Rugged, lightweight IP66 construction makes Model SADPmini2-Ex the most reliable dewpoint hygrometer available for rapid spot checks of dewpoint or trace moisture content in most gases and compressed air, where a certified instrument is required. The ultra-high capacitance sensor gives unsurpassed sensitivity, speed of response, repeatability and stability.

Model SADPmini2-Ex is ideal for use in hazardous areas.

- Fast Repeatable Measurements

Reduced volume of the redesigned stainless steel sample chamber 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 representation of the main unit. 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. Powerful logging and graphing capabilities and Bluetooth communication are standard features. A mobile app is available for display of readings on smartphone or tablet.

**KEY FEATURES**

- Certified Intrinsically safe for use in hazardous areas to ATEX, IECEx & cULus Listed.
- 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 dewpoint, ppm(v), ppm(w), mg/m³ or lb/MMSCF.
- User selectable display in choice of 10 languages: English, French, German, Spanish, Italian, Portuguese, Russian, Chinese, Japanese & Korean.
- 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.
- 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.
- 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.
- Anti-static carry bag included.
Specifications

Hazardous Area Certification
- Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +50°C)
- Ex ia IIB T60°C Da (-20°C ≤ Ta ≤ +50°C)
- Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +50°C)
- Ex ia IIB T60°C Da (-20°C ≤ Ta ≤ +50°C)

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 or universal mains charger supplied.

Battery life
In excess of 150 hours continuous use on 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/NEMA4X

Operating pressure
Atmospheric pressure.

Operating temperature (ambient)
-20°C to +50°C (-4°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

Warranty
24 months faulty workmanship and materials.

Logging

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.
Alpha Moisture Systems Model SADPmini2-Ex

SADPmini2-Ex

Dimensions

Full Colour Graphical LCD Display

Desiccant Head raised and in the READ position

USB Connection

Serial Number and manufacture date labels

Micro SD Card

Positioning bracket

Anti-slip hand strap

How to Order

Model SADPmini2-Ex - [XX] - [X] - [X] - [XX]

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)

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

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, 6mm compression fitting (LEFT), Fir Tree Fitting (RIGHT), an EU AC power plug the order code is:-
Model SADPmini2-Ex - [PL]-[6]-[F]-[EU]

Standard Accessories (Included with each instrument)

Included:
Anti-static carry bag with adjustable shoulder strap
2m PTFE Sample Pipe
Pipe Fittings
Mains Battery Charger & Cable
Adjustable Carrying Strap
Logging Software

Optional Extras

Bluetooth Printer. Portable Sample System.
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 (NH₃), chlorine (Cl₂) etc. Strong oxidising agents such as ozone (O₃) should also be prevented from coming into contact with the sensor.