V4044C, V4044F
Motorized Zone Valves
3-PORT HYDRONIC VALVES

PRODUCT DATA

Design
V4044C and V4044F zone valves consist of:
• 3-way valve housing with BSPP internal threads
• Control ball assembly
• Actuator assembly with cable
• V4044F1000 with SPDT end switch
• V4044F1034 with SPST end switch

Materials
• Valve housing made of forged brass
• Spindle shaft made of brass
• O-ring seals made of EPDM rubber
• Ball plug made of NBR rubber
• Actuator cover and base made of zinc-plated steel

Application
Honeywell V4044C and F 3-port hydronic valves are used in domestic and small commercial heating and cooling applications to control the flow of hot or cold water.
They are designed for on-off zone control of domestic systems and can be used to control individual fan coil, radiator, space heater or convector applications. They can be controlled by a line voltage SPST controller such as a room thermostat, aquastat or flow switch.
The actuator head is removable without affecting the integrity of the water system.

Features
• Rugged design
• Control by a line voltage SPST controller
• Actuator head installation does not require draining of the system
• High flow rate capacity
• Indifferent to dirt in system

Specifications
Medium
Water or water-glycol mixture (max. 50% glycol content), quality to VDI 2035
pH-value
8…9,5
Operating temperature
5…88°C (41…190°F)
Operating pressure
max. 8.6bar (125psi) static
Differential pressure
see chapter “Dimensions” below
kvs (cvs)-value
see chapter “Dimensions” below
Flow
AB → A or B
Starting position
port A normally closed
Voltage
220-240V, 50Hz
Power consumption
6W / 0.042A
Auxiliary switch rating
2.2A at 230Vac, 50Hz
Nominal timing
On: 30 seconds under power
Off: 12 seconds under spring return
Protection class
IP20
Electrical termination
Flying lead, heat resistant cable
Shipping temperature
-40…65°C (-40…149°F)
Humidity rating
5…95% r.h. (non-condensing)
Atmosphere
non-corrosive, non-explosive
Function

V4044C and V4044F 2-position hydronic valves are used in domestic and small commercial applications to control the flow of hot or cold water. They consist of an actuator and a valve. With the manual opener set to AUTO and the actuator energized, port A of the valve is opened and port B is closed. When the actuator is de-energized, a spring-return mechanism drives the ball to close port A, opening port B. Port A can also be opened with no electrical power by moving the manual opening lever over the stop and pushing slowly and firmly to the MAN. OPEN position. The stop permits the valve to be locked with port A in the open position. The valve returns to the automatic position when the valve is energized.

A power failure will leave the valve at the spring-returned position. When power is restored, the valve will respond to controller demand.

Wiring

Table 1. Cable colour coding

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
<td>d</td>
<td>e</td>
<td>h</td>
</tr>
<tr>
<td>brown</td>
<td>blue</td>
<td>green/yellow</td>
<td>orange</td>
<td>grey</td>
<td>white</td>
</tr>
</tbody>
</table>

NOTE: The V4044C has no end switch. It is equipped with a 3 wire cable (line, neutral, earth)

The V4044F1034 has an SPST end switch. It is equipped with a 5-wire cable (line, neutral, earth, end switch). The end switch closes when the valve is in position AB – B

The V4044F1000 has an SPDT end switch. It is equipped with a 6-wire cable (line, neutral, earth, end switch NO, end switch NC)
Dimensions

![Fig. 6. V4044F 3-way zone valve](image)

<table>
<thead>
<tr>
<th>Body</th>
<th>k\textsubscript{vs}-value</th>
<th>max. close-off pressure</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>( R )</td>
</tr>
<tr>
<td>1/2&quot; BSPP (internal)</td>
<td>3.0</td>
<td>1.4bar</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>3/4&quot; BSPP (internal)</td>
<td>6.0</td>
<td>0.7bar</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>1&quot; BSPP (internal)</td>
<td>8.1</td>
<td>0.55bar</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

NOTE: All dimensions in mm unless stated otherwise.

Ordering Information

Table 3. Ordering information and OS-Nos. (OS = Ordering System)

<table>
<thead>
<tr>
<th>Order text</th>
<th>Size</th>
<th>End switch</th>
<th>Cable length</th>
<th>Packing unit</th>
<th>OS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V4044C motorized zone valve</td>
<td>1/2&quot;</td>
<td>—</td>
<td>1.0m</td>
<td>1 pc</td>
<td>V4044C1452/U</td>
</tr>
<tr>
<td></td>
<td>3/4&quot;</td>
<td>—</td>
<td>1.0m</td>
<td>1 pc</td>
<td>V4044C1460/U</td>
</tr>
<tr>
<td></td>
<td>1&quot;</td>
<td>—</td>
<td>1.0m</td>
<td>1 pc</td>
<td>V4044C1478/U</td>
</tr>
<tr>
<td>V4044F motorized zone valve with end switch</td>
<td>3/4&quot;</td>
<td>SPDT</td>
<td>1.0m</td>
<td>1 pc</td>
<td>V4044F1000/U</td>
</tr>
<tr>
<td></td>
<td>1&quot;</td>
<td>SPST</td>
<td>1.5m</td>
<td>1 pc</td>
<td>V4044F1034/U</td>
</tr>
<tr>
<td>V4044F motorized zone valve with end switch – bulk pack of 10</td>
<td>3/4&quot;</td>
<td>SPDT</td>
<td>1.0m</td>
<td>10 pcs</td>
<td>V4044F1000/B</td>
</tr>
<tr>
<td></td>
<td>1&quot;</td>
<td>SPST</td>
<td>1.5m</td>
<td>10 pcs</td>
<td>V4044F1034/B</td>
</tr>
</tbody>
</table>

NOTE: Valves in bulk packs are not packed individually. Only one installation and operating instruction is supplied with the bulk pack.

Service Parts

Replacement power head

For V4044C: 40003916-007
For V4044F1000: 40003916-010
For V4044F1034: 40003916-053