## Honeywell

# C7400A and C7400C Solid State Enthalpy Sensor

### **SPECIFICATION DATA**



## APPLICATION

The C7400A Solid State Enthalpy Sensor is used with the W7459 and W7212A Solid State Economizer Control Package with A,B,C and D set points. C7400C sensor is used with economizer logic modules W7212C with A, B, C, D, and E set points. It permits the use of outdoor air as the first stage of cooling in heating, ventilating and air conditioning (HVAC) systems.

## SPECIFICATIONS

Model: C7400A and C7400C Solid State Enthalpy Sensors

#### Output Signal:

4 to 20 mA current signal increases from 4 mA to 20 mA as enthalpy decreases.

**Operating Ambient Temperature Range:** -25°F to +125°F (-32°C to +52°C).

#### Shipping Temperature Range: -40°F to +150°F (-40°C to +66°C).

Maximum Power Consumption: 0.45 VA.

Supply Voltage: 18-24 Vdc.

#### **Electrical Connections:**

Two 1/4 in. (6 mm) quick connect terminals.

## **FEATURES**

- Senses and combines temperature and humidity of outdoor air.
- Long lasting solid state thermistor sensing element is accurate and stable over time.
- As enthalpy of outdoor air increases, the outdoor air damper closes to a preset minimum position.
- As enthalpy of outdoor air becomes low, the outdoor air damper opens to reduce the cooling load in the building.
- Maximum economizer savings is achieved when two C7400A Solid State Enthalpy Sensors are connected to one W7459 or W7212A Solid State Economizer Control for differential enthalpy changeover control.
- C7400C sensor is used with W7212C economizer logic modules with A, B, C, D, and E set points. Add a second C7400C sensor to the return air for differential enthalpy changeover control.
- Compact size and lightweight construction. Allows easy mounting in HVAC rooftop unit.
- Sensor is enclosed in a rugged, corrosion-resistant glass-fiber reinforced plastic duct-mount case.
- Provides a 4 to 20 mA output signal to the Economizer Control; setpoint is located on solid state economizer control.

#### Approvals:

Underwriters Laboratories Inc. Flammability Rating: UL94-5V.

Dimensions: See Fig. 1

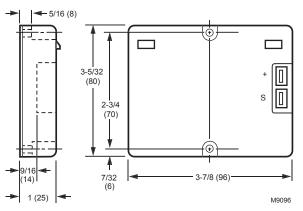


Fig. 1. Approximate dimensions of C7400 Solid State Enthalpy Sensor in inches (mm.)



C7400/W7459 or W7212A and C7400C/W7212C Performance Curves: See Fig. 2 and Fig. 3

NOTE: Curves illustrate reset in temperature control point due to changes in relative humidity.

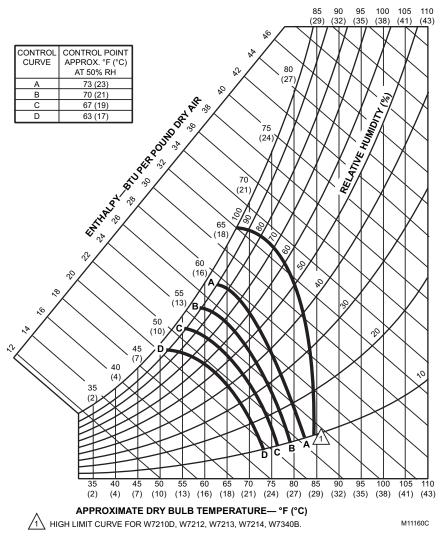


Fig. 2. W7459 and W7212A, W7213, W7214 performance characteristics for enthalpy changeover settings

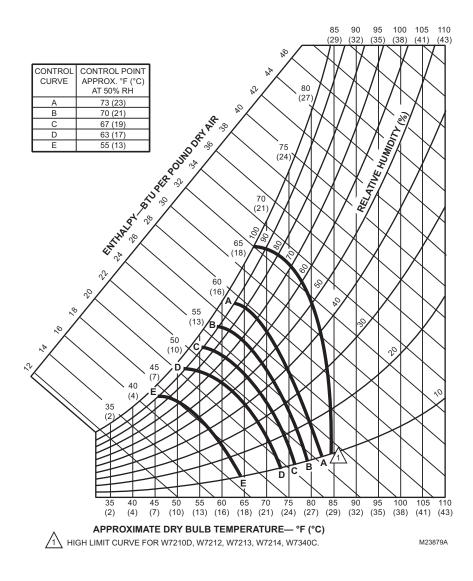


Fig. 3. W7212C performance characteristics for enthalpy changeover settings

#### **Automation and Control Solutions**

Honeywell International Inc. 1985 Douglas Drive North Golden Valley, MN 55422 customer.honeywell.com Honeywell Limited-Honeywell Limitée 35 Dynamic Drive Toronto, Ontario M1V 4Z9

® U.S. Registered Trademark
© 2009 Honeywell International Inc.
63-1143—02 E.K. 06-09

Printed in U.S.A. on recycled paper containing at least 10% post-consumer paper fibers.

