

JOHNSON CONTROLS - High Water Pressure Two-Way Pressure-Actuated Water-Regulating Valves

V146 Series



V146 Series Valve

DESCRIPTION

The V146 Series 2-Way Pressure-Actuated Water-Regulating Valves are designed to regulate water flow and control refrigerant head pressure in systems with water-cooled condensers. The V146 valves are ideal for applications with system water pressures of up to 350 psi (2413 kPa), such as high-rise buildings. V146 valves may be used with standard non-corrosive refrigerants. V146 valves have a monel (nickel-copper alloy) seat and disc holder.

FEATURES

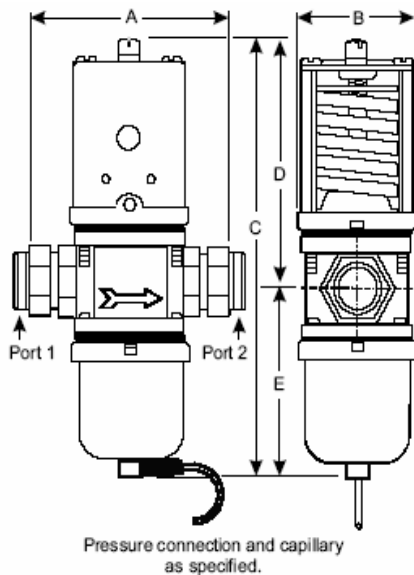
- No close-fitting or sliding parts in water passages provides control in less-than ideal water conditions
- High-pressure design allows use in systems with up to 350 psi (2413 kPa) water pressure
- Pressure-balanced design resists changes to setpoint caused by gradual or sudden water pressure changes
- Corrosion-resistant material for internal parts promotes long valve life
- Accessible range spring allows easy manual flushing
- Take-apart construction allows access to valve interior without removing valve from refrigeration system or pumping down

APPLICATIONS

V146 valves are designed to regulate flow in systems with water pressures up to 350 psi (2413 kPa). The valves have an adjustable opening point in a refrigerant pressure range of 70-260 psi (483-1793 kPa). V146 valves may be used with standard non-corrosive refrigerants. Internal valve parts that come into contact with water are constructed of monel (nickel-copper alloy) and brass to resist corrosion.

SELECTION CHART

PART NO	Inlet and Outlet Ports	Nominal Valve Size	Pressure Connection Style
V146AL-1C	Union(Sweat)	1 in.	46



SPECIFICATIONS

V146 Series 2-Way Pressure-Actuated Water-Regulating Valves	
Nominal Valve Size	1 in.
Maximum Refrigerant Pressure at Bellows	320 psig (2206 kPa)
Opening Point Adjustment Range	70-260 psig (483-1793 kPa)
Factory-Set Opening Point	165 psig (1138 kPa)
Maximum Water Pressure	350 psi (2413 kPa)
Temperature	Maximum 170°F (77°C)
	Minimum 40°F (4°C)
Material	Body 1 in. - Cast Iron with Corrosion-resistant Finish
	Disc Stud, Valve Stem Brass
	Disc Cup, Valve Seat Model (Nickel-Copper Alloy)
	Valve Disc Buna-N
	Sensing Element Brass and Phosphor Bronze Bellow in Brass Cup
	Diaphragm Nylon Reinforced Buna-N

V146 Valve Dimensions, inches (Millimeters) and Shipping Weight, pounds (kilograms)

Valve Code Number	Nominal Valve Size	Callout					Shipping Weight
		A	B	C	D	E	
V146AL-1C	1 in.	4-3/4 (121)	2-3/4 (71)	10 (254)	5-5/16 (151)	4-1/16 (103)	9.3 (4.0)

JOHNSON CONTROLS - High Water Pressure 3-Way Pressure-Actuated Water-Regulating Valves

