500P-SE-2W

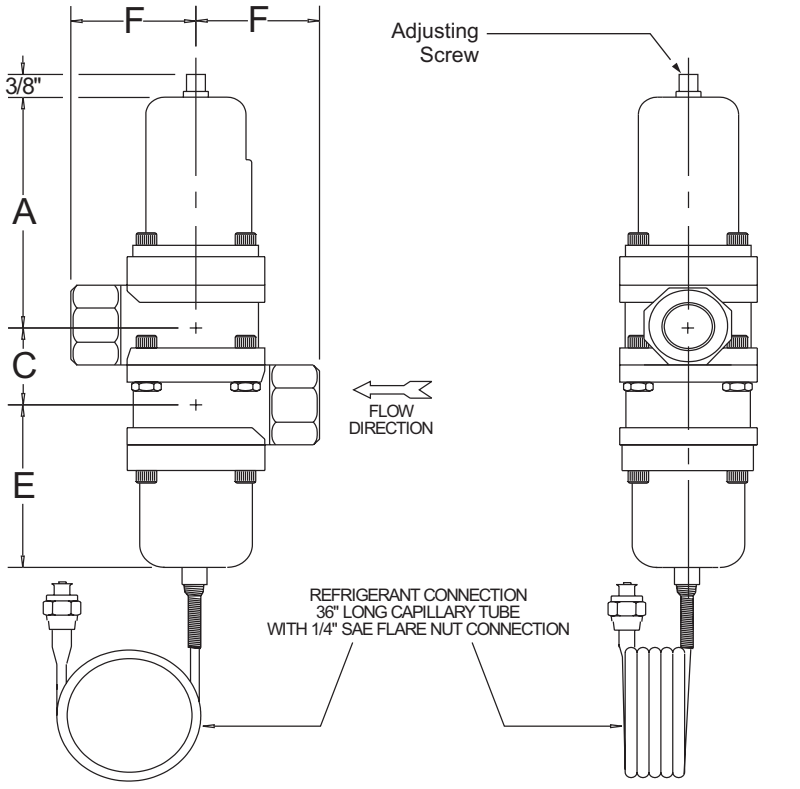
2-WAY DIRECT ACTING
HIGH PRESSURE WATER REGULATING VALVE

SELECTION CRITERIA

- Fresh water use
- Direct acting
- Actuation by pressure
- Open on pressure increase
- Optional open on pressure decrease
- Optional use of ammonia
- Screwed end connections NPT
- 2-Way configuration
- 1-1/4” & 1-1/2” sizes
- 350 PSI water pressure standard
- Available water pressure to 500 PSI

CONSTRUCTION DETAILS

- Brass & stainless steel internals
- Buna-N diaphragms & seals
- Brass body



Reference Metrex drawing 500P-SE-2W

VALVE SIZING CHART

VALVE PART NUMBER	PIPE SIZE	C_V	DIMENSIONS				APPROX. SHIP WT.
			A	C	E	F	
500P-125-SE-2W	1-1/4"	14.5	7-1/4"	2-1/32"	4-7/8"	2-5/8"	15#
500P-150-SE-2W	1-1/2"	17	7-3/8"	2-7/32"	3-15/16"	2-3/4"	18#

ORDERING INFORMATION

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

BASIC PART NO.: 500P_-1__ __-_SE -2W

BELLOWS OPTIONS
VALVE SIZING CHART
TABLE I ("H" OR "EH")
VALVE CONFIGURATION

PRESSURE RANGE ADJUSTMENT

- The refrigerant pressure at which the valve begins to open can be adjusted from 55 to 235 PSI. A 40 PSI increase of pressure is required to open the valve fully.

BELLOWS OPTIONS

- The optional ammonia actuator is designated by an "A" after the P.

