



Model R

Thermostatic Valve



Patent Pending

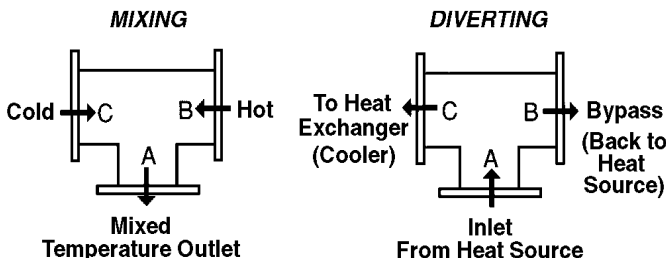
Features

- Flow Rates of 12 - 116 USGPM
- Weldable Connections
~ Element Easily Removed While Valve Remains In-Line
- Tamper-Proof Temperature Settings
- Minimal Leakage Paths to Atmosphere
- Ideal for Refrigeration Service with Ammonia or other Refrigerants

Operation

The valve is supplied with the temperature element assembly factory-set to the nominal temperature setting. Temperature is sensed at Port A which remains open to Port B (bypass) until the fluid temperature reaches a point 8-10°F below the nominal setting. As the temperature continues to rise, the sliding valve moves to close off Port B and open Port C (connected to the cooler or heat exchanger). Port B is fully closed 8-10°F above the nominal setting. The valve continually modulates the fluid flow to maintain the nominal temperature. For optimum control, the system should be sized so about half the total fluid flow passes through the cooler at full load.

For long life, AMOT Model R valves should not be exposed to continuous temperatures exceeding 65°F above their nominal temperature setting. For occasional short periods, such as 1/2 hour, they can be exposed to temperatures up to 90°F above their nominal setting, but 250°F is the maximum temperature allowable.



Specifications

Valve Body	Steel
Internal Trim Materials	Steel/Stainless Steel/Brass
Standard Seal Material	Neoprene
Maximum Differential Pressure	20 psi (140 kPa)
Valve Pressure Rating	500 psi (3447 kPa)
Net Shipping Weight	7-15 lbs

Installation

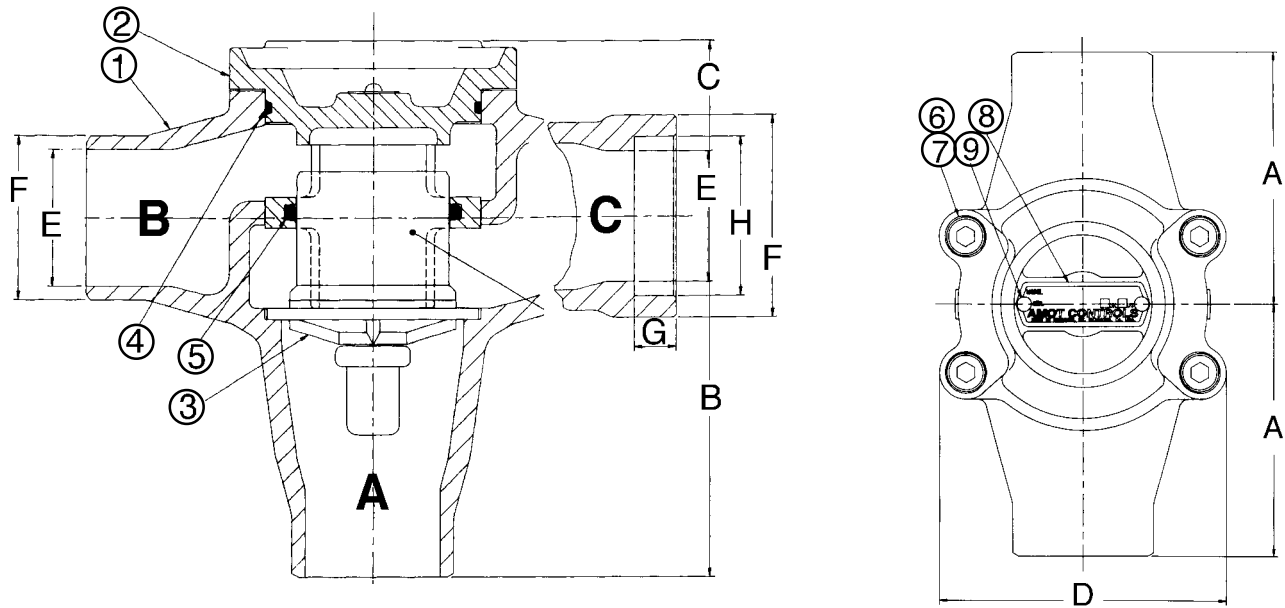
AMOT Thermostatic Valves operate in any position and may be located at the convenience of the system designer. The valve can be supported by the connecting pipe but should not be subjected to excessive bending. Line up the piping before tightening the pipe threads or welding. Make sure to leave approximately 3.5" space for element removal when installing.

