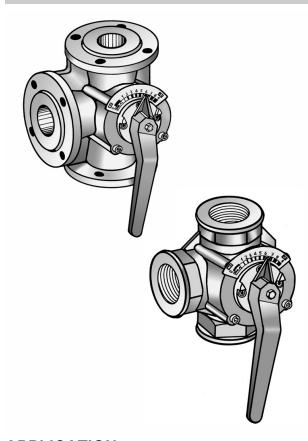


# V5431A/F

### 3-WAY ROTARY VALVES PN 6





#### **APPLICATION**

The V5431 A/F rotary valves provide water temperature control in heating and air conditioning applications.

These valves are designed for accurate mixing control of supply water temperature in heating and air conditioning systems.

Its sturdy construction ensures a long and reliable operating life when used in combination with M6061 actuators.

#### **FEATURES**

- Chrome-plated plug for long life.
- Optimized characteristic for supply water temperature control
- Protected against corrosion and blocking
- · Reliable mounting for electrical actuators
- Clear position indicator
- Wide range of flow rates with suitable actuators

#### **SPECIFICATIONS**

| Nominal static pressure         | 6 bar, 600 kPa   |
|---------------------------------|--|
| Maximum pressure drop           | depending on type (see section<br>"SPECIFICATION AND ORDER<br>NUMBER" on page 2)   |
| Leakage rate                    | 1% of k <sub>vs</sub>  |
| Ports                           | Internal threads / flange in<br>accordance with <u>DIN</u> EN 1092-2<br>depending on type (see section<br>"SPECIFICATION AND ORDER<br>NUMBER" on page 2) |
| Angle of rotation               | 90°  |
| Internal threads                | 8 windings long  |
| Packing                         | Double o-ring sealing  |
| Material body                   | Cast iron  |
| Material inner parts            | Chrome-plated cast iron  |
| Medium                          | Heating water according to VDI 2035 (oxygen concentration less than 0.2 g/m³, pH 89.5)   |
| Water temperatures in the valve | 2 to 130 °C, non-condensing  |
| Weight                          | depend on type (see sections "DIMENSIONS WITH V5431A (mm)" and "DIMENSIONS WITH V5431F (mm)" on page 3)  |
| Flow characteristic             | equal percentage   |

#### SPECIFICATION AND ORDER NUMBER

| DN  | kVS<br>[m³/h] | ∆p max<br>[kPa] | Nominal<br>torque [Nm] | OS no.<br>Internal Thread | OS no.<br>Flange | Torque [Nm]<br>for reduced Δp<br>(40 kPa) |
|-----|---------------|-----------------|------------------------|---------------------------|------------------|---|
| 15  | 4,0           | 100             | 10                     | V5431A1025                | -                | 10  |
| 20  | 6,3           | 100             | 10                     | V5431A1033                | V5431F1032       | 10  |
| 25  | 10            | 100             | 10                     | V5431A1041                | V5431F1040       | 10  |
| 32  | 16            | 100             | 10                     | V5431A1058                | V5431F1057       | 10  |
| 40  | 25            | 100             | 20                     | V5431A1066                | V5431F1065       | 10  |
| 50  | 40            | 100             | 20                     | -                         | V5431F1073       | 20  |
| 65  | 63            | 100             | 20                     | -                         | V5431F1081       | 20  |
| 80  | 100           | 100             | 30                     | -                         | V5431F1099       | 20  |
| 100 | 160           | 100             | 40                     | _                         | V5431F1107       | 30  |
| 125 | 250           | 70              | 40                     | _                         | V5431F1115       | 30  |
| 150 | 630           | 50              | 40                     | _                         | V5431F1123       | 40  |

### **SUITABLE ACTUATORS**

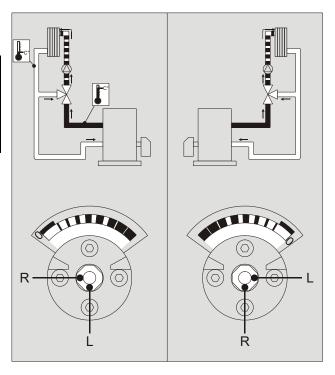
 $\begin{array}{l} \mbox{M6061A (24V; floating); M6061L (230V/240V; floating);} \\ \mbox{M7061E (0/2 to 10V modulating)} \end{array}$ 

| Torque [Nm] | OS no.<br>24 Vac floating | OS Number<br>230 Vac floating | OS no.<br>0/210 V |  |  |
|-------------|---------------------------|-------------------------------|-------------------|--|--|
| 10          | M6061A1013                | M6061L1019                    | M7061E1012        |  |  |
| 20          | M6061A1021                | M6061L1027                    | M7061E1020        |  |  |
| 30          | M6061A1039                | M6061L1035                    | _                 |  |  |
| 40          | M6061A1047                | M6061L1043                    | _                 |  |  |

