Modulating Water Valves

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Two-way Pressure Actuated Water Valves

These pressure actuated modulating valves control the quantity of water to a condenser by directly sensing pressure changes in a refrigerant circuit.

The valves can be used in non-corrosive refrigerant systems. Ammonia power elements and valves designed for salt-water applications are available.

The valves have a quick opening characteristic and open on pressure increase (direct acting). Reverse acting (close on pressure increase) is possible.

Features

- Pressure balanced valve design
- High refrigerant pressure resistant bellows
- Pressure actuated
- 3/8, 1/2, 3/4" are angled body type valves with high Kv value
- 3/8" up to 2" pressure valves "all range" types
- Quick opening valve characteristics
- No close fitting or sliding parts in water passages
- Easy to disassemble. All parts can be replaced
- Special bronze bodies and monel parts
- Power elements with stainless steel bellows available
- Wide range of pressure connection styles
- Nickel plated seats available for
- 3/8, 1/2, and 3/4" valves
- Direct/reverse action





Valve		Dimension in mm									
Size	Α	B	С	D	E	F					
3/8"	69	153	66	43	18	89					
1/2"	80	170	86	51	27	100					
3/4"	91	183	95	55	36	110					

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Two-way Pressure Actuated Water Valves

Ordering Codes	Range (bar)	Body Style	Size Thread according to ISO 228	Style	Capillary Length	Additional Features It is possible to change Style 13 into Style 45A by ordering KIT031N600
V46AA -9600						
V46AA -9608*			3/8"	13	75	With special washer to prevent waterhammer at low flow capacity
V46AA -9610						With special washer to prevent waterhammer at low flow capacity/nickel plated seat
V46AA -9602*				13	100	Nickel plated seat/longer capillary
V46AA -9950	518	Angled				Nickel plated seat/ solder connection
V46AA -9951*	510	Angled		34	75	.040" i.d.cap/solder connection
V46AB -9600			1/2"	13	75	
V46AB -9950			1/2	34	/5	Solder connection/ "062" id.cap
V46AC -9600				13	75	
V46AC -9606			3/4*	13	120	Longer capillary
V46AC -9951				34	75	Solder connection
V46AA -9300				5		
V46AA -9301*					-	Nickel plated seat, high range. With washer to prevent waterhammer at low flow capacity
V46AA -9606			3/8"	13		Nickel plated seat, high range
V46AA -9609*					75	Nickel plated seat, high range. With washer to prevent waterhammer at low flow capacity
V46AA -9510				50		High range
V46AB -9300	523	Angled		5	82	
V46AB -9605	363	Augred	1/2"	13	75	Nickel plated seat, high range
V46AB -9951			1/2	34		Solder connection, high range
V46AB -9510				50	75	High range
V46AC -9300				5		
V46AC -9605			3/4*	13	75	Nickel plated seat, high range
V46AC -9502			3/4	50	140	Longer cap.
V46AC -9510					75	High range

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Two-way Pressure Actuated Water Valves



V46 Straight



			Dimensio	on in mm		
Valve Size	Α	В	С	D	E	F
1"	124	233	139	72	50	13
1¼"	125	243	145	72	58	13

Ordering Codes	Range (bar)	Body Style	Size Thread according to ISO 7-Rc	Style	Capillary Length	Additional Features It is possible to change Style 13 into Style 45A by ordering KIT031N600	
V46AD -9300			1" 1¼"	5			
V46AD -9510				50	75		
V46AD -9600	5 40			13			
V46AE -9300	518	Charles I.		5			
V46AE - 9510		Straight		50	75		
V46AE -9600				13	75		
V46AD -9511			1"		75	High range	
V46AE - 9512	1023		1¼"	50			

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Two-way Pressure Actuated Water Valves





V46 Flanged

	Dimensions in mm									
Valve Size	Α	В	С	D	E	F	G	н	- E	J
1%"	137	244	144	18	150	47	67	13	110	
2"	168			-	165	57		18	125	18
21/2"	172	304	164	20	185	70	90		145	

Ordering Codes	Range (bar)	Body Style	Size DIN2533 Flang Connections	Style	Capillary Length	Additional Features It is possible to change Style 13 into Style 45A by ordering KIT031N600	
V46AR-9300	F 40			5	***		
V46AR-9600	518		1%"	13	75		
V46AR-9700	714			15		For ammonia applications	
V46AS-9300	511.5	Straight					
V46AS-9301	1118		2*	_			
V46AT-9300	511.5			5			
V46AT-9301	1118		2%"				

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Two-way Pressure Actuated Water Valves





V46 Straight

	Dimension in mm									
Valve Size	A	В	С	D	E	F				
3/8"	68	161	80	42	32					
1/2"	79	165	86	52	29	10				
3/4"	86	175	96	55	35					
1"	10.1	246	139		39	10				
1%"	124	254	144	71	48	13				

Ordering Codes	Range (bar)	Body Style	Size thread according to ISO 228	Style	Capillary Length	Additional Features It is possible to change Style 13 into Style 45A by ordering KIT031N600
V46BA-9600			3/8"			
V46BB-9600			1/2"	13		
V46BC-9600			3/4"		75	
V46BD-9600	5 40	Straight				
V46BD-9601	518		1"		120	Longer capillary
V46BE-9510			11/4"	50	75	
V46BE-9600				13	/5	
V46BE-9601					120	Longer capillary
V46BA-9510			3/8"			
V46BB-9510			1/2"		75	
V46BC-9510	523		2148			
V46BC-9511			3/4"	50	140	Longer capillary
V46BD-9510			1"		75	
V46BE-9511	1023		1¼"		150	Longer capillary

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Two-way Pressure Actuated Water Valves





V46 Flanged

	Dimensions in mm									
Valve Size	Α	В	С	D	Ε	F	G	н	1	J
1%"	135	244	144	14	150	47	67	13	110	
2"	162		164	16	165	57	90	18	125	18
21/2"	172	304			185	70			145	

Ordering Codes	Range (bar)	Body Style	Size DIN 86021 flange connections	Style	Capillary Length	
V46BR-9510	F 10		41/#	50		
V46BR-9600	518		1½"	13	75	
V46BS-9300	511.5			5		
V46BS-9301	1118	Straight	2"			
V46BT-9300	511.5		21/8			
V46BT-9301	1118		21/2"			

V46SA

Pressure Actuated Water Valves, Low Flow

The V46SA is a direct acting, "all range", pressure actuated modulating valve, used to control the waterflow to a condenser by directly sensing pressure changes in a non-corrosive refrigerant circuit. The V46SA is specially designed for use on equipment requiring a low condenser waterflow such as icemakers, cmall bacture and watercedure. The scriptbouring and

small heatpumps and watercoolers. The springhousing and power element are rolled to the valve body.

Rubber diaphragms seal the water away from the range spring and bellows part so these are not submerged in water where they would be subject to sedimentation and corrosion.

The valve can be ordered style 5 (without capillary), style 13, style 34 and style 50 (incl. 75 cm capillary). The capillary part will be delivered separated from the valve.

Features

- Valve designed for low flow
- "All range" power element and spring housing
- Small dimensions
- Pressure actuated
- Various pressure connection style
- High refrigerant pressure resistant bellows





Dimensions in mm

Ordering Codes	Range (bar)	Body Style	SizeThread according to ISO 228	Style	Capillary Length	Additional Features It is possible to change Style 13 into Style 45A by ordering KIT031N600		
V46SA-9101				45A	75	Capillary soldered to power element		
V46SA-9110			3/8"	50		Capillary separate		
V46SA-9300				5	222			
V46SA-9600	523	Straight	3/8"	13		Capillary separate		
V46SA-9950			34 75					
V46SA-9951		34		Capillary soldered to power element				

REFRIGERATION COMPONENTS



For further information and additional models see Product Installation Guide