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^3 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.
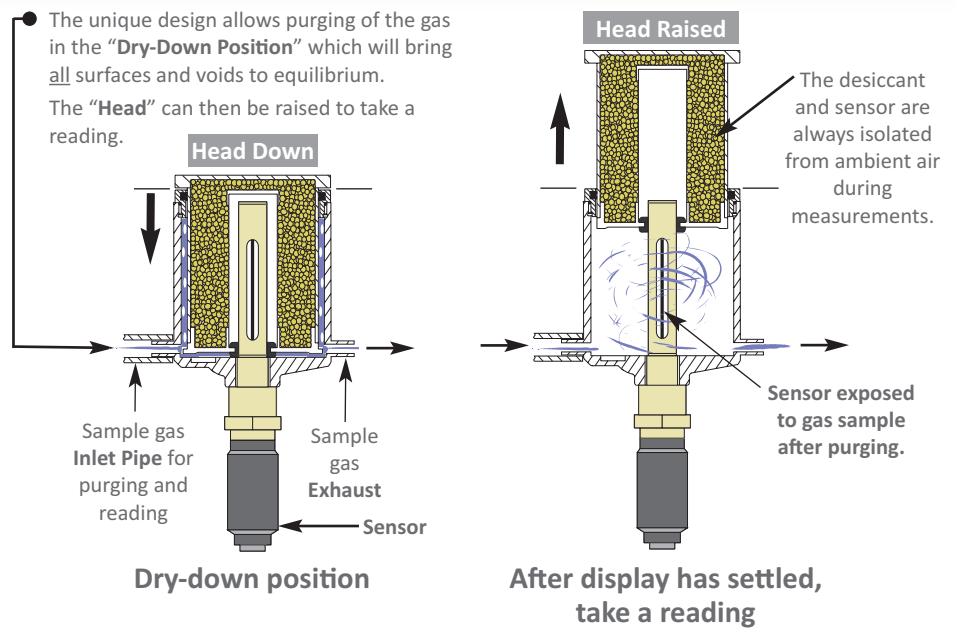
Additional Features With Logging Option

- 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. <u>At no time is the sensor allowed to come into contact with ambient air.</u> 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.

The unique design allows purging of the gas in the "**Dry-Down Position**" which will bring <u>all</u> surfaces and voids to equilibrium.

The "**Head**" can then be raised to take a reading.

Head Down

The desiccant and sensor are always isolated from ambient air during measurements.

Head Raised

Sample gas **Inlet Pipe** for purging and reading

Sample gas **Exhaust**

Sensor

Sensor exposed to gas sample after purging.

Dry-down position

After display has settled, take a reading

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 ±2°C dewpoint (±3.6°F)
Repeatability
Better than ±0.3°C dewpoint (±0.54°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. 0.3 barg (4 psig)
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
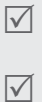Bluetooth connectivity provided with logging package.

SADPmini2

Dimensions

OPTIONS:			
BLUETOOTH	☑	PRINTING	☑
LOGGING	☑	PORTABLE SAMPLE SYSTEM	☑

108mm (4.3")

258mm (10.2")

215mm (8.5")

Full Colour Graphical LCD Display

Desiccant Head raised and in the READ position

Serial Number and manufacture date labels

USB Connection

Micro SD Card

Positioning bracket

LEFT Sample Connection **(Compression Type Shown)**

RIGHT Sample Connection **(Fir-Tree Type Shown)**

Anti-slip hand strap

Navigation keypad

Front

Rear

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
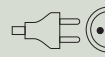**[AU]** 2 Oblique Flat Blades with Ground

UK Type   US Type   EU Type   Australian Type

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_3), chlorine (Cl_2) etc. Strong oxidising agents such as ozone (O_3) should also be prevented from coming into contact with the sensor.