

# Model SADPmini2

## New Generation Hand Held Dewpoint Meter

Rugged, light weight IP66 construction makes the SADPmini2 the most reliable dewpoint hygrometer available for rapid spot checks of dewpoint or trace moisture content in most gases and compressed air. The ultra-high capacitance sensor gives unsurpassed sensitivity, speed of response, repeatability and stability.

- **Fast Repeatable Measurements**
- **LCD Colour Screen - Real Time Graphics**
- **PC/Laptop User Software Included**

Reduced volume of the redesigned stainless steel desiccant head gives rapid spot check measurements of moisture in gases and dry compressed air.

The unique innovative keypad design allows quick, intuitive, selection of the versatile features incorporated in the instrument and modification of all set up choices. The full colour LCD display shows the measurement in two, independently selectable, units simultaneously, together with a linear analogue scale for the main units. A single button press changes the display to a real time graph of the readings in the main units.

Connection to a PC/Laptop via USB or Bluetooth also enables the user to modify and save the set up and save details via the PC. The optional logging package adds Bluetooth communication as well as very powerful logging and graphing capabilities. A mobile app is available for display of readings on smartphone or tablet.



USB	●
BLUETOOTH	○
LOGGING	○
SD CARD	●
LI-ION BATTERY	●
CALCULATOR APP	○
2 YEAR WARRANTY	●

○ - Optional

### KEY FEATURES:

- Full colour graphical display showing multiple units simultaneously.
- Desiccant Dry-Down Chamber for faster response by keeping sensor dry between tests.
- AutoCal Span Correction, for optimum accuracy between laboratory calibrations.
- Measurement units selectable in °C or °F dew point, ppm(v), ppm(w), mg/m<sup>3</sup> or lb/MMSCF.
- User selectable display in choice of 10 languages: English, French, German, Spanish, Italian, Portuguese, Russian, Chinese, Japanese & Korean.
- Integral pressure calculator to display pressure dewpoints.
- Easy to use, with icons, intuitive control and latest user interface.
- Compact ergonomic design with a strong, durable and rugged body.
- Rechargeable batteries, allowing in excess of 150 hours use in continuous operation.
- USB connectivity for charging, configuration & data upload/download to pc or laptop.
- SD micro-card installed for data and settings backup, user manual retrieval and calibration history.
- User ability to update latest firmware from factory.
- Includes Certificate of Test & Calibration, referenced to National & International Standards NPL/NIST.

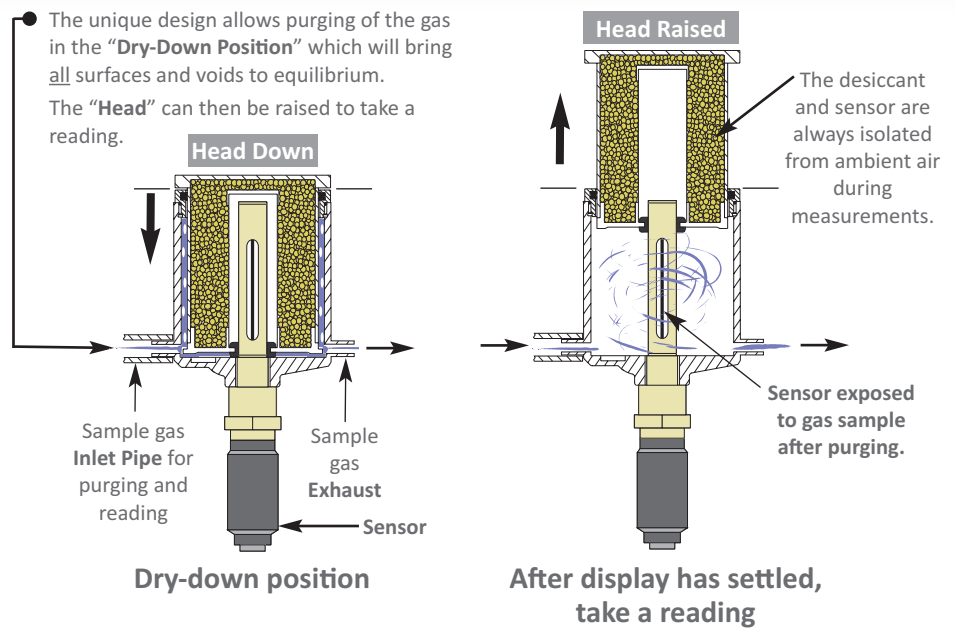
### Additional Features With Logging Option

- Flexible programming for Data Logging with capacity in excess of 300,000 values.
- Real time logging/graphing of results with Quick Log and Snapshot features.
- Wireless Bluetooth & USB connectivity for configuration & data upload/download to pc or laptop.
- View display screen on smart phone, or tablet, via mobile App.
- Wirelessly print results to dedicated Bluetooth printer.

## Desiccant Dry Down Technology

### The Desiccant Head Assembly

Keeping the sensor dry between tests ensures that the SADPmini2 is always ready to carry out rapid spot checks. The unique design of the Desiccant Head achieves this by surrounding the sensor with desiccant before the head is raised for sampling. At no time is the sensor allowed to come into contact with ambient air. The chamber is also designed so that the void space and chamber wall surfaces are purged with sample gas, before exposure of the sensor, so giving faster, more accurate and reliable results.



## Specifications

### Sensor

#### Sensor type

Ultra-high capacitance aluminium oxide.

#### Ranges

-110°C to -20°C (-166°F to -4°F) dewpoint, Silver

-100°C to 0°C (-148°F to +32°F) dewpoint, Purple

-80°C to +20°C (-112°F to +68°F) dewpoint, Blue

#### Calibration

Supplied with a Certificate of Test and Calibration traceable to NPL/NIST.

