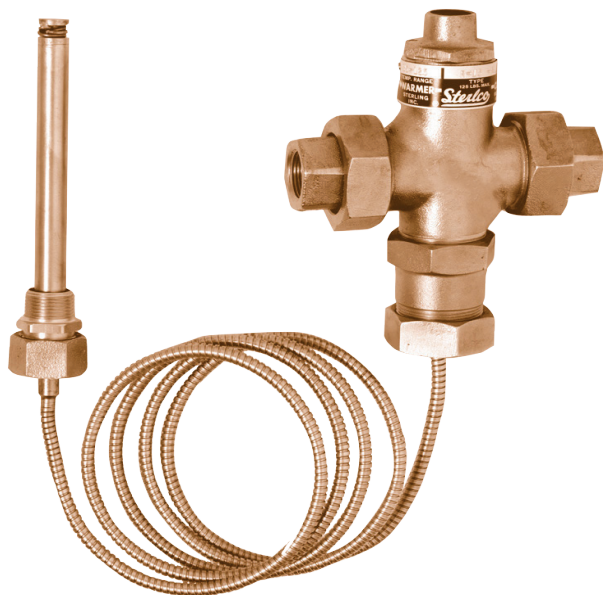


D-150-G/R-150-G SERIES

Self-Modulating Temperature Control Valves



Technical Specifications

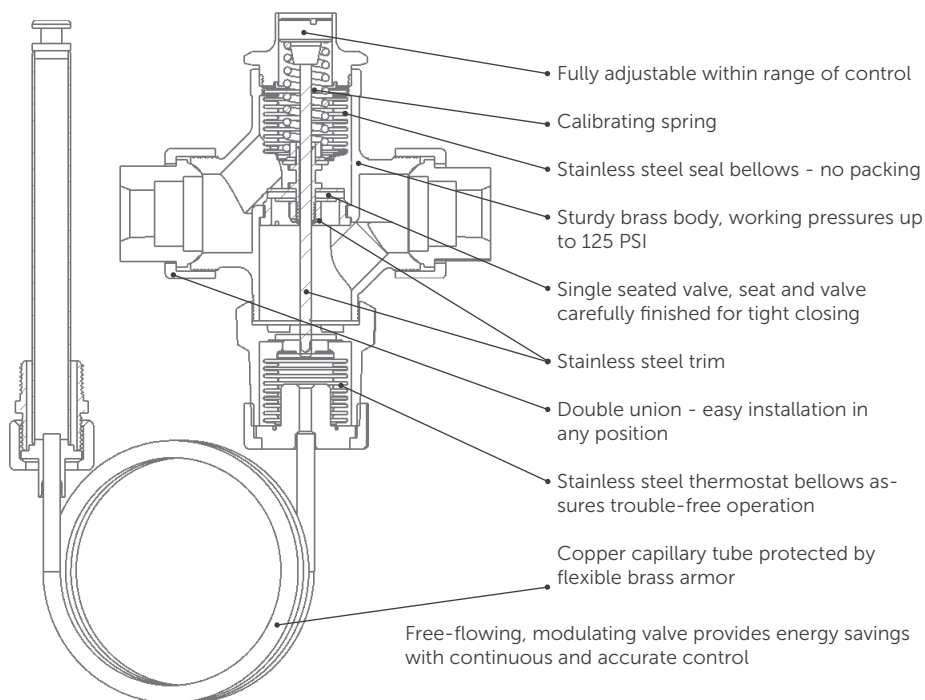
Simple yet efficient design requires minimum maintenance. Heavy duty construction assures long valve life. Valves are temperature actuated, self-powered, fully balanced, and applicable to heating (D-150-G) or cooling (R-150-G) processes using water, oil, steam or other fluids

Features

Standard Features

- *Self Contained, Completely Automatic* - Simply install and set temperature from a variety of ranges. No further adjustments or external power required.
- *Compact Design* - Requires minimum installation space with minimum piping requirements.
- *Versatile* - Designed for a wide variety of applications, both heating and cooling.

