

NEW HT1R SELECT HUMIDITY/TEMP SENSOR

The new Senva HT1R series comes in our newly engineered enclosure making it the most attractive and quickest-installation humidity sensor on the market.

KEY IMPROVEMENTS

- Attractive and durable low-profile design
- Re-engineered enclosure mounts easily in junction boxes
- Innovative drywall clamps allow unobtrusive and secure mounting without a junction box
- Standard universal output accommodates 0-5V, 0-10V, 2-wire and 3-wire 4-20mA analog signals
- Choose the thermistor that works best for your application or choose a temperature transmitter
- Now available with LCD display
- 7-year limited warranty on electronics; 2-year on elements

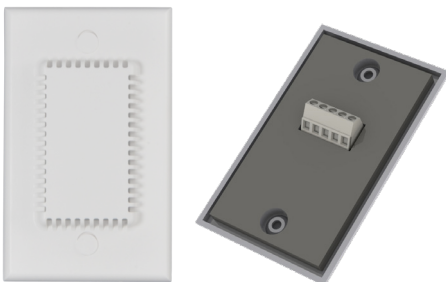


Attractive and low-profile design

Innovative drywall clamps for unobtrusive installation

NEW HT0R VALUE HUMIDITY/TEMP SENSOR

For cost-competitive jobs, the new Value series HT0R is the preferred choice. It comes in a standard sized wall plate to fit most single-gang junction boxes. Choose which analog output works best for your application as well as any thermistor for temperature readings.



Same reliability, lower cost

COMPARISON

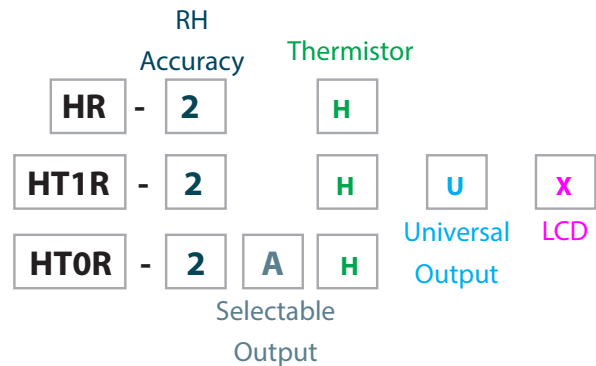
The HT1R series will improve and replace the Senva HR series humidity product line, but the HT0R is also an ideal replacement for all of your bid-spec jobs.

Use the following comparison to determine which model is the appropriate replacement. The attached cross-reference guide shows each HR part with it's equivalent HT1R (direct replacement), HT1R with an LCD (LCD Replacement), and each HT0R option (Value) depending on which output you select.

	Photo	Temp options	Output	LCD Display
HR		Thermistor	0-5V, 0-10V	No
HT1R (Direct Replacement)		Thermistor or Transmitter	Universal 0-5V, 0-10V, 4-20mA	Optional
HT0R (Value Replacement)		Thermistor	Choose one	No

ORDERING INFO

Replacements for the HR series can be determined using the following reference guide or the attached cross-reference list.