#### Accuracy

Better than  $\pm 2^\circ\text{C}$  dewpoint ( $\pm 3.6^\circ\text{F}$ )

#### Repeatability

Better than  $\pm 0.3^\circ\text{C}$  dewpoint ( $\pm 0.54^\circ\text{F}$ )

#### AutoCal

Span check and correction carried out by following simple on screen instructions.

#### Temperature coefficient

Temperature compensated for operating range.

#### Typical sensor response times

**Dry to Wet:** -110°C to -20°C dewpoint, <20 secs

**Wet to Dry:** -10°C to -60°C dewpoint <180 secs

#### Sample flow

Flow independent, recommended 5 to 10 lt/min, max 20 lt/min.

#### Sensor life

Typically 7-10 years, dependant on application.

#### Pressure dewpoints

Integral calculator for display of dewpoints at pressure for both "ideal" gases and natural gas.

### Electrical

#### Electromagnetic compatibility

Conforms to EMC Directive 89/336/EEC, amended 95/31/EEC

#### Display

3.5 inch full colour LCD graphical display with backlight.

#### Power supply

Rechargeable Li-ion battery.

Charges from USB and universal mains charger supplied.

#### Battery life

In excess of 150 hours of continuous use from full charge.

#### Time to full charge

Empty to full, approx. 14 hours.

#### Warm up time

2 seconds

#### Micro SD card

Used as a data log backup. Also contains User Tool software and pdf of Operating Manual.

### Mechanical

#### Weight

1.4 kg (3.1 lb)

#### Dimensions

215 x 108 x 124 mm (8.47 x 4.25 x 4.88 inches)

#### Ingress protection

IP66/NEMA 4X

#### Operating pressure

Atmospheric pressure.

#### Operating temperature (ambient)

-20°C to +50°C (14°F to +122°F)

#### Operating humidity (ambient)

Max. 95% non-condensing

#### Storage temperature and humidity

-20°C to +50°C (-4°F to +122°F) Max. 95% non-condensing

#### Desiccant

Field replaceable.

### Warranty

**24 months faulty workmanship and materials.**

### Logging (Optional Extra)

#### Integral data storage

Up to 300,000 date and time stamped readings

Stored in up to 20 user definable folders.

#### Logging frequency

User definable from 5 seconds to 1 hour.

#### Data display

Graphical and numerical

#### Real time logging

Can log directly to PC when connected via USB or Bluetooth.

#### Bluetooth

Bluetooth connectivity provided with logging package.

## SADPmini2

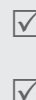
## Dimensions



**OPTIONS:**  
 BLUETOOTH  
 LOGGING



PRINTING  
 PORTABLE  
 SAMPLE SYSTEM



## How to Order

## Model SADPmini2- [XX]-[X]-[X]-[X]-[XX]-[CC]

## RANGE IN DEW POINT:

[SR] -110°C to -20°C (-166°F to -4°F)  
 [PL] -100°C to 0°C (-148°F to +32°F)  
 [BL] -80°C to +20°C (-112°F to +68°F)

[B] Basic - No Communication or Logging  
 [L] With Logging and Bluetooth Communication

## SAMPLE CONNECTION - LEFT:

[F] Push Fit Pipe - Fir Tree Type Fitting  
 [4] 0.25" (1/4") - Swagelok SS Compression Type  
 [6] 6 mm - Swagelok SS Compression Type  
 [8] 0.125" (1/8") - Swagelok® SS Compression Type

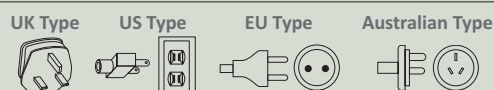
## SAMPLE CONNECTION - RIGHT:

[F] Push Fit Pipe - Fir Tree Type Fitting  
 [4] 0.25" (1/4") - Swagelok SS Compression Type  
 [6] 6 mm - Swagelok SS Compression Type  
 [8] 0.125" (1/8") - Swagelok® SS Compression Type

**CARRY CASE (Optional)**  
 [CC] Carry Case

## MAINS/AC PLUG TYPE - For Charger

[UK] Standard UK, 3 Square pin  
 [US] 2 Vertical Flat Blade  
 [EU] 2 Round Pins  
 [AU] 2 Oblique Flat Blades with Ground



## ORDER EXAMPLE:

To order this instrument with a range of -100°C to 0°C dewpoint, with logging/bluetooth, 6mm compression fitting (LEFT), Fir Tree Fitting (RIGHT), a EU AC power plug and Carry Case, the order code is:-  
**Model SADPmini2-[PL]-[L]-[6]-[F]-[EU]-[CC]**

Standard Accessories  
(Included with each instrument)

## Basic Type:

2m PTFE Sample Pipe  
 Pipe Fittings  
 Mains Battery Charger & Cable  
 Adjustable Carrying Strap

## Logging Type:

As Basic Type, plus Logging Software

## Optional Extras

Carry Case (recommended) with adjustable shoulder strap



Bluetooth Printer



Portable Sample System



## Notes

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## Authorised Distributor Information

**Corrosive Gases:** The Sensor should not be exposed to corrosive gases (or corrosive contaminants in the gas sample) as these can chemically attack the sensor, impairing calibration accuracy and/or damaging it beyond economic repair. Examples of such gases are mercury (Hg), ammonia (NH<sub>3</sub>), chlorine (Cl<sub>2</sub>) etc. Strong oxidising agents such as ozone (O<sub>3</sub>) should also be prevented from coming into contact with the sensor.

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