DESCRIPTION

The Kele KZ Series Two-Position PopTop™ zone valves offer a wide range of models to handle chilled water, hot water, and 15 psig (103 kPa) steam applications. PopTop™ valves feature removable actuators to aid in both installation and service. They are available in 2-way and 3-way body patterns and with normally open or normally closed actuators.

FEATURES

• Two- or three-way mixing/diverting body patterns
• Removable and replaceable actuator
• NPT, sweat, or inverted flare connections
• 2-position spring return control

DIMENSIONS

<table>
<thead>
<tr>
<th>VALVE BODY SIZE</th>
<th>A (in)</th>
<th>B (cm)</th>
<th>C (in)</th>
<th>D (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; Sweat</td>
<td>1-5/16 (3.33)</td>
<td>7/8 (2.22)</td>
<td>1-5/16 (3.33)</td>
<td>3-5/16 (8.41)</td>
</tr>
<tr>
<td>3/4&quot; Sweat</td>
<td>1-3/8 (3.49)</td>
<td>7/8 (2.22)</td>
<td>1-11/16 (4.29)</td>
<td>3-3/8 (8.57)</td>
</tr>
<tr>
<td>1&quot; Sweat</td>
<td>1-11/16 (4.29)</td>
<td>7/8 (2.22)</td>
<td>1-11/16 (4.29)</td>
<td>3-5/8 (9.21)</td>
</tr>
<tr>
<td>1/2&quot; NPT</td>
<td>1-3/8 (3.49)</td>
<td>7/8 (2.22)</td>
<td>1-5/16 (3.33)</td>
<td>3-5/8 (9.21)</td>
</tr>
<tr>
<td>3/4&quot; NPT</td>
<td>1-11/16 (4.29)</td>
<td>7/8 (2.22)</td>
<td>1-7/16 (3.65)</td>
<td>3-5/8 (9.21)</td>
</tr>
<tr>
<td>1&quot; NPT</td>
<td>1-7/8 (4.76)</td>
<td>7/8 (2.22)</td>
<td>1-3/4 (4.45)</td>
<td>3-7/8 (9.84)</td>
</tr>
<tr>
<td>Inverted flare union</td>
<td>1-3/8 (3.49)</td>
<td>7/8 (2.22)</td>
<td>1-5/16 (3.33)</td>
<td>4-1/8 (10.48)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTUATOR</th>
<th>E (in)</th>
<th>F (in)</th>
<th>G (cm)</th>
<th>H (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG</td>
<td>2-3/8 (6.03)</td>
<td>3-11/16 (9.36)</td>
<td>2-3/8 (6.03)</td>
<td>1-1/4 (3.18)</td>
</tr>
<tr>
<td>AH</td>
<td>2-5/8 (6.67)</td>
<td>3-7/8 (9.44)</td>
<td>2-3/8 (6.03)</td>
<td>1-1/4 (3.18)</td>
</tr>
</tbody>
</table>

PIPING

Two-way Normally Closed Piping

Two-way Normally Open Piping

Three-Valve in Mixing Configuration

Three-Valve in Diverting Configuration

WIRING

Two-position snap acting thermostat SPST

AC Power

Heating or Cooling Valve

Two-position snap acting thermostat SPDT

AC Power

Heating and Cooling Valve

680-243 Changeover thermostat pipe-mounted

September 2016

CHECK OUT OUR GROWING SELECTION ON KELE.COM  kele.com  877-826-9037 USA
## CONTROL VALVES

### TWO-POSITION POPTOP™ ZONE VALVES

#### KZ SERIES

## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Size</th>
<th>1/2&quot;, 3/4&quot;, 1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cv Range</td>
<td>1.0 to 8.0</td>
</tr>
<tr>
<td>Connections</td>
<td>FNPT, Sweat, or inverted flare (3/4&quot; only)</td>
</tr>
<tr>
<td>Flow Characteristic</td>
<td>Quick Opening</td>
</tr>
<tr>
<td>Leakage Rating</td>
<td>ANSI Class IV (0.01% of rated capacity)</td>
</tr>
</tbody>
</table>

### Maximum Closeoff Pressure

<table>
<thead>
<tr>
<th>Cv</th>
<th>General Operation</th>
<th>High Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>psid (kPa)</td>
<td>psid (kPa)</td>
</tr>
<tr>
<td>1-1.5</td>
<td>60 (414)</td>
<td>75 (517)</td>
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<tr>
<td>2.5-3</td>
<td>40 (276)</td>
<td>50 (345)</td>
</tr>
<tr>
<td>3.5-4</td>
<td>25 (172)</td>
<td>30 (207)</td>
</tr>
<tr>
<td>5</td>
<td>20 (137)</td>
<td>25 (172)</td>
</tr>
<tr>
<td>7-8</td>
<td>17 (117)</td>
<td>20 (137)</td>
</tr>
</tbody>
</table>

