

HMT370EX Series Intrinsically Safe Humidity and Temperature Transmitters



HMT370EX Series Transmitter with available probe options

Features/Benefits:

- Intrinsically safe (EX i) for operation in up to Zone 0 / 20
- FM, ATEX, & IECEx certifications
- Vaisala HUMICAP® sensor offers long-term stability and negligible hysteresis
- Measures 0 .. 100 %RH with accuracy up to ± 0.8 %RH
- Measures in the range of $-70 \dots +180$ °C ($-94 \dots +356$ °F) (probe dependent) with accuracy of ± 0.1 °C (± 0.18 °F)
- (2) loop powered, 4-20mA analog outputs, powered by 12 ... 28 V
- Available with and without local display
- Transmitter to be IP66 when connected to measurement probe
- Compatible with Vaisala [Insight PC Software](#) through USB connection
- Detachable probe module for easy maintenance and calibration
- (6) different probe options for various applications. Remote probes available with 2, 5, or 10m cables
- Calculated parameters available: Relative humidity, dew/frost point temperature, dry/wet bulb temperature, absolute humidity, mixing ratio, water concentration, water vapor pressure, water vapor saturation pressure, enthalpy, dew point temperature difference, absolute humidity at NTP, water mass fraction
- Traceable calibration certificate included

Summary:

Humidity and temperature transmitter shall be designed for measuring in hazardous areas (intrinsically safe barriers are required with the HMT370EX to achieve a safe installation). Sensor shall incorporate the HUMICAP® sensor technology for reliability and long-term stability. Sensor must be able to measure 0 ... 100 %RH with accuracy of ± 0.8 %RH from 0 ... 90 %RH. Humidity T₆₃ response time shall be 15 s. Temperature sensor shall be a platinum 1000 Ω RTD with accuracy up to ± 0.1 °C (± 0.18 °F) at 23 °C ($+73.4$ °F). Transmitter shall be IP66 when a probe is connected, and IP54 when probe is detached. Instrument must have the ability to be field calibrated. Below lists the probe options and some notable specifications, however please refer to the [Technical Data Sheet](#) or [User Guide](#) for additional information:

Available Probe Options:

HMP371 (wall mount): probe fixed to transmitter, measures $-40 \dots +60$ °C ($-40 \dots +140$ °F)

HMP373 (confined spaces): remote probe, measures up to $-40 \dots +120$ °C ($-40 \dots +248$ °F), duct installation kit or Swagelok® fittings available

HMP374 (pressurized spaces): remote probe, measures $-70 \dots +180$ °C ($-94 \dots +356$ °F), 0 ... 100 bar, threaded fittings available

HMP375 (high temperatures): remote probe, measures $-70 \dots +180$ °C ($-94 \dots +356$ °F), mounting flange available

HMP377 (high humidities): remote probe, measures $-70 \dots +180$ °C ($-94 \dots +356$ °F), 0 ... 10 bar, duct installation kit or Swagelok® fittings available

HMP378 (pressurized pipelines): remote probe, measures $-70 \dots +180$ °C ($-94 \dots +356$ °F), 0 ... 40 bar, variable insertion depth, available in standard or long probe lengths, threaded fittings or ball valve installation kit available