7 year limited warranty



HR to HT1R or HT0R Cross-Reference

Obsolete Product	*Direct Replacement	*LCD Replacement	*Value Replacement	RH Accuracy	LCD	Temp Sensor	Output Type
HR-2A				2%	No LCD	No Temp	0-5/0-10V
	HT1R-2AUX			2%	No LCD	No Temp	Universal
		HT1R-2AUD		2%	LCD	No Temp	Universal
			HT0R-2AA	2%	No LCD	No Temp	0-5V
			HT0R-2BA	2%	No LCD	No Temp	0-10V
			HT0R-2CA	2%	No LCD	No Temp	2W 4-20mA
			HT0R-2DA	2%	No LCD	No Temp	3W 4-20mA
HR-2B				2%	No LCD	T-Transmitter	0-5/0-10V
	HT1R-2BUX			2%	No LCD	T-Transmitter	Universal
		HT1R-2BUD		2%	LCD	T-Transmitter	Universal
			HT0R-2AB	2%	No LCD	T-Transmitter	0-5V
			HT0R-2BB	2%	No LCD	T-Transmitter	0-10V
			HT0R-2CB	2%	No LCD	T-Transmitter	2W 4-20mA
			HT0R-2DB	2%	No LCD	T-Transmitter	3W 4-20mA
HR-2C				2%	No LCD	T-100pT	0-5/0-10V
	HT1R-2CUX			2%	No LCD	T-100pT	Universal
		HT1R-2CUD		2%	LCD	T-100pT	Universal
			HT0R-2AC	2%	No LCD	T-100pT	0-5V
			HT0R-2BC	2%	No LCD	T-100pT	0-10V
			HT0R-2CC	2%	No LCD	T-100pT	2W 4-20mA
			HT0R-2DC	2%	No LCD	T-100pT	3W 4-20mA
HR-2D				2%	No LCD	T-1000pT	0-5/0-10V
	HT1R-2DUX			2%	No LCD	T-1000pT	Universal
		HT1R-2DUD		2%	LCD	T-1000pT	Universal
			HT0R-2AD	2%	No LCD	T-1000pT	0-5V
			HT0R-2BD	2%	No LCD	T-1000pT	0-10V
			HT0R-2CD	2%	No LCD	T-1000pT	2W 4-20mA
			HT0R-2DD	2%	No LCD	T-1000pT	3W 4-20mA
HR-2E				2%	No LCD	T-10KT2	0-5/0-10V
	HT1R-2EUX			2%	No LCD	T-10KT3	Universal
		HT1R-2EUD		2%	LCD	T-10KT2	Universal
			HT0R-2AE	2%	No LCD	T-10KT2	0-5V
			HT0R-2BE	2%	No LCD	T-10KT2	0-10V
			HT0R-2CE	2%	No LCD	T-10KT2	2W 4-20mA
			HT0R-2DE	2%	No LCD	T-10KT2	3W 4-20mA

*Trim ring not included



7 year limited warranty



HR to HT1R or HT0R Cross-Reference

Obsolete Product	*Direct Replacement	*LCD Replacement	*Value Replacement	RH Accuracy	LCD	Temp Sensor	Output Type
HR-2F				2%	No LCD	T-10KT3	0-5/0-10V
	HT1R-2FUX			2%	No LCD	T-10KT4	Universal
		HT1R-2FUD		2%	LCD	T-10KT3	Universal
			HT0R-2AF	2%	No LCD	T-10KT3	0-5V
			HT0R-2BF	2%	No LCD	T-10KT3	0-10V
			HT0R-2CF	2%	No LCD	T-10KT3	2W 4-20mA
			HT0R-2DF	2%	No LCD	T-10KT3	3W 4-20mA
HR-2G				2%	No LCD	T-10KT3 11k shunt	0-5/0-10V
	HT1R-2GUX			2%	No LCD	T-10KT3 11k shunt	Universal
		HT1R-2GUD		2%	LCD	T-10KT3 11k shunt	Universal
			HT0R-2AG	2%	No LCD	T-10KT3 11k shunt	0-5V
			HT0R-2BG	2%	No LCD	T-10KT3 11k shunt	0-10V
			HT0R-2CG	2%	No LCD	T-10KT3 11k shunt	2W 4-20mA
			HT0R-2DG	2%	No LCD	T-10KT3 11k shunt	3W 4-20mA
HR-2H				2%	No LCD	T-3K	0-5/0-10V
	HT1R-2HUX			2%	No LCD	T-3K	Universal
		HT1R-2HUD		2%	LCD	T-3K	Universal
			HT0R-2AH	2%	No LCD	T-3K	0-5V
			HT0R-2BH	2%	No LCD	T-3K	0-10V
			HT0R-2CH	2%	No LCD	T-3K	2W 4-20mA
			HT0R-2DH	2%	No LCD	T-3K	3W 4-20mA
HR-2I				2%	No LCD	T-2K2	0-5/0-10V
	HT1R-2IUX			2%	No LCD	T-2K3	Universal
		HT1R-2IUD		2%	LCD	T-2K2	Universal
			HT0R-2AI	2%	No LCD	T-2K2	0-5V
			HT0R-2BI	2%	No LCD	T-2K2	0-10V
			HT0R-2CI	2%	No LCD	T-2K2	2W 4-20mA
			HT0R-2DI	2%	No LCD	T-2K2	3W 4-20mA
HR-2J				2%	No LCD	T-1K8 TAC	0-5/0-10V
	HT1R-2JUX			2%	No LCD	T-1K8 TAC	Universal
		HT1R-2JUD		2%	LCD	T-1K8 TAC	Universal
			HT0R-2AJ	2%	No LCD	T-1K8 TAC	0-5V
			HT0R-2BJ	2%	No LCD	T-1K8 TAC	0-10V
			HT0R-2CJ	2%	No LCD	T-1K8 TAC	2W 4-20mA
			HT0R-2DJ	2%	No LCD	T-1K8 TAC	3W 4-20mA

