Model **650** %RH Transmitter

Accurate Humidity measurements are becoming increasingly important, especially in regarding energy savings, indoor air quality and environmental protection.

Highly accurate and reliable measurement and control of humidity and temperature is required for many industrial processes. The integrated microprocessor accepts the linearisation and compensation for humidity over the whole range from -40 to +180°C. This guarantees highest accuracy of up to **± 1%RH**. In addition to relative humidity and temperature, dew point can also be calculated. Up to 32 transducers can be analyzed on a PC. The optional LED display is easy to read.

The Model 650 incorporates a ±1% maintenance free humidity probe ideal for checking humidity measurements for validation of critical environments. It's rugged, compact and protected by a waterproof plastic housing. The Humidity measuring range is 0-100%RH. The accuracy of this probe has been tested and proven time and again in worldwide laboratory tests. The probe is equipped with a patented %RH sensor.

Advantages of the Model 650

- Highest precision ±1%RH.

- Mollier diagram integrates °C, %RH, td, g/m^3, g/kg.

- Housing with LED display.

- 2 wire technology, 4 to 20mA for signal and power.

- Variable cable lengths up to 10m

- Variable scaling of outputs signals possible.

- Parallel analysis of up to 32 transducers via PC (RS485)

CE: EMC to industrial standard EN 61326-A1

Additional Features:
Electronically isolated outputs:
Output signals available: %RH, td, g/kg
Scalable outputs
Cable extension up to 30ft.
LED Display, 2 x 4 digits.
RS 485

Description EdgeTech Model 650-C2/C4 Transmitter

The precision temperature / humidity measuring instrument includes the basic parameters temperature, dew point and % RH.

- **Rapid measurement with accurate temperature probes.**
  The measuring instrument extrapolates the final value.
- **Highest precision due to system calibration (measuring instrument + probe)**
  Calibration data is saved in the probe.
- **Calculates all of the physical humidity parameters in the Mollier diagram:**
  - relative humidity (% RH)
  - dew point, pressure dew point (tp, tdp)
  - absolute humidity (g/m$_3$)
  - humidity levels (g/kg pressure-compensated)
  Guaranteed long-term stability < 1% over 2 years
- **Highest accuracy up to ± 1 %**
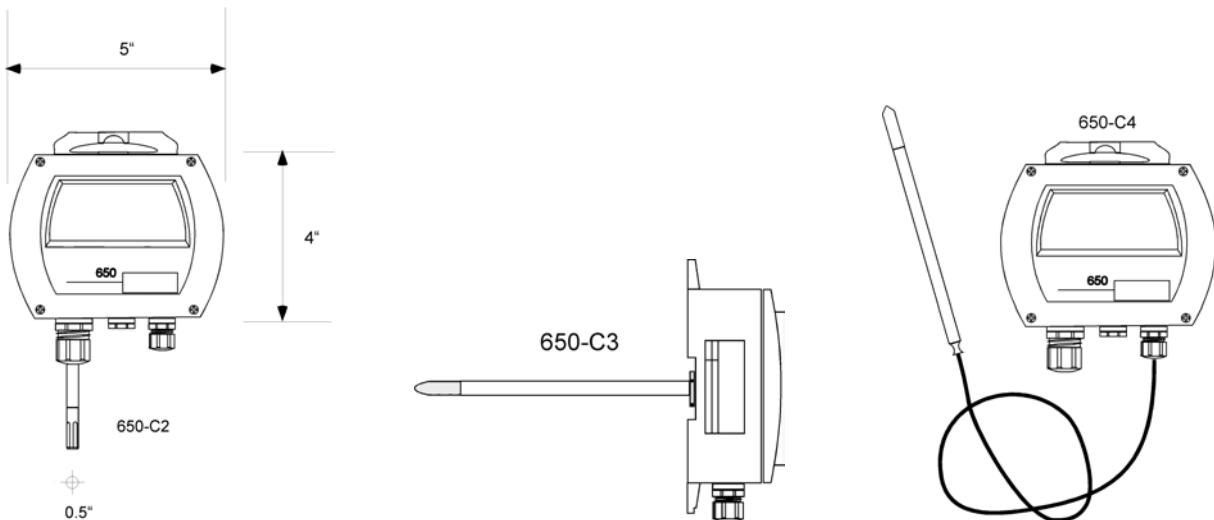
Technical Data

Sensor:	Capacitance Humidity sensor
Measurement range:	
Humidity:	0 – 100% RH; from -40°F to +360°F;
Temperature:	-40°C to +180°C (-40°F to +356°F)
Accuracy:	
%RH: 10-90%	± 1%RH
(Remaining Range):	± 2%RH
Temperature:	± 0.4°F (–5 to 120°F) 1% of m.v. rem. range
Power:	24 VDC, (Optional) 115VAC, 230VAC
Outputs:	4 to 20mA (2 wire)
	0.2 to 1V / 2 to 10V via shunt resisters external
Storage Temperature:	-40 to -175°F
Housing:	IP 65
Load Current outputs:	500Ω
Long Term Stability:	1%RH; Guaranteed for two years under normal conditions.
Typical Service life:	10 years.
Warranty:	1 year.