

# DA866P-NF

2-WAY DIRECT ACTING WATER REGULATING VALVE

#### SELECTION CRITERIA

- Marine water use
- Direct acting
- Actuation by pressure
- Open on pressure increase
- Optional open on pressure decrease
- 150 PSI water pressure rating

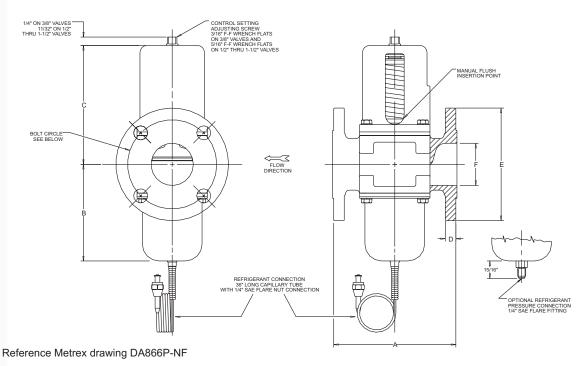
#### **C**ONSTRUCTION DETAILS .

- Monel internals
- Buna-N diaphragms & seals

Flanged end connections

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- 2-way configuration
- 1/2" thru 2-1/2" sizes
- Optional use of ammonia
- 225 PSI proof pressure
- Bronze body
- Flanges per MIL-F-20042C



#### VALVE SIZING CHART.

	PIPE SIZE I.P.S.	Cv	VALVE					FLANGE DATA			
VALVE PART NUMBER			DIMENSIONS						NO. OF	HOLE	BOLT
			Α	В	С	D	E	F	HOLES	SIZE	CIRCLE
DA866P-50-NF	1/2"	3	3-3/4"	2-5/8"	3-21/32"	3/8"	3-9/16"	.71"	3	9/16"	2-7/16"
DA866P-75-NF	3/4"	5	4-3/16"	2-3/4"	3-13/16"	7/16"	3-13/16"	.92"	4	9/16"	2-11/16"
DA866P-100-NF	1"	7	5-5/16"	3-21/32"	6-3/16"	7/16"	4-1/4"	1.18"	4	9/16"	3-1/8"
DA866P-125-NF	1-1/4"	13	5-5/16"	3-13/16"	6-5/16"	7/16"	4-1/2"	1.35"	6	9/16"	3-3/8"
DA866P-150-NF	1-1/2"	14	5-5/16"	3-13/16"	6-5/16"	7/16"	5-1/16"	1.60"	6	9/16"	3-15/16"
DA866P-200-NF*	2"	20	6-3/8"	5-1/16"	6-11/32"	7/16"	5-9/16"	2.25"	6	9/16"	4-7/16"
DA866P-250-NF*	2-1/2"	26	6-3/8"	5-3/16"	6-19/32"	7/16"	6-1/8"	2.75"	6	9/16"	5"

\*Optional refrigerant pressure range adjustment

METREX VALVE CORP. ENGINEERED CONTROL SOLUTIONS FOR HVAC 

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# DA866P-NF

2-WAY DIRECT ACTING WATER REGULATING VALVE

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#### **O**RDERING INFORMATION

 Use the Valve Sizing Chart on the preceding page tables and charts below to determine the complete part number.

## BASIC PART NO.: DA866P<sub>+</sub>-<sub>+</sub>-<sub>+</sub>-NF

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#### **B**ELLOWS OPTIONS \_

 The Optional ammonia actuator includes a steel assembly and is designated by an "A" after the P.

Example: DA866PA-50-NF.

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

Example: DA866PR-150-NF.

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: DA866P12<u>F</u>-100-NF.

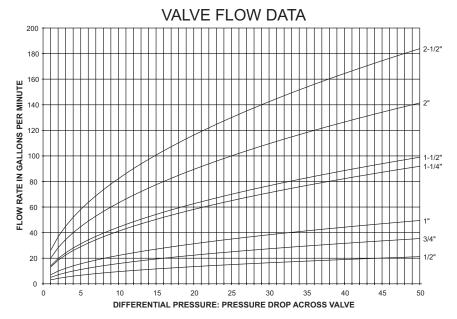
#### **P**RESSURE RANGE ADJUSTMENT\_

 The refrigerant pressure range at which the valve begins to open can be adjusted. A 40 or 45 PSI increase of pressure is required to open the valve fully. See table 1.

VALVE ASSY. NUMBER	CRACK POINT ADJ. RANGE	PRESS. RISE FOR FULL OPEN
DA866P-50-NF	50-225 PSI	40 PSI
DA866P-75-NF	50-225 PSI	40 PSI
DA866P-100-NF	50-210 PSI	40 PSI
DA866P-125-NF	50-210 PSI	40 PSI
DA866P-150-NF	50-210 PSI	40 PSI
DA866P12-200-NF	50-150(R-12) PSI	40 PSI
DA866P22-200-NF	80-210(R-22) PSI	45 PSI
DA866P12-250-NF	50-150(R-12) PSI	40 PSI
DA866P22-250-NF	80-210(R-22) PSI	45 PSI

Example: DA866P12-200-NF is a 2" flanged valve suitable for use with R-12.

TABLE 1



METREX VALVE CORP. ENGINEERED CONTROL SOLUTIONS FOR HVAC 

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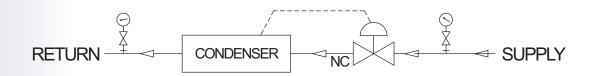


## **DA866P-NF** 2-WAY DIRECT ACTING WATER REGULATING VALVE

# **2**-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 DA 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 in 1/2" through 2-1/2" 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 to 225 PSI. A 45 PSI increase of
pressure is required to open the valve fully.

To adjust condensing head pressure, use wrench or pin 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.



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