  Example: 500PA-150-SE-2W

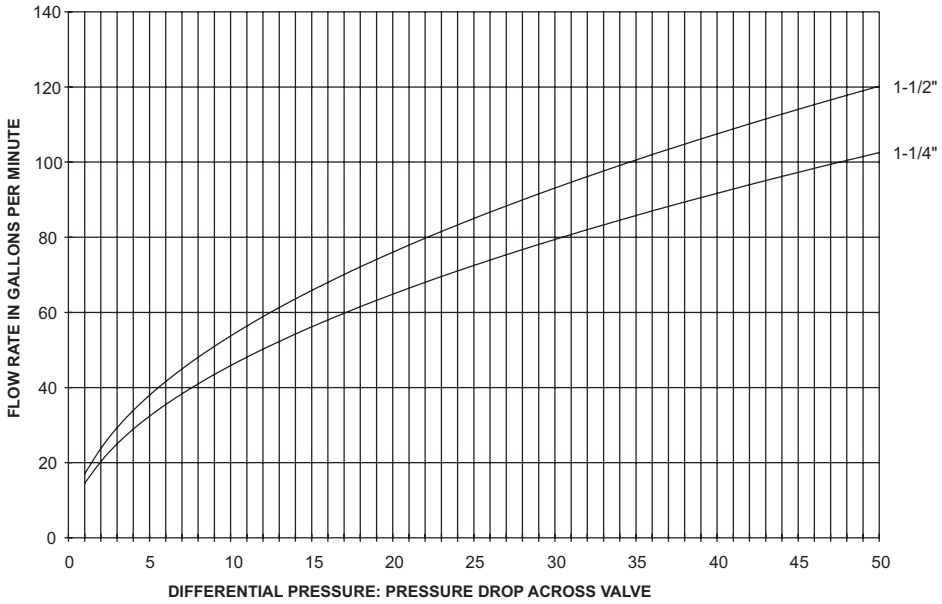
  The optional reverse acting configuration (closes on a pressure increase) is designated by an "R" after the P.

  Example: 500PR-125-SE-2W.

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.

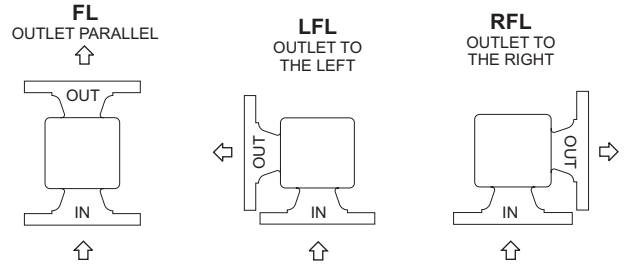
Example: 500PF-125-SE-2W.

VALVE FLOW DATA



VALVE RATING & CONFIGURATION

TABLE I			
PRESSURE RATING	STANDARD	H	EH
DESIGN PRESSURE	350 PSI	450 PSI	500 PSI
PROOF PREESURE	525 PSI	675 PSI	750 PSI



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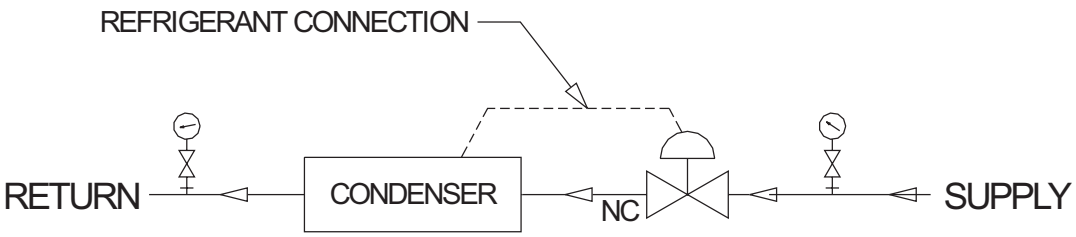
500P-SE-2W

2-WAY DIRECT ACTING
HIGH PRESSURE WATER REGULATING VALVE

2-WAY HEAD PRESSURE REGULATOR TYPICAL APPLICATION

- 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 500 series valves are high water pressure, direct acting, modulating water regulating valves utilizing internal diaphragm construction to give a smooth, well balanced action. The pressure-balanced design assures fast response to changes in refrigerant pressure and protection against both gradual and sudden water pressure changes. All water pressure boundaries are o-ring sealed for leak-proof, set & forget reliability.

ADJUSTMENT

- All valves in 1-1/4” and 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 55-235 PSI. A 40 PSI increase of pressure is required to open the valve fully.

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

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.