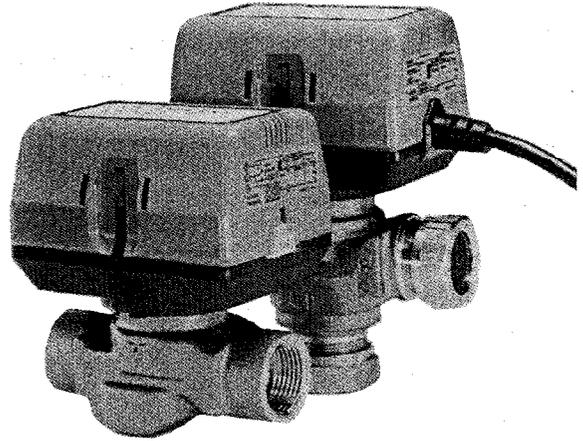


VC Series Modulating Control Valves

The VC Series Modulating Control Valves provide maximum control of hot and/or chilled water flow in various heating and cooling applications.

The VC hydronic valve consists of a valve body and replaceable characterized cartridge assembly. When used with a Honeywell VC actuator, the valve provides linear flow in either diverting or mixing applications. They are designed to provide sinusoidal valve actuator travel, and therefore operate silently and resist water hammer.

The VC series valve actuator is used with either a single pole double throw two-position controller, or a floating controller. These actuators have conformal coated printed circuit boards for humidity resistance. Through internal logic the actuator only takes power while driving the valve to the commanded position.



Specifications

Actuator

Voltage:

24V, 50-60Hz

Power Consumption:

6 Watts Max. at nominal voltages (during valve position change). Provide 6 VA for transformer and connection wire sizing. Maximum duty cycle 15%.

End Switch Rating:

2.2 A inductive from 5 to 120 Vac.

1.0 A inductive above 120 to 277 Vac.

Min. DC switching capability: 0.05 A @ 24 Vdc

Nominal Timing:

120 seconds @ 60Hz (note - timing approximately 20% longer @ 50Hz)

Electrical Termination: 2 Versions Available;

1) Molex (header #39-30-1060). Requires mating connector (receptacle/housing #39-30-2060). OR

2) with integral 1 meter (nominal 30") leadwire cable

Operating Ambient Temperature:

0 to 65 degrees C (32 to 150 degrees F)

Shipping and Storage Temperature

-40 to +65 degrees C (-40 to 150 degrees F)

Valve

Atmosphere:

non-corrosive, non-explosive

Minimum & Maximum fluid temperatures:

1 to 95 degrees C (34 to 203 degrees F)

Operating Pressure Differential:

Maximum - 4 bar (60 psi)

Pressure Rating: Static - 20 Bar (300 psi)

Burst - 100 Bar (1500 psi)

Valve Material: Body of bronze; cartridge of Ryton

(polyphenylene sulphide) and Noryl (polyphenylene oxide);

O-ring seals of EPDM Rubber; stainless steel stem.

Stem Travel: 10 mm (0.4 inches)

Flow Characteristics: Linear

Operations

WITH SERIES 66 FLOATING CONTROLLER:

(refer to figure 1)

The series 60 floating controller is a SPDT controller with a center-off (floating) position. On a change in temperature from the set point, the controller will close the NO or NC contacts driving the valve to an intermediate position until a further change at the controller. The valve is set between the limits of the controller to satisfy various load requirements.

On a power failure, the valve will stay at whatever position it was in when the power was interrupted. When power is restored, the valve will respond to the controller demand.

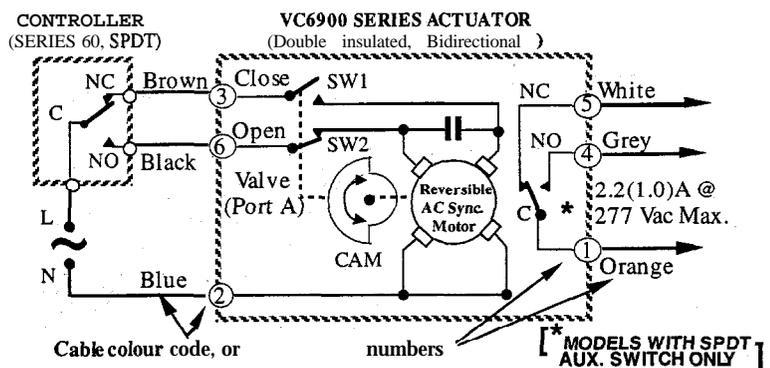


Figure 1

VC6800/VC6900 Series

3 Wire, Bi-directional, Series 60 Actuator

Model Series	Voltage (50\60 Hz)	Auxiliary Switch	Nominal full open Time (@ 60 Hz)	Type of Electrical Connection
VC6830	24 Vac	SPDT	120 Seconds	Molex
VC6831				1 meter cable
VC6930	24 Vac		120Seconds	Molex
VC6931				1 meter cable

Note - timing is approximately 20% longer @ 50 Hz

VC Series

Balanced Hydronic Valves with Characterized Flow

2-Way Valves			3-Way Valves	
Valve Number	Cv Rating	Body Fitting	Valve Number	CV Rating
AA11xx	3.2	1/2" Sweat	MA61xx	3.8
AC11xx	2.1	3/8" Flare	MB61xx	2.7
AD1 lxx	3.1	1/2" Flare	MC61xx	3.8
AE1 lxx	3.2	1/2" Inv. Flare	MD61xx	4.2
AF1 lxx	3.0	1/2" BSPP/15mm int	ME61xx	3.7
AB11xx	3.4	1/2" BSPT int	MN61xx	3.8
AM11xx	4.6	3/4" Sweat	ML61xx	5.9
AH11xx	5.2	3/4" BSPP ext	MG61xx	6.7
AJ1 lxx	5.2	3/4" BSPP int	MH61xx	6.9
AK1 lxx	4.7	3/4" BSPT int	MJ61xx	6.2
AL1 lxx	4.7	3/4" NPT int	MK61xx	6.6
AG1 lxx	5.4	22mm Compression*	MF61xx	6.9
AP1 lxx	6.6	1" BSPP int	MP61xx	7.5
AQ1 lxx	6.2	1" BSPP ext	MQ61xx	7.9
AS11xx	6.2	1" Sweat	MS61xx	6.6
AR1 lxx	6.6	1" NPT int	MR61xx	8.6
AT1 lxx	6.6	1" BSPT int	MT61xx	8.1
AN1 lxx	6.3	28mm Compression*	MM61xx	7.5

* - Includes compression nuts and olives

xx - Varies depending on ordering specifications.

For further ordering information, please see your local Honeywell sales representative.

Ordering Example

Complete device, unit packed VC6931MA6111**

Actuator only, unit packed VC6931ZZ11**

Body only, unit packed VCZMA6100

** "11" denotes actuator with conformal coated printed circuit board.

Honeywell