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PRODUCT SPECIFICATIONS

# TVA2020 Toxic Vapor Analyzer

## Lightweight, intrinsically safe portable FID/PID detector

The Thermo Scientific™ TVA2020 Toxic Vapor analyzer is the only intrinsically safe, portable field analyzer using both Flame Ionization Detection (FID) and Photo Ionization Detection (PID) technologies.

### Features

- Dual FID/PID technology
- Bluetooth enabled
- Lightweight and compact design
- Easy to service in the field
- No PC based software required

### Introduction

The Thermo Scientific TVA2020 Toxic Vapor Analyzer is capable of detecting virtually all organic and inorganic compounds. The TVA2020 analyzer can be configured for use in diverse applications including U.S. EPA Method 21 monitoring, site remediation, landfill monitoring, and general area surveys.

The TVA2020 analyzer is equipped with a Flame Ionization Detector to measure organic compounds with high sensitivity. The FID technology allows for a wide dynamic and linear range that produces stable and repeatable responses. The analyzer can be configured with both FID and PID technology for simultaneous detection and enhanced analytical capabilities. This dual configuration is capable of producing a more rapid reading of organic and inorganic compounds as opposed to a single detector technology and provides more comprehensive gas coverage than comparable size devices. After performing a primary calibration, the TVA2020 analyzer can be customized by activating internal logging parameters, uploading a monitoring route, establishing a bluetooth connection, setting alarm levels, and activating response factors.

Optional bluetooth communication permits the streaming of concentration data to a handheld device containing the LDAR software database, thereby eliminating the need to transfer files post monitoring and provide a greater access to route information.

The TVA2020 analyzer is 21% lighter than earlier models and more compact than most FID stand alone instruments. The lightweight and compact design reduces fatigue for true portability. In addition, a variety of options are available such as a basic or enhanced probe, carrying case, and hydrogen refill assembly.

Thermo Scientific™
TVA2020 Toxic Vapor Analyzer

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## Thermo Scientific TVA2020 Toxic Vapor Analyzer

| Specifications | |
|---|---|
| Accuracy | FID Instrument – ±10% of reading or ±1.0 ppm, whichever is greater, from 1.0 to 10,000 ppm.<br>PID Instrument – ±20 % of reading or ±0.5 ppm, whichever is greater, from 0.5 to 500 ppm. |
| Repeatability | FID Instrument – ±2% at 500 ppm of methane<br>PID Instrument – ±1% at 100 ppm of isobutylene |
| Linear range | FID Instrument – 1.0 to 50,000 ppm of methane<br>PID Instrument – 0.5 to 2,000 ppm of isobutylene |
| Response time | FID Instrument – Less than 3.5 seconds for 90% of final value, using 10,000 ppm of methane<br>PID Instrument – Less than 3.5 seconds for 90% of final value, using 500 ppm of isobutylene |
| Sample flow rate | 1 liter/minute, nominal, at sample probe inlet |
| Battery | The battery operating time is 10 hours minimum at 0 °C (32 °F). Fully charged in less than 10 hours. |
| Hydrogen supply operating time | 10 hours of continuous operation, starting from a cylinder charged up to 15.3 MPa (2200 psi) |
| Physical dimensions | 11.5" × 9" × 4" (29.2 cm × 22.9 cm × 10.2 cm) |
| Weight | FID only—9.2 lbs<br>Dual—9.4 lbs |
| Minimum detectable limit | The minimum detectable level is defined as seven times the standard deviation of peak-to-peak noise.<br>FID Instrument - 0.5 ppm of methane<br>PID Instrument - 0.5 ppm of isobutylene |
| Lamp life | FID Instrument - Greater than 5,000 hours<br>PID Instrument - Greater than 2,000 hours, with normal cleaning |
| Data storage interval | Auto mode – 1 per second to 1 per 999 minutes, user selectable<br>VOC or FE Mode – 2 to 30 seconds, user selectable |
| Relative humidity range | 15 – 95% |

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 products.


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## Ordering information

**TVA2020 Toxic Vapor Analyzer**

Choose from the following configurations/ options to customize your own TVA2020 Toxic Vapor Analyzer

**1. Voltage options**

A = 120 VAC 50/60 Hz (NA)

B = 220/240 VAC 50/60 Hz (Europe)

C = 220 VAC 50/60 Hz (China)

**2. Detector**

3 = Flame Ionization Detection (FID)

4 = Dual configured with FID and Photo Ionization Detection (PID)

5 = FID (Made in China)

6 = Dual (Made in China)

**3. Probes**

N = No probe

S = Sampling probe

A = Enhanced Probe

C = Both sampling and enhanced probes

**4. Outputs**

1 = None

2 = Bluetooth

3 = GPS

4 = Both bluetooth and GPS

**5. Shipping**

N = None

C = Transportation case

R = Hydrogen refill assembly

B = Case and refill assembly

**6. Certification**

2 = USA: Class I, Division 1, Groups A,B,C,D T3
Canada: Class I, Zone 1, Ex db ib IIC T3 Gb
ATEX: CE0359 Ex II 2 G Ex db ib IIC T3 Gb
IECEx: Ex db ib IIC T3 Gb

3 = NEPSI / IECEx (Made in China-Chinese Text)

4 = ATEX / IECEx (Made in China-English Text)

**Your Order Code: TVA2020 -**

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Find out more at **thermofisher.com/tva2020**

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