

Product Features

- Fast acting modulating control of space temperature.
- Snap action mechanism for ease of installation.
- EPDM rubber valve disc.
- Designed for Comfort, Efficiency and Durability.
- Optional Thermostat Guards for theft/tampering protection.
- Conforms to ASHRAE / ANSI Standard 102-1983

Barnes & Jones THR V Series thermostatic valves and actuators provide efficient room temperature control in hydronic and steam heating applications.

Series THR V valves regulate the flow of hot water or steam through radiators, baseboard and convectors in hot water and low-pressure steam heating systems.

The thermostatic valve operator consists of a standard vapor charged bellows and a dial control that is set to the position equal to the desired temperature.

As temperature declines, the liquid sensing element contracts, expanding the integral bellows upward into the sealed liquid chamber. The overload spring and push-rod are also moved upward by the valve stem/return spring. The attached valve plug opens the valve to flow and with a rising temperature, the reverse occurs.

THR V Technical Specifications

Hydronic Hot Water Systems

- Max. Temp: 250° F
- Max. Static Pressure: 45 PSIG
- Max. Test Pressure: 232 PSIG
- Max. Differential Pressure (water): 20 PSIG
- Max. Sensor Temp: 140° F
- Adjustable Temp. Range: 45° - 86° F

Two Pipe Low Pressure Steam

- Max. Temp: 250° F
- Max. Test Pressure: 232 PSIG
- Max. Steam Pressure: 15 PSIG
- Max. Sensor Temp: 140° F (Adjustable)
- Adjustable Temp. Range: 45° - 86° F



THR V Straightway

THR V Angle



THR V Operator & Sensor

Thermostatic Radiator Valve (THR V) Angle				
Size	Model	Wt.	Qty	Pattern
1/2"	THR V-1-AP	0.7	1	Angle
3/4"	THR V-2-AP	0.8	1	Angle
1"	THR V-3-AP	1.3	1	Angle
1-1/4"	THR V-4-AP	2.0	1	Angle

Thermostatic Radiator Valve (THR V) Straightway				
Size	Model	Wt.	Qty	Pattern
1/2"	THR V-1-ST	0.7	1	Straight
3/4"	THR V-2-ST	1.0	1	Straight
1"	THR V-3-ST	1.4	1	Straight
1-1/4"	THR V-4-ST	2.3	1	Straight

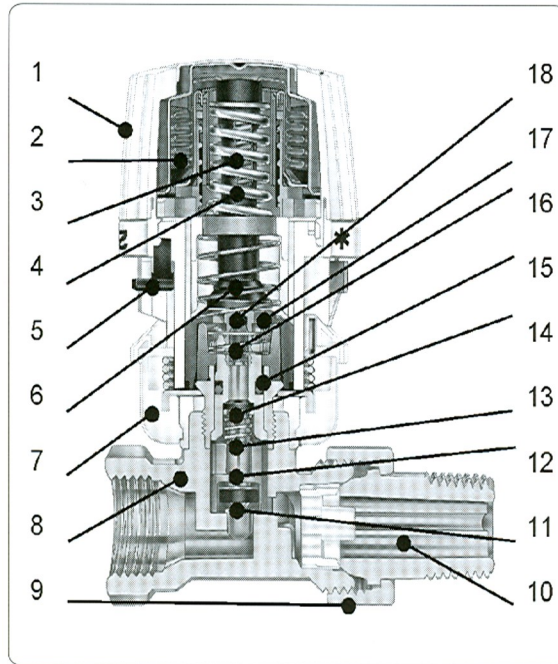
Thermostatic Radiator Valve (THR V) Reverse Angle				
Size	Model	Wt.	Qty	Pattern
1/2"	THR V-1-RA	0.7	1	Reverse Angle
3/4"	THR V-2-RA	1.2	1	Reverse Angle
1"	THR V-3-RA	1.5	1	Reverse Angle

Thermostatic Radiator Valve (THR V) Actuators				
Size	Model	Wt.	Qty	Pattern
None	THR V-IS	0.4	1	Internal Sensor
6'	THR V-RS-6	0.5	1	Remote Bulb 6'
6'	THR V-WRB-6	0.5	1	Wall Mount Bulb 6'
26'	THR V-WRB-26	0.7	1	Wall Mount Bulb 26'
6'	THR V-WDC-6	0.8	1	Wall Dual Capillary 6'

THRV Radiator Valves

Thermostatic Radiator Valves & Actuators

Function & Design

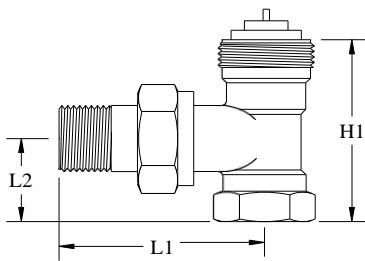


No.	Description
1	Operator setting dial (ABS)
2	Vapor charged bellows
3	Safety spring (steel)
4	Adjustment spring (steel)
5	Locking/limiting pin (steel)
6	Pressure spindle (plastic)
7	Snap-on mounting ring
8	Valve body (nickel plated brass)
9	Union nut (nickel plated brass)
10	Tailpiece (nickel plated brass)
11	Valve disc (EPDM)
12	Valve spindle (brass)
13	Valve spring (stainless steel)
14	Back seat washer (EPDM)
15	Valve bonnet (brass)
16	Pressure pin (stainless steel)
17	Packing o-ring (EPDM)
18	Packing gland (DRZ brass)

