

# Series S1501 Selectronic® Microcontroller/Annunciator

The S1501 instrument is a microprocessor-based alarm, shutdown and control system with tachometer/hourmeter function. It annunciates in alphanumeric characters the protective device that has signaled an alarm or caused equipment shutdown. Information is called up and adjustments are made on a six-button keypad on the face of the unit. Configurations such as alarm or shut-down nomenclature, preset timers and tachometer calibration can be made in the field.

The Murphy S1501 system has seven SPDT relays. On the standard model, the relays are assigned to the following functions: lube, crank, ignition/motor, fuel valve/cooler, load, alarm and shutdown.

The complete S1501 system consists of a head, sensor input terminal strip (two needed for 64 sensor models), 36-inch (914 mm) flat ribbon cable(s) for connecting the terminal block to the head and a Class I, Div. 1, explosion-proof power supply.

The S1501 system is powered from 120 VAC or 12 or 24 VDC. The head is rated intrinsically safe and includes a communication port, jumper selectable for either RS232 or RS485, operating as a MODBUS RTU slave. This port allows for remote control functions such as start/stop, load/unload, etc., and for read access to S1501 holding registers.

The S1501 system can be configured to monitor applications such as air and natural gas compressors, natural gas refueling and other industrial operations. For a list of applications and our cataloged programs contact a Murphy sales representative.

Custom programming is available at additional charge.

MConfig™ Software can be used to download to or upload from the S1501 and to save configurations.



## Specifications

### Power Consumption:

- 120 VAC (7.5 VA)
- 12 VDC (3.5 watts)
- 24 VDC (3.5 watts)

**Sensor Inputs:** 32 or 64 N.O. and/or N.C. inputs such as Murphy Switchgag® instruments. Field selectable as a Class A, B1, B2, C, P or ESD for shutdown, alarm or control function.

*NOTE: Sensor inputs 27 through 32 reserved for control functions.*

**Outputs:** 7-SPDT relay outputs, 5 A, 1/16 HP, 125/250 VAC/ 1 A, 30 VDC

*NOTE: For hazardous areas an approved isolation barrier must be used between sensor switch and input terminals if the sensor output comes from any energy storing device such as a relay or transistor.*

### Adjustable Time Delays:

- Permissive
- Prelube
- Purge
- Fuel
- Crank
- Run
- Class B1 Lockout
- Class B2 Lockout
- Process Lockout
- Idle/Cool down
- Ignition Ground
- Postlube
- Cooler

**Sensor Inputs Terminal Block:** Rail mount DIN type; 32 terminals, screw type

**Opto-Isolated Tach/Run Input:** Magnetic pickup, 4.5 to 120 Vrms, 0-10 kHz. CD ignition, positive or negative ground, 100 to 300 VDC, 3-666 Hz. 12 to 125 VDC or 120 Vrms, 50/60 Hz may be used for run signals.

**Operating Temperatures:** 32 to 122°F (0 to 50°C)

**Storage Temperatures:** -4 to 158°F (-20 to 70°C)

**Case :** ABS plastic, 1/4 DIN (90 x 90 mm)

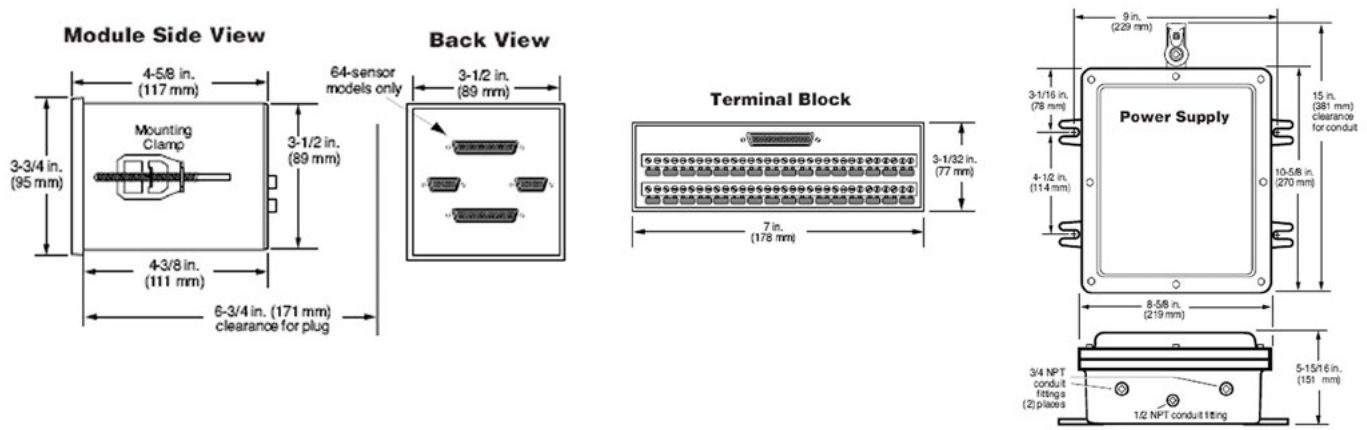
**Interface Output:** Factory configured for RS232; field-selectable for RS485.

**Alphanumeric Display:** 2 lines, each line with 16 characters (32 characters total)

**Power Supply Enclosure:** Explosion-proof, Class I, Division 1. Intrinsically safe barrier built into the power supply, with 7 form C relay outputs for the following functions (with standard S1501):

- Lube
- Crank
- Ignition/Motor
- Fuel/Cooler
- Load
- Alarm
- Shutdown

# Dimensions



# How to Order

Part Number	Model and Description	Notes
Specify Model Number	S1501H-32-2	Head with RS232/RS485 port for 32 sensors
	S1501H-64-2	Head with RS232/RS485 port for 64 sensors
	S1501CH-32-2	Head with custom* program, RS232/RS485 port, 63 sensors
	S1501CH-64-2	Head with custom* program, RS232/RS485 port, 64 sensors
	S1500TB32	Terminal Block only**
	S1500CA36	Ribbon Cable Assembly**
	S1501PS-120	120 VAC, 12 or 24 VDC Power Supply
	S1501PS-120-E	Power Supply with 90° Conduit Elbow Fitting
	S1501PS-120-LC-AMOT Kit	
	S1501PCA72 - Power and Control Cable Assembly, 72 in. (1.8 m) long	Accessories
S1501PS-120-LC - Power Supply less case		

\*Specify program number or contact Enovation Controls for available programs listings.

\*\* Two required for 64 sensor models.

## Approximate Shipping Weights /Dimensions

### S1501 complete system:

28 lb. (12.7 kg) / 20x14x12.5 in. (508x356x218mm)

### S1501H-32-2; S1501H-64-2; S1501CH-32-2;

### S1501CH-64-2:

2 lb. (0.907 kg) / 6x6x6 in. (152x152x152mm)

### S1500TB32:

2 lb. (0.907 kg) / 12x7x4 in. (305x178x102mm)

### S1500CA36; S1501PCA72:

2 lb. (0.907 kg) / 6x6x6 in. (152x152x152mm)

### S1501PS-120-LC:

3 lb. (1.36 kg) / 12x7x4 in. (305x178x102mm)

### S1501PS-120 and S1501PS-120-E:

22 lb. (9.98 kg) / 17x10x9.75 in. (431x254x248mm)

**Warranty** — A limited warranty on materials and workmanship is given with this Murphy product. A copy of the warranty may be viewed or printed by going to [fwmurphy.com/support/warranty.htm](http://fwmurphy.com/support/warranty.htm)