Minimal pressure drop across valve



Optional Features

- Flanged bulb for duct mounting
- Calibrated adjusting screw with wheel handle for quick adjustment
- Plain brass bulb, less adaptor, for open tank or cabinet mounting
- Brass bulb with lock nut for bracket mounting
- Union fitting on capillary for closed tank
- 6 ft. plastic coated capillary and bulb for plating tanks (no tank adaptor)
- 6 ft. stainless steel capillary and bulb
- 1/16" weephole on outlet side of valve for constant flow
- Brass and stainless steel bulb wells
- Other options available - consult factory

Specifications

Heating - Steam Requirements

Use the chart to the right to find the amount of steam required to heat a given amount of water. The example shows that, if it is desired to heat 450 GPH of water from 60° to 160°F (100° rise), the amount of steam required would be 350 lbs./hr. For fuel oil, about half as much steam is required. Using the same figures as to the right for example - 450 GPH of oil and 100°F rise, the steam requirement would be 350/2 or 175 lbs./hr.

Inlet & Outlet Sizes	Cv	Weight, lbs.	For HEATING closes on rising temperature	For COOLING opens on rising temperature
			Series No. Direct-acting	Series No. Reverse-acting
1/2"	3.03	8	D-150-G	R-150-G
3/4"	6.03	8	D-151-G	R-151-G
1"	9.51	8	D-152-G	R-152-G

Pressure ratings - lbs. **0-125**

Inlet & outlet **Double union**

Valve body - straightway **Brass body**

Valve trim **Stainless steel seat and stainless steel & silicone valve disc**

Valve construction **Single-seated, balanced, with stainless steel seal bellows**

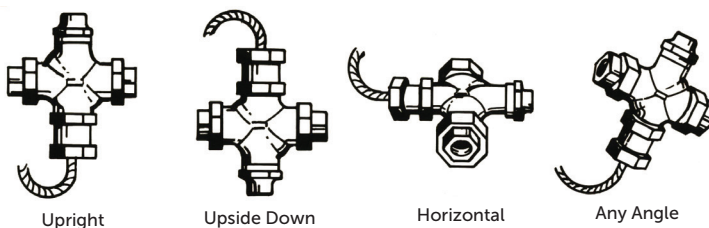
Standard capillary length **6', longer or shorter Lengths available.**

Standard temperature ranges available	55°-95°F	130°-170°F
	85°-125°F	150°-190°F
	105°-145°F	175°-215°F
		185°-225°F

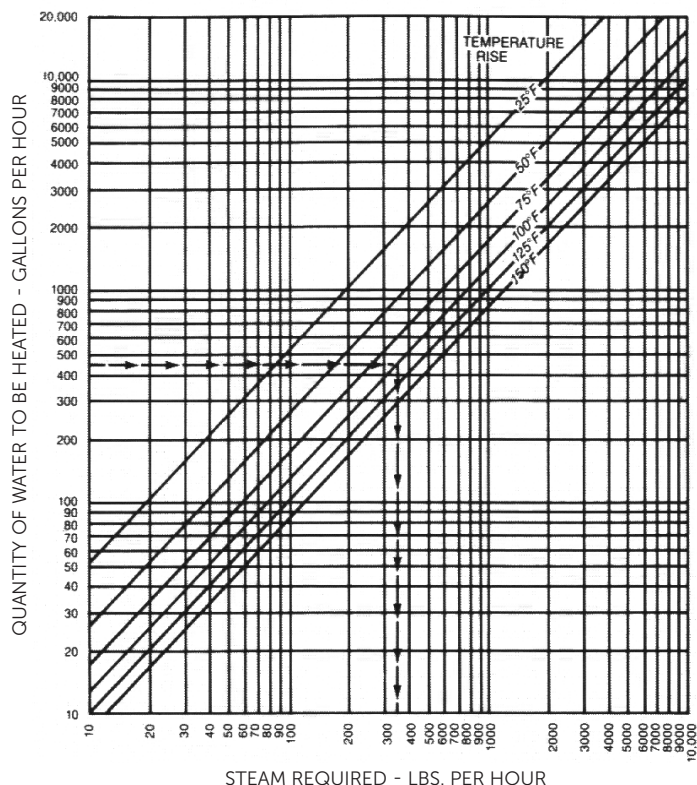
Special: **80°-170°F**
temperature ranges **110°-190°F**
(other ranges available - consult factory for details) **165°-225°F**

