TITAN

FIXED BENZENE DETECTOR

THE WORLD'S FIRST CONTINUOUS, BENZENE SPECIFIC MONITOR.

ionscience.com

Unrivalled Gas Detection.

DESIGNED TO SPECIFICALLY DETECT BENZENE IN PETROCHEMICAL ENVIRONMENTS, PROVIDING THE ULTIMATE SAFETY MONITOR FOR PLANT & WORKFORCE.

The only truly selective wall-mounted benzene monitor

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- Fast and accurate detection of benzene down to 0.1 ppm
- Minute by minute sampling providing continuous real-time data
- Robust separation method ensures benzene specific readings
- Internally regulated heating for stable operation at extreme temperatures

Best available photoionisation (PID) detection

- PID independently verified as best performing on the market
- In-built humidity resistance with no need to compensate
- Anti-contamination design for extended field operation
- 2 year warranty when instrument registered online

Safety

- Clear display & visual alarms for indication of benzene levels
- Two user-definable independent alarm levels including optional real-time STEL calculation
- Two relay outputs provide an immediate warning alarm
- Meets ATEX & IECE, UL and CSA standards

Ease of use & service

- Modular design for ease of installation and servicing
- Service-free six months operation
- Simple two button interface for menu navigation
- No consumables

Research

Following extensive research and development, Ion Science brings to market the world's first fixed, continuous, real-time benzene specific monitor.

Set to change the game in refinery applications, Titan is the first truly selective wall-mounted monitor ranging dynamically from 0.1 ppm to 20 ppm in petrochemical and chemical environments.

Titan receives a sample of gas from the local environment once per minute. Within 60 seconds, the sample is conditioned to enable precise benzene measurement and signal communcations.

Titan's continuous, real-time measurement allows trends over time to be monitored and communicated over 4-20 mA or RS485. Data is stored internally for a minimum of two years and can be downloaded remotely toa PC via USB or RS485 for analysis.

Titan provides an immediate warning alarm system with two operator configurable levels, ensuring workers are kept safe and protected to the standards required on site. The instrument incorporates two relay outputs allowing the user to install their own required alarm system.

Titan is designed to be easily installed and serviced. Its modular design allows the Ex d case to be installed well in advance of commissioning. The service module can be removed and replaced as a remotely serviceable plug-and-play cartridge.

Titan incorporates Ion Science's market-leading MiniPID technology with proven resistance to humidity and contamination, ensuring optimal performance whatever the environment.

Applications include

- Oil & gas
- Petrochemical
- Chemical
- Health & safety
- Offshore

Accessories

Titan is supplied with an exclusive range of accessories, for more information visit: www.ionscience.com/titan for more info.

Technical specifications

Sensor type
- PID, 10.6 eV lamp coupled with selective filtering

Selectivity
- Benzene specific within typical petrochemical matrix

Range
- 0 - 20 ppm

Measuring frequency
- One minute

Lower limit of detection
- 0.1 ppm

Accuracy
- 0.05 ppm or 10%, whichever is greater

Temperature stability
- Internally heated

Sample flow
- 200 ml/min

Display
- Graphical BW LCD 64 x 128 pixels with back light Bright LEDs for normal operation, fault and alarm
- Two magnetic switches for menu operation

Hazardous area safety approvals
- ATEX/IECEx: Ex II 2G Ex d II B+H2 T4 Gb (-20 °C to +55 °C)

Ingress protection rating
- Designed to IP65 (cable gland dependant)

Humidity
- 0 - 100 % RH

Minimum service period
- 6 months – Hydrophobic & carbon filter replacement
- 12 months – PID Lamp, Electrode stack, pump and column replacement

Cable entry
- Two 3/4 NPT gland threads

Power
- Vin (nom) 24 V DC @ 3.2 A (recommended)
- Vin (max) 32 V DC @ 2.4 A
- Vin (min) 19 V DC @ 4.0 A

Communication
- Isolated 4-20 mA output
- Isolated RS 485 Modbus (simplex/half duplex or fully duplex)
- USB when lid removed with PC software

Data storage
- On board MMC, minimum of six months

Relay output
- Two isolated outputs, voltage free, 24 V DC @ 1.25 A

Weight and dimensions
- 15 kg (33 lbs)
- 219 x 219 x 172 mm (8.6 x 8.6 x 6.8" approx.)

Gas sample line
- 10 m max length, PTFE, 6 mm OD, 4 mm ID

Titan V1.2. This publication is not intended to form the basis of a contract and specifications can change without notice.

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