*Trim ring not included



7 year limited warranty



HR to HT1R or HT0R Cross-Reference

Obsolete Product	*Direct Replacement	*LCD Replacement	*Value Replacement	RH Accuracy	LCD	Temp Sensor	Output Type
HR-2K				2%	No LCD	T-20K NTC	0-5/0-10V
	HT1R-2KUX			2%	No LCD	T-20K NTC	Universal
		HT1R-2KUD		2%	LCD	T-20K NTC	Universal
			HT0R-2AK	2%	No LCD	T-20K NTC	0-5V
			HT0R-2BK	2%	No LCD	T-20K NTC	0-10V
			HT0R-2CK	2%	No LCD	T-20K NTC	2W 4-20mA
			HT0R-2DK	2%	No LCD	T-20K NTC	3W 4-20mA
HR-2L				2%	No LCD	T-100K	0-5/0-10V
	HT1R-2LUX			2%	No LCD	T-100K	Universal
		HT1R-2LUD		2%	LCD	T-100K	Universal
			HT0R-2AL	2%	No LCD	T-100K	0-5V
			HT0R-2BL	2%	No LCD	T-100K	0-10V
			HT0R-2CL	2%	No LCD	T-100K	2W 4-20mA
			HT0R-2DL	2%	No LCD	T-100K	3W 4-20mA
HR-3A				3%	No LCD	No Temp	0-5/0-10V
	HT1R-3AUX			3%	No LCD	No Temp	Universal
		HT1R-3AUD		3%	LCD	No Temp	Universal
			HT0R-3AA	3%	No LCD	No Temp	0-5V
			HT0R-3BA	3%	No LCD	No Temp	0-10V
			HT0R-3CA	3%	No LCD	No Temp	2W 4-20mA
			HT0R-3DA	3%	No LCD	No Temp	3W 4-20mA
HR-3B				3%	No LCD	T-Transmitter	0-5/0-10V
	HT1R-3BUX			3%	No LCD	T-Transmitter	Universal
		HT1R-3BUD		3%	LCD	T-Transmitter	Universal
			HT0R-3AB	3%	No LCD	T-Transmitter	0-5V
			HT0R-3BB	3%	No LCD	T-Transmitter	0-10V
			HT0R-3CB	3%	No LCD	T-Transmitter	2W 4-20mA
			HT0R-3DB	3%	No LCD	T-Transmitter	3W 4-20mA
HR-3C				3%	No LCD	T-100pT	0-5/0-10V
	HT1R-3CUX			3%	No LCD	T-100pT	Universal
		HT1R-3CUD		3%	LCD	T-100pT	Universal
			HT0R-3AC	3%	No LCD	T-100pT	0-5V
			HT0R-3BC	3%	No LCD	T-100pT	0-10V
			HT0R-3CC	3%	No LCD	T-100pT	2W 4-20mA
			HT0R-3DC	3%	No LCD	T-100pT	3W 4-20mA

