

# 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 one of the several MX-Series 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

<b>Operating Voltage:</b>	24 Vdc (18-32 Vdc)
<b>Current Draw:</b>	210 mA avg, 400 mA peak
<b>Power Consumption:</b>	5 W max.
<b>Analog Output:</b>	4-20 mA
<b>Range:</b>	0-100% LEL
<b>Standard Calibrations:</b>	Methane, Propane and Butane
<b>Other Available Calibrations:</b>	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.

<b>Accuracy:</b>	± 3% 0 to 50% LEL ± 5% 51 to 100% LEL
<b>Response Time:</b>	T50 < 5 seconds T90 < 10 seconds
<b>Temperature Rating:</b>	- 40°F to + 158°F (- 40°C to + 70°C)
<b>Humidity:</b>	0-99% (non-condensing)
<b>Housing Construction:</b>	316 stainless steel.
<b>Approvals:</b>	CSA
<b>Classification:</b>	Class 1, Div. 1, Groups B, C & D
<b>Ingress Rating:</b>	IP54
<b>Mounting:</b>	3/4" NPT
<b>Size:</b>	6.5" x 2.6" (165 mm x 66 mm)
<b>Weight:</b>	2 lbs. (0.9 kg.)

### OPTIONAL CONTROLLERS FOR IR-6000 SENSOR/TRANSMITTERS

The ENGUARD MX-Series controllers are state-of-the-art systems designed to facilitate monitoring of many different toxic and combustible gases. Single and multi-channel systems are available.

#### FEATURES

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

#### CONTROLLER MODELS AVAILABLE:

<b>Model MX-32</b>	1-2 channels, wall-mount
<b>Model MX-42A</b>	1-4 channels, wall-mount
<b>Model MX-48</b>	1-8 channels, wall-mount
<b>Model MX-52</b>	1-16 channels, 19" rack or panel mount

### OTHER SENSOR/TRANSMITTERS AVAILABLE FROM ENMET

#### FEATURES

- 24 Vdc loop powered
- 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<sub>3</sub> B<sub>2</sub>H<sub>6</sub> Cl<sub>2</sub> ClO<sub>2</sub> CO CO<sub>2</sub> COCl<sub>2</sub> ETO HCN HCl HF H<sub>2</sub> H<sub>2</sub>S NH<sub>3</sub> NO NO<sub>2</sub> N<sub>2</sub>H<sub>4</sub> O<sub>2</sub> O<sub>3</sub> PH<sub>3</sub> SiH<sub>4</sub> SO<sub>2</sub> VCM VOCs F<sub>2</sub> SiH<sub>2</sub>Cl<sub>2</sub> HBr BCl<sub>3</sub> SiF<sub>4</sub> WF<sub>6</sub> H<sub>2</sub>Se Si<sub>2</sub>H<sub>6</sub> Br<sub>2</sub> I<sub>2</sub> NF<sub>3</sub> SF<sub>6</sub> TEOS HCHO

