# IR-6000

### Infrared Hydrocarbon Sensor/Transmitter 0-100% LEL

### **FEATURES**

- Infrared sensing technology
- Low maintenance
- Immune to poisoning
- Designed for harsh environments
- Explosionproof
- Fast response time
- Self-compensating optical bench
- No moving parts
- Heated optical chamber
- Low power consumption
- Operates in constant hydrocarbon background
- Operates in anaerobic atmospheres
- 4 to 20 mA output
- 0 to 100% LEL detection range
- Digital display option available
- Stainless steel construction





#### **DESCRIPTION / OPERATION**

The IR-6000 hydrocarbon detector is a single source dual wavelength instrument. The sensing and reference elements are self-compensating for optical integrity and other signal inhibitors. The 4-20 mA analog output can be connected to various single and multi-channel ENMET Controllers available from ENMET. These controllers furnish 24 Vdc power for sensor/transmitters and provide a digital display of gas concentration, audio/visual alarm and relays.

### **TYPICAL APPLICATIONS**

The IR-6000 hydrocarbon detector is designed to be used in the same applications where catalytic bead type combustible gas sensors have been applied. A partial list of example applications would include:

- Refineries
- Gas turbines
- Drilling and production platform
- Chemical plants
- Fuel loading facilities
- Compressor stations
- Oil well logging
- Wastewater treatment facilities
- LNG/LPG processing and storage facilities
- Transportation facilities

### IR-6000 Sensor/Transmitter

### **SPECIFICATIONS**

Operating Voltage: 24 Vdc (18-32 Vdc)

Current Draw: 210 mA avg, 400 mA peak

Power Consumption: 5 W max.

Analog Output: 4-20 mA

Range: 0-100% LEL

Standard

Calibrations: Methane, Propane and Butane

Other Available

**Calibrations:** Hexane, Isobutane, Ethane, Octane,

Ethanol, Ethylene, Benzene, Methanol, Ethylene oxide, Ethyl benzene, 1-Butene, Toluene, Cyclohexanone, Propylene, Xylene, Cyclohexanol, n-Butane, Heptane, Dimethylpropane

Please note that this list is not all inclusive. The IR-6000 can be calibrated for most hydrocarbons, provided a calibration gas is available. For more information, please contact ENMET.

Accuracy:  $\pm 3\% 0 \text{ to } 50\% \text{ LEL}$ 

± 5% 51 to 100% LEL

**Response Time**: T50 < 5 seconds

T90 < 10 seconds

**Temperature** 

Rating:  $-40^{\circ}$ F to  $+158^{\circ}$ F

 $(-40^{\circ}C \text{ to } + 70^{\circ}C)$ 

**Humidity:** 0-99% (non-condensing)

Housing

**Construction:** 316 stainless steel.

Approvals: CSA

Classification: Class 1, Div. 1, Groups B, C & D

Ingress Rating: IP54
Mounting: 3/4" NPT

**Size:** 6.5" x 2.6" (165 mm x 66 mm)

**Weight:** 2 lbs. (0.9 kg.)



## OPTIONAL CONTROLLERS FOR IR-6000 SENSOR/TRANSMITTERS

ENMET as a variety of controllers designed to facilitate monitoring of many different toxic and combustible gases. Single and multi-channel systems are available.

### CONTROLLER FEATURES

- Audio and visual alarms
- 4-20 mA output
- Digital display
- Wall mount
- For 24 Vdc, 2, 3 and 4-wire sensor/transmitters

### **CONTROLLER MODELS AVAILABLE:**

CP-10: 1 Channel

CP-60: 1-3 Channels

LC Series: 1, 2, and 4 Channels

LC-8: 8 Channels

# OTHER SENSOR/TRANSMITTERS AVAILABLE FROM ENMET

#### **FEATURES**

- 24 Vdc power
- 4-20 mA output
- Electrochemical sensors for toxic gases, H<sub>2</sub> & O<sub>2</sub>
- Excellent selectivity
- IR CO<sub>2</sub> sensor

### **AVAILABLE FOR THESE GASES (PARTIAL LIST):**

AsH $_3$  B $_2$ H $_6$  Cl $_2$  ClO $_2$  CO CO $_2$  COCl $_2$  ETO HCN HCl HF H $_2$  H $_2$ S NH $_3$  NO NO $_2$  N $_2$ H $_4$  O $_2$  O $_3$  PH $_3$  SiH $_4$  SO $_2$  VCM VOCs F $_2$  SiH $_2$ Cl $_2$  HBr BCl $_3$  SiF $_4$  WF $_6$  H $_2$ Se Si $_2$ H $_6$  Br $_2$  I $_2$  NF $_3$  SF $_6$  TEOS HCHO