

CEP-4000 Series

VAV Flow Controller-Actuator

Descriptions and Applications

The CEP-4000 series is a pressure-independent combination controller-actuator designed primarily for use on variable air volume terminal units. Cooling and heating air flow is sensed by a temperature-compensated hot-wire anemometer. Velocity sensing is unaffected by changes in the duct air temperature.

The CEP-4000 series offers full-range flow control of VAV terminal units when used with the CTE-1000/1100/5000 series as well as the CTE-5202 room thermostats. Air-velocity flow control limits are set at the room thermostat or remotely with the REE-1012 remote-limits accessory module.

The actuator section provides a magnetic clutch that allows the actuator to be stalled at either end of stroke, eliminating the requirement for mechanical stops or end switches. It is available with (100°, 60°, and 45°) built-in stops or (360°) no stops.

Accessories |

Air Flow Sensors, Standard

SSE-1001/1002 4"/8" insertion (see Models chart) SSE-2001/2002 4"/8" insertion, with thermistor

Air Flow Sensors, Silicone Conformal Coated*

SSE-1011/1012 4"/8" insertion

SSE-2011/2012 4"/8" insertion, with thermistor

Thermostats

CEE-1100 Series Thermostats, remote

CTE-1000 Series Thermostats
CTE-1100 Series Thermostats
CTE-5000 Series Thermostats

CTE-5202 Thermostat with LCD display

Aux. Switches, Feedback, and Miscellaneous

CME-100x	Rotary cam auxiliary switches
CME-200x	Feedback potentiometers
HFO-0011	Mounting adaptor for 3/8" shaft
HPO-0062	Replacement motor/gearbox (for
	1 1 1 2 2 2 2 2 3

date codes after 9225)

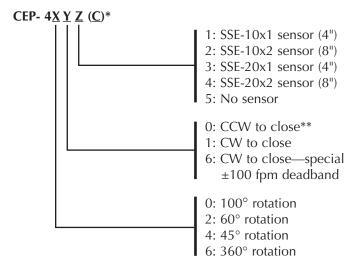
REE-10xx/400x Relay modules





Models

Use this chart to make your selection (but not all possible model configurations may still be available—check the **web site** for current information):

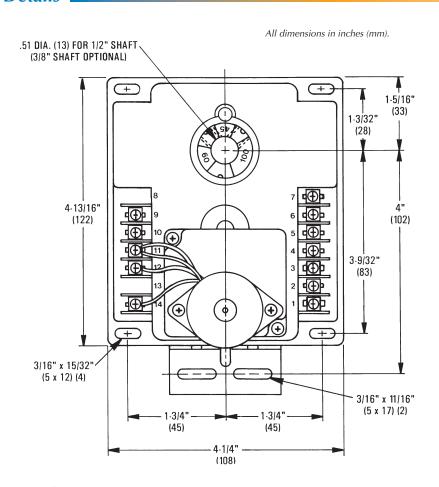


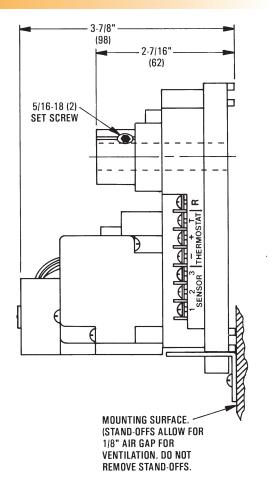
*NOTE: Model numbers with a "C" on the end come with a silicone conformal coated (SSE-xx1x) air sensor. (Not all possible model number configurations may be available. See the web site.)

**NOTE: The default rotation direction can easily be reversed by swapping the red and blue motor wires.

When replacing an older model, the CEP-4995 (100° rotation, CW to close, no sensor) is a "universal replacement" for most applications and will replace MOST CEP-1000/3000/4000 series controllers. If replacing a CEP-1000 or CEP-3000 series controller, the REE-1000 series relay may also need to be replaced with the equivalent REE-4000 series module. See the CEP-4000 Applications Guide for more information.

Details





Specifications

Supply Voltage 24 VAC –15/+20%, 50/60 Hz,

Class 2

Supply Power 9 VA

Output Supply 9.1 VDC (22 mA)

Output Torque 45 ±10 in-lbs. (5 ±1 N \bullet m)

Velocity Range 0–3000 fpm (15.24 m/s)

Velocity Deadband ±50 fpm

 Velocity Output
 1–5 VDC (0–3000 fpm)

 Reset Voltage
 3–6 VDC (0–3000 fpm)

 Angular Rotation
 45°, 60°, 100°, 360°

Stroke Time 18° per minute @ 60 Hz,

15° per minute @ 50 Hz

Mounting Direct to 1/2" (13 mm)

diameter shaft or with an HFO-0011 adaptor to 3/8" (10

mm) diameter shaft

MaterialGlass-filled nylonWeight1.75 lb. (0.79 kg)

Connections Plated screw terminals

Temperature Limits

Operating 40° to 120° F (4° to 49° C) Shipping -40° to 140° F (-40° to 60° C)

More Information

For installation instructions, see the CEP-4000 Installation Guide.

For principles of operation, troubleshooting, calibration procedures, and sample applications, see the CEP-4000 Applications Guide and the CTE-5202 Applications Guide.

KMC Controls, Inc.

19476 Industrial Drive New Paris, IN 46553 574.831.5250

www.kmccontrols.com; info@kmccontrols.com

© 2012 KMC Controls, Inc. 842-035-01F