



90-1062-00

# Gas Detection Products

## Four Channel H<sub>2</sub>S Detection System MODEL 740

The Model 740 provides simultaneous monitoring of four independent channels with the convenience of a scanning digital display. This state-of-the-art system combines the advantage of Rexnord's H<sub>2</sub>S specific semiconductor sensor with the latest in solid state technology.

This unique system offers the industrial user a totally new concept in H<sub>2</sub>S monitoring by providing total touch panel controls and a new automatic calibration for insured accuracy.

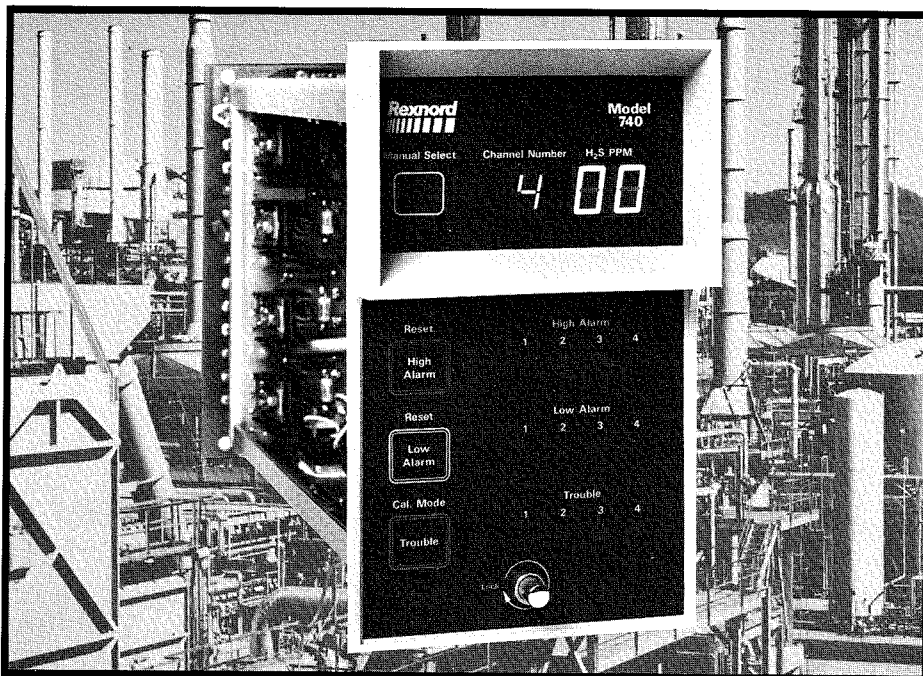
By using all touch panel controls the Model 740 is virtually free from failure previously caused by faulty pushbutton switches or lamps. Positive switch contacts are acknowledged by both an LED, located next to the switch, and a tone indication.

A virtually error free automatic calibration method is provided with the Model 740 which features no zero adjustments. Because of its linearized signal the Model 740 automatically adjusts for the proper zero setting during calibration, and span adjustments are done by programming a specific series of switch depressions while in the calibration mode. The Model 740 totally eliminates the need for pot adjustments for zero and span during calibration.

The Model 740 also provides independent recorder output for all four channels as a standard feature, 0-1 VDC or 0-5 VDC linear output is provided. 4-20 mA is available as an option.

Designed to provide continuous monitoring of potentially hazardous H<sub>2</sub>S concentrations, the Model 740 supplies a continuously updated picture of the condition at each remote sensor location. The channel number and PPM concentration for each channel is displayed on the scanning digital readout. If desired, the readout can be advanced or held on any channel by depressing the manual select control.

The alarm circuits are separate and independent from the digital scanning and display circuit. The output relays respond instantly and continuously to the low and high alarm set points of all



four channels regardless of which channel is being displayed. All alarm conditions are shown by LED indicators for each channel as well as a continuous tone indication, thus providing both visual and audio indications of the alarm conditions.

The alarm relays are normally de-energized and will energize upon an alarm condition; however, by means of jumpers located inside the unit, the relays can be programmed to be normally energized and de-energize upon an alarm condition.

Four Model 740 controllers monitoring 16 channels can be mounted in a nineteen inch rack thus providing significant savings in space, cost, and power.

To provide future growth capabilities, the Model 740 can begin with only one sensor. Additional sensors can be connected at any time, and the controller easily programmed to scan the appropriate number of channels.

The Model 740 also incorporates all of the advanced features of the other Rexnord Gas Detection Systems. These include non-summing configurations, compact construction, power interruption alarm delay, dc backup power supply, and dual alarm set points.

As an option, the Model 740 can be equipped with individual 3A Low and High Alarm relay contacts per sensor.

### Significant User Benefits

**Automatic Calibration** No zero adjustment or pot adjustments improves calibration accuracy and reduces manpower and maintenance costs.

**Touch Panel Controls** Virtually free from failure by eliminating lamps and pushbuttons. Positive LED and tone indication of switch contact.

**Programmable Alarm Relays** Can be either normally de-energized or normally energized by means of jumpers.

**Independent Recorder Output** Each channel provides its own recorder output signal—0-1 VDC or 0-5 VDC linear. 4-20 mA is available as an option.

**Individual Alarm Option** A 3A relay contact for Low and High Alarm per sensor.

**Cost and Space Savings** Single module monitors four sensors for significant savings in cost, space and power.

**Linearized Sensor Signal** Insures accuracy in the lower PPM concentrations and assures no loss of resolution between sensor and electronics.

**Separate Systems** Scanning and alarm circuits are separate and independent of each other.

**Power Interruption Alarm Delay** Deactivates alarm circuit on start up, power interruption, or sensor or transmitter replacement.

