

# FREEDOM PID TRANSMITTER

## VOLATILE ORGANIC COMPOUND MONITOR

**The Freedom PID gas detection transmitter with Photo Ionization Detection (PID)** technology offers the ability to monitor a wide array of gases and vapors than traditional gas detection transmitters. Combustible and toxic materials such as toluene and benzene can now be detected at much lower levels than before with our exclusive electrochemical, catalytic bead, infrared or open path technologies.

At the heart of the Freedom PID transmitter is an internal PID sensor capable of detecting hundreds of organic compounds. Simply choose the particular gas or gases from the preprogrammed library and the instrument is tuned to measure for that VOC. This broad range PID sensor is also ideal for determining unknown or potential VOC's regardless of the environment. The Freedom PID transmitter affords an alternate detection solution for applications where traditional technologies have been limited. The intrinsic PID sensor does not lose its zero stability when over-ranged like a traditional catalytic bead or electrochemical sensor. And, this PID sensor offers much lower level ranges of detection where toxicity is an important criteria in day to day operations. Many of the combustible materials found in industrial environments are in the LEL range and are highly toxic at levels far below the range of traditional detection instruments. The Freedom PID transmitter offers a solution for these applications as well. The Freedom PID is a critical component of a complete gas detection solution for most any application.

### Applications:

- Power Plants
- Pulp and Paper Mills
- Solvent Recovery Systems
- Air Quality
- Marine and Off-Shore Oil Wells
- Waste Water Treatment Plants
- Refineries and Petrochemical Plants
- Painting and Coatings Operations
- Pharmaceuticals and Biotech Manufacturing



### PRODUCT FEATURES

- Explosion Proof Housing for Hazardous Locations
- Built-In Pump with Self Cleaning Operation
- Local Display with Convenient Adjustment Keys
- 4–20 mA Analog Output Ranging from 0.1 to 100.00 ppm or 1 to 1000 ppm Isobutylene
- 4–20 mA Analog Output Ranging from 0.1 to 20.00 ppm Isobutylene Equivalent for Ultra Sensitive Version

# FREEDOM PID TRANSMITTER

## VOLATILE ORGANIC COMPOUND MONITOR

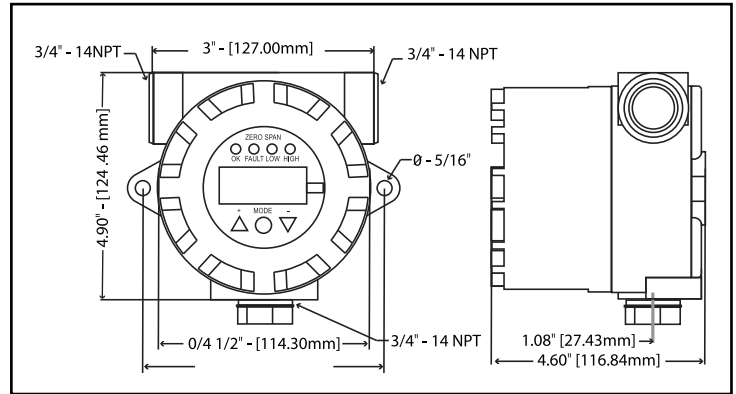


### System Specifications

- Housing:** Size: 5.0in L x 5.0in W x 4.5in H  
(127mm x 127mm x 115mm)  
Weight: 5.5lbs (2.5kg)
- Sensors:** Bulb: 10.6eV  
Sample Delivery: Pumped  
Response Time: 40 second T90  
with Isobutylene Gas: Calibration Gas Isobutylene
- Pump:** Internal Diaphragm Pump  
Flow rate: 600 cc/min  
Duty cycle: Adjustable to 60%  
Sample distance: Up to 200ft (60m) – Flow – Thru models)
- Outputs:** Signal: 4 to 20 mA  
Fault: 2 mA  
Relay Contacts:  
Low Alarm <30vdc, 2A  
High Alarm <30vdc, 2A
- Environmental:** Temperature: -4°F to 131°F (-20°C to 55°C)  
Humidity: 0-95% RH non condensing

### Approvals:

UL Class I, Div. 1, Groups B,C,D Temperature Code T6 cUL  
Class I, Div. 1, Groups B,C,D Temperature Code T6  
ATEX, II 2 G EEx d IIB T6



#### Freedom PID Transmitter Point Detection Instruments

Part Number	Description
093-0395	Freedom PID Transmitter 1-999 PPM
093-0397	Freedom PID Transmitter 0.1-100 PPM
093-0399	Freedom PID Transmitter 0.1-19.99 PPM

#### Freedom PID Transmitter Sample Draw Instruments

Part Number	Description
093-0396	Freedom PID Transmitter 1-999 PPM
093-0398	Freedom PID Transmitter 0.1-100 PPM
093-0400	Freedom PID Transmitter 0.1-19.99 PPM

#### Freedom PID Transmitter Accessories

Part Number	Description
077-1309	Lamp Cleaning Kit: (Includes Lamp Cleaner, Swabs, Finger Cuts and Lens Paper)
077-1310	Magnet Key
077-1311	Calibration Kit: (Includes 34 Liter Cylinder of 100ppm Isobutylene Fixed Flow Regulator and Calibration Adapter)
077-1312	Accessory Kit (Includes Calibration Adapter, Sensor Puller, Magnet Key )

#### Freedom PID Transmitter Replacement Parts

Part Number	Description
077-1313	PID Lamp
077-1314	PID Lamp for 999 ppm Models
077-1315	Diaphragm Pump

Scott Health & Safety is a global business unit of Tyco Fire & Security that supplies a variety of industries through manufacturing facilities located in the United States, United Kingdom, Asia, Finland, and Australia.

Monroe Corporate Center • P.O. Box 569 • Monroe, NC 28111  
Telephone: 800.247.7257 • Facsimile: 704.291.8330  
www.scotthealthsafety.com • sh-sale@tycointl.com

H/S 6655 05/07 ISO 9001 Registered. All rights reserved.

**SCOTT**  
HEALTH & SAFETY