

# Model SADPmini2-Ex



**GRUTER ET MARCHAND**

Des produits leaders pour l'analyse de gaz et la mesure dimensionnelle de précision

## New Generation Intrinsically Safe Hand-Held Dewpoint Meter

Rugged, light weight IP66 construction makes the SADPmini2-Ex 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.

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.



USB	<input checked="" type="checkbox"/>
BLUETOOTH	<input checked="" type="checkbox"/>
LOGGING	<input checked="" type="checkbox"/>
SD CARD	<input checked="" type="checkbox"/>
LI-ION BATTERY	<input checked="" type="checkbox"/>
CALCULATOR APP	<input checked="" type="checkbox"/>
2 YEAR WARRANTY	<input checked="" type="checkbox"/>

ATEX



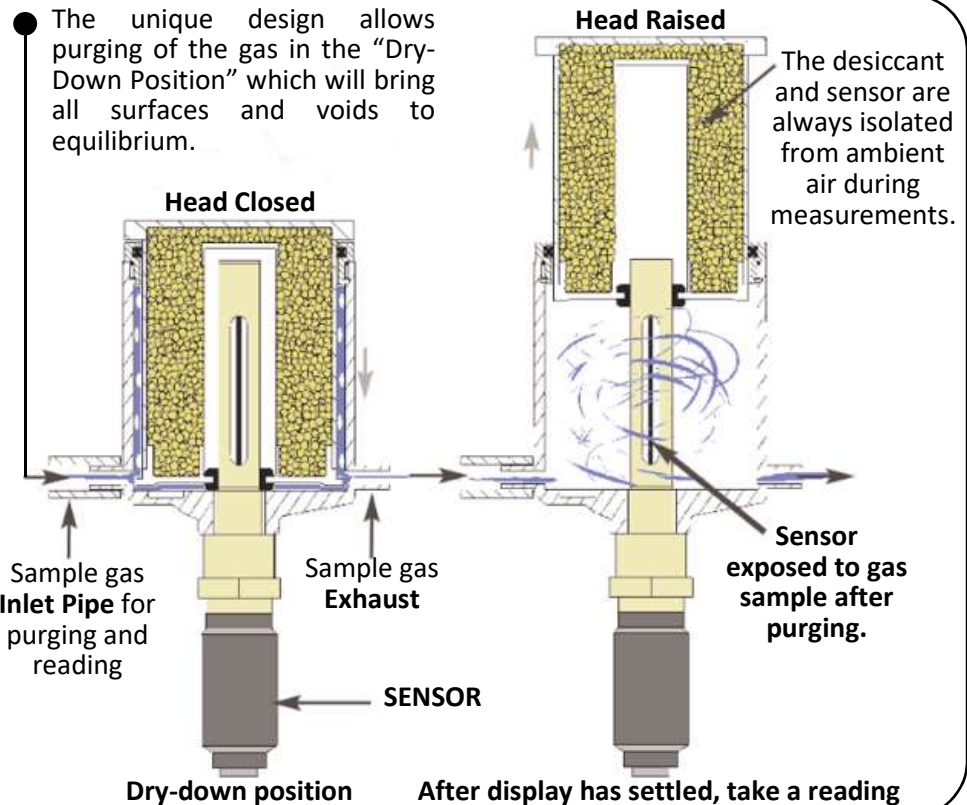
- Certified Intrinsically safe for use in hazardous areas to ATEX, IECEx & cULus Listed.
- Full colour graphical display showing multiple units simultaneously.
- Desiccant Dry-Down Chamber for faster response by keeping sensor dry between tests.
- AutoCal Span Correction, for optimum accuracy between laboratory calibrations.
- Measurement units selectable in °C or °F dewpoint, ppm(v), ppm(w), g/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 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

### Hazardous Area Certification

**Ex** II 1G Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +50°C)  
II 1D Ex ia IIIB T60°C T5080°C Da (-20°C ≤ Ta ≤ +50°C)

