

**Infiniti® Gas Transmitter
U9500**

APPLICATIONS

The Model U9500 Infiniti® Transmitter is designed to be used with Det-Tronics gas detectors for continuous monitoring of dangerous gases.

Gas concentrations are displayed on an alphanumeric display in %LFL, ppm, or %Vol, 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.

Each Infiniti transmitter is used with one sensor. The sensor may be mounted directly to the explosion-proof Infiniti housing, or it may be located remotely 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

Available gas sensors include:

- Catalytic Combustible
- PointWatch Hydrocarbon
- Hydrogen Sulfide (H₂S)
- NTMOS (H₂S)
- Carbon Monoxide (CO)
- Sulfur Dioxide (SO₂)
- Chlorine (Cl)
- Oxygen (O₂)

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

SPECIFICATIONS

Input Voltage 24 Vdc. Operating range is 18 to 32 Vdc including ripple.

Power Consumption with Sensor

(Infiniti with alarm relays and sensor connected, 24 Vdc input voltage.)

<u>Toxic and Oxygen Models:</u>	3.0 watts nominal, 5.0 watts maximum.
<u>Combustible Gas Model:</u>	4.6 watts nominal, 6.5 watts maximum.
<u>PIR9400 PointWatch Model:</u>	8.1 watts nominal, 10.0 watts maximum.
<u>PIRECL Eclipse Model:</u>	7.6 watts nominal, 12.4 watts maximum.

Current Output

Linear 4 to 20 mA output.
Maximum loop resistance: 600 ohms at 20 to 32 Vdc.
Selectable isolated or non-isolated operation.
Factory-set 2.0 mA output indicates unit is calibration 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, full scale measurement range and gas type to be detected.

Detection Range

<u>Hydrocarbon:</u>	0 to 100% LFL for PointWatch IR detector. (FM/CSA verified).
<u>Calalytic:</u>	0 to 100% LFL.
<u>H₂S (EC sensor):</u>	0 to 100 ppm, 0 to 20 ppm, 0 to 50 ppm. (FM/CSA verified).
<u>H₂S (NTMOS sensor):</u>	0 to 100 ppm.
<u>Chlorine:</u>	0 to 10 ppm.
<u>Oxygen:</u>	0 to 25% by volume.
<u>Carbon Monoxide:</u>	0 to 100 ppm, 0 to 500 ppm, 0 to 1000 ppm.
<u>Sulfur Dioxide:</u>	0 to 100 ppm.

Temperature Range

<u>Operating:</u>	-40°C to +75°C (-40°F to +167°F)
<u>Storage:</u>	-55°C to +85°C (-67°F to +185°F).

Wiring

18 AWG (0.75 mm²) 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 sensors except PointWatch model. A minimum of 18 Vdc is required at the transmitter for all the operating conditions for the PIR9400. Maximum wire size for terminals is 12 AWG (4 mm²).

Relays (Optional)

Three Alarm relays: Form C, 5 amperes at 30 Vdc. Selectable normally energized or de-energized as a group. Low, auxiliary and high alarm relays selectable as a group for latching or non-latching.

One Fault relay: Form C, 5 amperes at 30Vdc. Normally energized for no fault condition with power applied to device.

Certifications

FM/CSA:



Explosion-proof for Class I, Div. 1, Groups B, C, and D, and Ex d IIC T4 (CSA only).
Dust ignition-proof for Class II/III, Div. 1, Groups E, F, and G.
Non-incendive for Class I, Div. 2, Groups A, B, C, and D (T4) Class II/III, Div. 2, Groups F and G (T4A).
NEMA/Type 4X.
Performance verified per FM 6320 and FM 6341; CSA C22.2 #152.

ATEX:



CE 0539 II 2 G
Ex d IIC T6-T5 Gb
DEMKO 02 ATEX 131327 X
T6 (Tamb = -55°C to +60°C)
T5 (Tamb = -55°C to +70°C)
IP66.

IECEX:



IECEX ULD 10.0009
Ex d IIC T6-T5 Gb
T6 (Tamb = -55°C to +60°C)
T5 (Tamb = -55°C to +75°C)
IP66.

GOST-R:



1Ex d IIC
T6 (Tamb = -60°C to +50°C)
T5 (Tamb = -60°C to +65°C)
T4 (Tamb = -60°C to +75°C).

INMETRO:



CEPEL 98.0013
Ex d IIC T5-T6 Gb
T6 (Tamb = -55°C to +60°C)
T5 (Tamb = -55°C to +75°C).

Shipping Weight

<u>Aluminum:</u>	4.15 lbs. (1.88 kg)
<u>Stainless Steel:</u>	10.5 lbs. (4.76 kg).

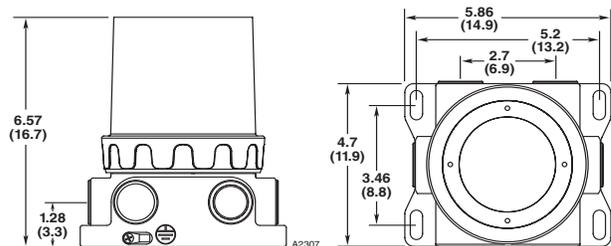
Enclosure

Epoxy coated 356 aluminum or stainless steel (316/CF8M Cast)
NEMA Type 4X and IP66.

Dimensions

Height: 6.57 inches (16.7 cm)
Base: 5.86 inches (14.9 cm) by 4.7 inches (11.9 cm).

Aluminum models: 3/4" NPT or M25
Stainless steel models: 3/4" NPT or M25.



Specifications subject to change without notice.

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Det-Tronics manufacturing system is certified to ISO 9001—the world's most recognized quality management standard.



Corporate Office
6901 West 110th Street
Minneapolis, MN 55438 USA
www.det-tronics.com

Phone: +1 952.941.6665
Toll-free: +1 800.765.3473
Fax: 952.829.8750
det-tronics@carrier.com