NOTE: When ordering, specify size, model number, temperature range, capillary length, working pressure, shut-off temperature (controls are factory set at middle of range unless otherwise specified)

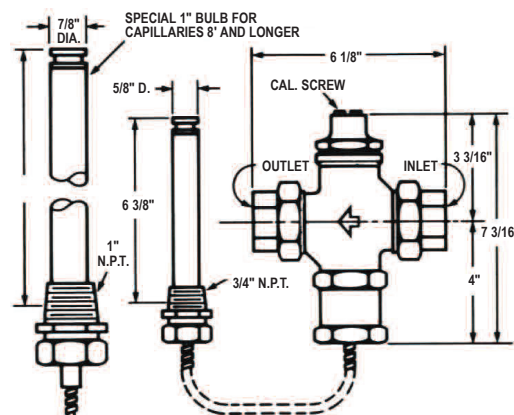
Valve Operates In Any Mounting Position



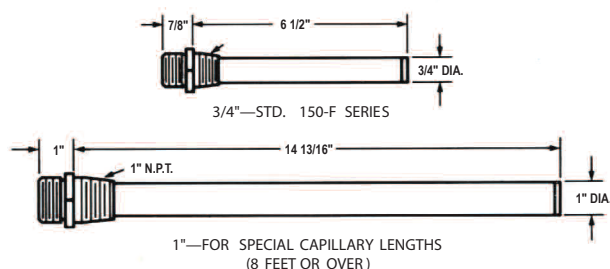
Capacities and Sizing



Dimensions D-150-G and R-150-G Controls



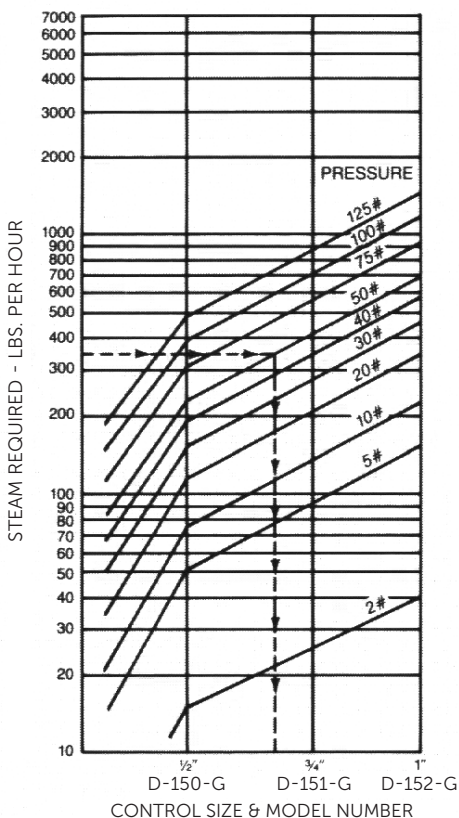
Bulb Wells - Available in stainless steel or brass



Specifications

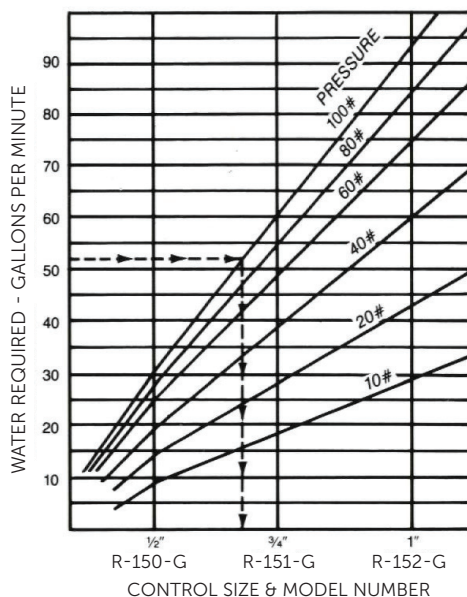
Heating - Valve Size

Use this chart to determine the correct size valve to deliver a given amount of steam. The example shows that, if 350 lbs./hr. of steam is required and the steam pressure drop available at the control is 50 lbs./sq. in., a 3/4" D-151-G control valve will be adequate.



