



DEWRay Portable Hygrometer

The **DEWRay** portable is a chilled-mirror dewpoint Hygrometer based on fundamental principles giving high accuracy and long term stability.

The **DEWRay** is a precision dew-point hygrometer which works on the proven fundamental optical dew-point measurement principle (see technology section for detail information). The **DEWRay** split beam reflex detection method is able to detect whether ice or super-cooled is present on the mirror and compensate accordingly. This feature, unique to **STORK Instruments**, avoids the possibility of measurement errors of up to 4°C dewpoint which is an inherent danger in competing cooled mirror instruments.

TECHNICAL SPECIFICATION

Measurement Range	1-stage: -30 to +90°C dew point 2-stage: -40 to +90°C dew point High temperature: -20 to +130°C dew point
Measurement Accuracy	±0.2°C dew point ±0.1°C temperature ±0.15°C dew-point accuracy optional
Measurement Units	°C, °F for dew point and temperature; % RH: gm ⁻³ g/kg ⁻¹ aw; Δ (t-tdp)
Response Speed	1°C sec ⁻¹ + settling time (dew-point dependent)
Power Supply	90 to 264 V, 47/440 Hz. IEC Connection with integral filter
DEW POINT SENSOR	
Mirror	Gold plated copper, high temperature sensor-316 stainless steel
Temperature Measurement	4 wire 100 Ω 1/3 DIN Class B Pt100; 3 mm dia x 150 mm long stainless steel probe
Sample Flow Rate	0.1 to 2 NI/min (in sampling block)
Maximum Velocity	10 msec ⁻¹ (direct insertion) 30 msec ⁻¹ (with sintered guard fitted)
Pressure	2 MPa (20 Barg) 25 MPa (250 Barg) optional
Ingress Protection	IP66 (NEMA 4) IP65 (NEMA 12) 25 MPa (250 Barg) sensor
Cable Length	2m (30m max)
REMOTE PRT	
Temperature Measurement	4-wire 100 Ω 1/10 DIN class B Pt100
DISPLAY UNIT	
Resolution	0.1 for °C, °F and % RH, 0.01 for gm ⁻³ and g/kg ⁻¹
Outputs	Analogue: Two channels 4-20 mA or 0-20 mA Digital: RS-232 (RS-485 optional) Alarm: Volt free contact, 2A @ 30VDC
Status LEDs	Power on, DCC and alarm status
Operating Temperature	-20 to +50°C ambient
Enclosure	Bench standing case with carry handle Panel mounting kit option
Ingress Protection	IP54 (NEMA 2)
OPTIONS:	
High accuracy sensor	
High temperature sensor	
Sintered sensor guards-stainless steel/HDPE	

