VPAC™II IS | Intrinsically Safe Through-Valve Loss Control Instrument

MISTRAS Group has taken the VPAC™ through valve loss control instrument to the next level. The VPAC™II IS significantly simplifies asset maintenance and increases operation safety.

Created for use in hazardous environments such as oil, gas and petrochemical plants, power generating plants and offshore platforms, the VPAC™II IS is a dedicated intrinsically safe acoustic leak instrument for through valve loss control. Using the same technology and sensors as our successful VPAC™, the VPAC™II IS, for example, can determine the loss of hydrocarbons to flare in hazardous areas and save millions of dollars for the plants.

Starting with basic process information and type of valve, along with the measured Average Signal Level (ASL) from the instrument, VPAC™II IS uses a proprietary algorithm to identify through-valve gas losses and estimates leak rate.

The user interface is simple and intuitive. The instrument is powered by a high capacity rechargeable battery lasting several weeks with typical use. The battery replacement on this handheld power device is quick and easy, and the unit retains all settings even when powered off, so downtime is minimal.

CAPABILITIES
The VPAC™II IS contains all the features you need to determine if valves are leaking and an estimation of the leak rate. The features of the VPAC™II IS include:

- Leak rate estimations right on the unit itself, based on stored valve information.
- Low noise electronics to achieve the required dynamic range for valve monitoring.
- Storing a reading, as well as an upstream and downstream readings.
- Measurement mode displays the real-time reading on current valve
- Loading a testing route complete with valve names and physical properties from VPACwin™.
- The ID mode enables the user to select an active valve and view its parameters.
- Transferring all stored data to VPACwin™ via the Bluetooth interface
- Meets the requirements of EPA 40 CFR 98 mandatory tracking and reporting of greenhouse gases

SAVINGS IN MILLIONS
Statistical experience has shown that in oil and gas plants 5-10% of valves leak, but 1% of valves are responsible for 70% of total loss. Finding these valves and taking remedial action reduces annual losses by millions of dollars.

On plants with flare gas recovery systems the use of the system is even more important to avoid burning saleable product and hydrogen as fuel gas. Regular checking of product and hydrogen valves avoids this downgrading.

SAVINGS EXAMPLE
VOC losses AU$9m (28,684 tonnes) [~US$12m], cut to half (14,342 tonnes) in two years, cut to 4821 tonnes in three years.

CERTIFICATIONS

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VPAC™ II IS Specifications:

- **Size:** (LxWxH) 4.75" x 1.4" x 7"
- **Weight:** 1 lb.
- **Power Source:** Nickel Metal Hydride Battery Pack
- **Battery Life:** > 100 Hours
- **LCD:** Transflective LCD on Glass
- **Backlight:** Blue LEDs with diffuser
- **Wireless Interface Type:** Bluetooth Class B
- **Wireless Interface Range:** 50ft
- **Operating Temperature:** -15°-158° F (-20°-55° C)
- **Storage Temperature:** -40°-185° F (-40°-85° C)

Specifications for Sensors:

- **D9203-IS** *High Frequency Response*
  - **Size:** 0.9" x 0.8"
  - **Temperature:** -40° - 70° C
- **D9241-IS** *Low Frequency Response*
  - **Size:** 0.9" x 0.8"
  - **Temperature:** -40° - 70° C
- **VS9203-IS** *High Frequency Response*
  - **Size:** 0.9" x 0.8"
  - **Temperature:** -40° - 70° C

VPAC™ II IS Package Includes:

- The VPAC™II IS unit
- Two D9203-IS sensors (VPAC sensor)
- Wave guide for the D9203-IS sensor
- VS9203-IS sensor (Valve-Squeak sensor with built-in waveguide)
- Carrying case and carrying straps
- Bluetooth USB Mini Adapter
- VPAC II Rechargeable Battery Pack
- Battery charger with power adaptor and replaceable plugs
- User Manual & VPACwin™ software
- USB License Key

VPACWIN™ Software:

- With a few simple mouse clicks, you can connect to your VPACII™ IS via Bluetooth and transfer data to and from the unit.
- Automatically loads and formats all data transferred from VPACII™ into a user-friendly spreadsheet.
- Leak rates and total monetary loss per valve, per year are calculated.
- Route Management features enable the user to load a specific set of valves to be tested onto the unit.
- Entire databases of valves can be created and saved for future use.
- Saved results over time can be used for trending purposes.
- Save, load, print, & modify values in leak rate calculation spreadsheets.
- Firmware upgrades, when available, supported over a Bluetooth interface
- 40 CFR 98 Results can be transferred from the unit into a spreadsheet that supports leak rate calculations for standard cubic feet per hour for EPA mandatory greenhouse gas reporting

Key Features:

- Large custom LCD backlit display
- Dual frequency range selection
- Accepts many types of sensors
- Slide-in molded NiMh battery pack
- Small, rugged, ergonomic package
- Simple, intuitive user interface via a large button keypad
- Bluetooth data transfer

Visit www.mistrasgroup.com/VPACII