



# TVOC SYSTEM PLUS

## Fixed PID Monitor for Continuous VOC Detection



TVOC System Plus is environmentally sealed, with an integrated pumped system allowing a gas sample to be drawn from a remote location, up to 30 metres.



### Features:

- Rapid, accurate detection of VOCs
- Independently verified as best performing PID
- Humidity Resistant Fence Electrode Technology
- Gas samples drawn from up to 30 metres
- Sample preconditioning with flow cut off switch
- Environmentally sealed to IP66
- Explosion proof housing
- Easy access pump and PID sensor for simple servicing
- Simple installation and calibration procedure
- Selectable range (0-10ppm, 0-100ppm or 0-1000ppm)
- Scaled 4-20 mA analogue output
- Includes 10.6 eV lamp
- Low maintenance costs



Advanced Gas Sensing Technologies  
[www.ionscience.com](http://www.ionscience.com)

Ion Science introduces the TVOC System Plus, an environmentally sealed, continuous monitor with a photoionisation detector (PID) and integrated pump for rapid detection of volatile organic compounds (VOCs).

TVOC System Plus is a fixed, continuous area monitor designed for installation in a safe, non-hazardous environment. The integrated pump allows a gas sample to be drawn from a remote location as far away as 30 metres. The pump can be accessed quickly and easily, allowing for simple maintenance and repair.

Environmentally sealed to IP66, its waterproof housing effectively protects the instrument from water, rain, dust and contamination.

The 4-20 mA analogue output enables TVOC to be integrated into a DCS control system to give warning or control of high VOC levels in the environment.

TVOC System Plus utilises unique Fence Electrode PID technology, with increased resistance to humidity and contamination effects, outperforming all other PIDs on the market.

TVOC System Plus gives you a total integrated solution ideal for applications where a sample needs to be drawn remotely; usually at great height or below ground.

TVOC is also available as an ATEX and IECEx approved instrument without the System Plus housing, for use within hazardous Zone 1 and Zone 2 areas.

### Applications include:

- Manufacturing
- Processing
- Refineries and petrochemical
- Offshore
- Chemical
- Waste water treatment
- Pharmaceutical
- Indoor air quality
- Pulp and paper
- Solvent recovery systems
- Industrial painting and coating

### Accessories

TVOC System Plus is available with an exclusive range of accessories. Contact Ion Science for more information.

## TECHNICAL SPECIFICATION

### SENSOR (PID)

10.6 eV lamp with Ion Science patented Fence Electrode technology\*

### INGRESS PROTECTION RATING

IP66

### POWER

5-28 VDC Max 65 mA

### OUTPUT

4-20 mA (requires a 8-35 VDC power supply)  
For IS requirements 8-30 VDC power supply

### RANGE

0-10 ppm, 0-100 ppm, 0-1000 ppm, User Selectable

### SAMPLING

Pump with Flow Control

### DISPLAY

7 segment, 4 digit LCD, 4 color LEDs

### RESPONSE

Sensor - T90 < 5 sec. Detector - 1 minute as standard\*\*

### ACCURACY

0-100ppm +/- 1ppm or ≤2%, 0-1000ppm +/- 2ppm or ≤25%

### LINEARITY

0-1000ppm > 25%

### CALIBRATION

Magnetically accessed 100 ppm Isobutylene via calibration kit accessory

### TEMPERATURE

Operating: -20 to 50 oC (-4 - 122 oF) Humidity: 0-95% RH (non-condensing)

### WEIGHT & DIMENSIONS

Instrument: 1.4kg (3.1lb) Packed: 1.6kg (3.5lb) (TVOC ONLY)  
Dimensions: 181 x 125 x 76 mm (7.1 x 4.9 x 3") (TVOC ONLY)

NB: All specifications are against an Isobutylene calibration at 20 °C, 90% RH and up to 100 ppm. \* The Fence Electrode technology referred to in this document is produced by Ion Science Ltd, and protected by patents. U.S. Patent No. 7,046,012. EP 1474681, other patents pending. \*\* TVOC has a variable duty cycle set to 1 minute as standard. The user can adjust this to between 5 seconds and 5 minutes.

Distributed By:

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ION SCIENCE is ISO9001:2000 certified (December 2003)

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