DET TRONICS

SPECIFICATION DATA

Infiniti™

Gas Transmitter

U9500

Available gas sensors include:

Catalytic Combustible

PointWatch Hydrocarbon

Hydrogen Sulfide (H_2S)

Carbon Monoxide (CO)

Sulfur Dioxide (SO_2)

Nitrogen Dioxide (NO_2)

Chlorine (Cl)

Oxygen (O_2)

APPLICATIONS

The Infiniti™ Transmitter is designed to be used with Det-Tronics gas sensors for continuous monitoring of dangerous gases.

Gas concentrations are displayed on an alphanumeric display in %LFL or ppm, depending on the sensor. The transmitter provides a 4 to 20 milliampere output signal that corresponds to the detected gas concentration. An optional relay package is available.

The Infiniti circuitry and status indicators are contained in an explosion-proof housing. Each transmitter is used with one sensor, which may be coupled directly with the Infiniti housing, or remotely located using a sensor separation kit.

Typical applications include:

— Confined spaces where gas/vapor leaks can concentrate to explosive or toxic levels or where oxygen levels need to be monitored (enclosed processing areas).

— Known high risk leak locations (points within processing areas, compressor buildings) .

— General open area coverage (storage areas).

BENEFITS AND FEATURES

FEATURES

- User-friendly setup.
- Non-intrusive calibration using the internal magnetic reed switch, or an externally located pushbutton (not included).
- Automatic fault diagnostics and annunciation.
- Sensor sensitivity and end of sensor life indication.
- Optional relay package provides three alarm relays (high, low, and auxiliary) and one fault relay.

APPLICATION FLEXIBILITY

- Compatible with a wide range of Det-Tronics sensors.
- Field adjustable programming options allow each unit to be customized to the application during one easy setup procedure. These programming options include:

  Operating range (toxic sensors only)
  Alarm setpoints
  Calibration gas concentration
  Relay operation (relay package optional) latching or non-latching, energized or de-energized coils.
  Automatic or manual calibration
  Current loop adjustment

- Compatible with Det-Tronics Eagle 2000™ and Eagle Quantum™ Systems.

FM APPROVED

Printed in USA (9/97)

90-1099-02

SPECIFICATIONS

Input Voltage
24 vdc. Operating range is 16 to 32 vdc including ripple.

Power Consumption with Sensor
(Infiniti with alarm relays and sensor connected, 24 vdc input voltage.)

Toxic and Oxygen Models:	3 watts nominal, 5 watts maximum.
Combustible Gas Model:	4.6 watts nominal, 6.5 watts maximum.
PointWatch IR Model:	8.1 watts nominal, 10.1 watts maximum.

Current Output
Linear 4 to 20 ma output.
Maximum loop resistance: 600 ohms.
Selectable isolated or non-isolated operation.
Factory-set 2.0 ma output indicates unit is in Calibration or Setup mode (field adjustable).
Less than 1.0 ma output indicates fault condition.

Display
Eight character alphanumeric display indicates power on, gas concentration, alarm and fault conditions. It also enables field adjustment of alarm setpoints, calibration gas concentration and full scale measurement range.

Detection Range

Hydrocarbon:	0 to 100% LFL for PointWatch IR detector. (FM/CSA verified)
Combustible:	0 to 100% LFL.
Hydrogen Sulfide:*	0 to 100 ppm, 0 to 20 ppm, 0 to 50 ppm. (FM/CSA verified)
Chlorine:	0 to 10 ppm.
Oxygen:	0 to 25% by volume.
Carbon Monoxide:*	0 to 100 ppm, 0 to 500 ppm, 0 to 1000 ppm.
Nitrogen Dioxide:	0 to 20 ppm.
Sulfur Dioxide:	0 to 100 ppm.

* Must use proper sensor/cell for accurate operation

Temperature Range

Operating:	–40°F to +167°F (–40°C to +75°C).
Storage:	–67°F to +185°F (–55°C to +85°C).

Check sensor for specific ratings.

Wiring
18 AWG minimum is recommended for power wiring to the transmitter. Larger diameter wire may be required to maintain a minimum of 16 vdc at the transmitter for all operating conditions. Maximum wire size for terminals is 12 AWG.

Relay Contacts (Optional)

Three Alarm relays:	Form C, 5 amperes at 30 vdc. Selectable normally energized or de-energized as a group; low and auxiliary alarm selectable together for latching or non-latching contacts, high alarm contacts are always latching.
One Fault relay:	Form C, 5 amperes at 30 vdc. Normally energized for no fault condition with power applied to device.

Certifications

FMRC:	Explosion-proof for Class I, Div. 1, Groups B, C, and D per FM 3615 (Combustible gas detection). Explosion-proof for Class I, Div. 1, Groups C, and D per FM 3615 (Toxic gas detection). Performance per FM6320.
CSA:	Explosion-proof for Class I, Div. 1, Groups B, C, and D per CSA C22.2 No. 30 (Combustible gas detection). Explosion-proof for Class I, Division 1, Groups C, and D per CSA C22.2 No. 30 (Toxic gas detection). CSA Enclosure Type 4.
CENELEC:	EEx d IIC T6 (Tamb = –60°C to +50°C), T5 (Tamb = –60°C to +65°C), (Tamb = –60°C to +75°C)
RUSSIAN:	1Ex d IIC T6 (Tamb = –60°C to +50°C), T5 (Tamb = –60°C to +65°C), T4 (Tamb = –60°C to +75°C)

Shipping Weight

Aluminum:	4.15 pounds (1.88 kilograms).
Stainless Steel:	10.5 pounds (4.76 kilograms).

Enclosure Materials
Epoxy coated 356 aluminum. Content: 0.25% Cu, 0.2% to 0.4% Mn.
316 stainless steel

Dimensions

Height:	6.62 inches (16.8 cm)
Base:	4.0 inches 4.0 inches (10.2 cm by 10.2 cm)

Standard enclosure with two conduit entries, 3/4 inch NPT or 20 mm threads.
Other entry options available.

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