### Maximum Pressure Rating

300 psig (2067 kPa)

### Materials Of Construction

Brass valve body and seat, nickel-plated stem, BUNA N paddle; stainless steel base plate and aluminum cover on actuator

### Media Compatibility

Hot or chilled water; 50% or less ethylene glycol; 15 psig steam

### Media Temperature Range

32° to 200°F (0° to 93°C) with KZG actuator; up to 250°F (121°C) with KZH actuator

### Supply Voltage

- 24 VAC ±10%; 120 VAC ±10%, 50/60 Hz
- 208-277V models also available

### Supply VA

7 VA

### Supply Watts

6.5 W

### Control Signal

Two-position, two-wire

### Wiring

18' (45.2 cm) leads

### Action

Two-way valves: N.O./N.C. determined by choice of actuator; three-way valves: N.C. actuator only

### Actuator Compatibility

KZG (general purpose) general closeoff (GCO) or KZH (high performance) high closeoff (HCO) type actuators only

### Actuator Mounting

Poptop®

### Auxiliary Contacts

N.O. contacts, 24-240 VAC, 101mA min to 5A max; 9-30 VDC @ 100 mA max

### Drive Time

25 seconds maximum @ 60 Hz

### Manual Override

N.C. actuators only

### Operating Temperature

KZG actuator: maximum ambient 104°F (40°C); KZH actuator: maximum ambient 169°F (77°C)

### Spring Return Time

9 seconds maximum

### Weight

Valve bodies: <1.4 lb (.64 Kg)  
Actuators: 1.0 lb (.45 Kg)

### Approvals

UL and ULc Listed; CE

### Warranty

2 years

## ORDERING INFORMATION

### VALVE

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>KZ</td>
<td>Two-position PopTop electric valve</td>
</tr>
</tbody>
</table>

#### TEMPERATURE

- 1: Steam (must use high temperature actuator)
- 5: Steam - 200°F (93°C) with KZG actuator; up to 250°F (121°C) with KZH actuator

#### CONFIGURATION

- 2: Two-way
- 3: Three-way

#### Cv SIZE

- 2: 1/2"  
- 3: 3/4"  
- 4: 1"  

#### CONNECTION

- 1: Sweat - 1/2", 3/4", 1"  
- 2: NPT - 1/2", 3/4", 1"  
- 3: Inverted flare - 3/4" only

#### Cv CAPACITY

<table>
<thead>
<tr>
<th>Size</th>
<th>1.0</th>
<th>1.5</th>
<th>2.0</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>4.5</th>
<th>5.0</th>
<th>5.5</th>
<th>6.0</th>
<th>6.5</th>
<th>7.0</th>
<th>7.5</th>
<th>8.0</th>
<th>8.5</th>
<th>9.0</th>
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### ACTUATOR

<table>
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<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>KZ</td>
<td>VT Series actuator</td>
</tr>
</tbody>
</table>

#### CLOSED/OFF

- 1: Normally closed*  
- 2: Normally open**  
- 3: Normal  
- 4: Steam

#### TEMPERATURE

- 1: Normal  
- 2: Steam

#### VOLTAGE

- 0: 24 VAC  
- 1: 120 VAC, 50/60 Hz  
- 2: 208 VAC, 60 Hz  
- 3: 277 VAC, 60 Hz  
- 4: 230/240 VAC, 50 Hz

#### LEADS

- 0: 18" Leads

#### OPTIONS

- 0: None  
- A: End switch

### RELATED PRODUCTS

**SSTAG**

680-243-6

Stainless steel tag on bead chain, 1" x 2" dogtag, custom engraved per order  
Changeover thermostat with conduit fitting

### ACCESSORIES

- 30-158-A: KZG/KZH Series actuator replacement motor, 24 VAC  
- 30-158-B: KZG/KZH Series actuator replacement motor, 110/120 VAC  
- 30-158-D: KZG/KZH Series actuator replacement motor, 208 VAC  
- 30-158-T: KZG/KZH Series actuator replacement motor, 277 VAC  
- 30-158-U: KZG/KZH Series actuator replacement motor, 230/240 VAC  
- 436-252: 3/4" flare-to-sweat fitting