



Pneumatic Receiver-Controllers and Modular Controllers

Johnson Controls—38Y191 directly controls dampers, valves, and other devices in a pneumatic transmission system from a remote transmitter. 20RG02 is a pressure independent submaster device for regulating air flow in VAV boxes. 20RG03 controls the output volume in response to a reset signal from a thermostat or other master controller.

KMC—For use with pressure switches, receiver gauges, relays, and temperature transmitters to control valves and actuators, including low-limit applications.

Siemens—Use to control temperature, humidity, and pressure of mechanical equipment in commercial buildings. Feature internal restrictors for transmitter inputs and plug-in air connectors. Setpoint can be reset.

Honeywell—Use with remote sensors to provide proportional (P) or proportional plus integral (P+I) control of temperature, humidity, pressure, or dew point.



Type	H (in.)	W (in.)	D (in.)	Air Input Range (psi)	Gauge	Reset Capability	Output	Control Type	Brand	Mfr. Model	Item No.
Receiver Controller											
Dual Input	5 in	5 in	5 in	18 to 22	Yes	—	3 to 15	Proportional	Johnson Controls	T-5800-3	38Y193
Dual Input w/Remote Set Point Adjustment, High Main Valve Capacity	5 1/4 in	4 3/4 in	2 3/4 in	3 to 30	Optional	Yes	3 to 15 psig	Field Selectable	KMC Controls	CCC-1002	4DED4
Multiple Inputs	5 1/4 in	6 3/4 in	3 1/2 in	3 to 15	Yes	Yes	0 to 22	Input #1 DA, Input #2 RA, Input #3 Reset	Siemens	195-0003	4E685
	5 in	5 in	5 in	18 to 22	Yes	—	3 to 15	Proportional	Johnson Controls	T-5800-1	38Y192
	5 1/4 in	6 3/4 in	3 1/2 in	3 to 15	No	No	0 to 22	Input #1 DA, Input #2 RA	Siemens	195-0011	4E686
	8 in	4 in	3 in	18 to 22	Yes	—	3 to 15	Proportional	Johnson Controls	T-5312-1	38Y191
Single Input	8 in	4 in	3 in	18 to 22	Yes	—	3 to 15	Proportional	Johnson Controls	T-8000-1	38Y194
	8 in	4 in	3 in	18 to 22	Yes	—	3 to 15	Proportional	Johnson Controls	T-8000-3	38Y195
	8 in	4 in	3 in	18 to 22	Yes	—	3 to 15	Proportional	Johnson Controls	T-8000-3	38Y195
Modular Controller											
Dual Input	5 1/4 in	3 1/4 in	3 3/4 in	3 to 15	—	—	3 to 13	Field Selectable	Honeywell	RP920B1031	279A05
Single Input	5 1/4 in	1 1/4 in	3 3/4 in	3 to 15	—	—	3 to 13	Field Selectable	Honeywell	RP920A1033	30C58
Reset Volume Controllers											
Description				Setpoint Range Max. (in. WC)	Setpoint Range Min. (in. WC)	Main Air Pressure (psig)	Reset Pressure Band	Brand	Mfr. Model	Item No.	
NO, Cooling: DADR, Heating: DARR				0.15 to 3.2	0 to 1.6	13 to 25 psig	3 to 10 psig	Johnson Controls	P-3800-1	20RG02	
NC, Cooling: RARR, Heating: RADR				0.15 to 2.5	0 to 0.9				P-3800-2	20RG03	
NO, Cooling: DARR, Heating: DADR											
NC, Cooling: RADR, Heating: RARR											

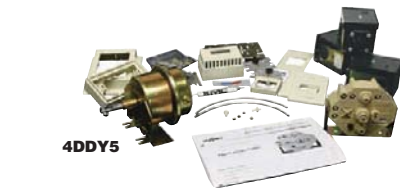
Pneumatic Solenoid Air Valves

■ 3-way

Series V11 models can be mounted in any position and are for use in applications where the operation of a pneumatically-operated device is dependent upon an electrical circuit.



Item	Contact Action	Control Air Pressure	Air Connec.	Voltage	Mfr. Model	Item No.
Air Switching Valve	NO / NC	11 to 15 psi	1/4 in Barb	—	V-6135-2	38Y207
		15 to 19 psi	1/4 in Barb	—	V-6135-3	38Y208
		2 to 4 psi	1/4 in Barb	—	V-6135-1	38Y206
		—	1/2 in NPT	120V AC	V-2410-2	38Y204
Solenoid Air Valve	0 to 25 psi	—	1/4 in Barb	120V AC	V11HAA-100	38Y197
		—	1/4 in Barb	120/240V AC	V11HAA-115	38Y198
		—	1/4 in Barb	220/240V AC	V11HBA-100	38Y199
		—	1/4 in Barb	208V AC	V11HCA-100	38Y201
		—	1/4 in Barb	440/480V AC	V11HDA-100	38Y202
		—	1/4 in Barb	277V AC	V11HFA-100	20RG21
Safety Relief Pilot Valve	NO	1 to 20 psi	1/4 in Barb	24V AC	V11HGA-100	13F615
				—	V-6040-1	38Y205



Variable Air Volume (VAV) Control Kits

Contain all components necessary for field replacement of pneumatic controls for each indicated application. For kit contents go to Grainger.com®.

