

PNEUMATICS & FITTINGS

KMC PNEUMATIC VAV CONTROLS CSC SERIES



DESCRIPTION

The **KMC Controls CSC-2000 Series** pneumatic VAV controls are designed for use on VAV terminal units in HVAC systems. These are differential-pressure, sub-master controllers with adjustable minimum and maximum airflow settings. A master controller, typically a room thermostat, resets the **CSC-2000** velocity setpoint. Direct acting models are for normally open VAV terminal units. Reverse acting are for normal closed VAV terminal units. Each is equipped with separate adjustment knobs for minimum and maximum airflow settings. All models should be calibrated with the use of airflow measuring equipment.



CSC-2000 Beige
NO Molded



CSC-2000 Beige
NO with Dial



CSC-2000 Gray
NC Molded



CSC-2000 Gray
NC with Dial

FEATURES

- *Separate adjustments for minimum and maximum airflow settings*
- *CSC-2001/2003/2007/2009/2017 are designed for normally open dampers with direct-acting thermostats for cooling and reverse-acting thermostats for heating*
- *CSC-2002/2004/2008/2010/2018 are designed for normally closed dampers with reverse-acting thermostats for cooling and direct-acting thermostats for heating*
- *CSC-2001/2002 are equipped with 0 to 10 molded plastic reference dials; others have blind adjustments*

SPECIFICATIONS

Output Sensitivity	0 to 1" range unit, 5 psig/0.02" WC (35 kPa/5 Pa) 0 to 2" range units, 5 psig/0.04" WC (35 kPa/10 Pa)
Main Air Pressure	15 to 30 psig (103 to 207 kPa)
Max. Signal Pressure	6" wc (1493 Pa) applied to either port (X or Y)
Material	ABS (beige or gray)
Output Capability	0 to supply pressure
Weight	0.47 lb (0.21 Kg)
Temperature Limits	
Operating	40° to 120°F (4° to 49°C)
Shipping	-40° to 140°F (-40° to 60°C)

MOUNTING POSITION

The controllers are position sensitive. The min. and max. flow limits must be set (calibrated) in the same position the controller will be mounted. The **CSC-2001/2002** (with molded plastic dials) must be mounted horizontally with dials facing up. The **CSC-2003** through **CSC-2018** may be mounted horizontally (preferred), with the adjustment knobs up or down, or mounted vertically.



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MODELS

The tables below illustrate the appropriate model for each application. If replacing a CSC-2001-22 or CSC-2002-22 (now obsolete), use the CSC-2001, CSC-2002, CSC-2003, or CSC-2004 and mount appropriately.

DIRECT ACTING (BEIGE CONTROLLERS) FOR NORMALLY OPEN DAMPERS

Model	Thermostat Required		Setpoint Range		Reset Pressure Band	Air Consumption	0-10 Molded Plastic Dial
	For Cooling	For Heating	Minimum	Maximum			
CSC-2001	Direct Acting	Reverse Acting	0 to 1.0" wc (249 Pa)	Min. plus 1.0" wc (249 Pa)	8 ±0.5 to 13 psig (55 ±3.5 to 90 kPa)	14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	Yes
CSC-2003						14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	No molded plastic dial— has paper label instead
CSC-2007			11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)				
CSC-2009			14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)				
CSC-2017			11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)				
			0 to 2.0" wc (498 Pa)	Min. plus 2.0" wc (498 Pa)			

REVERSE ACTING (GRAY CONTROLLERS) FOR NORMALLY CLOSED DAMPERS

Model	Thermostat Required		Setpoint Range		Reset Pressure Band	Air Consumption	0-10 Molded Plastic Dial
	For Cooling	For Heating	Minimum	Maximum			
CSC-2002	Reverse Acting	Direct Acting	0 to Max	0 to 1.0" wc (249 Pa)	3 ±0.5 to 8 psig (21 ±3.5 to 55 kPa)	14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	Yes
CSC-2004						14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	No molded plastic dial— has paper label instead
CSC-2008			11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)				
CSC-2010			14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)				
CSC-2018			11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)				
			0 to Max	0 to 2.0" wc (498 Pa)			

Specifications and design subject to change without notice.