*Trim ring not included



7 year limited warranty



HR to HT1R or HT0R Cross-Reference

Obsolete Product	*Direct Replacement	*LCD Replacement	*Value Replacement	RH Accuracy	LCD	Temp Sensor	Output Type
HR-3D				3%	No LCD	T-1000pT	0-5/0-10V
	HT1R-3DUX			3%	No LCD	T-1000pT	Universal
		HT1R-3DUD		3%	LCD	T-1000pT	Universal
			HT0R-3AD	3%	No LCD	T-1000pT	0-5V
			HT0R-3BD	3%	No LCD	T-1000pT	0-10V
			HT0R-3CD	3%	No LCD	T-1000pT	2W 4-20mA
			HT0R-3DD	3%	No LCD	T-1000pT	3W 4-20mA
HR-3E				3%	No LCD	T-10KT2	0-5/0-10V
	HT1R-3EUX			3%	No LCD	T-10KT3	Universal
		HT1R-3EUD		3%	LCD	T-10KT2	Universal
			HT0R-3AE	3%	No LCD	T-10KT2	0-5V
			HT0R-3BE	3%	No LCD	T-10KT2	0-10V
			HT0R-3CE	3%	No LCD	T-10KT2	2W 4-20mA
			HT0R-3DE	3%	No LCD	T-10KT2	3W 4-20mA
HR-3F				3%	No LCD	T-10KT3	0-5/0-10V
	HT1R-3FUX			3%	No LCD	T-10KT4	Universal
		HT1R-3FUD		3%	LCD	T-10KT3	Universal
			HT0R-3AF	3%	No LCD	T-10KT3	0-5V
			HT0R-3BF	3%	No LCD	T-10KT3	0-10V
			HT0R-3CF	3%	No LCD	T-10KT3	2W 4-20mA
			HT0R-3DF	3%	No LCD	T-10KT3	3W 4-20mA
HR-3G				3%	No LCD	T-10KT3 11k shunt	0-5/0-10V
	HT1R-3GUX			3%	No LCD	T-10KT3 11k shunt	Universal
		HT1R-3GUD		3%	LCD	T-10KT3 11k shunt	Universal
			HT0R-3AG	3%	No LCD	T-10KT3 11k shunt	0-5V
			HT0R-3BG	3%	No LCD	T-10KT3 11k shunt	0-10V
			HT0R-3CG	3%	No LCD	T-10KT3 11k shunt	2W 4-20mA
			HT0R-3DG	3%	No LCD	T-10KT3 11k shunt	3W 4-20mA
HR-3H				3%	No LCD	T-3K	0-5/0-10V
	HT1R-3HUX			3%	No LCD	T-3K	Universal
		HT1R-3HUD		3%	LCD	T-3K	Universal
			HT0R-3AH	3%	No LCD	T-3K	0-5V
			HT0R-3BH	3%	No LCD	T-3K	0-10V
			HT0R-3CH	3%	No LCD	T-3K	2W 4-20mA
			HT0R-3DH	3%	No LCD	T-3K	3W 4-20mA

*Trim ring not included



7 year limited warranty



Obsolete Product	*Direct Replacement	*LCD Replacement	*Value Replacement	RH Accuracy	LCD	Temp Sensor	Output Type
HR-3I				3%	No LCD	T-2K2	0-5/0-10V
	HT1R-3IUX			3%	No LCD	T-2K3	Universal
		HT1R-3IUD		3%	LCD	T-2K2	Universal
			HT0R-3AI	3%	No LCD	T-2K2	0-5V
			HT0R-3BI	3%	No LCD	T-2K2	0-10V
			HT0R-3CI	3%	No LCD	T-2K2	2W 4-20mA
			HT0R-3DI	3%	No LCD	T-2K2	3W 4-20mA
HR-3J				3%	No LCD	T-1K8 TAC	0-5/0-10V
	HT1R-3JUX			3%	No LCD	T-1K8 TAC	Universal
		HT1R-3JUD		3%	LCD	T-1K8 TAC	Universal
			HT0R-3AJ	3%	No LCD	T-1K8 TAC	0-5V
			HT0R-3BJ	3%	No LCD	T-1K8 TAC	0-10V
			HT0R-3CJ	3%	No LCD	T-1K8 TAC	2W 4-20mA
			HT0R-3DJ	3%	No LCD	T-1K8 TAC	3W 4-20mA
HR-3K				3%	No LCD	T-20K NTC	0-5/0-10V
	HT1R-3KUX			3%	No LCD	T-20K NTC	Universal
		HT1R-3KUD		3%	LCD	T-20K NTC	Universal
			HT0R-3AK	3%	No LCD	T-20K NTC	0-5V
			HT0R-3BK	3%	No LCD	T-20K NTC	0-10V
			HT0R-3CK	3%	No LCD	T-20K NTC	2W 4-20mA
			HT0R-3DK	3%	No LCD	T-20K NTC	3W 4-20mA
HR-3L				3%	No LCD	T-100K	0-5/0-10V
	HT1R-3LUX			3%	No LCD	T-100K	Universal
		HT1R-3LUD		3%	LCD	T-100K	Universal
			HT0R-3AL	3%	No LCD	T-100K	0-5V
			HT0R-3BL	3%	No LCD	T-100K	0-10V
			HT0R-3CL	3%	No LCD	T-100K	2W 4-20mA
			HT0R-3DL	3%	No LCD	T-100K	3W 4-20mA

STILL CONFUSED?

No worries! Just give us a call at 1-866-660-8864 and we can help you find what you need.

*Trim ring not included



7 year limited warranty

HT1R Select Series Recessed Wall Humidity/Temperature

LCD, 2% or 3% accuracy
0-5/10V/4-20mA RH/Temp (thermistors optional)
Digital field offset calibration
Durable and attractive low-profile design



DESCRIPTION

The new Senva HT1R series comes in our newly engineered enclosure making it the most attractive and quickest-installation humidity sensor on the market. Designed with a universal analog output and a variety of thermistor options allows flexibility on-site. It mounts easily in any junction box or it can be unobtrusively mounted directly to drywall using Senva's built-in drywall clamps. Save installation time and energy costs with this versatile product.

