

DMP80 Series Handheld Dew Point and Temperature Probe



DSC74SP Sample Cell (left),
DMP80 Probe (middle), Indigo80
Handheld Indicator (right)

Features/Benefits:

- Portable design optimized for industrial spot-checking and field calibration. Designed for use with the **Indigo80 Handheld Indicator**. Also compatible with Indigo transmitters, and Vaisala's free [Insight PC Software](#) (handheld and transmitters sold separately)
- Uses Vaisala DRYCAP® sensor technology for superior accuracy and stability
- Dew point measurement accuracy up to $\pm 2\text{ }^{\circ}\text{C}$ ($\pm 3.6\text{ }^{\circ}\text{F}$)
- Available with ISO or NPT threading for in-line process installation. ISO threading is compatible with Vaisala Sample Cell offering for easy installation
- Sensor purge and autocalibration functionalities provide superior chemical resistance for harsh conditions and help to maintain measurement accuracy between calibration intervals
- Rated for IP66 conditions with probe connection cable connected to the probe
- Calculated moisture parameter options: Dew/frost point temperature, relative humidity, absolute humidity, enthalpy, mixing ratio, water concentration, water mass fraction, wet-bulb temperature, water vapor pressure, water vapor saturation pressure
- Traceable calibration certificate included

Summary:

Dew point and temperature probe has been designed for portable use, especially with the [Indigo80 Handheld Indicator](#). Probe shall incorporate a thin-film polymer capacitive DRYCAP® sensor to measure dew point temperatures between $-40 \dots +60\text{ }^{\circ}\text{C}$ ($-40 \dots +140\text{ }^{\circ}\text{F}$) with the DMP80A and $-70 \dots +60\text{ }^{\circ}\text{C}$ ($-94 \dots +140\text{ }^{\circ}\text{F}$) with the DMP80B. Accuracy of the measurements must be up to $\pm 2\text{ }^{\circ}\text{C}$ ($\pm 3.6\text{ }^{\circ}\text{F}$). Sensor purge must be available and allow for sensor to be heated briefly for use in environments with high concentrations of dust, chemicals, or certain cleaning agents. Temperature sensor shall be a platinum 100 Ω RTD and be able to measure in the range of $0 \dots +60\text{ }^{\circ}\text{C}$ ($+32 \dots +140\text{ }^{\circ}\text{F}$) with an accuracy of $\pm 0.2\text{ }^{\circ}\text{C}$ ($\pm 0.36\text{ }^{\circ}\text{F}$) at room temperature. Probe handle shall be IP66 rated (when probe connection cable is connected to the probe). Operating temperature range must be $-10 \dots +60\text{ }^{\circ}\text{C}$ ($+14 \dots +140\text{ }^{\circ}\text{F}$). Operating absolute pressure of probe head shall be $0 \dots 20\text{ bar}$ ($0 \dots 290\text{ psi}$). ISO threading configuration is compatible with sampling cell options, which can be used for in-line process installation. Suitable for use in air, nitrogen, hydrogen, argon, helium, and oxygen. Probe to have chemical tolerance to temporary exposure during cleaning with deionized water or isopropyl alcohol (70%). Probe to be powered by $15 \dots 30\text{ VDC}$ and have a non-isolated, RS-485 output. Probe shall be able to calculate and directly output dew/frost point temperature, dry-bulb temperature, relative humidity, absolute humidity, enthalpy, mixing ratio, water concentration, water mass fraction, wet-bulb temperature, water vapor pressure, water vapor saturation pressure. Traceable calibration certificate included.