Formaldemeter *htV*

The latest 3-parameter instrument from PPM Technology directly measures airborne formaldehyde concentrations as well as ambient temperature and humidity levels.

Building on the technology developed in the popular Formaldemeter 400, with the addition of unique compensation techniques, the *htV* can now accurately measure low levels of formaldehyde – even in humid conditions – whilst still maintaining ease of use and simple calibration.

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With the use of formaldehyde in industry and the recent issues raised in public health and indoor air quality typical applications might include:

- Medical Care & Sterilisation
- Pharmaceuticals
- Agriculture
- Fumigation
- Paint and Paper manufacture
- Textiles & Dye manufacture
- Particle & Laminate Boards
- Building Management
- Air Conditioning system management
- Environment and Public Health Agencies

Formaldemeter *htV*

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With further importance being put on air quality in public buildings, the workplace and in homes, the *htV*, the latest Formaldmeter model, is aimed toward being the most accurate monitor whilst still providing quick and simple operation from a hand-held device.

- Displays formaldehyde concentration in both parts per million (ppm) and mg/m^3.
- Immune to extremes of humidity and temperature thanks to a unique sampling method.
- Simple calibration procedure can be carried out in a few minutes after only minimal training – the full kit contains a field calibration standard (6 months shelf-life) and a comprehensive operation manual.
- Fast sampling by pressing a single button and quick recovery from normal concentrations.
- Full range of accessories available including rear stand or wall mount for hands-free operation and PC remote control software for data logging. See separate brochure for more details.
- Service centres throughout the world and full technical support provided under a comprehensive manufacturers warranty. Bespoke solutions available for your specific application – contact our technical department.
- Manufactured to ISO 9001:2000 quality standards and compliant to CE regulations.

Contact us at **www.ppm-technology.com** or **info@ppm-technology.com** for details.

Formaldemeter *htV*

Instrument

Sampling Method: 10ml snatch-sample of air taken by internal pump.
Sampling Frequency: 1-3 minutes, depending on previous sample.
Response Time: 60 seconds in 'high accuracy' mode, approx. 8 seconds in 'lower accuracy' mode.
Mechanical: 150 x 80 x 34mm ABS plastic case. Padded accessory-case 266 x 230 x 50mm.
Weight: 270g with 9v PP3 alkaline battery. Total kit weighs 750g.

Formaldehyde Sensor

Type: Electrochemical manufactured by PPM Technology.
Range: 0-10ppm as standard (0- 12.3 mg/m^3 @ 25°C). Extended range available on request.
Resolution: 0.01 ppm
Precision: 2% (based on average coefficient of variation for 12 instruments each taking 4-5 replicate measurements).
Accuracy: 94% of all instrument readings meet the NIOSH criteria for an acceptable method when measuring 0.3ppm of formaldehyde over a relative humidity range of 25-70%. The NIOSH criterion for acceptability is that all results fall within ± 25% of the true value at the 95% confidence level.
Calibration: By user with supplied calibration standard or by original manufacturer.

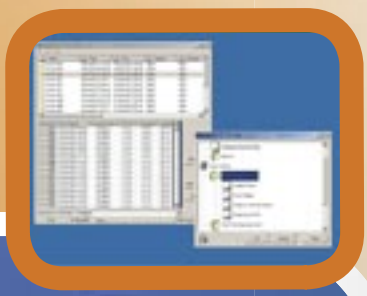
Temperature & Humidity Module

Type: Interchangeable digital CMOSens®.
Range: -40 to +128°C, 0–100% RH
Accuracy: ± 0.5°C, ± 3.5% RH
Calibration: Calibrated to ISO/IEC17025 by manufacturer. Traceable by the 'National Institute of Standards and Technology' and the 'National Physical Laboratory'.

Table Comparing 400 & *htV* Performance

Formaldehyde concentration & relative humidity	Formaldemeter 400 readings (mean ± StDev)	Formaldemeter *htV* readings (mean ± StDev)
0.1ppm 25% RH	0.00 ± 0.000	0.13 ± 0.025
0.1ppm 50% RH	0.12 ± 0.016	0.10 ± 0.018
0.1ppm 70% RH	0.23 ± 0.042	0.10 ± 0.016
0.3ppm 25% RH	0.11 ± 0.047	0.34 ± 0.020
0.3ppm 50% RH	0.30 ± 0.027	0.31 ± 0.030
0.3ppm 70% RH	0.37 ± 0.031	0.30 ± 0.020

Data based on the average readings of 12 instruments. Formaldehyde gas stream generated by a permeation tube device traceable to NIST.