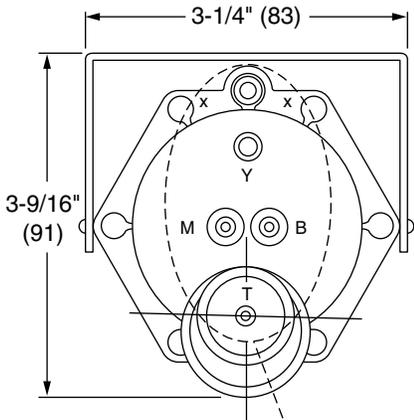
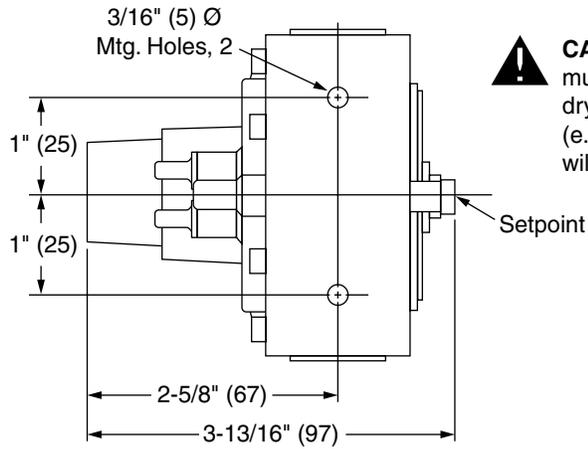
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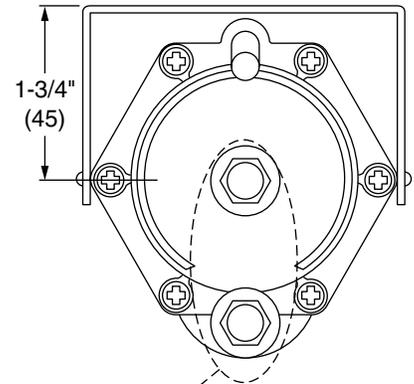
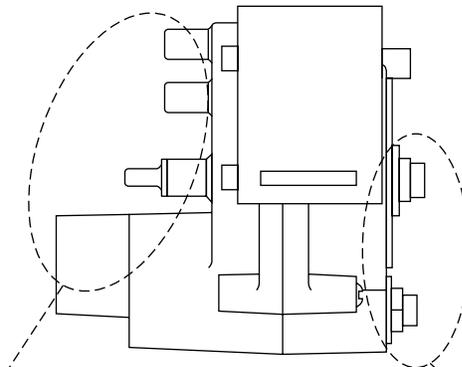


DIMENSIONS

in
(mm)



Connections



Adjustments



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ORDERING INFORMATION

MODEL	DESCRIPTION
CSC-2001	VAV Controller direct acting normally open 0-1" WC beige with molded dial
CSC-2002	VAV Controller reverse acting normally closed 0-1" WC gray with molded dial
CSC-2003	VAV Controller direct acting normally open 0-1" WC beige
CSC-2004	VAV Controller reverse acting normally closed 0-1" WC gray
CSC-2007	VAV Controller direct acting normally open 0-1" WC beige low consumption
CSC-2008	VAV Controller reverse acting normally closed 0-1" WC gray low consumption
CSC-2009	VAV Controller direct acting normally open 0-2" WC beige
CSC-2010	VAV Controller reverse acting normally closed 0-2" WC gray
CSC-2017	VAV Controller direct acting normally open 0-2" WC beige low consumption
CSC-2018	VAV Controller reverse acting normally closed 0-2" WC gray low consumption
CSC-3011-10	VAV Controller universal 0-1" WC with 8psi start
CSC-3025-10	VAV Controller universal 0-2" WC with 8psi start high flow

ACCESSORIES

FILN-05	In-line filter with straight fitting
HMO-4505	Mounting bracket
PG-05	0-30 PJIG GUAGE
SSS-100x	SSS-1000 series flow sensors

REPLACEMENT CROSS REFERENCE - VAV RESET VOLUME CONTROLLERS

Model	Robertshaw	Kreuter	Staefa	Titus, Honeywell, Johnson, Barber-Colman	
CSC-2001	R77-21, R77-L21	CSC-2001, CSC-2011	VCV2100-201, -251 VCV2200-251	Titus I (Typically Robertshaw R77 Series or Kreuter CSC-2000 Series controller. If complete Robertshaw or Kreuter part number is shown on the Titus controller, use Cross Reference at left to select Oynacon replacement. If Robertshaw or Kreuter number is not available, replace with Oynacon CSC-3011 Universal Flow Controller.)	
CSC-2002	R77-22, R77-L22	CSC-2002, CSC-2012			
CSC-2003	R77-23, R77-L23, R77-23DA	CSC-2003, CSC-2013			
CSC-2004	R77-24, R77-L24, R77-24RA	CSC-2004, CSC-2014			
CSC-2007	R77-25	CSC-2007			
CSC-2008	R77-26	CSC-2008			
CSC-2009	R77-27	CSC-2009, CSC-2015			
CSC-2010	R77-28	CSC-2010, CSC-2016			
CSC-3011 Universal Controller	R78 Series (all models)	CSC-3004 CSC-3011 CSC-3017 CSC-3021 CSC-3023	VCV2500-101 [a] VCV2500-201 [a] VCV2500-301 [a] VCV2500-401 [a] VCV2100 (all models) VCV2200 (all models)		Titus I, Titus II, Titus IIA, Titus III Johnson P-3800-1, P-3800-2 [a] Honeywell CP980C, D, E & F [b] Barber-Colman PPR-9100 and HYUR-2700 Series (all models)
	R77 Series (all models)	CSC-2000 Series (all models) [a]			
CSC-3016		CSC-3016, CSC-3020, CSC-3026			
CSC-3025 Universal Controller for Trane Boxes		CSC-3025 CSC-2017 CSC-2018	VCV2500-101 VCV2500-201 VCV2500-301 VCV2500-401 (on TRANE VAV Units)	Johnson P-3800-1, P-3800-2 (on TRANE VAV Units)	

[a] When applied on VAV terminal units manufactured by The Trane Company, Dynacon CSC -3025 flow controller should be used.

[b] For Honeywell CP980 Velocitrol controllers, existing inlet sensor must be replaced with Dynacon SSS-1000 series sensor.