

# RAEGuard

## 4-20 mA PID Transmitter

The **RAEGuard** is a permanently mounted (fixed) Photo-Ionization Detector (PID) transmitter that operates from 9 to 36 VDC power source and provides an analog (4-20 mA) signal output in three full scale ranges\* of 9.99 ppm, 99.9 ppm, or 999 ppm isobutylene equivalent. Housed in an explosion-proof enclosure, the RAEGuard is equipped with a local digital display of the gas concentration and functional keys for performing calibration.

### Key Features

- 4-20 mA analog output ranging from 0.1 to 99.9 ppm, or 1 to 999 ppm isobutylene equivalent
- 4-20 mA analog output ranging from 0.01 to 9.99 ppm isobutylene equivalent for ultra-sensitive version
- Explosion-proof enclosure for hazardous locations
- Long life 10.6 eV Ultraviolet lamp and 3D Sensor
- Built-in pump with patented self-cleaning duty cycle operation
- Local displays with adjustment keys
- Magnetic key interface eliminates need to open explosion proof housing when making calibration and other minor adjustments
- Operation at 9 to 36 VDC
- Dry contact output (<30V,2A)

### Specification

|                            |  |
|----------------------------|--|
| <b>Size</b>                | 5.0"L x 5.0"W x 4.5"H<br>(127mm x 127mm x 115mm)   |
| <b>Weight</b>              | 5.5 lbs (2.5 kg)   |
| <b>Detector</b>            | 3D PID sensor std. 10.6 eV lamp  |
| <b>Calibration</b>         | 2 point field calibration  |
| <b>Enclosure Rating</b>    | Class I, Div. 1 & 2, Groups BCD<br>Class I, Zone 1 & 2, Groups BCD (IIB+H2)<br>Class II, Div. 1, Groups EFG<br>Class II, Div. 2, Groups FG<br>Class III<br>EEx d IIB |
| <b>Power</b>               | 9-36VDC max 200mA at 24V   |
| <b>Output</b>              | 4-20mA with 12V compliance @ 24V power   |
| <b>Sampling</b>            | Internal diaphragm pump  |
| <b>Display</b>             | 7-segment, 4-digit LCD with 4 color-coded fault LEDs   |
| <b>Response Time (t90)</b> | 20 seconds to 90% of reading using isobutylene   |
| <b>User Interface</b>      | Magnetically accessed keys for calibration   |
| <b>Temperature</b>         | -20 to 55°C (-4 to 131°F)<br>low temperature option with built in heater for operation down to -40°C (-40°F)   |
| <b>Humidity</b>            | 0-95% relative humidity (non-condensing)   |
| <b>Dry Contact</b>         | Max 30V, 2A  |
| <b>Mounting</b>            | 2 holes 5.25" (133 mm) from center to center   |

### Applications

- Waste water treatment plants
- Marine and off-shore oil wells
- Refineries & petrochemical plants
- Power plants
- Pulp and paper mills
- Solvent recovery systems
- Painting and coating operations
- Air Quality

### Hazardous Location Classification

- UL pending
- cUL pending
- ATEX pending

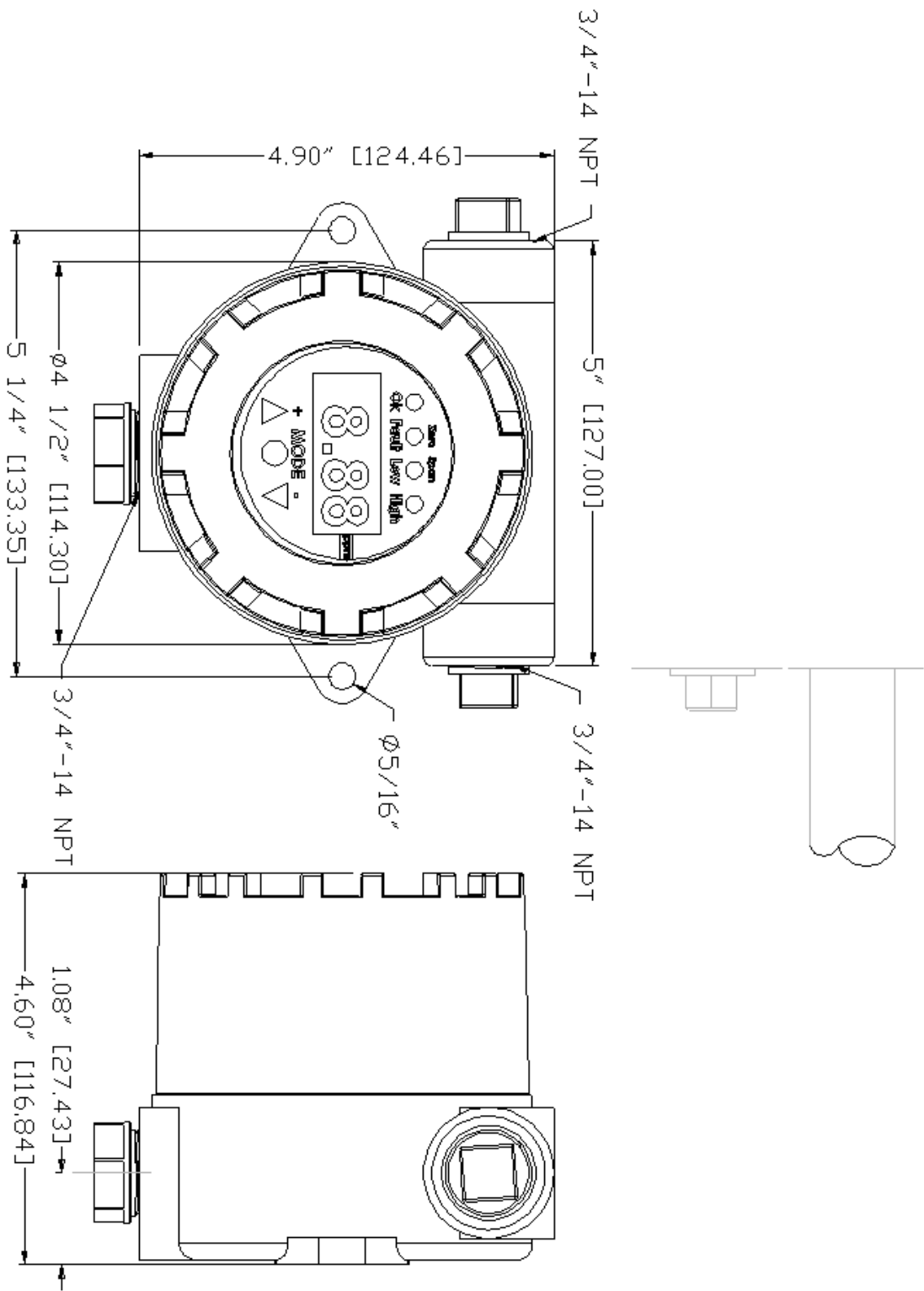
### RAEGuard Part Numbers:

- 4-20 mA, 1,000 ppm  
036-0001-000
- 4-20 mA, 100 ppm  
036-0001-001
- 4-20 mA, 10 ppm  
036-0001-002

\*Ranges are not selectable, and must be specified at the time of order.



# RAEGuard PID



## Installation