AMS-2 Base Unit

The AMS-2 offers an easy and affordable way to perform continuous stand-alone monitoring by connecting it to any of PPM Technology's Formalde meter or Glutaraldemeter instruments.

Advanced industrial hygiene functions automatically calculate peak concentration, STEL and TWA values with the option of setting audible alarms for each limit. These provide an immediate warning of potential over-exposures as they occur, and the internal memory enables recording of exposure data for trend analysis and long-term record keeping, with up to 128 hours of stored readings. The AMS-2 also features a built-in printer, giving direct records of monitoring sessions.

The AMS-2 supports the additional features of the Formaldemeter *htV*, storing readings for all 3 parameters, and calculating the formaldehyde concentration in both ppm and mg/m^3.

The AMS-2's menu driven program is operated using the built in keypad, and an easy-to-read liquid crystal display guides the user through the instrument's functions, for easy changing of parameters. Monitoring sessions can be fully user customised, with the session duration, alarm options and printer options all adjustable.

With the optional Download Kit, data can also be downloaded to PC via RS232, for analysis and manipulation with software such as MS® Excel. The Download Kit also allows remote PC control of the AMS-2.

PPM technology

Formaldemeter Accessories

Formaldemeter Accessories

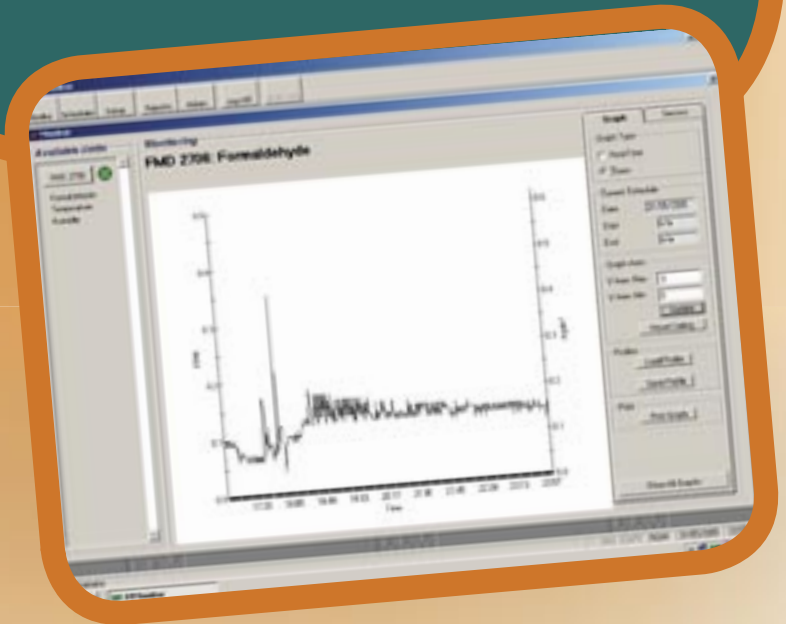
SPC-1 Monitoring System

A PC controlled, real time monitoring system that allows continuous monitoring of up to 8 Formaldemeter instruments, via serial port or USB adaptor.

Supplied software allows easy scheduling and set-up of monitoring sessions, with results displayed graphically. Alarm levels can also be set to give immediate visual warning of over exposure as it occurs. The software is fully password protected for security.

The software supports the additional features of the Formaldemeter *htV*, giving graphical representation of all 3 parameters, and calculating the formaldehyde concentration in both ppm and mg/m^3.

Full data analysis can be performed on the samples gathered, with TWA and STEL values automatically calculated, as well as maximum, minimum and mean readings for each sensor given. The data can also be exported to software such as MS® Excel for further analysis, or printed directly for review.



Other Accessories

Calibration Standard

PPM Supplies an easy-to-use formaldehyde calibration standard tube for checking and adjusting the calibration of Formaldemeter instruments. The tube produces a known concentration of formaldehyde vapour that can be sampled by the instrument to check accuracy and performance. Due to the nature of the standard, it has a useful life of 6 months, but replacements can be easily ordered.

Phenol filter

Complete removal of contaminants such as phenol and resorcinol can be achieved by attaching the PPM Phenol Filters to the sampling port of the instrument.

Formaldemeter Stand

This accessory, which attaches to the back of the instrument, allows the Formaldemeter to be freestanding in an upright position.

Formaldemeter Wall stand

This allows the Formaldemeter to be fixed to a wall, for easy storage or long-term monitoring set-ups.