

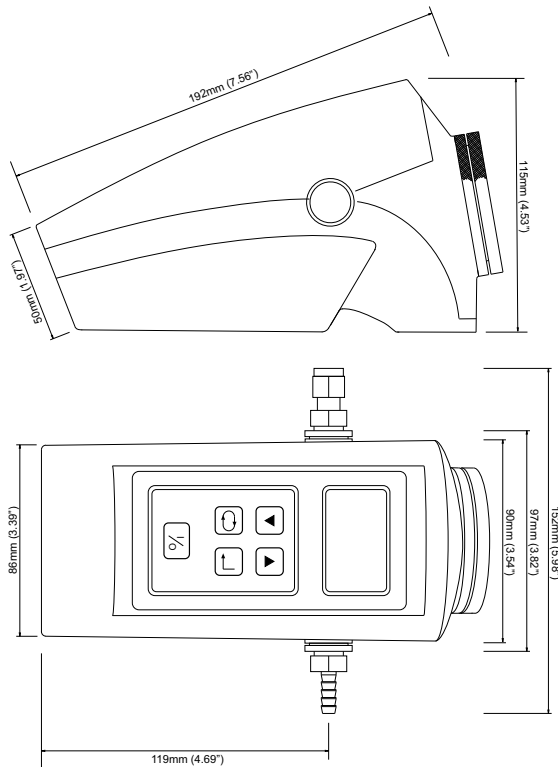
Model SADP_{mini}

Hand-Held Automatic Dewpoint Hygrometer



Features :-

- User Selectable Units - °C, °F, ppm, ppm(w), ppb, g/m3, lbs/MMSCF
- Various Ranges between -110°C to + 20°C dewpoint
- Rechargeable Battery - Over 250 hours of continuous operation on full charge
- Desiccant Dry Down Assembly for Quick Measurements
- 4-20mA Analogue Output
- RS485 Serial Communication
- Real Time Graphic Logging to PC
- Advanced DATA Logging & PC Download
- Electronic Automatic Calibration
- Pressure Correction Computation
- Multi-Level Security to Prevent Unauthorised Tamper
- True Hand Held Portable Device – Weighing Less than 1.2 kgs
- Robust Ergonomically Designed Custom Housing
- Fully Self-Contained
- User Friendly



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TECHNICAL SPECIFICATIONS & FEATURES

Model SADPmini Hand Held Automatic Dew Point Hygrometer

TYPE B

SENSING ELEMENT: Ultra Hi-Capacitance Aluminium Oxide Type

RANGE IN DEW POINT:

SR: -110°C to -20°C (-166°F to -4°F) dew point

PL: -100°C to 0°C (-148°F to +32°F) dew point

RD: -80°C to -20°C (-112°F to -4°F) dew point

GY: -80°C to 0°C (-112°F to +32°F) dew point

BL: -80°C to +20°C (-112°F to +68°F) dew point

DISPLAY UNITS:

°C – Degrees Centigrade Dew / Frost Point

°F – Degrees Fahrenheit Dew / Frost Point

ppmv – Parts per million (Volume)

ppmw – Parts per million (Weight)

ppbv – Parts per billion (Volume)

g/m³ – Grams per cubic metre

lbs/MMSCF – Pounds per million standard cubic feet

DISPLAY: Blue on Green, 128 x 64 pixel, Graphical LCD with LED backlight.

SENSOR CALIBRATION ACCURACY: ± 2°C Dew point. Each unit supplied with a Certificate, documenting factory calibration, traceable to National & International Standards - National Physical Laboratory (UK) / NIST (USA).

AUTOMATIC CALIBRATION: Electronic "Span Check". Performed by user following simple menu driven instructions. Can be password protected to avoid unauthorised tamper.

REPEATABILITY: Better than ±0.2°C dew point

POWER SUPPLY: 3.6V, 2.3Ah Rechargeable Li-Ion Battery. Battery charger included.

BATTERY LIFE: In excess of 250 hours of continuous use on full charge at 20°C / 68°F.

TIME TO FULL CHARGE: 6 hours

KEYBOARD: 5 Membrane covered, metallic dome tactile keys.

PRESSURE CORRECTION: Integral calculator to display pressure dew points. Gauge pressure can be entered in kPa, kg/cm², bar or psi.

