METREX VALVE
TECHNICAL DATA REFERENCE

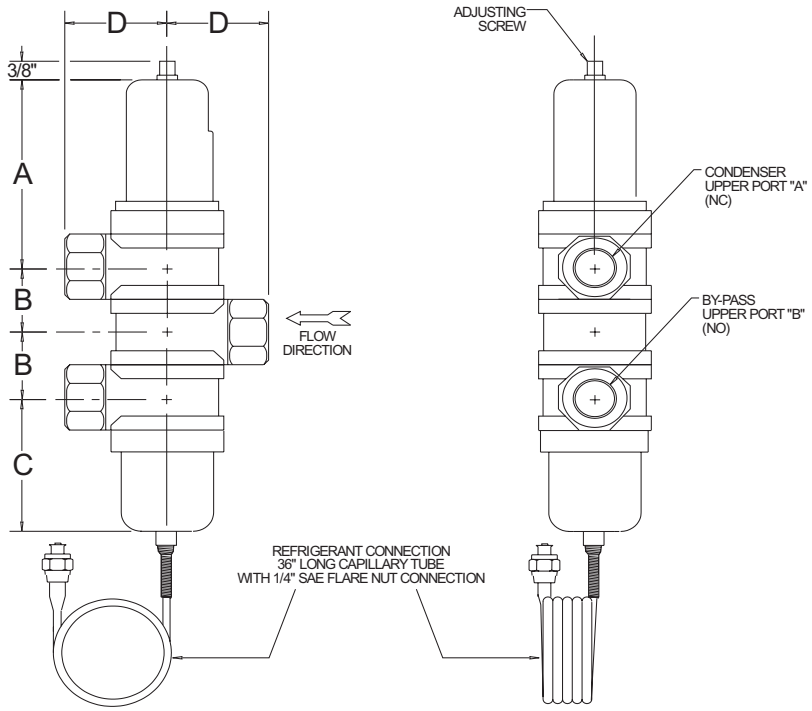
500P-SE-3W
3-WAY DIRECT ACTING WATER REGULATING VALVE

SELECTION CRITERIA

- Fresh water use
- Direct acting
- Actuation by pressure
- Screwed end connections NPT
- 3-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



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

Reference Metrex drawing 500P-SE-3W

VALVE SIZING CHART

VALVE PART NUMBER	PIPE SIZE	C_V	DIMENSIONS				APPROX. SHIP WT.
			A	B	C	D	
500P-125-SE-3W	1-1/4"	14.5	7-1/4"	2-1/32"	4-9/16"	2-5/8"	18#
500P-150-SE-3W	1-1/2"	17	7-3/8"	2-7/32"	4-27/32"	2-3/4"	23#

