Temperature/Relative Humidity Transmitters
Wall, Duct Mount, and Remote Probe Models
With Optional Built-In Digital Display

HX93B Series

✅ 4 to 20 mA, 0 to 1 Vdc, 0 to 5 Vdc or 0 to 10 Vdc Outputs for Both Temperature and Relative Humidity

✅ Rugged Industrial Splashproof Enclosure NEMA 13 (IP54)

✅ Accurate to ±0.6°C (0 to 50°C) and ±2.5% (20 to 80% Relative Humidity)

✅ New Models with Built-In Digital Display to Indicate Temperature and Relative Humidity

✅ Duct Mount Kit Included with Duct Mount and Remote Probe Models

✅ Field Replaceable Temperature/Relative Humidity Probe (Except for Duct Mount Model)

The HX93B and HX93BD Series transmitters provide remote and on-site monitoring of temperature and relative humidity. Both series output a linearized current or voltage signal proportional to the temperature and relative humidity. Relative humidity output is temperature compensated. Current output models enable placing of the transmitter at a remote location virtually any distance away from the measuring device. The HX93BD models feature a built-in digital display that indicates both temperature and relative humidity simultaneously. All models use an accurate digital sensor. A stainless steel mesh type filter, easily removable for cleaning, protects the sensor. Mounting screws are easily accessible inside the rugged, polycarbonate enclosure which protects the electronics to NEMA 13 (IP54) specifications.

Specifications
Input Voltage Range:
30 Vdc maximum
HX93B Series: 9 to 30 Vdc
HX93BV2 Series: 12 to 30 Vdc

Measuring Range
Temperature:
Standard: -30 to 75°C (-22 to 167°F)
Special: -20 to 75°C (-4 to 167°F)
Relative Humidity: 0 to 100%

Relative Humidity Control System
The HX93B and HX93BD 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.

Accuracy
Temperature: ±0.6°C from 0 to 50°C (32 to 122°F); ±1.25°C from -30 to 0°C (-22 to 32°F) and 50 to 75°C (122 to 167°F)
Relative Humidity: ±2.5% from 20 to 80% RH; ±3.5% from 5 to 20% and 80 to 95% RH; ±4% from 0 to 5% and 95 to 100% RH
Output
HX93B or HX93BDC:
4 to 20 mA for 0 to 100% RH and -30 to 75°C (-22 to 167°F)
HX93BV0: 0 to 1 Vdc for 0 to 100% RH and -30 to 75°C (-22 to 167°F)
HX93BV1: 0 to 5 Vdc for 0 to 100% RH and -30 to 75°C (-22 to 167°F)
HX93BV2: 0 to 10 Vdc for 0 to 100% RH and -30 to 75°C (-22 to 167°F)

Relative Humidity Temperature Compensation: -30 to 75°C (-22 to 167°F)

Temperature Response Time:
5 seconds minimum, 30 seconds maximum

Relative Humidity Response Time:
8 second typical

Repeatability: ±0.1% RH,
±0.2°C (0.4°F)

Sample Rate: 1 sample every 4 seconds

Housing: Gray polycarbonate,
NEMA rated up to 13 (IP54)

Connections: Liquid-tight nylon with neoprene gland, for 2.50 to 8.00 mm (0.09 to 0.315") diameter cable; internal 6 position terminal block accepts 14 to 22 gauge wire

Dimensions:
HX93B(*) (without Probe):
80.01 L x 82.30 W x 55.63 D mm
(3.15 x 3.24 x 2.19")
HX93B(*)-D (with Probe):
80.01 L x 82.30 W x 183.13 D mm
(3.15 x 3.24 x 7.21")

TP-SP (Short Probe):
ø16 x 71.88 L mm (ø0.63 x 2.83")

Weight:
HX93B(*): 251 g (8.9 oz)
HX93B(*)-D: 256 g (9.0 oz)
HX93B(*)-RP1: 352 g (12.4 oz)

Display (HX93BD Series Only)
Indicators: Two 4 digit backlit LCD
Display Rate: 1 reading per second
Display Resolution:
Relative Humidity: 0.1% RH
Temperature: 0.1°C (0.1°F)

To Order

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<th>Model No.</th>
<th>Description</th>
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<tr>
<td>HX93B(*)</td>
<td>Wall mount temperature and relative humidity transmitter</td>
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<tr>
<td>HX93B(*)-D</td>
<td>Duct mount temperature and relative humidity transmitter</td>
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<tr>
<td>HX93B(*)-RP1</td>
<td>Remote probe temperature and relative humidity transmitter</td>
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<td>HX93BD(*)</td>
<td>Wall mount, digital display temperature and relative humidity transmitter/indicator</td>
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<tr>
<td>HX93BD(*)-D</td>
<td>Duct mount, digital display temperature and relative humidity transmitter/indicator</td>
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Accessories

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<td>TH-RP</td>
<td>Field replaceable remote probe with 3 m (10') cable and M12 connector</td>
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<tr>
<td>TH-SP</td>
<td>Field replaceable 71.88 L mm (2.83&quot;) short probe with M12 connector</td>
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<tr>
<td>HX92-CAL</td>
<td>Calibration kit, 11 and 75% relative humidity standards</td>
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<tr>
<td>PSR-24S</td>
<td>Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals UL</td>
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<td>PSR-24L</td>
<td>Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL</td>
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<tr>
<td>PSR-24L-230</td>
<td>Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE</td>
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<td>TX4-100</td>
<td>4-conductor shielded transmitter cable 30 m (100&quot;)</td>
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<td>CAL-3-HU</td>
<td>NIST traceable calibration</td>
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<td>IND-KIT</td>
<td>Spare duct mount kit for HX93B(<em>)-D, HX93B(</em>)-RP1, HX93BD(<em>)-D, HX93BD(</em>)-RP1</td>
</tr>
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</table>

Comes complete with quickstart manual.

* For 4 to 20 mA output specify “C”, for 0 to 1 Vdc output specify “V0”, for 0 to 5 Vdc output specify “V1”, and for 0 to 10 Vdc output specify “V2".