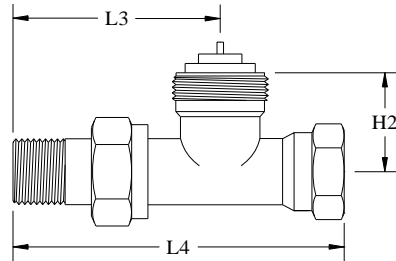
SPECIFICATIONS

- General:** Furnish and install, as shown on the drawings, specifications and schedules, Barnes & Jones Thermostatic Valves with self-contained liquid filled actuators for space temperature control of hydronic or steam heating systems.
- Operating Characteristics:** Valves shall be available in sizes 1/2", 3/4", 1" and 1-1/4" (NPT) in straight, angle, reverse angle, and double patterns with double O-ring gland, union nut seat or threaded outlet tailpiece and female pipe thread inlets. Actuators shall be self-contained and shall be available in attached, remote bulb, wall and wall mounted with dual capillary styles. Actuators may have concealed set point/limit lock feature and set point memory disc. Optional thermostatic guards shall reinforce installation strength and prevent tampering.
- Material Characteristics:** All valves shall have forged bronze bodies, brass or stainless steel trim, stainless steel stems and EPDM seals.
Actuators shall have liquid filled elements with high impact white plastic covers.
- Valve Sizing:** All valves shall be sized to perform at specified flows with a maximum of 1.0 atmosphere pressure drop and at fluid temperatures below 232-250° F.
- Manufacture:** Complies with ISO 9001 Specifications. Sold by Barnes & Jones and authorized distributors.
- Warranty:** Valves and thermostats shall be free of material and workmanship defects for a period of 12-months from date of installation or 18-months from date of shipment, which ever comes first.

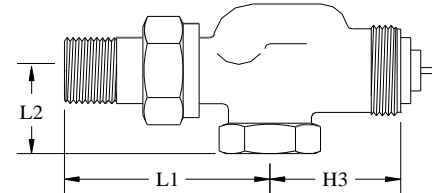
Thermostatic Radiator Valve Configurations & Dimensions



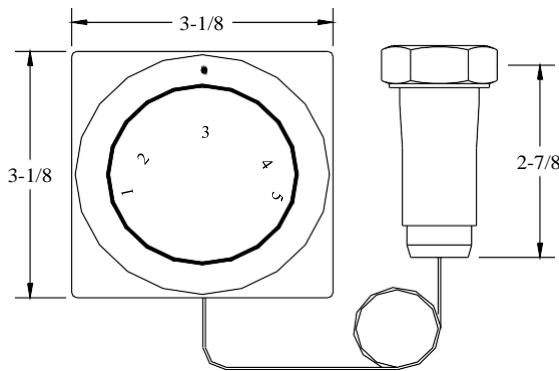
THVA - ANGLE BODY



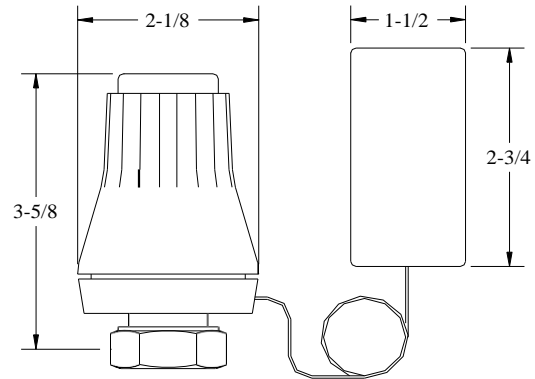
THVS - STRAIGHT BODY



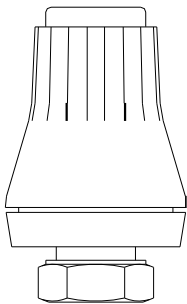
THVR - REVERSE ANGLE BODY



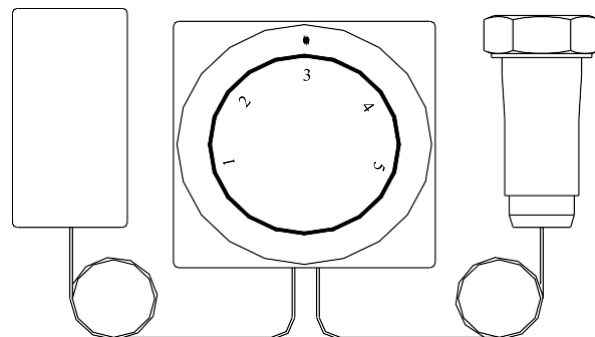
THVLB - WALL MOUNT REMOTE BULB



THVLR - REMOTE SENSOR



THVLI - INTERNAL SENSOR



THVLC - WALL MOUNT DUAL CAPILLARY

VALVE BODY DIMENSIONS (IN.) - ALL INLETS ARE FEMALE NPT; OUTLETS ARE EITHER MALE NPT OR FEMALE SWEAT

SIZE	L1	L2	L3	L4	H1	H2	H3
1/2	2-3/8	1-1/16	2-7/16	3-7/8	2-1/8	1-1/8	1-1/2
3/4	2-3/4	1-1/8	2-3/4	4-5/16	2-1/4	1-3/4	-
1	3	1-3/8	3-1/4	5	2-1/2	1-7/8	-
1-1/4	3-3/8	1-9/16	3-5/8	6	2-3/4	2	-