

DMT143 Dew Point Transmitter

Features/Benefits:

- Uses Vaisala DRYCAP® sensor technology for superior accuracy and stability
- Dew point measurement range of $-70 \dots +60 \text{ }^{\circ}\text{C}$ ($-94 \dots +140 \text{ }^{\circ}\text{F}$) with accuracy up to $\pm 2 \text{ }^{\circ}\text{C}$ ($\pm 3.6 \text{ }^{\circ}\text{F}$)
- Offers current (mA) or voltage (V) analog outputs, as well as RS-485 digital output with Modbus® RTU support. Analog and digital outputs can be used simultaneously
- Sensor purge and auto-calibration functionalities provide superior chemical resistance for harsh conditions and help to maintain measurement accuracy between calibration intervals
- Available with ISO or NPT threading for in-line process installation. ISO threading is compatible with Vaisala Sample Cell offering for easy installation
- IP66 rated enclosure
- Configurable LED alarm for exceeded dew point levels
- Available pressure compensation up to 50 bar
- Compatible with Indigo80 Handheld Indicator for portable use. Also compatible with Vaisala [Insight PC Software](#) through USB connection
- Traceable calibration certificate included



Summary:

Dew point probe shall incorporate a thin-film polymer capacitive DRYCAP® 180D sensor to measure dew point temperatures between $-70 \dots +60 \text{ }^{\circ}\text{C}$ ($-94 \dots +140 \text{ }^{\circ}\text{F}$). Accuracy of the measurements must be to $\pm 2 \text{ }^{\circ}\text{C}$ ($\pm 3.6 \text{ }^{\circ}\text{F}$). Sensor purge and auto-calibration functionalities must be available to provide superior chemical resistance for harsh conditions and help to maintain measurement accuracy between calibration intervals. Transmitter electronics housing shall be rated to be IP66. Operating temperature range of transmitter must be $-40 \dots +60 \text{ }^{\circ}\text{C}$ ($-40 \dots +140 \text{ }^{\circ}\text{F}$). Operating absolute pressure of probe head shall be $0 \dots 50 \text{ bar}_a$ ($0 \dots 725 \text{ psi}_a$). Pressure compensation for measurements must be available. Transmitter shall have options to come with NPT or ISO threading; ISO threading to be compatible with Vaisala sampling cell options, which can be used for in-line process installation. Transmitter shall support analog (mA or V) and digital (RS-485 with Modbus® RTU support) outputs; analog and digital outputs must have separate ports, meaning the transmitter can output both signals simultaneously. Transmitter to be powered by $12 \dots 28 \text{ VDC}$ when using digital or voltage outputs, and $18 \dots 28 \text{ VDC}$ when using the current outputs. Suitable for use in air, nitrogen, hydrogen, argon, helium, and oxygen. Transmitter is to be highly resistant to particulate contamination, oil vapor, and most chemicals, and must be insensitive to the flow rate. Transmitter must be able to fully withstand getting wet, then fully recover once drying out. Probe shall be able to calculate and directly output dew/frost point temperature, dew/frost point temperature at atmospheric pressure, relative humidity (only available from factory), or ppm moisture, by volume. Traceable calibration certificate included.