**Low Power Consumption** The controller dissipates less than 3 watts per channel, increases system reliability and reduces cooling requirements.

**Manual Channel Selection** Front panel control for channel freeze or channel advance.

**Non-summing Configuration** Improves system reliability and prevents expensive false alarms.

**Dual Alarm Function** Adjustable low and high alarm set points plus individual LED displays and tone indications for any and all channels in alarm condition.

**Protection From RFI** Digital circuitry provides radio frequency interference protection.

11/31/89

## Specifications

### Range

Digital 0–99 ppm

### Size

(HWD) 7" x 4 1/4" x 11 1/4"  
(17.78 cm x 10.80 cm x 28.58 cm)

### Weight

8 pounds (3.6 kg)

### Power

*Standard:* 105–130 VAC, 60 Hz; 18–30 VDC  
*Optional:* 215–245 VAC, 50 Hz; 18–30 VDC  
*Consumption:* 15 Watts nominal/4 channel system

### Number of Channels

One to four

### Display Scan Rate

1 sec/channel

### Operating Temperature

*Controller:* 0–70°C (32°F to 158°F)  
*Sensor/Transmitter:* –40° to +85°C  
(–40°F to +185°F)

### Alarm Relays

Three SPDT 3A 115 VAC resistive (Low, High, Trouble)

Option: Individual SPST 3A 115 VAC or 24 VDC resistive (Low & High)

### Sensor Cable Requirements

*Maximum resistance:* 30 Ohms closed loop

*Typical length/gauge:* 6000 feet, 14 AWG, 3 conductor  
2400 feet, 18 AWG, 3 conductor

### Indicators

Digital meter displays ppm H<sub>2</sub>S (2 digit LED)

Channel identification (1 digit LED)

Individual channel alarm identification (4 LEDs for Low Alarm, High Alarm, and Trouble Alarm)

Touch panel switch identification (1 LED per switch to indicate positive contact)

Channel select

Tone indication for positive switch contact and alarm indication

### Recorder Output

0–1 VDC or 0–5 VDC linear, (100 Ohm output impedance)  
4–20 mA optional

### Internal Controls

Two alarm setpoints—programmable 0–99 ppm

Trouble relay—drops out when one channel or all channels are in alarm

Low Alarm—reset upon acknowledgement or after system cleared

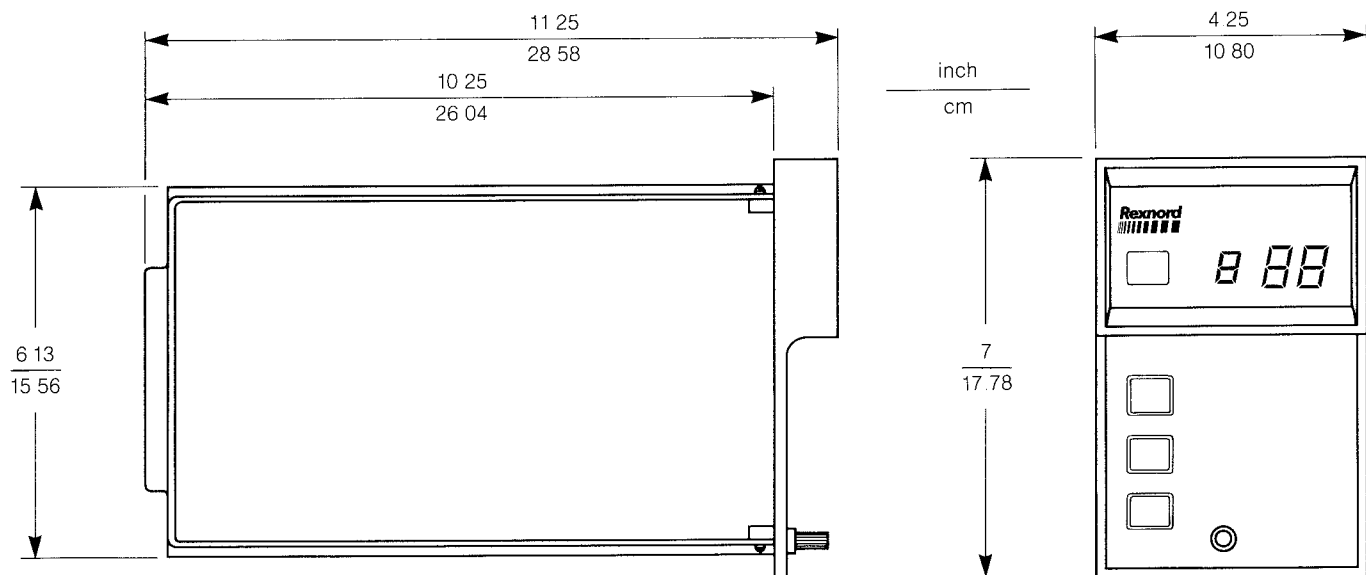


## Typical Response Times to H<sub>2</sub>S In Seconds

Sensor exposed to	Clean Air Background			1 ppm Background		
	10ppm	20ppm	40ppm	10ppm	20ppm	40ppm
40ppm	30	60	120	15	30	60
80ppm	20	40	90	10	20	40

## Ordering Information

Controller	226123
H <sub>2</sub> S Sensor	225629
Electronic Transmitter	226260
Junction Box Assembly	225693
19-inch Rack (4 Controllers)	225476
Panel Mount (1 Controller)	225451
Sensor Dust Cover	225312
Blank Panel	225477
Operation Manual	226286



Your local Rexnord Representative

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