



# GENERAL MONITORS

*Protection for life.*

## MODEL DT230

### Two-Channel Readout/Relay Module



#### Features

- Compact Packaging
- Digital Display for Each Channel
- Channel Disable Capability
- Common Relays
- Superior Reliability

#### Benefits

- Requires less panel or cabinet space
- Provides diagnostic capabilities through visible fault codes
- Can be used as a single-channel module
- Indicates ALARM, WARN & MALFunction Alarms
- Longer product life

#### Description

The Model DT230 is a two-channel Readout/Relay Module which receives the outputs from two remotely located General Monitors H<sub>2</sub>S Smart Sensors and processes these signals to provide a digital readout of the gas concentration at each of the sensor locations. These concentrations are indicated over the range of 0-20 ppm (parts per million), 0-50 ppm and 0-99 ppm. When no gas concentration is detected, the digital display for that channel will show a "0" indicating that the channel is in normal operation.

Three relays, common to both channels, are provided for the WARN, ALARM and MALFunction circuits. Relay contacts are rated at 4 amp/117 VAC resistive. Setpoints for the ALARM and WARN relays are adjustable through the use of alarm-set potentiometers mounted on the PC board.

Terminations are made at the rear of the instrument through a plug-in connector. These include connections for input power, relay contacts, smart sensor power, analog input signal from the smart sensor and remote reset for latched alarms.

Provision has been made to inhibit the relays during calibration or alarm setpoint changes. An alarm-inhibit symbol is illuminated when the relays are prevented from operating.

#### Applications

- Refineries
- Drilling Platforms and Rigs
- Gas and Oil Production Platforms
- Mud-logging Operations
- Desulfurization Facilities
- Wastewater Treatment Plants
- Chemical and Petrochemical Plants
- Wellhead Sites
- Oil Recovery/Reinjection



# MODEL DT230

## System Specifications

- Input Current:** 0-20mA from S4000T
- Display Range:** 0-99 ppm, with flashing 99 for over-range indication
- Accuracy:** ±2 ppm or 10% of the applied gas, whichever is greater
- Front Panel Switch:** Reset
- Alarm Disable:** Switch on PC Board
- Alarm Setting:** Pot adjust
- Warning Setting:** Pot adjust
- Energized/De-Energized Relay Options:** ALARM and WARN set by DIP switch
- Latching/Non-Latching Relay Options:** ALARM and WARN set by DIP switch
- Channel Enable:** DIP switch selectable
- Reset:** One momentary push-button switch
- Remote Reset:** Yes
- Electrical Classification:** General purpose, non-hazardous areas
- Warranty:** Two years
- Approvals:** CSA, FM

## Environmental Specifications

- Temperature Range:** 32°F to 140°F (0°C to 60°C)
- Storage Temperature Range:** -28°F to 130°F (-33°C to 54°C)
- Humidity:** 15-95% non-condensing

## Electrical Specifications

- Input Power:** 105-130 VAC/50-60 Hz  
205-255 VAC/50-60 Hz  
22-30 VDC 8 watts DT230 plus 7 watts for each S4000T
- Channel Input Resistance:** 250 ohms maximum
- Output Power:** 24 VDC nominal at 0.25 amp to each Smart Sensor
- Status Indicators:** ALARM, WARN, MALFunction, CALIBrate, READY, RESET
- Analog Signal:** 4-20mA from S4000T
- Relay Ratings:** 4A @ 250 VAC / 30V RMS/42.4 peak, 3A @ 30 VDC, resistive max. A1, A2 - DPDT Fault-SPDT
- Cable Requirements:** 4 wire shielded cable. Max. allowable distance between DT230 and S4000T with one way resistance of 15 ohms (total 30 ohms loop): 14 AWG - 6000 ft. (2000m)

## Mechanical Specifications

- Dimensions:** 2.1" w x 6.9" h x 11.5" d (53mm x 175mm x 294mm)
- Weight:** Approx. 3.8 lb. (1.8kg)
- Mounting Configurations:** Rack, Panel, Wall, & Explosion-proof Enclosures
- Standard Configuration:** DT230-1-1-1-2  
110 VAC, 24 VDC, latch alarm, non-latch warn, de-energized, 99 ppm, two active channels

*Specifications subject to change without notice.*

*Represented by:*

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