ENGINEERING PRODUCT SPECIFICATION RELEASE

E-11322.C

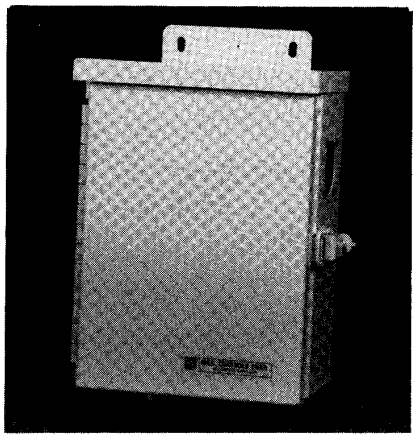
HUMIDITY TRANSDUCER - ASPIRATED
3.0%, (2.0%), 10-85% RH OUTSIDE/CRITICAL INSIDE MOUNTING
SERIES H-332C (2, 3, OR 4 wire Current or Voltage Output)

DESCRIPTION:

The BEC H322 Humidity Transducer conforms to stated accuracy with the long range characteristics unaffected by condensation of water on the sensor surface. Aggressive pollutants in the air have little effect on the performance; however, exposure to vapors or certain solvents such as the acetones and benzenes will shortly oxidize the sensor element surface.

A combined Relative Humidity/Temperature Transducer assembly is available specifically designed for use in Environmental Monitor and Control Systems. In lieu of the temperature combination with humidity, a variation of raw sensing elements can be provided.

An internal aspirating fan constantly draws a flow of air from space or duct being monitored.



DESIGNED FOR:

*Automation Computer Systems

*Analog Monitoring Equipment

*Process Control Computer Systems

*Ease of Installation

*Energy Management Computer

IMPORTANT FEATURES:

The H322 Humidity Sensing Element is a Hygroscopic Polymer, Gold Vacuum Sputtered Surface which creates a capacitance response with change in relative humidity.

- All circuitry conformal coated for moisture/fungus protection.
- 2 and 4 wiring configurations, current or voltage outputs.
- Indoor or Outdoor (aspirated) mounting configurations
- Suitable for critical applications requiring a continuing sampling of air from space or duct being monitored.
- Response time out-of-the box or extreme changes 3-5, minutes or 90% RH., Process response time change-negligible
- Probe cleaning- Rinse with clean water (de-ionized preferred)
- Optional LCD display - Continual or altering humidity/temperature.

SPECIFICATIONS:

Temperature Ranges		
Operating:	Humidity	32 to 122°F (0 to 50° C)
	Temperature	32 to 122° F (0 to 50° C)
Storage:	Humidity	-40 to 120° F (-40 to 85°C)
	Temperature	-40 to 120° F (-40 to 85 °C) or custom
Humidity Range:	(Operating/Storage)	0-100% Relative Humidity
Output Signals/ Response time/ Power:		See ordering information / features
Accuracy:		
	Humidity	+/- 3% (10% - 90% RH) Available in +/- 2% or 3% (includes hysteresis, stability, and linearity
	Temperature	1.5% accuracy
Termination:		Screw terminals

ORDERING INFORMATION:

MODEL H322- 3 C – T1 – L – 1 – B

Mounting Enclosure
C. Outside or critical inside

Accuracy
2. 2%
3. 3%

Optional Temp. Output
Humidity + analog temperature output
T1/1. +40 to +90°F (Room)
T1/2. -30 to +130°F (Outside)
T1/3. +40 to +140°F (Duct)
Humidity + Temperature sensor output
T2/1. 100 ohm platinum RTD (non-polar leads)
T2/1a. 1000 ohm platinum RTD (non-polar leads)
T2/2a. TYPE II MODEL 21-2,252 ohm THERMISTER (green leads)
T2/2b. TYPE II MODEL 22-3,000 ohm THERMISTER (blue leads)
T2/2c. TYPE II MODEL 24-10,000 ohm THERMISTER (yellow leads)
T2/2d. TYPE II MODEL 27-100,000 ohm THERMISTER (gray leads)
T2/3. TYPE IV MODEL 42-20,000 ohm THERMISTER (green leads)
T2/4. LM 334 Electronic Temperature to Current Sensor, Leads are Orange (+); Blue (-); and White (sig)
T2/5. LM335 Electronic Temperature to Voltage Sensor, Leads are Red (+) and Black (-)
T2/6. Temperature Transmitter (voltage output only)40/90F
T2/7. Temperature Transmitter, Custom Range (voltage output only)

Output
1. 4-20 mA (2 wire)
2. 1-5 vdc (2 wire)
3. 4-20 mA (4 wire)
4. 0-5 vdc (4 wire)
5. 0-10 vdc (4 wire)
6. Custom

Options
L. LCD Display *

Supply Voltage
A.
B. 24 vdc
C. 24 vac
D. 120 vac
E. Custom

Maximum Loop- 350 ohms @ 20 vdc
Resistance 850 ohms @ 30 vdc

Input/Output Current:
22mA max @ 24vdc power, 4-20mA, 2 wire loop signal

Input Current:
No load = 4mA @ 24 vdc power, voltage signal
Max load = 4mA @ 24 vdc power, voltage signal

No load = 4mA @ 24 vac power, current/voltage signal
Max load = 20mA @ 24 vac power, current/voltage signal

No load = 1mA @ 120 vac power, current/voltage signal
Max load = 5mA @ 120 vac power, current/voltage signal

* Op't. "L", LCD display Recomended for indoor applications and only in combination with humidity and temperature output.

MOUNTING DEMENSIONS: