

DSM-43900 Series

Universal Temperature Monitors with Serial Communications

- 3 models: 8-, 16- and 24-point
- Universal operating features:
 - 4 setpoints per individual channel
 - 1 or 2 temperature groups with differential protection and 6 setpoints per group
 - 2 solid state output switches
 - Bargraph display of proximity to setpoint
 - Modbus RTU, RS-485 serial communications
 - 4 selectable baud rates, 9,600 to 57,600
- 12–30VDC-powered
- Rugged powder-coated aluminum case

The Altronic DSM-43900DUS digital setpoint monitors are universal microprocessor-based instruments designed to monitor engine, process and other critical temperatures using standard J or K thermocouples. Power is from any 12- or 24-volt DC source capable of supplying 10 watts. An RS-485 port provides communication capability in the ModBus-RTU protocol.

Three models are available: DSM-43908DUS (8 channels), DSM-43916DUS (16 channels), and DSM-43924DUS (24 channels). The DSM-43900 series has four individual setpoints (two high and two low) per channel. Two output switches are provided; all level 1 setpoints trip output switch 1, and all level 2 setpoints trip output switch 2. This allows the DSM-43900 devices to be used in alarm/shutdown service or virtually any other con-

figuration where the monitored points serve two functions. Modbus RTU communications is standard in the DSM-43900 models with baud rate selectable at 9,600/19,200/38,400/57,600.

DSM-43900 models can also be programmed for a user-selected number of channels in one or two groups having six common group setpoints (two high, two low and two differential). This feature can be used, for example, to monitor functions such as engine cylinder exhaust and compressor cylinder temperatures. Model DSM-43908DUS can also be operated to simulate the popular DSM-4388DUS model, which it replaces. In this mode, there is one high and one low setpoint per channel and one form C, solid-state output switch.

The backlit, alphanumeric LCD display indicates all setup and monitored information. The front panel sealed membrane keypad provides easy selection and adjustment of the units, range, setpoints and other configuration data. Any fault trips one of two solid-state output switches; fault information by sequence of occurrence is available on the display and via the serial port. The integral RS-485 port allows the monitored values and status of all channels to be communicated to a PC, PLC or the Altronic DE series annunciators.

The DSM devices are housed in gasketed, powder-coated aluminum cases and assembled using stainless steel hardware, making them ideal for oilfield or other demanding environmental applications.



CERTIFIED
CLASS I, DIVISION 2,
GROUPS C and D

Specifications

Power requirement	12–30Vdc, 100mA max.
Thermocouple type.....	Type J or K
Hazardous area classification.....	Class I, Div. 2, Group C & D
Display	2x16 backlit, alphanumeric
Range.....	–76°F to +1472°F –60°C to 800°C
Accuracy	±1% of reading, ±3 units
Update rate	1/sec.
Output switches.....	2, solid state (N.O./N.C.) 200Vdc, 200mA continuous
Ambient temperature range	–40°F to +175°F –40°C to +80°C
Cold junction compensation.....	Automatic

To Order

8-Point Universal Monitor.....	DSM-43908DUS*
16-Point Universal Monitor	DSM-43916DUS
24-Point Universal Monitor	DSM-43924DUS**

* Replaces prior model DSM-4388DUS

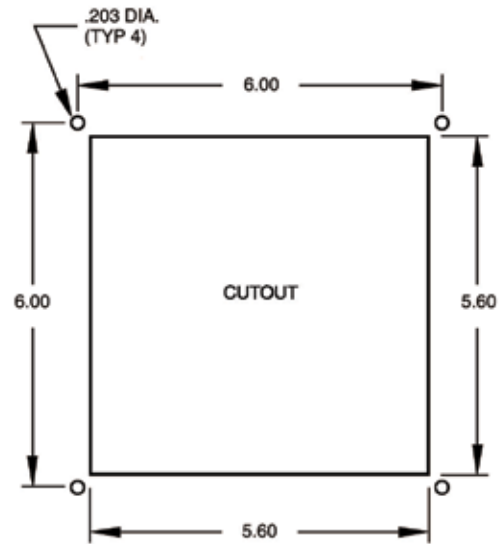
** Replaces prior model DSM-43920DUS

Other DSM Model

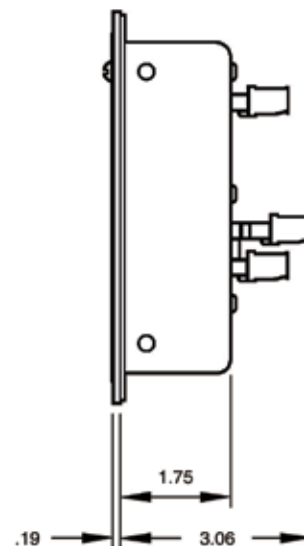
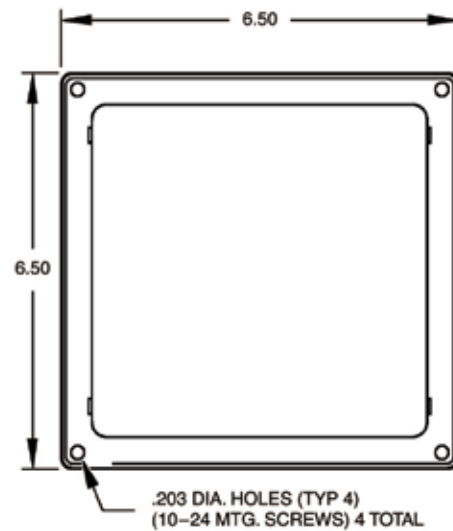
DSM-4689DUS: 8-point Analog Signal Monitor with RPM, Overspeed and Hours (pictured)



Dimensions



RECESSED MOUNTING



ALTRONIC

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