Application	Mfr. Model	Item No.
Cooling Only	KIT-1001	4DDY4
Fan Power and Electric Reheat	KIT-1002	4DDY5
Fan Power and Hot Water Reheat Up to 22.5K BtuH	KIT-1003	4DDY6
Fan Power with Hot Water Reheat Up to 55K BtuH	KIT-1004	4DDY7



Variable Air Volume (VAV) Controller Submasters and Sensors

SUBMASTERS

- Main air pressure: 15 to 30 psig
- Output sensitivity: 5 psi/0.02" WC
- Setpoint range min.: 0" WC
- Adjustable min./max. velocity limits
- Push-on fittings for 1/4" O.D. tubing
- Mounting bracket included

CSC-2000 Series—Designed for use on VAV terminal units in HVAC systems. 4DDZ2 has a 0 to 10 molded plastic reference dial.

CSC-3000 Series—Universal replacement for more than 85% of OEM-supplied direct- and reverse-acting pneumatic VAV volume-reset controllers shipped since 1980. Reset start point factory set at 8 psig for 4DDZ8 and 4DDZ9; 3 psig for 4DEA1; and 10 psig for 4DEA2.

DIFFERENTIAL PRESSURE FLOW SENSORS

- 1/2" exterior length
- 1/4" push-on nipple

For use with VAV controllers and 3/8" O.D. polyethylene tubing. Easily installed through 7/8" dia. hole in duct.

Control Type	Thermostat Required for		Setpoint Range (in. wc)		Reset Pressure Band	Air Consumption	Mfr. Model	Item No.
	Cooling	Heating	Min.	Max.				
Submasters								
DA	DA	RA	0 to 1	Min + 1	8 ±0.5 to 13 psig	14.4 SCIM at 20 psig	CSC-2001	4DDZ2
DA	DA	RA	0 to 1	Min + 1	8 ±0.5 to 13 psig	14.4 SCIM at 20 psig	CSC-2003	4DDZ3
RA	RA	DA	0 to 1	0 to 1	3 ±0.5 to 8 psig	14.4 SCIM at 20 psig	CSC-2004	4DDZ4
DA	DA	RA	0 to 1	Min + 1	8 ±0.5 to 13 psig	11.5 SCIM at 20 psig	CSC-2007	4DDZ5
RA	RA	DA	0 to 1	0 to 1	3 ±0.5 to 8 psig	11.5 SCIM at 20 psig	CSC-2008	4DDZ6
DA	DA	RA	0 to 2	Min + 2	8 ±0.5 to 13 psig	14.4 SCIM at 20 psig	CSC-2009	4DDZ7
DA/RA	DA/RA	DA/RA	0 to 1	Min to 1	0 to 10 psig	28.8 SCIM at 20 psig	CSC-3011-10	4DDZ8
DA/RA	DA/RA	DA/RA	0 to 2	Min to 2	0 to 10 psig	46.1 SCIM at 20 psig	CSC-3025-10	4DDZ9
DA/RA	DA/RA	DA/RA	0 to 1	Min to 1	0 to 10 psig	28.8 SCIM at 20 psig	CSC-3021-10	4DEA1
DA/RA	DA/RA	DA/RA	0 to 1	Min to 1	0 to 10 psig	28.8 SCIM at 20 psig	CSC-3023-10	4DEA2

Type	Insertion Length (in.)	Overall Length (in.)	Mounting Flange	Mounting Hole Center to Center (in.)	Mfr. Model	Item No.
Differential Pressure Flow Sensors, 1/4 in Thick Foam Gasket Included						
1 Sensing Point	3 3/4 in	4 in	3 1/2 x 1 1/4 in	2 3/4 in	SSS-1002	4DEA3
2 Sensing Points	5 1/4 in	6 in	4 1/2 x 1 1/4 in	3 3/4 in	SSS-1003	4DEA4
3 Sensing Points	7 1/4 in	8 in	5 1/2 x 1 1/4 in	4 3/4 in	SSS-1004	4DEA5
4 Sensing Points	9 1/4 in	10 in	6 1/2 x 1 1/4 in	5 3/4 in	SSS-1005	4DEA6
Sensor Kit						
VAV Control Sensor Kit, Includes One 3/32" L (80 mm) sensor, 1 Sensing Point (SSS-1002), One 5/16" L (137 mm) Sensor, 2 Sensing Points (SSS-1003), One 7/16" L (195 mm) Sensor, 3 Sensing Points (SSS-1004), One 9/16" L (252 mm) Sensor, 4 Sensing Points (SSS-1005) Installation Guide					KIT-1005	4DDY8