TIGER SELECT

HANDHELD BENZENE DETECTOR

RAPIDLY DETECTS BENZENE &
TOTAL AROMATIC COMPOUNDS (TACS).

ionscience.com

Unrivalled Gas Detection.

ION

RAPIDLY DETECTS BENZENE AND TOTAL AROMATIC COMPOUNDS (TACs) PROVIDING THE MOST ACCURATE, RELIABLE DATA AVAILABLE.

Best available photoionisation (PID) detection

- PID independently verified as best performing on the market
- Unrivalled sensitivity detects down to ppb levels
- Selectively detects benzene with Ion Science benzene pre-filter tube
- Continuous readings shown as max level reached
- In-built humidity resistance with no need to compensate
- Anti-contamination design for extended field operation

Minimise downtime

- Ready to use instantly with no complicated set up
- Large battery capacity gives several days of use
- Fast charge capability gets you up and running quickly
- Simple menu requires no user training
- Fastest data download via true USB connection
- Easily upgrade your instrument via the web 24/7

Ease of use

- Self explanatory software and calibration routine
- Easy change sensor, electrode stack and lamps
- Large user friendly key pad
- Simple, one-handed operation

Low cost operation

- Inexpensive consumables and parts
- 5 year warranty when instrument registered online

A revolutionary hand-held detector, Tiger Select can be operated either with a benzene pre-filter tube to detect benzene selectively, or without to detect total aromatic compounds (TAC). For simplicity and ease of use, the Tiger Select has been split into two, user-friendly modes: Basic and Advanced. Both modes are user-selectable.

Utilising the high output Ion Science 10.0 eV lamp configuration, a reading for total aromatic compounds (TACs) is seen immediately on start-up. Should aromatics be detected, an Ion Science benzene pre-filter tube can be easily attached to ensure rapid detection and selective measurement of benzene. Tiger Select can also provide 15 minute short term exposure limits (STELs) and 8 hour time weighted averages (TWAs) for TACs.

Throughout the measurement process, Tiger Select continues to display real time data, ensuring the final reading represents the full value of actual benzene present.* Benzene concentrations are displayed down to ppb levels, giving you the most accurate, reliable data you can count on.

In addition, the unique MiniPID 2 sensor incorporates both anti-contamination technology and Fence Electrode technology for extended operation in difficult working environments.

Tiger Select can also be used in standard operational mode without the use of a benzene pre-filter tube to deliver active indications of volatile organic compounds (VOCs), including benzene at concentrations as low as 1 ppb benzene equivalent.

Additionally, Tiger Select may be used alongside the CubTAC personal PID monitor to provide the ultimate solution for benzene detection. Visit www.ionscience/cub for more details.

Applications

- Confined space entry pre-screening during refinery and plant maintenance
- Marine spill response
- Refinery down-stream monitoring
- Hazardous material response
- Total Aromatic Compounds (TAC) detection at loading docks and barge operations

Accessories

Tiger Select is available with an exclusive range of accessories. Visit www.ionscience.com/select or contact Ion Science for more information.

* within quoted specifications

Technical specification

MINIMUM RESOLUTION PPM MODEL
- Standard running mode 0.1 ppm
- TAC 0.01 ppm
- Tube mode 0.001 ppm

MINIMUM RESOLUTION PPB MODEL
- Standard running mode 0.001 ppm
- TAC 0.001 ppm
- Tube mode 0.001 ppm

MAXIMUM READING
- Standard mode up to 20,000 ppm or 20,000 mg/m^3 (gas dependent)
- Tube mode 200 ppm or 639 mg/m^3 benzene

RESPONSE TIME
- 130 seconds at 20 °C (variable) Progressive indication of benzene breakthrough is displayed in real time

ACCURACY
- +/- 10% display reading +/- one digit benzene

LINEARITY
- +/- 5% display reading +/-one digit

INTRINSICALLY SAFE APPROVALS
- Ⓔx II 1G Ex ia IIC T4 Ga
- Tamb = - 15 °C ≤Ta ≤+45 °C (with lithium ion battery pack)
- Tamb = - 15 °C ≤Ta ≤+45 °C (with alkaline battery pack)
- ITS09ATEX26890X IECEx ITS 10.0036X
- 3193491 conforms to UL Std. 913, 61010-1 &
- Certified to CAN/CSA Std. C22.2 No. 61010-1

BATTERY LIFE
- Li-ion: life up to 24 hours, charge time 6.5 hours
- Alkaline: 3 x AA, typically 8.5 hours life

LAMPS
- 10.0 eV Krypton PID lamp

DATA LOGGING
- > 120,000 data log points including date and time stamp

COMMUNICATION
- Direct USB 1.1

CALIBRATION
- 2 and 3 point calibration (via calibration kit accessory)

ALARM
- Flashing LED's Amber (low alarm) Red (high alarm)
- Sounder 95 dBA at 300 mm (12")
- Vibration on alarm
- Pre-programmed TWA and STEL

FLOW RATE
- ≥ 220 ml/min

TEMPERATURE
- Operating: -20 to 60 °C, -4 to 140 °F (non Intrinsically Safe)*
- Humidity: 0-99% RH (non condensing)

PROTECTION
- Designed to IP65 (heavy rain)
- 1180
- EMC tested to EN61326-1:2006, EN50270:2006 & CFR 47:2008 Class A

WEIGHT & DIMENSIONS
- Instrument (probe fitted, no tube attached)
- Height: 465 x Width: 89 x Depth: 61 mm (18.3 x 3.5 x 2.4")
- Instrument weight: 0.75 kg
- Standard case
- Packed weight: 5 kg (176 oz)

* -15 to +45 °C (+5 to +113 °F) when used in an intrinsically safe environment

Note: Fence Electrode Technology is produced by Ion Science Ltd, and protected by U.S. Patent No. 7,046,012. EP 1474681, other patents pending.

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"We needed an instrument to detect the levels of VOC and benzene when we open our piping system. Our central region in Canada has been using the product for a year or so now so we were confident that the instrument was right for us compared to the Draeger CMS chip detectors which we had used in the past."

Bruce Sangster, Enbridge Pipelines