Cooling - Water

Use this chart to find the correct size reverse-acting or cooling valve to deliver the required water flow. In the example shown, a requirement of 52 G.P.M. at 100 lbs./sq. in. supply pressure indicates that a 3/4" R-151-G control valve will be needed.



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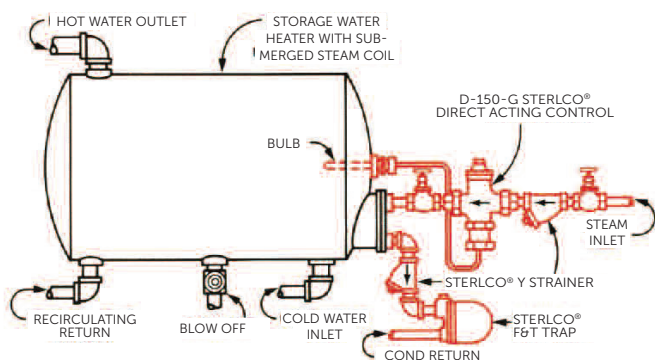
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902-529-0355

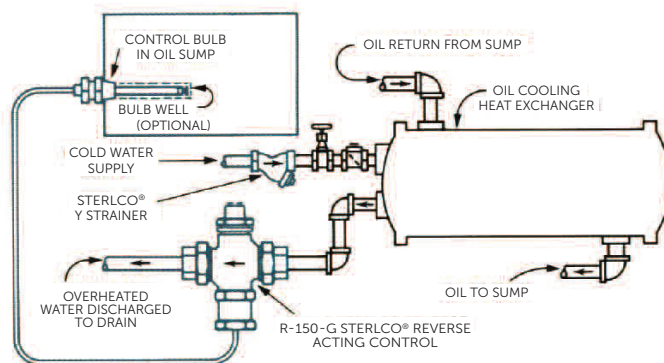
*Since 1953, Quality Products to Sense, Measure & Control
Depuis 1953, Produits De Qualités Pour Détecter, Mesurer & Contrôler*

Typical Applications

D-150-G Heating - Storage Water Heater



R-150-G Cooling - Heat Exchanger

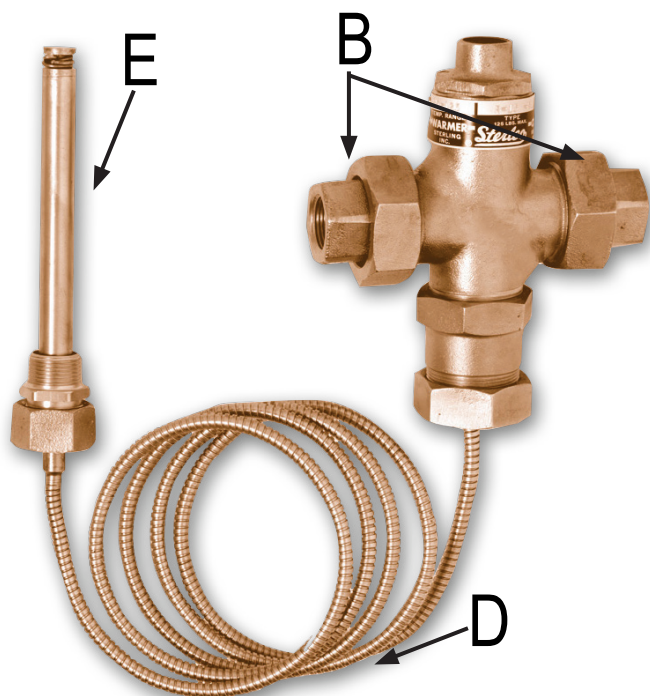


Product Selection Sheet

Verify your valve selection from the available options below. If your valve has an option not shown below contact us at Sterling to help identify your valve.

Standard part numbers are listed on the following page.

Valves ordered incorrectly are subject to a restocking charge.