#### **OPERATION**

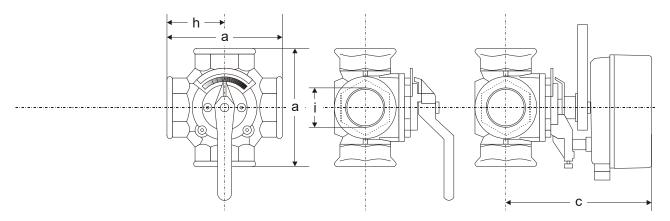
The valve controls a mixing water temperature with a rotating plug. The plug adjusts with two control curves the water flow of two inputs. The required flow water temperature is reached by adding a proportion of return water to the boiler hot water. For optimum control performance, the V5431 has special control characteristics.

#### **MOUNTING**



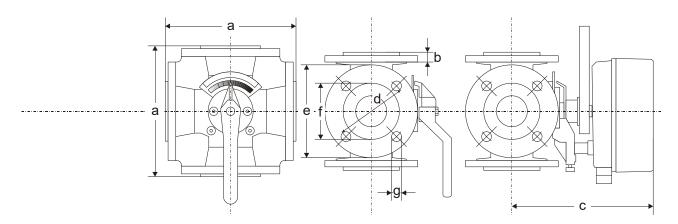
## **DIMENSIONS WITH V5431A (mm)**

| type       | DN | а   | С   | sw | h  | i         | net weight |
|------------|----|-----|-----|----|----|-----------|------------|
| V5431A1025 | 15 | 110 | 179 | 41 | 55 | R ½ in.   | 2.2 kg     |
| V5431A1033 | 20 | 110 | 179 | 46 | 55 | R ¾ in.   | 2.3 kg     |
| V5431A1041 | 25 | 115 | 179 | 50 | 58 | R 1 in.   | 2.4 kg     |
| V5431A1058 | 32 | 140 | 188 | 60 | 70 | R 1 ¼ in. | 4.1 kg     |
| V5431A1066 | 40 | 150 | 188 | 65 | 75 | R 1 ½ in. | 4.3 kg     |



## **DIMENSIONS WITH V5431F (mm)**

| type       | DN  | а   | b  | С   | d   | е   | f   | g    | h   | net weight |
|------------|-----|-----|----|-----|-----|-----|-----|------|-----|------------|
| V5431F1032 | 20  | 140 | 15 | 179 | 65  | 90  | 50  | 4x11 | 70  | 3.5 kg     |
| V5431F1040 | 25  | 150 | 15 | 179 | 75  | 100 | 60  | 4x11 | 75  | 4.0 kg     |
| V5431F1057 | 32  | 160 | 17 | 188 | 90  | 120 | 70  | 4x14 | 80  | 6.6 kg     |
| V5431F1065 | 40  | 170 | 16 | 188 | 100 | 130 | 80  | 4x14 | 85  | 7.1 kg     |
| V5431F1073 | 50  | 190 | 16 | 202 | 110 | 140 | 90  | 4x14 | 95  | 9.8 kg     |
| V5431F1081 | 65  | 210 | 16 | 219 | 130 | 160 | 110 | 4x14 | 105 | 12.3 kg    |
| V5431F1099 | 80  | 250 | 18 | 219 | 150 | 190 | 128 | 4x18 | 125 | 21.4 kg    |
| V5431F1107 | 100 | 270 | 18 | 240 | 170 | 210 | 148 | 4x18 | 135 | 26.5 kg    |
| V5431F1115 | 125 | 310 | 20 | 267 | 200 | 240 | 178 | 8x18 | 155 | 42.0 kg    |
| V5431F1123 | 150 | 330 | 20 | 274 | 225 | 265 | 202 | 8x18 | 165 | 49.0 kg    |



### Honeywell

Manufactured for and on behalf of the Connected Building Division of Honeywell Products and Solutions SARL, Z.A. La Pièce, 16, 1180 Rolle, Switzerland by its Authorized Representative:

#### **Home and Building Technologies**

Honeywell GmbH
Böblinger Strasse 17
71101 Schönaich, Germany
Phone +49 (0) 7031 637 01
Fax +49 (0) 7031 637 740
buildings.honeywell.com



www.instrumentteam.no

post@instrumentteam.no