

概述

FDF-MG电磁阀是为R410A制冷剂开发的新型电磁阀，用于液管路、吸气管路和热蒸汽管路，也适用于其他氟化物。

特点

- FDF-MG型电磁阀为伺服式电磁阀，适用于氟化物制冷剂的液管路、吸气管路和热蒸汽。
- 电磁阀适用于冷藏、冷冻、空调装置。
- 有多种交流电压AC和直流电压DC线圈供选择。
- 适用于R410A及其它HCFC、HFC制冷剂（R717除外）和相容的润滑油。
- 适用工质温度 $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ ，除霜期间最高温度 $+130^{\circ}\text{C}$ 。
- 适用环境温度 $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$ 。
- 最高工作压力45bar。
- 耐液压强度 $\geq 68\text{bar}$ 。
- 可提供UL/CUL认证。

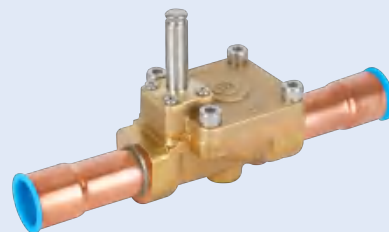


General

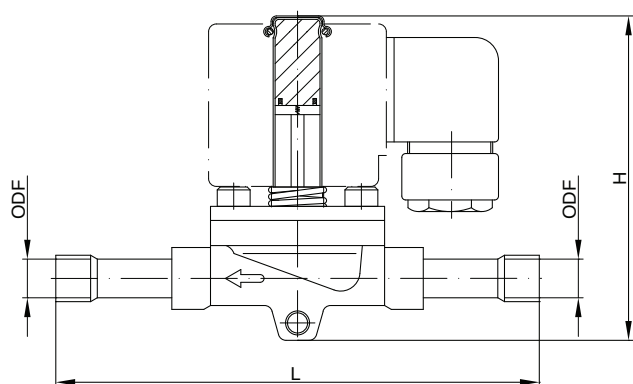
FDF-MG series are specially designed for R410A system , can be also used for liquid ,suction , hot gas lines with other fluorinated refrigerants.

Characteristics

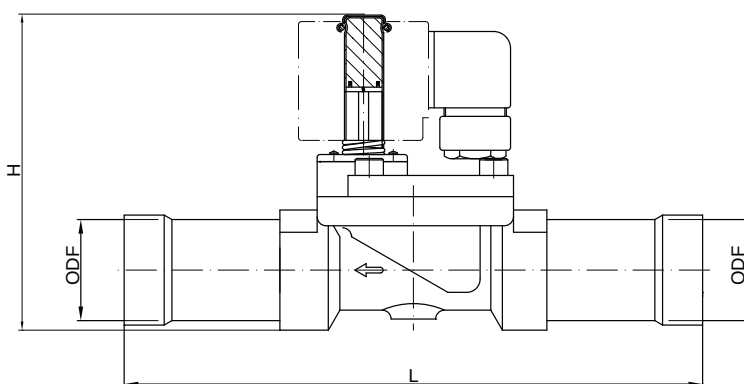
- FDF-MG series are pilot operated solenoid valves for liquid, suction and hot gas application.
- Full range of solenoid valves for refrigeration and air condition application.
- Wide choice of coils for AC and DC.
- Suitable for R410A refrigerant, HFC & HCFC.
- Temperature of medium $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$, Max $+130^{\circ}\text{C}$ during defrosting.
- Ambient environmental temperature $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$.
- Max. working pressure 45 bar.
- Maximum test pressure $\geq 68\text{ bar}$.
- Versions with UL and CUL approval can be supplied according to order.



外形尺寸 Dimensions



FDF6MG-20MG系列



FDF25MG-40MG系列

FDF-MG 系列电磁 (Solenoid valves for R410A)

Shanghai Thermostat Factory Co.,Ltd.

型号和参数 Technical data

型号 Model	接管方式 Form of Connection	接管外径 Connect tube OD		阀开启压差 Opening diff. pressure(bar)			Kv值 Kv Value m³/h	最大安全 工作压力 Max working pressure (bar)	外形尺寸 Dimensions(mm)			电源种类 Rated power (V)					
		mm ODF	in ODF	最小 Min	最大(水) Max(liquid)				L mm	W mm	H mm	AC (V)	DC (V)				
					交流电压 50/60Hz AC	直流电压 DC											
FDF3G	焊接式 ODF	6	1/4	0	28	24	0.18	45	117	31	76	24 36 110 220	12 24				
		10	3/8														
FDF6MG		10	3/8	0.05						0.60				127	32	80	
		12	1/2														
FDF8MG		10	3/8							1.00				137	38	88	
		12	1/2								133						
		16	5/8								162						
FDF10MG		12	1/2							1.80				137	45	88	
		16	5/8								166						
FDF15MG		16	5/8				0.05			3.00					174	52	96
		19	3/4														
		22	7/8														
FDF20MG		22	7/8							5.00				190	58	115	
		28	9/8											250			
FDF25MG		28	9/8							9.80				236	72	119	
		35	11/8											254			
FDF32MG		35	11/8	0.3						15.00					281	86	133
		42	13/8														
FDF40MG	42	13/8	0.3		25.00				312	126	158						
	54	17/8															

Kv值水在通过电磁阀时的压差为1bar时的流量、单位m³/h、密度p=1000 kg/m³

注：如需其它工作特性和规格产品，请与本公司接洽联系。

The Kv value is the water flow in m³/h at a pressure drop across valve of 1 bar, p=1000kg/ m³.

