

## HD Duct Mount Humidity Transmitter

2%, 3% accuracies | 0-5/10VDC 4-20 mA output  
Full range of temperature output options



### Accurate, reliable, and highly serviceable humidity.



#### Easy to install and maintain

- Field calibratable. LCD and pushbutton menu allows easy adjustment of calibrated RH value as needed to maintain certification.
- Universal output. 2-wire 4-20mA and 3-wire 0-5v/0-10v and field selectable temperature range. One model to order.
- Replaceable sensor element without removing conduit or housing. Remove the lid and pull the tab for fast and easy service.



#### High reliability reduces service calls

- Long life thanks to fusion of sensor and evaluation circuitry on one CMOS chip.
- Choose from a range of temperature output options (Universal output transmitter: 4-20mA, 0-5v/0-10v, RTD, or thermistor)
- Sintered stainless media filter protects sensor
- Industry leading 7-year warranty/ 2-year replaceable element warranty



#### High accuracy for system performance

- On-board temperature compensation for RH. Eliminates temperature coefficient errors and achieves an excellent measurement accuracy as well as high repeatability and offset stability.
- Analog signal processing is performed on the same chip as sensor, eliminating noise-susceptible solder -points for small analog signals.
- State of the art testing facilities. Certification options from 1-point, 2 -point, and 8 -point (NIST traceability--consult factory)



#### Field adjustable with LCD display



*Our sensors are very accurate, but we also know that customers occasionally have their own opinions as to what reading they "want" to see in accordance with their in house metrics (psychrometers, etc.).*

*To this end, our sensors can be readily rescaled in the field to keep those customers happy. (They can also be restored to factory settings with ease.)*

## SPECIFICATIONS

Power Supply	0-5v or 0-10v operation	12-30vdc/24vac <sup>(1)</sup> , 15mA max.
	4-20 mA operation	12-30vdc, 30mA max.
Outputs	RH% and Temperature	3-wire 0-5/10v (jumper) or 2-wire 4-20mA,
Output scaling	RH%	0-100% RH
	Temperature	32-122° F or -40-140° F (jumper)
Thermistor Options	Yes, see ordering table	
Media filter	Sintered stainless steel	
Relative Humidity	Accuracy	2% models, +/-2% over 10 to 90%RH range 3% models, +/-3% over 20 to 80%RH range
	Resolution	0.05%RH
	Hysteresis	+/-1%RH
	Non-Linearity	factory linearized <1%RH
	Temperature coefficient	fully compensated by on-board temp sen-
	Response time (2)	30s
	Output update rate	2s
	Operating range	0 to 100%RH
	Long term drift	<0.5%RH per year
	Operating conditions (3)	-20° C to 60° C @ RH>90% -20° C to 80° C @ RH=50%
Temperature	Accuracy	2% models, <+/-1° C; 0.5° C typ @ 25° C 3% models, <+/-2° C; 0.5° C typ @ 25° C
	Resolution	0.01° C
	Repeatability	+/-0.1° C
	Response time (2)	30s
	Output update rate	2s
	Operating range	-40° C to 120° C

(1) One side of transformer, secondary is connected to signal common. Dedicated transformer is recommended.

(2) Time for reaching 63% of reading at 25° C and 1 m/s airflow

(3) Long term exposures to conditions outside normal range at high humidity may temporarily offset the RH reading (+3%RH after 60 hours.)

## ORDERING

### Accuracy

2 = 2%  
3 = 3%

### Temperature

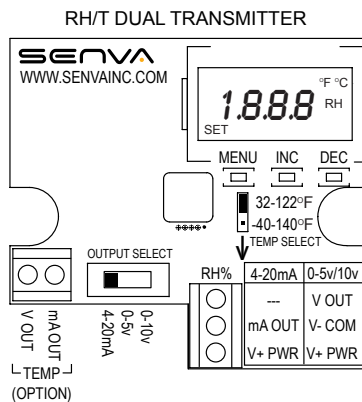
A = None  
B = Transmitter  
C = 100Pt (385)  
D = 1000Pt (385)  
E = 10k type 2  
F = 10k type 3  
G = 10k type 3 w/11k shunt  
H = 3k  
I = 2k2  
J = 1k8  
K = 20k  
L = 100k

### Replacement Sensor Elements

HSD-2 2% accuracy  
HSD-3 3% accuracy

Consult factory for certification and point calibration options

## WIRING DIAGRAMS



4-20mA wiring:

mA OUT = 4-20mA output return  
V+ PWR = Loop supply excitation voltage

0-5v/0-10v wiring:

V OUT = Voltage output, 0-5 or 10vdc  
V- COM = Ground/Common  
V+ PWR = Power supply excitation voltage

## DIMENSIONS

