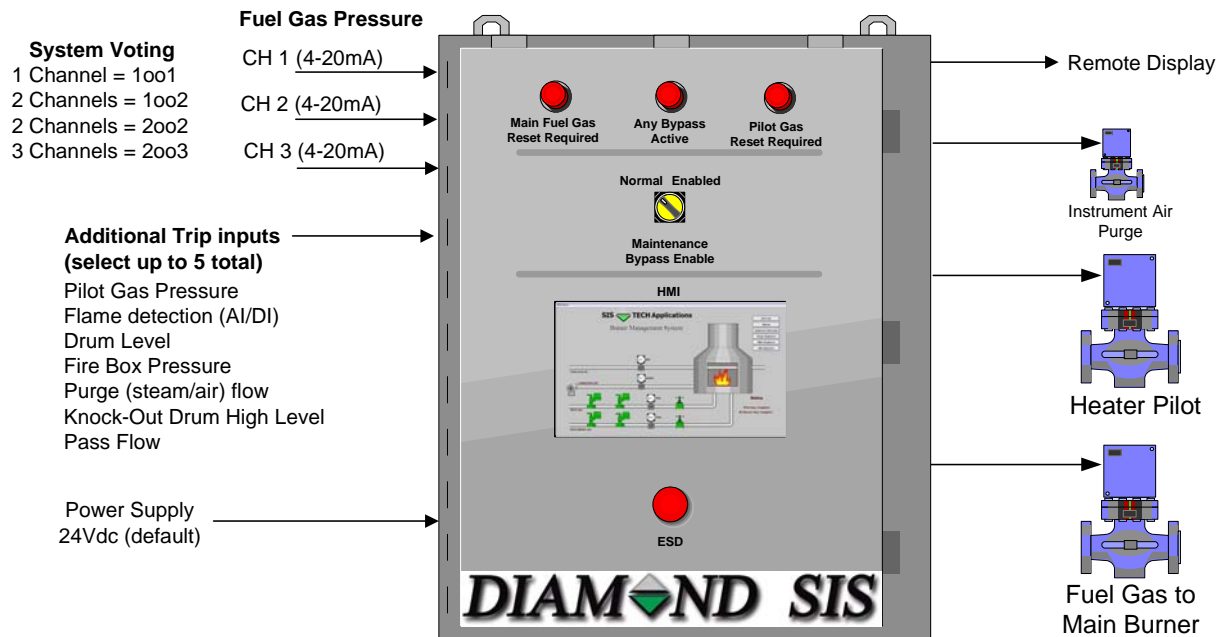


The **DIAMOND-SIS® SMART BMS** builds upon our base BMS package and provides an enhanced operator interface using general purpose PLC technology. The safety trip functionality of the **DIAMOND-SIS® SMART BMS** continues to use the Model 340 Alarm Module. This trip amplifier functions as an analog or discrete relay and can achieve SIL 3 performance depending on redundancy and voting. The Model 340 Alarm Modules provide step-by-step Purge, Pilot & Main Burner permissive, light-off sequencing, and safe-bypass facilities.

The diagnostic and communication functionality of the **DIAMOND-SIS® SMART BMS** is independent of the trip amplifier and is provided by a general purpose PLC. The PLC is not safety related, but provides system fault status to field and remote displays. Fault alarms include First Out Trip Alarm, transmitter failure, BMS sequence interrupt and deviation alarm.



The unit is rated for -30C to +75C and constructed using Class I Div II components and can be installed in the harshest process units near the equipment under control. Field installation of the logic solver reduces implementation costs by 50% compared to safety-PLCs. **DIAMOND-SIS®** provides the end user with a fault tolerant and on-line testable logic solver that is functionally independent from the burner control system.



THE LOW COST ALTERNATIVE TO SAFETY PLC's

KEY FEATURES

- 2003 version is certified to IEC 61508 SIL 3 in SH3 configuration
- High reliability
- Proven technology
- Rugged design
- Field mountable
- On-line testable & repairable
- Local and remote process variable & system status monitoring
- HMI & PLC Programming totally independent from the DIAMOND-SIS
- Low installed cost alternative to a Safety PLC

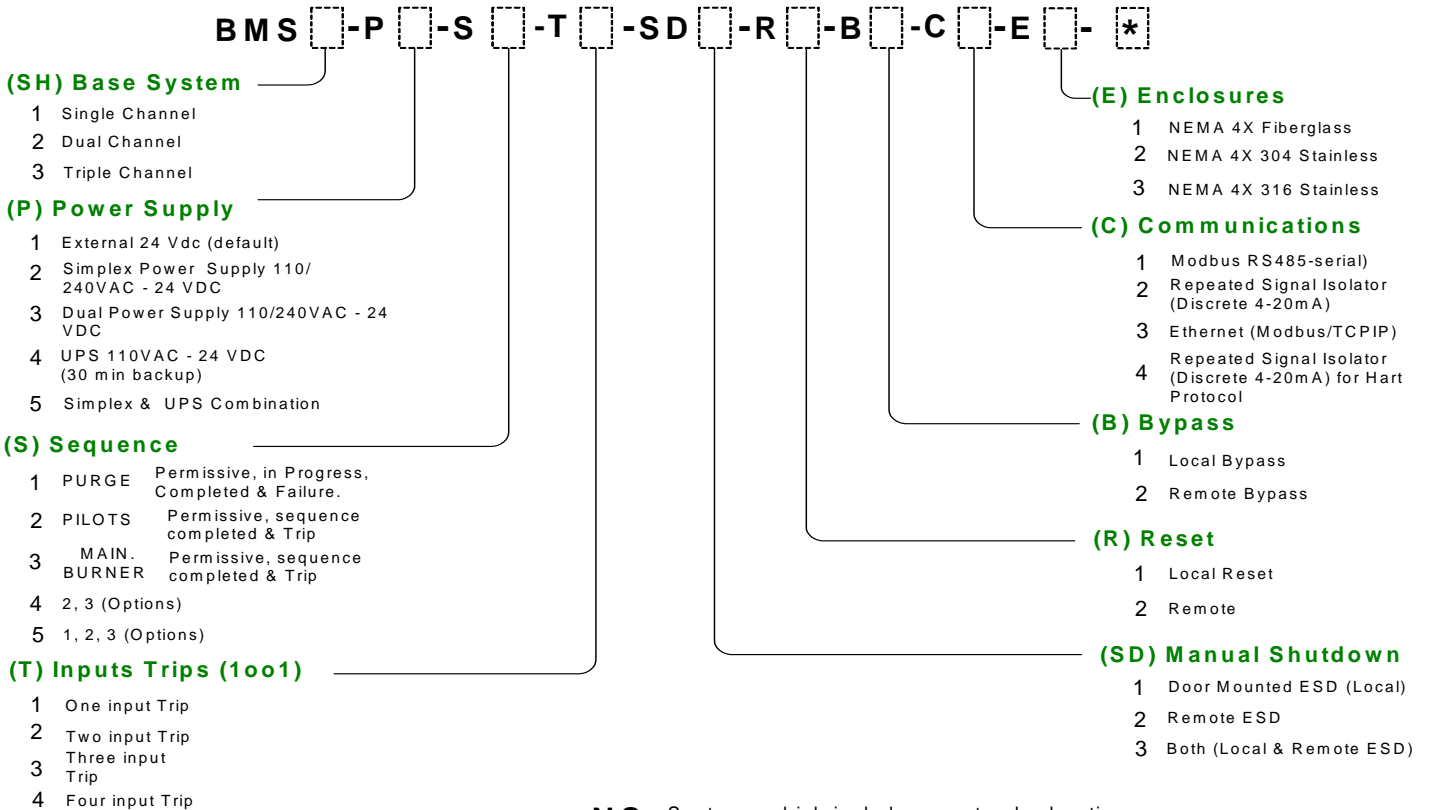
SPECIFICATIONS

- Supply Power: User specified, 24VDC/110VAC/240VAC
- Input: 4-20 mA DC or discreet (dry contact)
- Output: 5 Amp resistive dry contacts
- Accuracy: 1% of span
- Temperature: -40 to +80°C Storage / -35 to +75°C Operating
- Environment: All internal components rated Class I Div II Groups A/B/C/D
- Enclosure: NEMA 4X – choice of materials

ENGINEERING/DOCUMENTATION OPTIONS

Safety requirements specification for complete instrumented loop, including SIL Verification

ORDERING SELECTION



* **-NS** Systems which include non-standard options.