

# Relative Humidity Transmitter

## Wall, Duct Mount, and Remote Probe Models

### HX92A



- ✓ 4 to 20 mA or 0 to 1 V Output
- ✓ Compact Size for Mounting Versatility
- ✓ Watertight Enclosure
- ✓ Accurate to 2.5% RH

The HX92A is an economical humidity transmitter, providing on-site continuous monitoring of relative humidity. It is available with either voltage or 2-wire current output. The transmitter output is linearized, and RH readings are temperature compensated. A thin-film polymer capacitor senses relative humidity. The sensor is protected by a stainless mesh-type filter that is easily removable for cleaning. The case has weathertight protection, and screws are provided for mounting the unit via internal holes. An unusually low minimum voltage of 6V allows the use of large impedances for longer wire runs. The HX93A is a similar unit that provides transmitter outputs for both humidity and temperature.

### Specifications

#### Input Voltage Range:

24 Vdc nominal (6 to 30 Vdc)

**Measuring Range RH:** 3 to 95%

#### Temperature:

-20 to 75°C (-4 to 167°F)



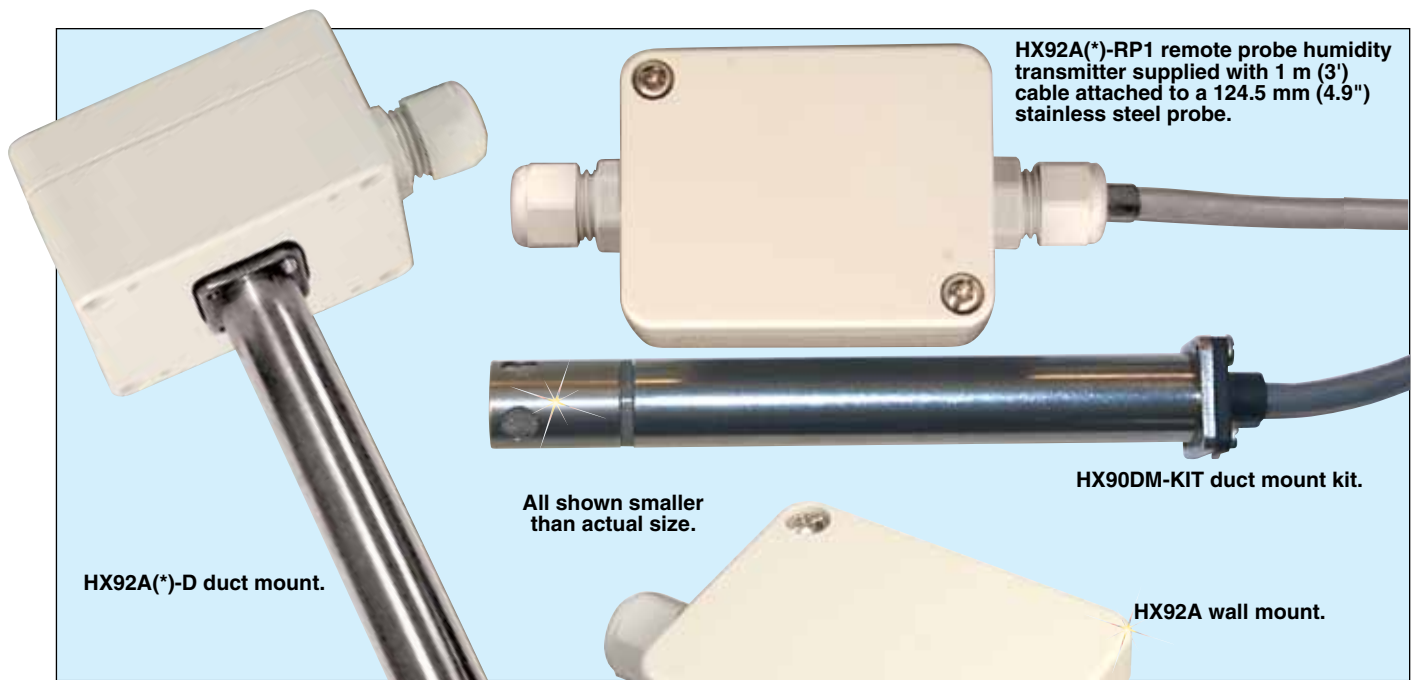
### Relative Humidity Control System

The HX92A and HX92A(\*)-D Series interface directly with OMEGA's iSeries meters and controllers to create a complete relative humidity control system.

iSeries meters and controllers feature totally programmable color displays and embedded internet connectivity. See Section "M" for meters and "P" for controllers.



DPI32 1/2 DIN temperature/process meter shown actual size.



**Accuracy RH:**

±2.5% RH from 20 to 80% RH;  
 ±3.1% RH below 20 and above 80% RH @ 25°C with temp coefficient of ±0.1% RH/°F

**Output**

**HX92AC:** 4 to 20 mA for 0 to 100% RH

**HX92AV:** 0 to 1 Vdc for 0 to 100% RH

**RH Temperature Compensation:**

-20 to 75°C (-4 to 167°F)

**RH Time Constant**

(90% Response at 25°C, in Moving Air at 1m/s):

>10 seconds, 10 to 90% RH

>15 seconds, 90 to 10% RH

**Repeatability:** ±1% RH, 0.5°F

**Housing:** Polycarbonate plastic watertight enclosure; meets NEMA 4X specifications

**Connections:** Liquid-tight nylon with neoprene gland, for 2 to 7 mm (0.09 to 0.265") diameter cable; internal 4-pin terminal block accepts 14 to 22 gage wire

**Dimensions**

**HX92A(\*) and HX92A(\*)-D Enclosure:**

50 W x 65 L x 35 mm D  
 (1.97 x 2.56 x 1.38")

**HX92A(\*) Probe:** 15.9 D x 56 mm L  
 (0.625 x 2.2")

**HX92A(\*)-D Probe:** 15.9 D x 127 mm L  
 (0.625 x 5")

**Weight:**

**HX92A(\*):** 82 g (2.9 oz)

**HX92A(\*)-D:** 100 g (3.5 oz)

**To Order**

Model No.	Description
HX92A(*)	Wall mount relative humidity transmitter
HX92A(*)-D	Duct mount relative humidity transmitter (includes HX90DM-KIT)
HX92A(*)-RP1	Remote probe RH transmitter (includes HX90DM-KIT)
HX92-CAL	Calibration kit, 11 and 75% RH standards
PSR-24S	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
PSR-24L	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
PSR-24L-230	Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE
PSU-93	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
TX4-100	4-conductor shielded transmitter cable, 30 m (100')
CAL-3-HU	NIST-traceable calibration
HX90DM-KIT	Duct mounting kit (for HX92A(*)-D or HX92A(*)-RP1 only)

\* For 4 to 20 mA output, specify "C" or for 0 to 1 Vdc output specify "V".

**Ordering Example:** HX92AC, humidity transmitter with current output with HX92-CAL, calibration kit and PSU-93, power supply.