

SADPmini2-Ex Hand-Held Dew Point Meter

Next Generation Intrinsically Safe Hand Held Dewpoint Meter

Rugged, light weight 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

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- 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.

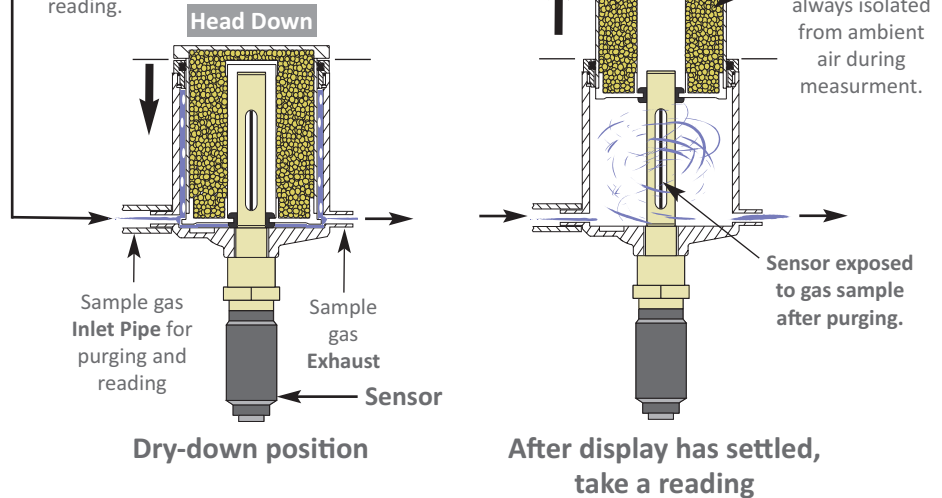
Desiccant Dry Down Technology

The Desiccant Head Assembly

Keeping the sensor dry between tests ensures that the SADPmini2-Ex 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.

- The unique design allows purging of the gas in the "Dry-Down Position" which will bring all surfaces and voids to equilibrium. The "Head" can then be raised to take a reading.



Specifications

Hazardous Area Certification



II 1G Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +50°C)
II 1D Ex ia IIIB T60°C T50/80°C Da (-20°C ≤ Ta ≤ +50°C)



Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +50°C)
Ex ia IIIB T60°C T50/80°C Da (-20°C ≤ Ta ≤ +50°C)



INTRINSICALLY SAFE / SÉCURITÉ INTRINSÈQUE Exia
Class I Div 1 Groups A, B, C and D T4
-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.

SADPmini2-Ex

Dimensions



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:

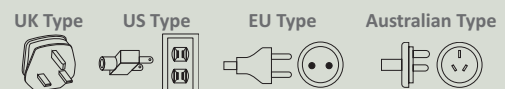
[F] Push Fit Pipe - Fir Tree Type Fitting
 [4] 0.25" (1/4") - Swagelok SS Compression Type
 [6] 6 mm - Swagelok SS Compression Type
 [8] 0.125" (1/8") - Swagelok® SS Compression Type

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.



Notes

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

2493 Model SADPmini2-Ex 281019-Iss 9

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Product specification may be subject to change.

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