Options

A - Valve Style - Shown on nameplate

- ☐ D = Heating Direct Acting Valve (Normally open - valve closes as temperature rises)
- ☐ R = Cooling Direct Acting Valve (Normally closed - valve opens as temperature rises)

B - Connection Size - Part of Model Number on Nameplate

- ☐ 1/2" NPT = 150
- ☐ 3/4" NPT = 151
- ☐ 1" NPT = 152

C - Temperature Range - Shown on Nameplate

(The set point can be set at any point throughout the temperature range- factory set at midpoint)

Select temperature range with desired set point closest to the middle of the range.

- | | |
|-------------------------------------|-------------------------------------|
| ☐ 55-95 °F | ☐ 150-190 °F |
| ☐ 85-125 °F | ☐ 175-215 °F |
| ☐ 105-145 °F | ☐ 185-225 °F |
| ☐ 130-170 °F | |

D - Capillary Length - Must be physically measured

- ☐ 6' Standard
- ☐ Non-standard - For lengths longer than 6' available in 2' increments

E - Temperature Probe - Must be physically measured

- ☐ Standard - 5/8"x 6-3/8" Bulb - 3/4" Connector
- ☐ Special for Capillaries 8' and Longer - 7/8" x 11" Bulb - 1" Connector



D-150-G/R-150-G SERIES

TYPE		MODEL	SIZE		TEMP RANGE F°		
D	DIRECT - HEATING (NO)	ALWAYS 15	0	1/2" NPT	01	55-95	
R	REVERSE - COOLING (NC)		1	3/4" NPT	02	85-125	
			2	1" NPT	03	105-145	
					04	130-170	
					05	150-190	
					06	175-215	
					07	185-225	
						SPECIAL TEMPERATURE RANGES AVAILABLE * CONSULT FACTORY	

TYPE	MODEL	SIZE	TEMPERATURE RANGE	SPECIAL CAPILLARY	CAPILLARY LENGTH	SPECIAL BODY
R	15	2.	03.	0	00	0

EXAMPLE: R152.03.0000

TYPE = REVERSE

MODEL = 15

SIZE = 1" NPT CONNECTIONS

TEMPERATURE RANGE = 105-145 F°

CAPILLARY LENGTH = 6' (STANDARD)

SPECIAL BODY = NONE

SPECIAL CAPILLARY	
C	Calibrated Adjusting Screw and Plastic Wheel Handle
F	Stainless Steel with Calibrated Adjusting Screw and Plastic Wheel Handle
L	Less than 8' Capillary with Large Bulb
N	Stainless Steel Capillary and Bulb

CAPILLARY LENGTH	
00	6' (STANDARD)
02	2'
03	4'
08	8'
SPECIAL LENGTH CAPILLARIES AVAILABLE * CONSULT FACTORY	

SPECIAL BODY	
A	Weephole
N	Nylon Adjusting Screw
1	8' Capillary with Small Bulb

Standard Part Numbers 1/2" to 1"

D150 Direct Acting Valve (Heating - Normally open, closes on Temperature Rise)			
Temperature Range	1/2" NPT	3/4" NPT	1" NPT
55-95F	D150.01.0000	D151.01.0000	D152.01.0000
85-125F	D150.02.0000	D151.02.0000	D152.02.0000
105-145F	D150.03.0000	D151.03.0000	D152.03.0000
130-170F	D150.04.0000	D151.04.0000	D152.04.0000
150-190F	D150.05.0000	D151.05.0000	D152.05.0000
175-215F	D150.06.0000	D151.06.0000	D152.06.0000
185-225F	D150.07.0000	D151.07.0000	D152.07.0000

R150 Reverse Acting Valve (Cooling - Normally closed, opens on Temperature Rise)			
Temperature Range	1/2" NPT	3/4" NPT	1" NPT
55-95F	R150.01.0000	R151.01.0000	R152.01.0000
85-125F	R150.02.0000	R151.02.0000	R152.02.0000
105-145F	R150.03.0000	R151.03.0000	R152.03.0000
130-170F	R150.04.0000	R151.04.0000	R152.04.0000
150-190F	R150.05.0000	R151.05.0000	R152.05.0000
175-215F	R150.06.0000	R151.06.0000	R152.06.0000
185-225F	R150.07.0000	R151.07.0000	R152.07.0000

