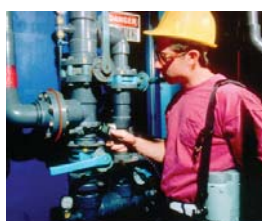


The only portable, intrinsically safe, dual Flame Ionization Detector (FID) and Photo Ionization Detector (PID) analyzer

## Thermo Scientific TVA-1000B Toxic Vapor Analyzer



### Key Features

- Simultaneous FID/PID or Single FID detector(s)
- U.S. Environmental Protection Agency Method 21 compliant
- Detects organic and inorganic compounds
- Multiple sampling probe options

The Thermo Scientific TVA-1000B Toxic Vapor Analyzer is the only over-the-shoulder portable vapor analyzer that offers both Flame Ionization Detection (FID) and Photo Ionization Detection (PID) in a single, easy-to-use instrument.

A variety of organic vapors can be measured, by the FID, over a wide dynamic range (0-50,000 ppm), monitoring some compounds that PID will not detect. The FID operates by breaking hydrocarbon bonds and is not limited by a high ionization potential of the molecule. In addition, the FID is unaffected by ambient CO, CO<sub>2</sub>, or humidity leading to very stable measurements

With PID detection, the user can monitor for organic compounds and detect many inorganic compounds simultaneously. Some compounds detected by PID are ammonia, carbon disulfide, carbon tetrachloride, formaldehyde and hydrogen sulfide. The PID also has the advantage of not requiring fuel or oxygen operate.

Dual detection offers a single user interface, reduced weight of the unit, and elimination of the expense of purchasing and maintaining two separate analyzers.

The TVA-1000B analyzer has optional equipment including: a standard probe, an enhanced probe, and the ThermoConnect software that enables users of the TVA-1000B instrument to transfer, display, analyze and configure data using a computer.

## Product Specifications

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

### Thermo Scientific TVA-1000B Toxic Vapor Analyzer

|                                 |  |
|---------------------------------|--|
| <b>Safety Certifications</b>    | FM (Class 1, Div. 1, Groups A,B,C & D Hazardous Location, Temp. Class T4)  |
| <b>Datalogging</b>              | Onboard  |
| <b>Probe Display</b>            | Bar graph & 4-digit LCD (standard); 6 lines x 20 characters (enhanced)   |
| <b>Dynamic Range</b>            | 0.5-2,000 ppm (PID) isobutylene; 0.5-50,000 ppm (FID) methane  |
| <b>Linear Range</b>             | 0.5-500 ppm (PID) isobutylene; 0.5-10,000 ppm (FID) methane  |
| <b>Response Time</b>            | 3.5 seconds  |
| <b>Minimum Detectable Limit</b> | 100 ppb benzene (PID); 300 ppb hexane (FID) (laboratory conditions)  |
| <b>Alarms</b>                   | Low, high, STEL  |
| <b>Sample Flow Rate</b>         | 1000 cc (normal)   |
| <b>Power</b>                    | Rechargeable NiCd battery  |
| <b>Logging Capacity</b>         | 850-27,000 points mode specific  |
| <b>Fuel</b>                     | None required (PID); 99.99% hydrogen (FID)   |
| <b>Portable Operation Time</b>  | 8 hours (with reference operating conditions)  |
| <b>Approximate Mass</b>         | 5.8 kg (13 pounds)   |
| <b>Nominal Dimensions</b>       | 13.5 x 10.3 x 3.2 inches (343 x 262 x 81 mm)   |
| <b>Analog Output</b>            | 0-2 Vdc (non-calibrated)   |
| <b>Repeatability</b>            | +/- 1% (PID); +/- 2% (FID)   |
| <b>Accuracy</b>                 | FID= 25% of reading or 2.5ppm, whichever is greater from 1.0 to 10000ppm; PID= 25% of reading or 2.5ppm, whichever is greater from 0.5 to 500ppm |
| <b>Auto Ranging</b>             | Yes  |
| <b>Diagnostics</b>              | Yes  |
| <b>Available Options</b>        | Carrying case, charcoal filter, FID calibration kit, PID/FID calibration kit   |

### Probe Options

#### Standard Probe

Display measurement values on a 4-character LCD screen, with measurement units displayed as %, ppm, or ppb. Additionally a bar graph indicator provides an indication of concentration level. Function keys allow selection of analyzer functions

#### Enhanced Probe

Originally designed for Fugitive Emission monitoring, the enhanced probe has a larger screen area than the standard probe. This provides a display of up to 6 lines x 20 characters, plus a double height concentration value. It presents all the same information as the standard probe and has menu-driven access to many of the analyzer functions, allowing them to be easily initiated and/or changed at the probe.



TVA-1000B Analyzer Standard Probe

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This product is manufactured in a plant whose quality management system is ISO 9001 certified.

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