



Series  
38R

# Self-Acting Temperature Control Valve

Require No External Power



VALVES

Valves, Globe

**Series 38R Self-Acting Temperature Control Valves** require no external power sources and are ideal for regulating the temperature of tanks, process streams and various types of industrial equipment. The actuators are made with a rugged die-cast aluminum housing with a fully enclosed bellows assembly and internal over-range protection. Valves are offered in 1/2" through 6" connection sizes and 1/8" through 6" port sizes. The valve bodies are available in single-seated direct or reverse-acting, double-seated direct or reverse-acting, and 3-way designs with four choices of body material: bronze, cast-iron, cast-steel, and 316 SS. Actuators are available with or without indicating dials or in Fail-Safe. Non-indicating actuators feature a lower profile and should be implemented where space constraints may be an issue while the indicating actuator allows the operator to verify the process temperature and aid in temperature adjustment. Fail-Safe actuators are designed to cause the valve to fail in the safe control position (open in cooling application, closed in a heating application) should some accidental damage occur to the terminal system, resulting in loss of pressure charge. Also available with the Series 38R are a wide range of capillaries, bulbs, and thermowells.

Please request a copy of our Valve Catalog, CT-VC, or visit our website at [www.dwyer-inst.com](http://www.dwyer-inst.com) to see full model information and ordering details for the 38R Series.

## SPECIFICATIONS

### VALVE BODY

**Service:** Compatible liquids, gases, and steam.

**Line Size:** 1/2" to 2".

**Body Style:** 2-way or 3-way.

**End Connections:** 1/2" to 2" female NPT.

**Pressure Limit:** 250 psi (17.2 bar).

**Wetted Materials:** Body material: Bronze or 316 SS; Trim: 316 SS; Packing: PTFE.

**Temperature Limits:** 410°F (210°C) @ 250 psi (17.24 bar).

### ACTUATOR

**Power Requirements:** Fully self-contained, no external power required.

**Indicator:** 3-1/2" dial thermometer, SS case, swivel and angle adjustable (available for Indicating Actuator only).

**Housing:** Die cast aluminum, epoxy powder coated blue finish.

**Set Point Scale:** Integral to housing.

**Bellows:** High-pressure brass, corrosion resistant, tinplated finish.

**Adjustment Screws:** Brass.

**Range Adjustment Spring:** Cadmium plated.

**Overrange Protection:** 100°F over upper range limit for temporary situations

**Note:** See website for additional options.

**38R Self-Acting Temperature Control Valve Model Chart**

Example	38R	D00VA32	1	01	2	R09	38R-DA3VA32-101362-R09, 1/2" NPT Single Seat Two-Way Bronze Valve, Direct Acting, Non-Indicating Actuator, Brass Union Connection, Brass Thermowell, 1-1/4" External Connection, Range 155 to 250°F (68 to 121°C)
Series	38R						Self-Acting Temperature Control Valve
Valve		D00VA32 D01VA32 D02VA32 D03VA32 D04VA32 D05VA32 R00VA32 R01VA32 R02VA32 R03VA32 R04VA32 R05VA32 D00VA42 D01VA42 D02VA42 D03VA42 D04VA42 D05VA42 R00VA42 R01VA42 R02VA42 R03VA42 R04VA42 R05VA42 300WA31 301WA31 302WA31 303WA31 304WA31 305WA31 300WA41 301WA41 302WA41 303WA41 304WA41 305WA41					1/2" NPT Single Seat Two-Way Bronze Valve, Direct Acting 3/4" NPT Single Seat Two-Way Bronze Valve, Direct Acting 1" NPT Single Seat Two-Way Bronze Valve, Direct Acting 1-1/4" NPT Single Seat Two-Way Bronze Valve, Direct Acting 1-1/2" NPT Single Seat Two-Way Bronze Valve, Direct Acting 2" NPT Single Seat Two-Way Bronze Valve, Direct Acting 1/2" NPT Single Seat Two-Way Bronze Valve, Reverse Acting 3/4" NPT Single Seat Two-Way Bronze Valve, Reverse Acting 1" NPT Single Seat Two-Way Bronze Valve, Reverse Acting 1-1/4" NPT Single Seat Two-Way Bronze Valve, Reverse Acting 1-1/2" NPT Single Seat Two-Way Bronze Valve, Reverse Acting 2" NPT Single Seat Two-Way Bronze Valve, Reverse Acting 1/2" NPT Single Seat Two-Way 316SS Valve, Direct Acting 3/4" NPT Single Seat Two-Way 316 SS Valve, Direct Acting 1" NPT Single Seat Two-Way 316 SS Valve, Direct Acting 1-1/4" NPT Single Seat Two-Way 316 SS Valve, Direct Acting 1-1/2" NPT Single Seat Two-Way 316 SS Valve, Direct Acting 2" NPT Single Seat Two-Way 316 SS Valve, Direct Acting 1/2" NPT Single Seat Two-Way 316 SS Valve, Reverse Acting 3/4" NPT Single Seat Two-Way 316 SS Valve, Reverse Acting 1" NPT Single Seat Two-Way 316 SS Valve, Reverse Acting 1-1/4" NPT Single Seat Two-Way 316 SS Valve, Reverse Acting 1-1/2" NPT Single Seat Two-Way 316 SS Valve, Reverse Acting 2" NPT Single Seat Two-Way 316 SS Valve, Reverse Acting 1/2" NPT Three-Way Bronze Valve 3/4" NPT Three-Way Bronze Valve 1" NPT Three-Way Bronze Valve 1-1/4" NPT Three-Way Bronze Valve 1-1/2" NPT Three-Way Bronze Valve 2" NPT Three-Way Bronze Valve 1/2" NPT Three-Way 316 SS Valve 3/4" NPT Three-Way 316 SS Valve 1" NPT Three-Way 316 SS Valve 1-1/4" NPT Three-Way 316 SS Valve 1-1/2" NPT Three-Way 316 SS Valve 2" NPT Three-Way 316 SS Valve
Actuator			1 2				Non-Indicating Actuator Indicating Actuator
Bulb and Capillary				01 02 03 04 05 06 07 08 09 10			Brass Union Connection 316 SS Union Connection Brass Adjustable Union Connection 316SS Adjustable Union Connection Brass Plain Bulb 316 SS Plain Bulb FEP Covered Brass Bulb FEP Covered 316 SS Bulb Brass Union with Stainless Steel Spiral Armor 316 SS Union with Stainless Steel Spiral Armor
Capillary Length							Capillary Length in Feet. Example 36 is 36" length
Thermowell					0 1 2		No Thermowell 316 SS Thermowell, 1-1/4" External Connection Brass Thermowell, 1-1/4" External Connection
Temperature Range						R03 R04 R05 R06 R07 R09 R10 R11 R12 R13 R14	30 to 115°F (-1 to 46°C) 50 to 140°F (10 to 60°C) 75 to 165°F (24 to 74°C) 105 to 195°F (41 to 91°C) 125 to 215°F (52 to 102°C) 155 to 250°F (68 to 121°C) 200 to 280°F (93 to 138°C) 225 to 315°F (107 to 157°C) 255 to 370°F (124 to 188°C) 295 to 420°F (146 to 216°C) 310 to 440°F (154 to 227°C)

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