

# High Volume Master Pro

## HIGH VOLUME AIR SAMPLER

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The HVMP, from the QAMS range by TES, utilises a precise and versatile venturi sampling system, featuring electronic flow control. Manufactured in Australia to the highest standards, the HVMP complies with the latest international methods for atmospheric particulate matter measurement. Each instrument has a 60-78m<sup>3</sup>/hour flow rate and includes a speed controlled brushless blower for accurate, quiet operation.

The HVMP's intuitive menu structure, graphical display and dedicated keypad make it effortless to program and adjust settings, including QAMS EPA Mode.

All measured parameters are logged every five seconds and recorded as five minute averages for the 24 hour run period. Run time, average flow and standard deviation are just some of the readings from the HVMP allowing the user to validate the sample run. All data, including weather parameters (if applicable) is accessible in real-time on the display, or available for remote live viewing and download using Visual Master Pro software.

### Key Features:

- Manufactured in Australia
- EPA Mode: Automatic 3 or 6 day runs
- TSP, PM10 or PM2.5 Configuration (Interchangeable)
- Meets International and Australian Standards
- Meteorological Sensor Compatibility and Logging
- Visual Master Pro Remote Interface
- Available for purchase or rent!
- 12 Month Standard Warranty



### EPA Mode

QAMS EPA Mode is a unique feature allowing the user to select specific monitoring cycles in advance by selecting a starting date and time, hours on, hours off, as well as the number of times you would like the cycle to repeat. So, if you are monitoring every 6th day, select 61 cycles, and your unit is programmed for one year!

### Visual Master Pro Software

VMP is a revolutionary remote interface, empowering non-technical users to access data and adjust instrument settings at an advanced level. This easy to operate platform delivers efficiency, peace of mind and real-time decision making with features including; live data viewing, data download and complete system and settings control. VMP sets a new standard for industry interfaces.



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### HVMP Calibration & Maintenance Schedule



All High Vol maintenance requirements for Australian Standards compliance are fulfilled with a bi-monthly temperature, pressure and flow calibration. This can be completed using the TES HVMP Calibration Kit which includes a hygrometer with pressure indicator, pocket differential pressure and orifice plate. Alternatively, TES can offer maintenance contracts and our trained technicians will take care of your maintenance needs for you.

### High Volume Master Pro Specifications

#### PM Fraction Measurements

TSP, PM10, PM2.5

#### Flow Rate

60-78m<sup>3</sup>/hour flow rate

#### Flow Range

1000-1300 L/min

Standardised and Volumetric flow available

#### Barometric Pressure

Built-in barometer for ambient static pressure measurements for precise flow control

#### Data Download

Data is polled or, upon special request, automatically and continually pushed to your server.

#### Display Type

128 x 64 bit low energy graphical LCD display

#### Keypad / User Interface

12 button function with keys

#### Gravimetric Filter Sampling

Integrated filter holder, 8"x10" filter cartridge

#### Brushless blower:

Speed controlled to limit noise and provide extremely accurate and stable flow control

#### Remote Access

via 3G modem option + Visual Master Pro Software

#### Data Logging Interval

Fully user adjustable from 5 to 999 seconds

#### Internal Data Logging

Stores over 3 years of time and date stamped 10 minute data captures from a single channel.

May vary if multiple Met parameters are also being measured.

#### Extended Data Logging

TES are happy to cooperate with other data logger suppliers to allow integration of our system into existing networks.

#### Power Requirements

220-240 VAC, 50Hz (110 VAC 50/60 Hz Optional), 10 amp (Standard) or 15amp (outdoor). Consumption @ 1167 lpm = 5A, 1200W. Consumption @ idle = roughly 200mA. MAINS POWER HIGHLY RECOMMENDED.

#### Meteorological Inputs

Multiple channels including wind speed, wind direction, humidity, temperature, precipitation, barometric pressure, solar radiation, evaporation, sigma theta, lightning & more.

#### Digital Inputs

3 optically isolated inputs, voltage free

#### Relay Contacts

3 relay contacts (NC/COM/NO)  
Alarm 1 set point  
Alarm 2 set point  
Instrument fault alert

#### Communications

2 x RS232 digital ports, RS485/RS422, CAN bus and analogue

#### Inputs

2 x RS232 or RS485, 2 x Analogue Inputs (0 to 5 volt or 4-20mA [jumper selectable]), 2 x Counter Channels, 2 x PT100 & SHT75X Inputs Included.

#### Outputs

3 x Analogue Outputs (0 to 5 volt or 4-20mA [jumper selectable]), 1 x RS232 or RS485 Output, Ethernet Module Optional, 3 x Solid State Relays for Audio and Visual Alarms

#### Alarm Capabilities

3G / NEXTG SMS messaging to mobile phone, external siren, visual beacon and email alerts

#### Flow Control Options

Electronic sampling flow rate controlled at standard or actual condition

#### Weight

42kg plus inlet head

#### Dimensions - System

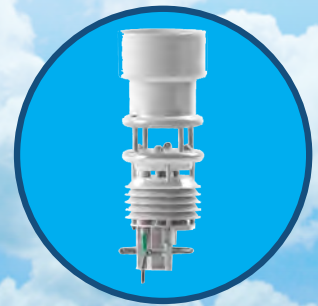
62cm x 43cm x 110cm (WxDxH) for TSP unit. Detachable base. Inlet head easily attached on site.

#### Operating Conditions

-10 to 50 deg C temperature range  
0 to 95% humidity range

### How's the weather?

We know data loggers can be costly, so we designed the HVMP with the ability to log all parameters with full meteorological Connectivity to Lufft weather sensors.



### QAMS by TES Master Pro Range

MMP1000 Series

MET MASTER PRO DATA LOGGERS

FMP5000 Series

LOW VOLUME FILTER SAMPLER

DMP6000 Series

REAL-TIME SINGLE CHANNEL MONITOR

DMP7000 Series

REAL-TIME FIVE CHANNEL PARTICLE COUNTER

HVMP

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**Thomson Environmental Systems**

Scientific & Environmental Equipment Specialists

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