

# Relative Humidity/ Temperature Transmitters for Duct or Wall Mounting





- Accurate to ±2.5% Relative Humidity and ±0.6°C (±1°F) Temperature
- Provides Independent Analog Outputs for Both Humidity and Temperature Measurement
- Stainless Steel NEMA 4 (IP66) Housing
- 3 Different Output Connection Styles Available
- Models with 4 to 20 mA or 0 to 1 Vdc Outputs
- Removable Stainless Steel Sensor Filter
- Includes Hardware for Wall and Duct Mounting
- Standard Models Include Cable and Connector Pair

HX94AC, £178, shown smaller than actual size.

Connector pair included with models HX94AC and HX94AV only.

The HX94A relative humidity/ temperature transmitter provides a reliable and low cost method for duct or wall mount monitoring applications. Solid state sensors provide excellent sensitivity, fast response, and stability. All models include mounting kit, shown above.

Simple hookup and linearized output permit interfacing with most display and control devices like meters, controllers, recorders, and data loggers. The design features a rugged stainless steel NEMA 4 (IP66) housing.

## MODELS AVAILABLE WITH THREE DIFFERENT CONNECTION STYLES SHOWN BELOW!



Standard connector model.

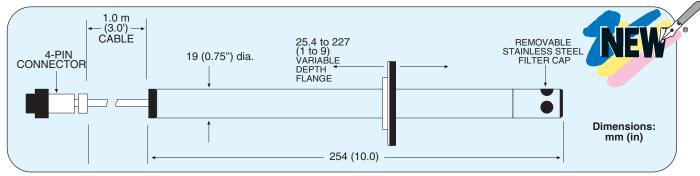


"W" and "NPT" models come with stripped leads.



NPT fitting model with stripped leads.

Hu-39



#### Specifications Relative Humidity

Thin-film polymer capacitor

**Power:** 6 to 24 Vdc (polarity protected) **Measurement Range:** 3 to 95% RH **Accuracy:**  $\pm 2.5\%$  @ 22°C (72°F) from 20 to 80% RH;  $\pm 3.1\%$  @ 22°C (72°F) below 20 and above 80% RH; with an added temperature coefficient error of  $\pm 0.1\%$  RH/°F (both increasing and decreasing in temperature) **Repeatability:**  $\pm 1\%$  RH

#### Temperature Compensation:

-20 to 85°C (-4 to 185°F)

**Current Output:** 

HX94AC: 4 to 20 mA (0 to 100% RH) Voltage Output:

HX94AV: 0 to 1.0 V (0 to 100% RH) Time Constant: (for 90% response at 25°C; in moving air, 1m/sec)

Less than 20 Seconds: 10 to 90% RH Less than 30 Seconds: 90 to 10% RH

#### Temperature

Thin-film 100  $\Omega$  Platinum RTD (DIN 43760)

Input Voltage Range:

6 to 24 Vdc (polarity protected) **Range:** 0 to 100°C (32 to 212°F) **Accuracy:** ±0.6°C (±1°F) **Repeatability:** ±0.3°C (±0.5°F)

Current Output:

HX94AC: 4 to 20 mA for 0 to 100°C Voltage Output:

**HX94AV:** 0 to 1.0 V for 0 to 100°C **Time Constant:** (for 60% response) Less than 2 seconds in moving air (1m/sec), less than 10 seconds in still air

#### **Mechanical**

Housing: 316 SS NEMA 4 (IP66) enclosure

**Probe:** 254 x 19 mm dia. (10 x 0.75"), 305 mm (12") cable

**Duct Flange:** Removable, variable 25.4 to 227 mm (1 to 9") depth. 70 mm (2.75") dia., duct hole 21 mm (0.812") dia. 4 mtg holes 4 mm (0.156") dia. (for #6 sheet metal screws) on 51 mm (2.00") dia. circle; wall mounting bracket included

#### Connections:

HX94AC/94AV: 4 pin mating connector accepts 26 to 18 AWG wires HX94ACW/94AVW: 1 m (3') braided and shielded cable, PVC sheathing HX94ACNPT/94AVNPT: ½" male NPT conductor with 1 m (3') braided and shielded cable

Weight: 198 g (7 oz) with duct flange

## Voltage Connector Models

PROBE CONNECTOR

4

3

1

2

(+)

(-)

6-30 Vdc POWER

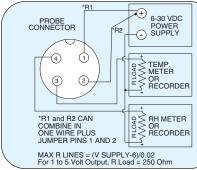
SUPPLY

TEMP. METER

OR RECORDER

RH METER OR RECORDER

#### **Current Connector Models**



#### Lead Wire Models

Models: HX94ACW, HX94ACNPT (2-Wire Current Output with stripped leads) Relative Humidity: White Wire: + Power supply Green Wire: 4 to 20 mA output Bare Wire: Shield, earth ground

Temperature: Black Wire: + Power supply

Red Wire: 4 to 20 mA output

Models: HX94AVW, HX94AVNPT (3-Wire Voltage Output with stripped leads) Relative Humidity: Black Wire: + Power supply Green Wire: 0 to 1 Vdc putput White Wire: - Power supply Bare Wire: Shield, earth ground Temperature: Black Wire: + Power supply Red Wire: 0 to 1 Vdc output White Wire: - Power supply

#### ] MOST POPULAR MODELS HIGHLIGHTED!

Model No.PriceDescriptionHX94AC£178RH/temp transmitter with 4 to 20 mA outputs with 4-pin connectorHX94AV178RH/temp transmitter with 0 to 1 Vdc outputs with 4-pin connectorHX94ACW157RH/temp transmitter with 4 to 20 mA outputs with 1 m (3') lead wires
4-pin connector   HX94AV 178   RH/temp transmitter with 0 to 1 Vdc outputs with 4-pin connector   HX94ACW 157   RH/temp transmitter with 4 to 20 mA outputs with 1 m (3') lead wires
HX94ACW 157 RH/temp transmitter with 4 to 20 mA outputs with 1 m (3') lead wires
1 m (3') lead wires
HX94AVW 157 RH/temp transmitter with 0 to 1 Vdc outputs with 1 m (3') lead wires
HX94ACNPT164RH/temp transmitter with 4 to 20 mA outputs with ½" male NPT fitting and 1 m (3') leads
HX94AVNPT164RH/temp transmitter with 0 to 1 Vdc outputs with ½" male NPT fitting and 1 m (3') leads
HX94-MC 6.70 Spare 4-pin mating connector
PSR-24S 40 Regulated power supply, US plug, 90 to 264 Vac input 24 Vdc output, 400 mA, screw terminals, UL
PSR-24L 40 Regulated power supply, US plug, 90 to 264 Vac input 24 Vdc output, 400 mA, stripped leads, UL
PSR-24L-230 40 Regulated power supply, European plug, 230 Vac input 24 Vdc output, 400 mA, stripped leads, CE
TX4-100194 conductor shielded transmitter cable, 30 m (100')
CAL-3-HU 84 NIST-traceable calibration

Comes with mating connector (models HX94AC and HX94AV only), removable protective sensor filter, removable duct flange, wall mounting bracket, and operator's manual. **Ordering Example: HX94AC,** duct mount RH/temperature transmitter with 4 to 20 mA output, **£178.** 

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