TEMPERATURE COEFFICIENT: Temperature compensated for operating range.

GAS SAMPLE CONNECTIONS: Ports accept *Swagelok*[®] VCO type coupling (9/16" x 18 UNF). Supplied with either 6mm or 1/4" *Swagelok*[®] SS compression fitting on one side. The other side is fitted with a stainless steel push-on, "fir tree" type, hose connector for 6mm ID tube. Each unit is supplied with 2m length, 6mm ID, PTFE tube.

ELECTRICAL CONNECTIONS: 9 Pin "D" type for 4/20mA analogue output, RS485 Serial Communications and PC interface. Separate socket for battery charger.

OPERATING TEMPERATURE: -10°C to +60°C

STORAGE TEMPERATURE & HUMIDITY: -40°C to +80°C / 95% RH Non-condensing

OPERATING PRESSURE: Maximum 30kPag (0.3 barg / 4 psig).

OPERATING HUMIDITY (External): 95% RH Non-condensing

TYPICAL RESPONSE TIMES:

Wet to Dry: -10°C to -60°C - less than 120 seconds

Dry to Wet: -110°C to -20°C - less than 20 seconds

SAMPLE FLOW RATE: Flow independent, but ideally 2 to 5 litres per minute. Max: 10 litres/min.

REPLACEMENT DESICCANT: Field Interchangeable.

SENSOR LIFE: Between 5 & 10 years - depending on application.

REPLACEMENT SENSOR: Field Interchangeable.

ELECTROMAGNETIC COMPATIBILITY (EMC): Product complies with the objectives and requirements of EMC Directive 89/336/EEC, amended 92/31/EEC.

SECURITY: Multi level password protection.

WARM UP TIME: 10 seconds

WEATHERPROOF CLASSIFICATION: IP54 / NEMA12

WARRANTY: 2 years for faulty workmanship and defective parts.

WEIGHT: 1.1kgs (2.4lbs)

DIMENSIONS: 192 x 97 x 115 mms (7.5 x 3.8 x 4.5 inches)

MATERIALS OF CONSTRUCTION: Sensor in metal housing. Outer case custom manufactured in, stainless steel impregnated, high impact Polybutylene Terephthalate (PBT).

ACCESSORIES INCLUDED: 2m PTFE Sampling pipe, Universal Battery Charger, User Manual.

TYPE 4

As TYPE B plus following additional specifications & features:

ANALOGUE OUTPUT: Externally powered 4-20mA loop. Linear output with unit selected. Span easily configured by user.

Max. load = 50 x (V_{EXT} - 0.6) - 105

V_{EXT} = Supply voltage.

(Eg. For 24V supply, Max. load = 1065Ω)

ACCESSORIES INCLUDED: 4-20mA Connector for analogue output.

TYPE L

As TYPE B plus following additional specifications and features:

DATA LOGGING: 16,000 samples. Date and time stamped data, stored in moisture unit selected, for download to PC.

DATA LOCATION: 20 separate locations (Tags) can be entered (alpha-numerical) by user for data collection at pre-programmed locations.

SAMPLING RATES: User selectable (in intervals of 6 seconds) from once every 6 seconds to once a day.

DATA DISPLAY: Numerical and Graphical display of data on SADPmini screen.

REAL TIME RECORDING: Device can be programmed to monitor, record and graphically present data in real time directly to PC.

SERIAL COMMUNICATIONS: RS485, baud rate 9600 – half duplex.

ANALOGUE OUTPUT: Externally powered 4-20mA loop. Linear output with unit selected. Span easily configured by user.

Max. load = 50 x (V_{EXT} - 0.6) - 105

V_{EXT} = Supply voltage.

(Eg. For 24V supply, Max. load = 1065Ω)

ACCESSORIES INCLUDED: 4-20mA / RS485 Connector for analogue output and serial communications. Serial or USB (Isolated / self powered) interface, with cables, for "Real Time Logging" and data download to PC. Software supplied on CD.

SYSTEM REQUIREMENT: Windows® 95 or later for Serial connection & Windows® 2000 or later for USB connection to PC.

OPTIONAL ACCESSORIES

Hard wearing, padded nylon carrying case, custom manufactured with carry handle, belt loop and adjustable shoulder strap.



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Product specification may be subject to change, without prior notice, as part of our ongoing product development programme.