If the valve is mounted at the high point of the system, the system should be properly vented to prevent trapping air at the temperature element assemblies.

Caution:
Remove element and O-rings before welding to prevent possible damage to these components.

Refer to Form 913, AMOT Thermostatic Valves General Information for typical piping diagram.

Dimensions



Dimensions (in.)	Nominal Valve Size/Connection Type			
	3/4", 1", 1-1/2"		2", 2-1/2"	
	Butt	Socket	Butt	Socket
A	3.35	3.50	3.90	4.30
B	4.10	4.50	5.15	5.55
C	2.05	2.05	2.50	2.50
D	3.85	3.85	4.65	4.65

Dimensions (in.)	Butt Weld PN40				
Nominal Bore	3/4"	1"	1-1/2"	2"	2-1/2"
E	0.75	1.00	1.50	2.00	2.50
F	1.05	1.35	1.90	2.35	2.95
Weight(lbs)	7	7	8	15	15

Dimensions (in.)	Socket Weld ANSI				
Nominal Bore	3/4"	1"	1-1/2"	2"	2-1/2"
E	0.75	1.00	1.50	2.00	2.50
F	1.50	1.80	2.42	2.89	3.59
G	0.50	0.50	0.50	0.62	0.62
H	1.06	1.32	1.87	2.39	2.89
Weight(lbs)	7	8	9	15	15

Recommended Spare Parts

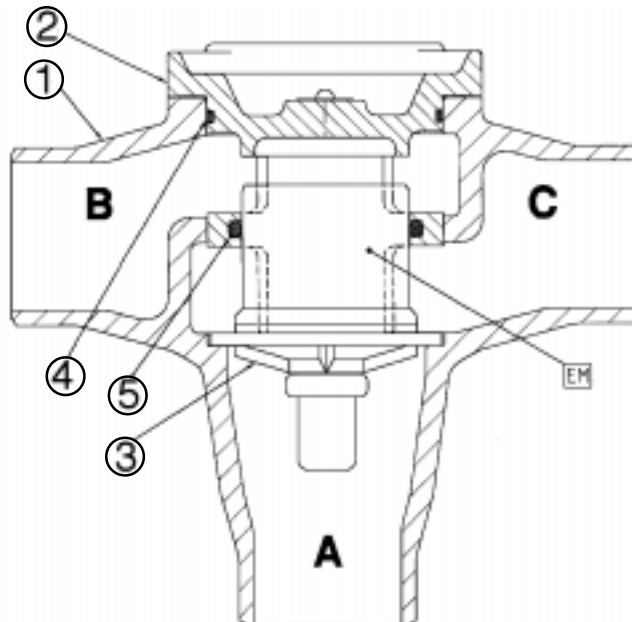
VALVE SIZES 3/4", 1", 1-1/2"

Ref.	P/N	Qty	Description
3	5435K(temp)	1	Element, Plated
3	5435X(temp)	1	Element, Unplated
KIT No. 46857X003 Neoprene			
Ref.	P/N	Qty	Description
4	43639L003	1	Sleeve O-Ring
5	1919L002	1	Element O-Ring
6	43088L025	4	Capscrew
7	43010L080	4	Spring Washer
KIT No. 46857X002 Viton			
Ref.	P/N	Qty	Description
4	43639L002	1	Sleeve O-Ring
5	1919L001	1	Element O-Ring
6	43088L025	4	Capscrew
7	43010L080	4	Spring Washer
KIT No. 43857X001 Buna N			
Ref.	P/N	Qty	Description
4	43639L001	1	Sleeve O-Ring
5	1919	1	Element O-Ring
6	43088L025	4	Capscrew
7	43010L080	4	Spring Washer

VALVE SIZES 2", 2-1/2"

Ref.	P/N	Qty	Description
3	46856K(temp)	1	Element, Plated
3	46256X(temp)	1	Element, Unplated
KIT No. 46858X003 Neoprene			
Ref.	P/N	Qty	Description
4	46870L003	1	Sleeve O-Ring
5	1183L003	1	Element O-Ring
6	43090L030	4	Capscrew
7	43010L100	4	Spring Washer
KIT No. 46858X002 Viton			
Ref.	P/N	Qty	Description
4	46870L002	1	Sleeve O-Ring
5	1183L002	1	Element O-Ring
6	43090L030	4	Capscrew
7	43010L100	4	Spring Washer
KIT No. 46858X001 Buna N			
Ref.	P/N	Qty	Description
4	46870L001	1	Sleeve O-Ring
5	1183	1	Element O-Ring
6	43090L030	4	Capscrew
7	43010L100	4	Spring Washer

Cut Away



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