V148 Series



DESCRIPTION

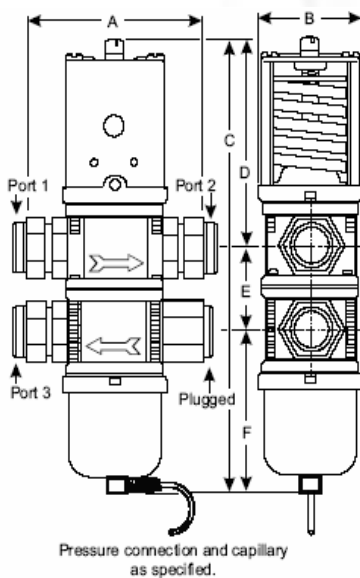
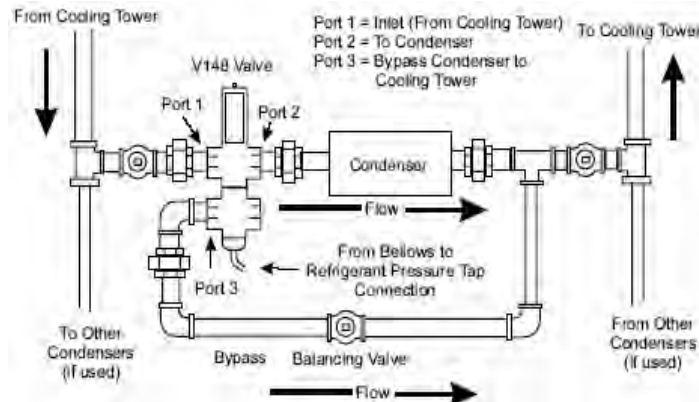
V148 Series 3-Way Pressure-Actuated Water-Regulating Valves are designed to regulate water flow and control refrigerant head pressure in systems with single or multiple water-cooled condensers. The V148 valves are ideal for applications with system water pressures of up to 350 psi (2413 kPa), such as high-rise buildings. V148 valves may be used with standard non-corrosive refrigerants. V148 valves have a monel (nickel-copper alloy) seat and disc holder.

FEATURES

- No close-fitting or sliding parts in water passages provides control in less-than ideal water conditions
- High-pressure design allows use in systems with up to 350 psi (2413 kPa) water pressure
- Pressure-balanced design resists changes to setpoint caused by gradual or sudden water pressure changes
- Corrosion-resistant material for internal parts promotes long valve life
- Accessible range spring allows easy manual flushing
- Take-apart construction allows access to valve interior without removing valve from refrigeration system or pumping down

APPLICATIONS

V148 valves regulate water flow to water cooled condensers (and may be applied to hydronic systems) with water pressures up to 350 psi (2413 kPa). The V148 valves have an adjustable opening point in a refrigerant pressure range of 145-190 psi (1000-1310 kPa). V148 valves may be used with standard non-corrosive refrigerants. Internal valve parts that come into contact with water are constructed of monel (nickel copper alloy) and brass to resist corrosion.



SPECIFICATIONS

V148 Series 3-Way Pressure-Actuated Water-Regulating Valves	
Nominal Valve Size	1 in.
Maximum Refrigerant Pressure at Bellows	320 psi (2206 kPa)
Opening Point Adjustment Range	145-190 psi (1000-1310 kPa)
Factory-Set Opening Point Port 1 to Port 2)	165 psi (1138 kPa)
Throttling Range	70 psi (483 kPa)
Maximum Pressure	350 psi (2413 kPa)
Minimum Temperature	40°F (4°C)
Maximum Temperature	170°F (77°C)
Material	Body 1 in. - Cast Iron with Corrosion-resistant Finish Disc Stud, Valve Stem Brass Disc Cup, Valve Seat Monel (Nickel-Copper Alloy) Valve Disc Buna-N Sensing Element Brass Bellows in Brass Cup Diaphragm Nylon-Reinforced Buna-N

V148 Valve Dimensions, inches (millimeters), and Shipping Weight, pounds (kilograms)

Valve Code Number	Nominal Valve Size	Callout						Shipping Weight
		A	B	C	D	E	F	
V148AL-1C	1in.	4-3/4 (121)	2-3/4 (71)	12 (305)	5-15/16 (151)	2 (51)	4-1/16 (103)	12 (5.4)