APPLICATIONS

- HVAC room humidity and temperature measurement and control
- Energy management/building control

FEATURES

Attractive and low-profile design

- Enclosure mounts easily in junction boxes
- Innovative drywall clamps allow unobtrusive and secure mounting without a junction box
 - Ideal for schools, offices, etc

Field calibration with LCD or LED

- Field calibration scaled adjustment allows for the calibrated RH value to be changed as needed to maintain certification.
- Dip-switch selectable 0-5V/0-10V/4-20mA universal output

Options for any job

- Thermistor or transmitter outputs for temperature (optional)

Superior RH sensing

- 2%, 3%, and 2% NIST calibrated RH accuracy options
- On-board temperature compensation eliminates temperature coefficient errors and achieves high repeatability and offset stability



Innovative Drywall Clamps

- Clamps allow mounting to drywall without adding the cost and time required for a junction box or trim ring.



ORDERING

HT1R -
U

Accuracy

 2 = 2%
 3 = 3%
 N = 2% NIST

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

Output Type

 U = Universal (2-wire and 3-wire
 4-20mA, 0-5V, 0-10V)

Display (LCD)

 D = Display
 X = None

SPECIFICATIONS

Power Supply		12-30VDC/24VAC ⁽¹⁾ , 100mA max.
Outputs	RH% and Temperature	3-wire 0-5, 10V ⁽⁴⁾ , or 4-20mA, 2-wire 4-20mA(selectable)
Output scaling	RH%	0-100% RH
	Temperature Transmitter	50-95° F (10-35°C) or 32-122°F (0-50°C) (selectable)
Thermistor Options		Yes, see ordering table on left
Media filter		PTFE membrane, IP54 protection
Relative Humidity	Accuracy	2% models, $\pm 2\%$ over 0 to 100% RH Range; $\pm 1.5\%$ typ 3% models, $\pm 3\%$ over 0 to 100% RH Range; $\pm 2\%$ typ
	Resolution	0.01%RH
	Hysteresis	$\pm 0.8\%$ RH
	Non-Linearity	Factory linearized <1%RH
	Temperature coefficient	Fully compensated by on-board temp sensor
	Response time ⁽²⁾	8s
	Output update rate	0.5s
	Operating range	0 to 100%RH (non-condensing)
	Long term drift	<0.25%RH per year
	Element Normal Operating Conditions ⁽³⁾	41 to 140°F (5°C to 60°C) @ 20% to 80% RH
Temp Transmitter	Accuracy	2% models, $<\pm 0.25^\circ\text{C}$; 0.1°C typ @ 25°C 3% models, $<\pm 0.3^\circ\text{C}$; 0.25°C typ @ 25°C
	Resolution	0.01°C
	Repeatability	0.04°C
	Response time ⁽²⁾	2s
Temp Transmitter	Output update rate	0.5s
	Element Operating range	-40 to 140°F (-40 to 60°C)
	Enclosure	
Enclosure	Dimensions	5.7" h x 3.0" w x 1.7" d
	Unit Temp Rating	-40 to 158°F (-40 to 70°C)
Compliance		CE

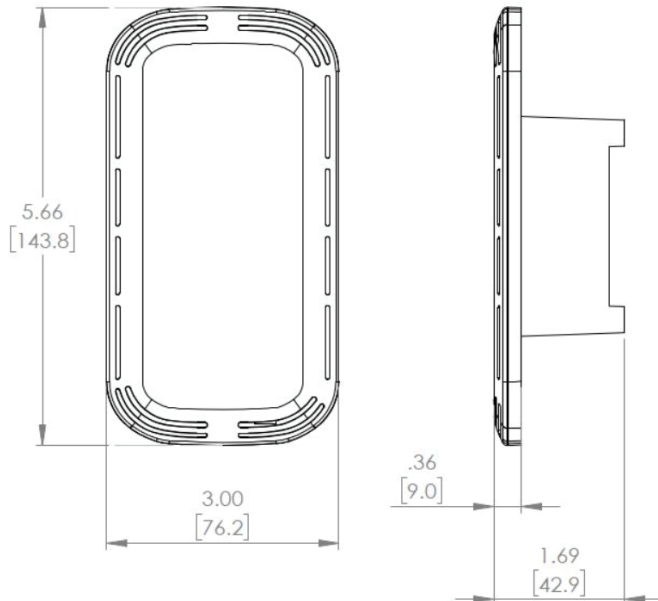
(1) One side of transformer, secondary is connected to signal common. Dedicated transformer is recommended.