**IEC** Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +50°C)  
Ex ia IIIB T60°C T5080°C Da (-20°C ≤ Ta ≤ +50°C)

**UL** LISTED 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. 0.3 barg (4 psig)

#### 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

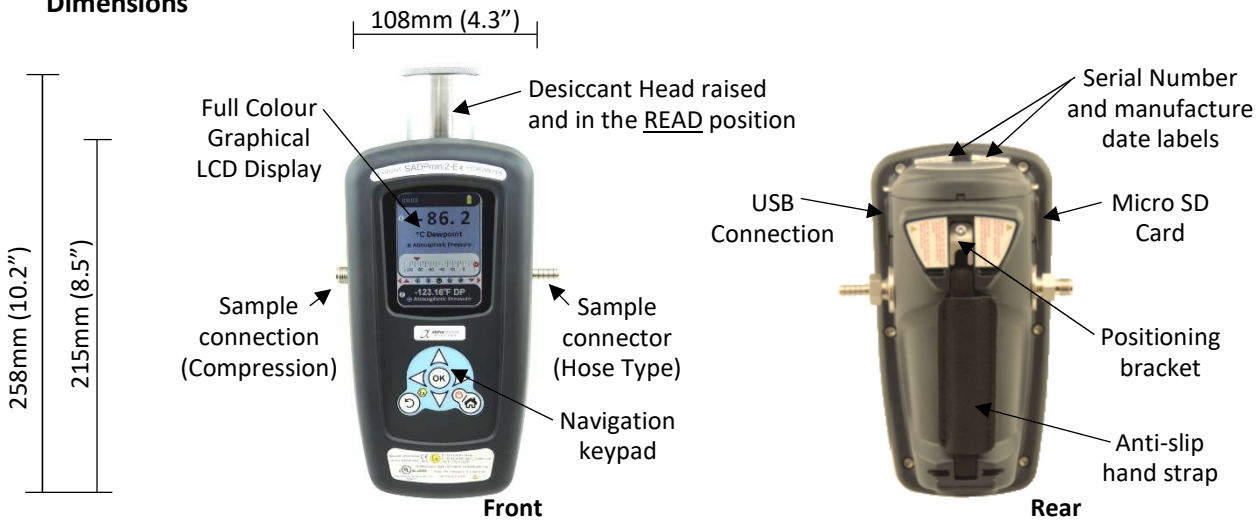
Can log directly to PC when connected via USB or Bluetooth.

### Bluetooth

Bluetooth connectivity provided with logging package.

# SADPmini2-Ex in more detail

## Dimensions



## How to order

**Model SADPmini2-Ex - [XX] - [X] - [F] - [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)

**L:** Logging and Bluetooth Communication

**F:** Standard Supply - Fir Tree 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

**Fitting 1:** Fir Tree Fitting

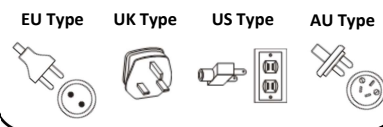


**Fitting 2:** Compression Fitting



### MAINS/AC PLUG TYPE - For Charger = XX

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



### EXAMPLE:

To order this instrument with a range of -80°C to +20°C dewpoint, 6mm compression fitting, and a EU AC power plug, the order code is:- Model SADPmini2-Ex - BL - F - 6 - EU

## Accessories Included with each instrument

### Included:

Anti-static carry bag with adjustable shoulder strap, 2m PTFE sample tube, adjustable lanyard, micro USB to USB communication/battery charger cable, universal 110/240 Vac charging plug, 4GB micro SD card, illustrated operating manual.



## Optional Extras

### Bluetooth Printer



### Portable Sample System





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## Spécialiste en Instrumentation

**Note: Model SADPmini2-Ex** is ideal for most industrial gases, but is not suitable for use in the presence of Ammonia (NH<sub>3</sub>), Chlorine (Cl<sub>2</sub>), Hydrogen Chloride (HCl), Hydrogen Fluoride (HF), Nitrous Oxide (NO<sub>2</sub>) and its hydrolysed form, Nitric Acid (HNO<sub>3</sub>). Sulphur Dioxide (SO<sub>2</sub>) can be monitored if the moisture content is low, less than 100ppm(v).

XXXX Model SADPmini2-Ex 290618-Iss1

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