

DPMFC PORTABLE DEW POINT METER

DPM-FC is a fully self-contained portable hygrometer which will deliver the most dependable moisture measurement in industrial and laboratory applications. Designed with the operator in mind, Model DSP-FC1 is extremely easy to use and the digital dewSMART™ technology ensures accurate and reliable readings over long periods with little or no maintenance.



The incorporation of stainless steel quick connect fittings, together with the Desiccant Drydown Chamber, allows rapid measurements which saves both time and cost. Model DPM-FC also incorporates an integral flow control valve which allows for high pressure samples (up to 20 barg) to be reduced to atmospheric pressure for introduction to the desiccant head assembly. In addition the built in flow indicator with sample-specific graduation, provides flow control for air, SF6 or any other gas.

Model DPM-FC is available in a total of six different ranges, with the display selectable in various engineering units: °C, °F, ppm(v), ppb(v), ppm(w), g/m³ & lb/MMSCF. Parts per million (weight) can be programmed for gases other than those pre-programmed (Air, Ar, H₂, SF₆, CO₂ & N₂) by simply inputting the molecular weight of the gas under test. The unit's portability and ease of use are ideally suited for measurement of the moisture content of air or gas on a spot-check basis. Full interchangeability of the dewSMART™ Sensor ensures guaranteed accuracy and reliability without the need to return the whole unit back to base for calibration and setup. Model DPM-FC is supplied ready for use with batteries installed, calibration certificate traceable to National and International Humidity standards, two metres of stainless steel braided PTFE sampling hose, instruction manual and an optional robust transit case.

TECHNICAL SPECIFICATIONS

Sensor type: **Model DDHS** - Aluminium Oxide Ultra High Capacitance Digital Sensor

Range:

Type	PURPLE	SILVER	BLUE	GREY	RED	YELLOW	GOLD	GREEN
Unit °C	-110 to +20	-110 to -20	-80 to +20	-80 to 0	-80 to -20	-60 to 0	-50 to +20	-30 to +20
Code	PL	SR	BLUE	GY	RD	YW	GD	GN

Operating pressure:

Input pressure to flow meter: 20 bar maximum

Input pressure to Desiccant Head Assembly: 0.5 barg maximum

NOTE: The sample pressure must be reduced to 0.5 barg maximum by the integral flow control valve, before it is allowed into the Desiccant Head

Assembly. The Desiccant Head Assembly is only designed to operate at 0.5 barg maximum pressure.

Display:

2 x 20 Character LCD with programmable bright & dark contrast

Display resolution:

0.1°C dewpoint / 0.1ppm

Power supply:

9V DC - Six "C" type batteries

Battery life

In excess of 250 hours during continuous operation

Electronic accuracy

Better than ± 1% of range

Warm up time

15 seconds

Sensor calibration accuracy:

Better than ±2°C dewpoint. All units supplied with certificates documenting factory

Repeatability:

± 0.1°C dewpoint

Typical response time:

95% of reading within 20 seconds in normal operation

Operating conditions:

Temperature: working-20 to +50°C, storage -50 to +70°C; Humidity : 0-98% RH, Non-condensing;

Electromagnetic compatibility EMC:

Immunity EN 50082-1: 1992; Emissions EN 50081-1: 1992

Flow rate to sensor:

2 to 20 litres/minute

Connections:

Inlet: Swagelok quick-connect stainless steel coupling

Outlet: 0.25" overall diameter compression tube fitting

Warranty:

2 years from date of delivery against faulty material or workmanship



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TECHNICAL SPECIFICATIONS

Corrosive Gases

The Sensor should not be exposed to corrosive gases (or corrosive contaminants in the main gas sample) as they would chemically attack the sensor and render it useless.

Examples of such gases are mercury (Hg), ammonia (NH₃), chlorine (Cl₂) and wet acid vapours i.e. acid vapours in gas with moisture content greater than 100ppm(v). Strong oxidising agents such as ozone (O₃) should also be prevented from coming into contact with the sensor.

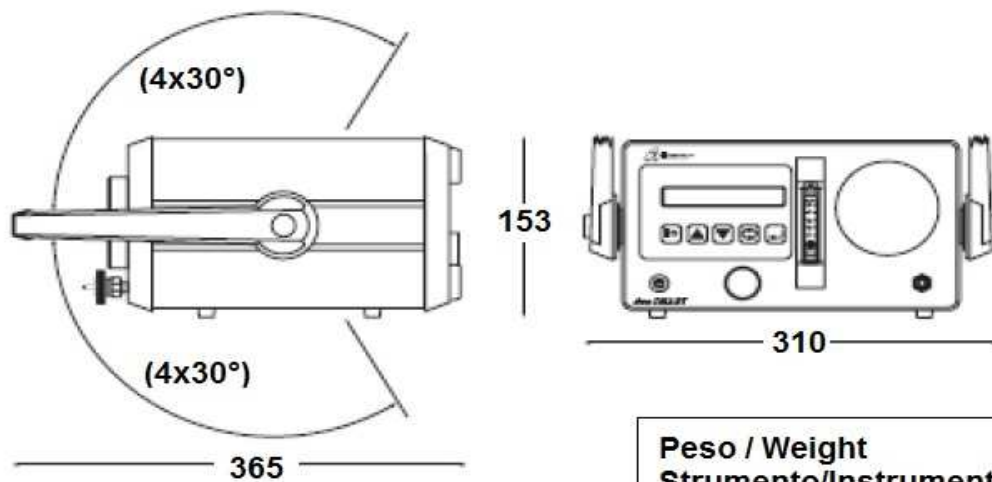
Desiccant Head assembly

To allow rapid spot checks it is essential that the measuring sensor is kept drier than the sample to be measured. The desiccant dry-down chamber is designed to do just this by keeping the sensor surrounded by desiccant when the instrument is not in use, only exposing it to the sample gas when taking measurements. At no stage is the sensor allowed to come into contact with ambient air.

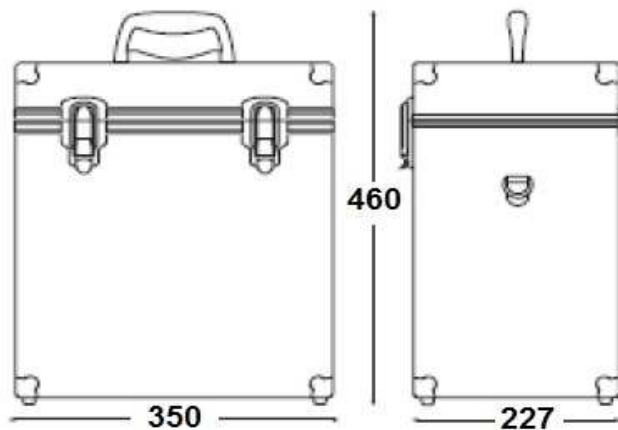
DIMENSIONS

STRUMENTO / INSTRUMENT

Dimensioni in mm / All dimensions in millimetres



VALIGIA TRASPORTO / TRANSIT CASE (OPZIONE/OPTIONAL)



Peso / Weight
Strumento/Instrument
(netto/net) kg. 5.8
con imballo/whit packing
(lordo/gross) kg. 8.2

Valigia/Case
(netto/net) kg. 4.0



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