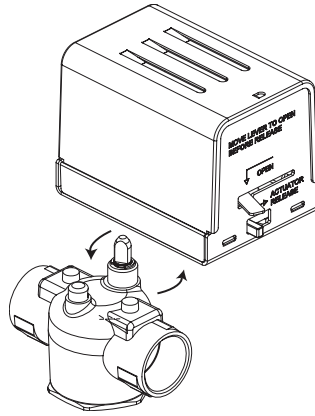


# On/off control valve

## Features

- Hysteresis synchronous motor for long life
- Spring return operation provides a fail-safe
- Actuator mounts directly onto valve body without need for linkages or calibration
- Manual override lever
- Actuator can be replaced without any tools, or removal of valve from system



## Valve body assembly

- Service: hot and chilled water models, up to 50% glycol
- System static pressure limits: 300 psi (2068.4 kPa)
- Close-off: refer to Table 3
- Fluid/ambient temperature limits: refer to Table 1
- Seat leakage: ANSI class IV (0.01%) with pressure at inlet (B-port/A-port, if 3-way)
- Body: forged brass
- Stem: nickel-plated
- Seat: brass
- Paddle: Buna N

**Table 1**

Valve body and actuators model chart

Model temperature range	
Valve body	32° to 200 °F (fluid) @ 104 °F (ambient) (0 to 93 °C @ 40 °C)
Actuator	32° to 200 °F (fluid) @ 104 °F (ambient) (0 to 93 °C @ 40 °C)

**Table 2**

Dimensions

Valve body size	A	B	C	D
1/2" sweat	1-5/16" (33 mm)	15/16" (23 mm)	1-5/16" (33 mm)	3-5/16" (84 mm)
3/4" sweat	1-3/8" (35 mm)	15/16" (23 mm)	1-11/16" (43 mm)	3-3/8" (86 mm)

**Table 3**

Flow coefficients and maximum close-off pressure differential

Port dia.	General close-off ΔP			High close-off ΔP		
	2-way control valve	3-way control valve	Close-off ΔP psi (kPa)	2-way control valve	3-way control valve	Close-off ΔP psi (kPa)
1/2"	3.5	4	25 (172)	1	1.5	75 (517)
3/4"	3.5	4	25 (172)	2.5	3	50 (344)

\* Based on valve body only

## Actuator

- Voltage: 24 Vac @ 50/60 Hz, 120 Vac @ 60 Hz
- Power requirements: 6.5 watts, 7.5 Va
- Control signal: on/off, 2 position, spring return
- Timing, full open to full close: 25 sec. max and 9 sec. max. spring return
- Materials: stainless steel base plate, aluminum cover
- Ambient temperature limits
  - ◆ Shipping & storage: -40 to 160 °F (-40 to 71 °C)
  - ◆ Operating: Refer to Table 1
- Humidity: 5 to 95% relative humidity, non-condensing
- Agency listings
  - ◆ UL873: Underwriters Laboratories (File #E9429 Category Temp. Indicating and Regulating Equip.)
  - ◆ CUL: UL Listed for use in Canada by Underwriters Laboratory
  - ◆ Canadian Standards C22.2 No. 24
  - ◆ European Community: EMC Directive (89/336/EEC) Low Voltage Directive (72/23/EEC)