(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).

(4) 15-30VDC/24VAC power supply voltage required for 10 volt output.

DIMENSIONS



HTOR Value Series Recessed Wall Humidity/Temperature

LCD 2% or 3% accuracy
0-5/10V/4-20mA RH/Temp (thermistors optional)
Sleek and functional low-profile design



DESCRIPTION

Designed for use with energy management systems in buildings, the HTOR series combines excellent stability and reliable operation. Thermistor options accommodate any installation.

APPLICATIONS

- HVAC room humidity and temperature measurement and control
- Energy management/building control

FEATURES

Sleek and functional design

- Standard wall plate size fits most single gang junction boxes
- Flush-mount screw plugs for tamper-resistance
- Ideal for schools

Simple yet versatile

- 45° terminals for ease of wiring
- Easy installation saves time and callbacks

Options for any job

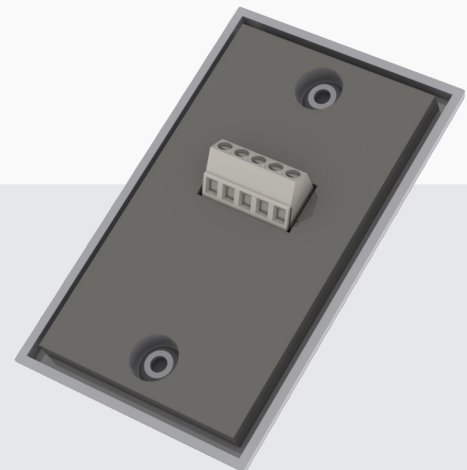
- Thermistor outputs for temperature (optional)
- 0-5V, 0-10V, 4-20mA 2-wire, or 3-wire options available

Superior RH sensing

- 2% or 3% RH accuracy options
- On-board temperature compensation eliminates temperature coefficient errors and achieves high repeatability and offset stability
- Gasket ensures excellent measurement accuracy
- Achieve better accuracy for more efficient control

Easy Wiring

- Streamlined enclosure design and 45° terminals ensure quick and simple installation



ORDERING

HT0R -



Accuracy

- 2 = 2%
- 3 = 3%

Output Type

- A = 0-5VDC, 3-wire
- B = 0-10VDC, 3-wire
- C = 4-20mA, 2-wire
- D = 4-20mA, 3-wire

Temperature

- A = None
- 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

Customize it!

HT0R-(Your name here)

SPECIFICATIONS

Power Supply		12-30VDC/24VAC ⁽¹⁾ , 24mA max
Output	RH%	3-wire 0-5, 10V ⁽⁴⁾ , or 4-20mA, 2-wire 4-20mA(optional)
Output scaling	RH%	0-100% RH
Thermistor Options		Yes, see ordering table on left
Media filter		PTFE membrane, IP54 protection
Relative Humidity	Accuracy	2% models, $\pm 2\%$ over 0 to 100% RH Range; $\pm 1.5\%$ typ 3% models, $\pm 3\%$ over 0 to 100% RH Range; $\pm 2\%$ typ
	Resolution	0.01%RH
	Hysteresis	$\pm 0.8\%$ RH
	Non-Linearity	Factory linearized <1%RH
	Temperature coefficient	Fully compensated by on-board temp sensor
	Response time ⁽²⁾	8s
	Output update rate	0.5s
	Operating range	0 to 100%RH (non-condensing)
	Long term drift	<0.25%RH per year
	Element Normal Operating Conditions ⁽³⁾	41 to 140°F (5°C to 60°C) @ 20% to 80% RH
Enclosure	Dimensions	4.45" h x 2.7" w x 0.5" d (depth measured from wall)
	Unit Temp Rating	-40 to 158°F (-40 to 70°C)
Agency	Compliance	CE, RoHS

- (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).
- (4) 15-30VDC/24VAC power supply voltage required for 10 volt output.

FULLY CUSTOMIZABLE

Sell your brand of sensor

- Private label with low up-front cost
- Minimum order of only 10 units
- Market *your* brand, *your* service
- Direct all service calls to you

Professional look and feel

- Color printed with UV ink
- No bulky, cheap-looking stickers
- High quality, long lasting marketing

Call for a sample today!

