



# Formaldemeter *ktV*

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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 *ktV* can now accurately measure low levels of formaldehyde – even in humid conditions – whilst still maintaining ease of use and simple calibration.

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*

With further importance being put on air quality in public buildings, the workplace and in homes, the *htV*, the latest Formaldemeter 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  $\text{mg}/\text{m}^3$ .
- ▶ 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.



## 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  $\text{mg}/\text{m}^3$  @ 25°C).  
Extended range available on request.
- Resolution: 0.01 ppm
- Precision: 2%
- 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  $\pm 25\%$  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:  $\pm 0.4^\circ\text{C}$ ,  $\pm 3\%$  RH  
Optional upgrade to  $\pm 0.3^\circ\text{C}$ ,  $\pm 1.8\%$  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 $\pm$ StDev)	Formaldemeter <i>htV</i> readings (mean $\pm$ StDev)
0.1ppm 25% RH	0.00 $\pm$ 0.000	0.13 $\pm$ 0.025
0.1ppm 50% RH	0.12 $\pm$ 0.016	0.10 $\pm$ 0.018
0.1ppm 70% RH	0.23 $\pm$ 0.042	0.10 $\pm$ 0.016
0.3ppm 25% RH	0.11 $\pm$ 0.047	0.34 $\pm$ 0.020
0.3ppm 50% RH	0.30 $\pm$ 0.027	0.31 $\pm$ 0.030
0.3ppm 70% RH	0.37 $\pm$ 0.031	0.30 $\pm$ 0.020

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

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