Series S1501 Selectronic® Micro-Controller/Annunciator

Features

- For engine and electric motor driven equipment applications
- Easy operation/adjustments, six-button keypad
- Automatic engine/electric motor control
- Automatic loading
- Alarm/Shutdown for 32 or 64 N.O. or N.C. sensors
- Field adjustable sensor nomenclature
- Selectable sensor lockouts Class A, B, C or P
- Built-in tachometer/overspeed function
- RS232 or RS485 Modbus RTU communications
- Two start/run lockout timers and elapsed time meter
- Pre-lube and post-lube timers
- Seven control relay outputs
- CSA Certified or NRTL approved for use in Class I, Div. 1 Grps. C & D hazardous locations

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 Shutdown Nomenclature, Preset Timers, and Tachometer Calibration can be made in the field.

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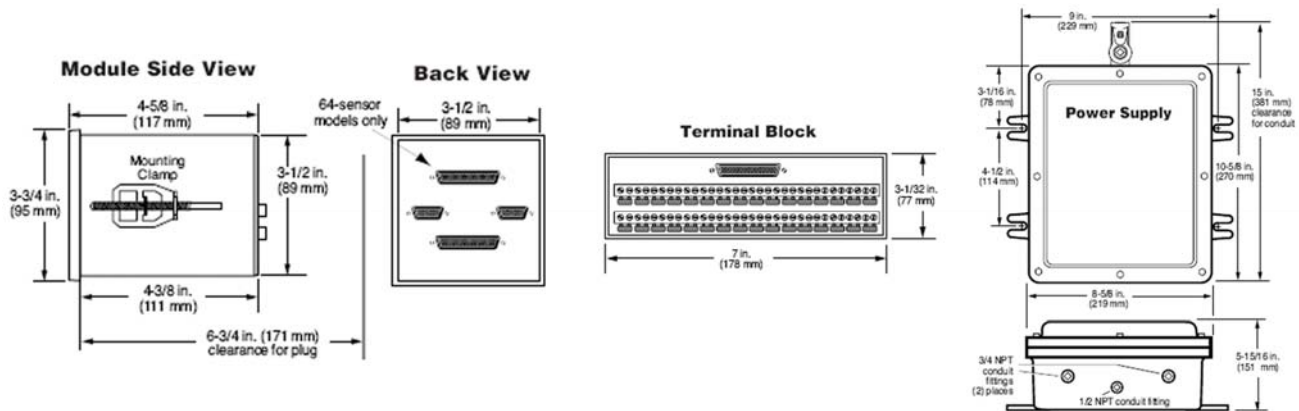
The complete S1501 system consists of a head, sensor input terminal strip (two needed for 64 sensor models), 36 inch (914 mm) flat ribbon cable(s) for connecting the terminal block to the head, and a Class I, Div. 1, explosion-proof power supply.

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.

Applications

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.

Product Dimensions

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 Swichgage® 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/Cooldown
- 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, 120 VAC with 7 form "C" relay outputs for the following functions (with standard S1501):
- Lube
- Crank
- Ignition/Motor
- Fuel/Cooler
- Load
- Alarm
- Shutdown

How to Order

To order the S1501 system specify the model number for each individual component and accessory:

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 w/custom* program, RS232/RS485 port, 32 sensors
S1501CH-64-2	Head w/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

Accessories:

S1501PCA72	Power and Control Cable Assembly, 72 in. (1.8 m) long
S1501PS-120-LC	Power Supply less case

* Specify program number or contact Murphy 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)

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