

Vapor Hydrogen Peroxide Concentration Monitor

GS-88-VHP®



The Jetalon GS-88-VHP® concentration monitor uses dew point refractometry to provide real-time measurement of humidity and vapor hydrogen peroxide (VHP) concentration, dew point and temperature of VHP.

GS-88-VHP® simultaneously measures dew point at the onset of condensation, as well as measuring the μ concentration of condensate from 0-100%.

The digital display unit and the 88-VHP-*connect*® software package combine convenient, scalable data interface and acquisition options via a graphical user interface and liquid crystal display (LCD).

GS-88-VHP® provides manufacturers with a fast and simple solution for verification of VHP sterilization processes.

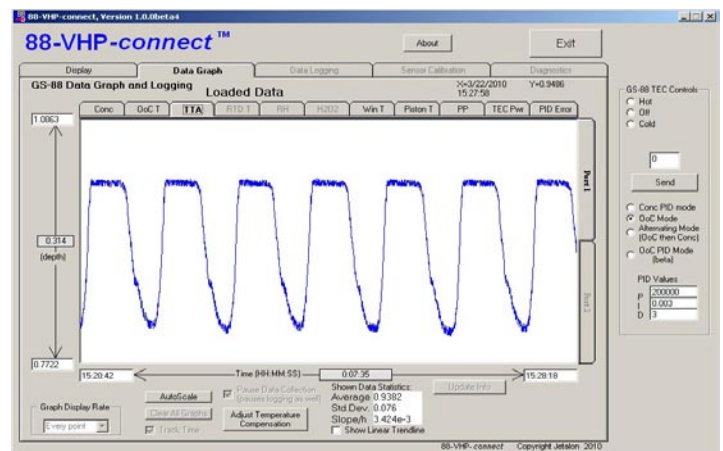
Features

Digital Display Unit (DDU):

- LCD Display
- 4-20 mA output for concentration and temp.
- 2x 5 Volt digital alarm output channels
- RS-232 port for communication with PC

Mechanical Packaging:

- Compact footprint
- 2" 316 stainless steel sanitary flange connection
- 18 ft. (5.5m) instrumentation cable
- Aluminum heatsink housing



88-VHP-*connect*® Software Package:

- MS Windows® based
- Interfaces into real-time processes
- Real-time concentration data collection, graphing and logging
- Allows rapid calibration and control of configuration parameters
- Ability to re-load and display historical data

Sensor Materials of Construction

Component	Material
Body	Aluminum
Optical Window	Semiconductor-grade Sapphire
Fitting	2" Flange, Sanitary, Stainless
Flange-to-sensor gasket	DuPont Teflon (modified PTFE)

Performance Data

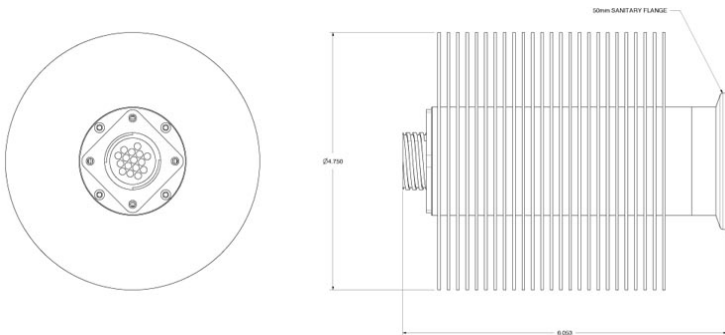
- VHP Concentration: ≤ 10 ppm
 - Dew Point Resolution: $\pm 0.01^{\circ}\text{C}$ in stable conditions
 - Dew Point Repeatability: $\pm 0.05^{\circ}\text{C}$
 - μ Condensation Resolution: $\leq \pm 0.5\%$
 - μ Condensation Repeatability: $\leq \pm 1.5\%$
- Startup Time: <2 minutes to first data point once mode is selected
- Measurement Time: Varies from 20-45 seconds, based upon conditions
- Typical Depression: 30°C
- Measurement Range: Suitable for 1g/min - 4 g/min 35% H₂O₂ injection rates (equivalently 10°C to 35°C Dew Point)

Testing and Calibration

Every GS-88-VHP® sensor is factory calibrated, cleaned and tested to ensure accuracy.

Dimensions

- Electronics Package (L x W x H):
 - 10.50" x 9.25" x 1.75" (267mm x 235mm x 45mm)
- Body and Housing (Dia. x H):
 - 4.75" x 6.00" (153mm x 121mm)



Technical Data

Sensor Operating Parameters

System Pressure Rating	Vacuum to 80 psi
System Temperature Rating	32 to 176°F (0 to 80°C)
Process Fluid Index of Refraction Range	1.28000 to 1.46389

Digital Display Unit Operating Parameters

DDU Power Requirements	24V (DC) $\pm 5\%$, 0.5A min
Power Supply Input Requirements	100/240 V (AC) 50/60 ± 3 Hz
Analog Output	4 - 20 mA for temperature and concentration
Serial Port	RS-232
LCD Display	Backlit LCD with three LED status lights
Sensor Electrical Connector	12-pole, 1 A, panel-mount type
Ambient Operating Environment	-4 - 104°F (-20 - 40°C)
Electromagnetic Compatibility	CE-conformity, EN61326, FCC part 15, IDES-001, SEMI E33-94

Software

Windows-based interface for user setup, calibration, monitoring and data-logging.
 System Requirements: Windows 98 or higher, 128+MB RAM, CD-ROM

Warranty Information

GS-88-VHP® is backed by a one year Limited Warranty. For more information, please contact Jetalon directly.

Purchasing Information

To purchase the GS-88-VHP® Concentration Monitor, please contact Jetalon directly:

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