

900P-SE-3W

3-WAY DIRECT ACTING WATER REGULATING VALVE

SELECTION CRITERIA

- Fresh water use
- Direct acting
- Actuation by pressure
- 150 PSI water pressure rating

CONSTRUCTION DETAILS _

- Stainless Steel internals
- Buna-N diaphragms & seals

Screwed end connections NPT

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3-Way configuration

Brass body

- 1/2" thru 1-1/2" sizes
- 225 PSI proof pressure

D n 3/8 CONDENSER UPPER PORT "A" (NC) Α $^{+}$ B BY-PASS UPPER PORT "B" (NO) $\overline{}$ FLOW B + С ł 15/16 REFRIGERANT CONNECTION 毌 毌 36" LONG CAPILLARY TUBE WITH 1/4" SAE FLARE NUT CONNECTION OPTIONAL REFRIGERANT PRESSURE CONNECTION 1/4" SAE FLARE FITTING

VIEW: "BP" ORIENTATION

*NOTE: Normally closed (NC) ports open on pressure increase, normally open (NO) ports close on pressure increase.

Reference Metrex drawing 900P-SE-3W

VALVE SIZING CHART.

VALVE PART NUMBER	PIPE SIZE	Cv	DIMENSIONS				APPROX.
			Α	В	С	D	SHIP WT.
900P-50SE-3W	1/2"	3.8	3-3/4"	1-3/16"	2-47/64"	1-9/16"	7#
900P-75SE-3W	3/4"	6.3	3-7/8"	1-21/64"	2-27/32"	1-3/4"	10#
900P-100SE-3W	1"	11	6-1/8"	1-3/4"	3-11/16"	2-3/8"	15#
900P-125SE-3W	1-1/4"	14.5	6-19/32"	2-1/32"	4-5/32"	2-5/8"	17#
900P-150SE-3W	1-1/2"	17	6-19/32"	2-7/32"	4-5/32"	2-3/4"	20#

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900P-SE-3W

3-WAY DIRECT ACTING WATER REGULATING VALVE

The refrigerant pressure at which port A (normally closed) begins to open can be

of pressure is required to open port A fully.

adjusted from 50 to 225 PSI. A 45 PSI increase

PRESSURE

RANGE ADJUSTMENT_

ORDERING INFORMATION _

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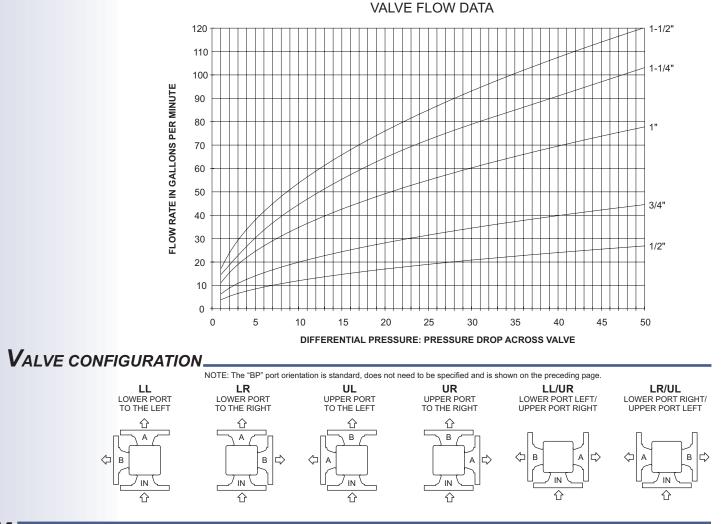
 Use the valve sizing chart on the preceding page tables and charts below to determine the complete part number.



BELLOWS OPTIONS

 The optional 1/4" male SAE flare fitting for refrigerant pressure connection is designated by an "F" after the P. The 1/4" SAE flare fitting replaces the 36" long capillary tube with 1/4" SAE flare nut connection.
 Example: 900PF-100SE-3W. The optional ammonia is designated by an "A" after the P.

Example: 900PA-150SE-3W.



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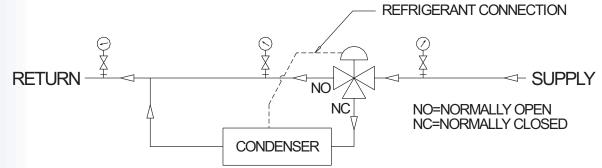
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3-WAY DIRECT ACTING WATER REGULATING VALVE

3-WAY HEAD PRESSURE REGULATOR TYPICAL APPLICATION _____

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 Typically used to modulate the cooling water through a condenser in response to a pressure signal from the condenser. Refrigerant head pressure is maintained over a wide range of operating conditions for a maximum system operating efficiency.



INSTALLATION INSTRUCTIONS _

- 1) Valves can be mounted in any position without affecting performance. However, for ease of adjustment consider the accessibility of the adjusting screw.
- 2) Connect the incoming water line to the valve inlet. Direction of water flow (see drawing) is indicated by the arrow cast on the side of the valve body.
- 3) Connect capillary tube (1/4" flare nut) to refrigerant head pressure connection on condenser.

GENERAL DESCRIPTION

The 900 series valves are direct acting, modulating water regulating valves utilizing a diaphragm construction to give a smooth, well balanced action. The pressure-balanced design and low frictional co-efficient of the diaphragm assure fast response to changes in refrigerant pressure and protection against both gradual and sudden water pressure changes. All sliding parts and adjustment springs are isolated from the water flow by the leak proof diaphragms.

Adjustment _____

All valves 1/2" thru 1-1/2" sizes are multi-range valves applicable to both R-12 and R-22 service. The refrigerant
pressure at which the valve begins to open can be adjusted from 50-225 PSI. A 45 PSI increase of pressure is
required to open the valve fully.

To adjust condensing head pressure, use the adjusting screw on top of the spring housing. Turn counter clockwise to raise the opening point (raise head pressure). Turn clockwise to lower the opening point (lower head pressure).

MANUAL OVERRIDE

 All valves may be manually flushed by inserting a screwdriver in openings at opposite sides of the spring housing and lifting the lower spring plate to open the valve. The valve adjustment is not affected by manual flushing.



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