505 S. Vermont Ave., Glendora, CA 91741, USA (800) 266-4027 Fax: (626) 335-1514 www.metrexvalve.com

500P-SE-3W

3-WAY DIRECT ACTING WATER REGULATING VALVE

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-3W

BELLOWS OPTIONS
VALVE SIZING CHART
TABLE I
VALVE CONFIGURATION

BELLOWS OPTIONS

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

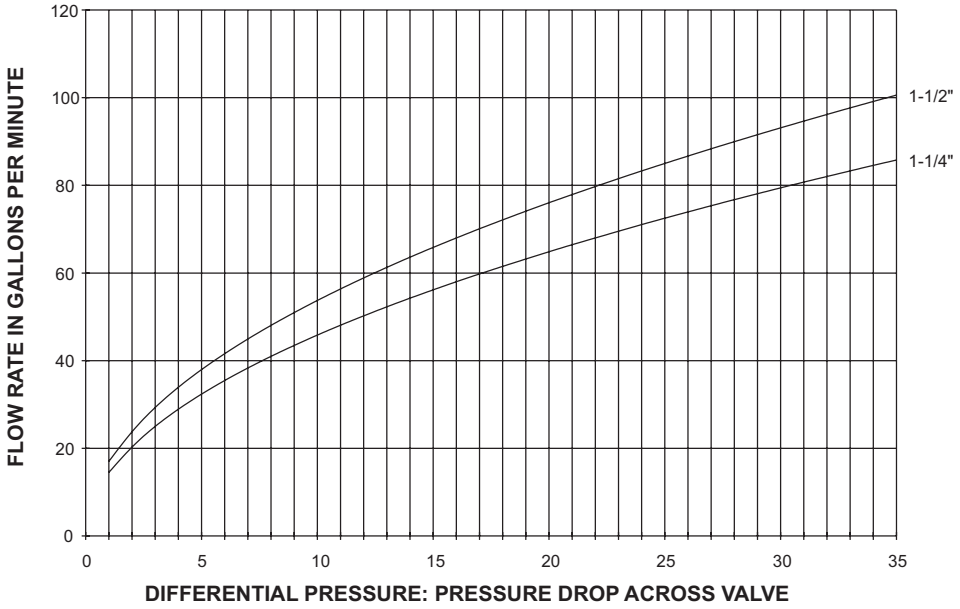
  Example: 500PA-125-SE-3W.

PRESSURE RANGE ADJUSTMENT

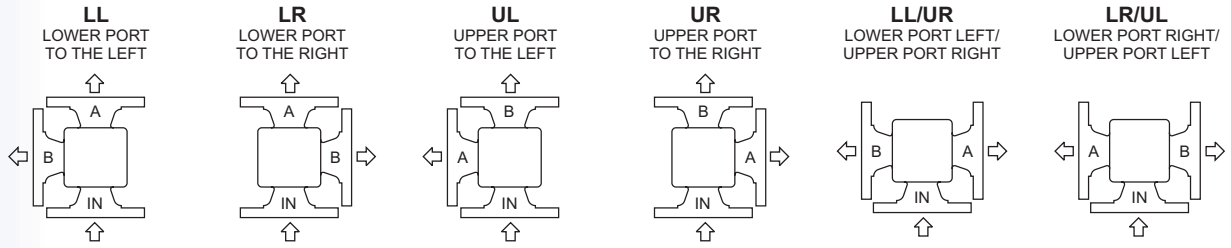
- The refrigerant pressure at which port A (normally closed) begins to open can be adjusted from 50 to 235 PSI. A 40 PSI increase of pressure is required to open port A fully.

TABLE I			
PRESSURE RATING	STANDARD	H	EH
DESIGN PRESSURE	350 PSI	400 PSI	500 PSI
PROOF PREESURE	525 PSI	600 PSI	750 PSI

VALVE FLOW DATA



VALVE CONFIGURATION



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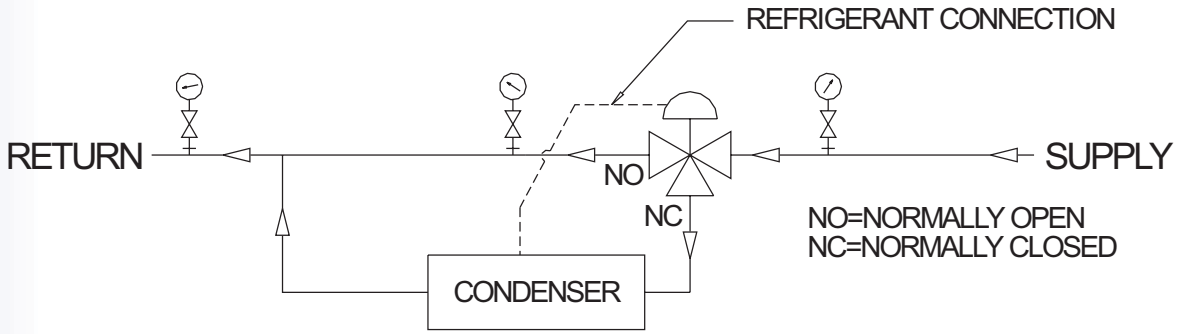
3-WAY HEAD PRESSURE REGULATOR TYPICAL APPLICATION

- 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 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 1-1/4" 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 50-235 PSI. A 40 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.