Note :If you have special requirement ,please contact STF.

型号和参数 Technical data

型号 Model	名义制冷量 Nominal Liquid Capacity(kw)														
	液体 Liquid					吸气 Suction					热蒸汽 hotgas				
	R22	R134a	R404A R507	R407c	R410A	R22	R134a	R404A R507	R407c	R410A	R22	R134A	R404A R507	R407c	R410A
FDF3G	6.20	3.90	3.70	5.70	6.48	0.68	0.54	0.40	0.62	0.70	2.92	2.32	1.73	2.66	3.02
FDF6MG	15.60	14.20	10.60	14.80	15.80	1.75	1.27	1.40	1.70	2.20	7.20	5.50	5.70	7.40	11.00
FDF8MG	19.50	17.70	13.30	18.50	19.70	2.18	1.58	1.75	2.10	2.75	9.00	6.87	7.12	9.25	13.75
FDF10MG	35.00	32.00	24.00	33.30	35.20	3.92	2.84	3.15	3.78	4.95	16.20	12.30	12.80	16.60	24.75
FDF15MG	69.00	55.20	41.40	63.00	72.00	7.59	6.07	4.55	6.93	7.92	32.24	25.80	19.35	29.42	33.65
FDF20MG	103.50	82.80	62.10	94.50	108.00	11.38	9.10	6.83	10.39	11.88	48.37	38.70	29.02	44.17	50.48
FDF25MG	230.00	213.00	162.00	236.00	242.00	22.80	16.30	20.40	21.92	24.70	92.30	73.20	75.30	96.90	98.60
FDF32MG	346.00	320.00	254.00	358.00	363.00	34.20	24.40	30.60	35.80	38.10	138.00	109.00	113.00	145.00	151.20
FDF40MG	503.00	464.00	351.00	534.00	580.80	57.00	40.80	38.60	59.00	61.00	231.00	188.00	183.00	240.00	242.00

液体和吸气名义制冷量为:

蒸发温度 $t_e=4.4^{\circ}\text{C}$ 阀前液体温度 $t_1=38^{\circ}\text{C}$ 通过电磁阀压力降 R134a $\Delta P=0.15\text{bar}$ R22、R404A、R507、R407c、R410A $\Delta P=0.21\text{bar}$

热气名义制冷量工况条件为:

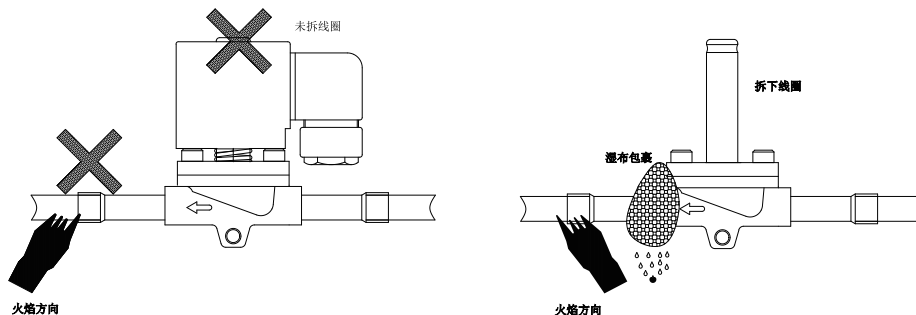
冷凝温度 $t_c=+40^{\circ}\text{C}$ 经过阀门压力降 $\Delta P=0.8\text{bar}$ 热蒸汽温度 $t_h=+65^{\circ}\text{C}$ 液体制冷剂过冷度 $\Delta t_{\text{sub}}=4\text{K}$

Rated liquid and suction vapour capacity is based on evaporating temperature $t_e=4.4^{\circ}\text{C}$, liquid temperature ahead of valve $t_1=38^{\circ}\text{C}$, and pressure drop in valve R134a $\Delta P=0.15\text{bar}$, R22、R404A、R507、R407c、R410A $\Delta P=0.21\text{bar}$.

Rated hot gas capacity is based on condensing temperature $t_c=+40^{\circ}\text{C}$, pressure drop across valve $\Delta P=0.8\text{bar}$, hot gas temperature $t_h=+65^{\circ}\text{C}$, and subcooling of refrigerant $\Delta t_{\text{sub}}=4\text{K}$.

安 装

- 电磁阀应该垂直安装在水平管道上, 介质流动的方向应与电磁阀所示的箭头方向一致。
- 线圈工作输入电压必须与线圈上标明额定电压一致。决不允许在电磁线圈通电时从阀上拆下来, 以防烧坏线圈。
- 电磁阀焊管在与系统管子焊接时, 必须注意以下几点:
- 从阀上拆下电磁线圈, 用湿布或湿棉纱包在阀体上保护阀体, 以防在焊接时温度过高烧坏阀内零件。
- 焊接时请注意焊枪火焰方向。
- 最好选用高银焊条焊接。
- 带手动杆的电磁阀, 必须先旋转手动杆使阀开启, 然后做系统气密性试验, 以免损坏膜片。



Installation

- The valve should be installed in horizontal pipe line under vertical position. The flow direction must be in the arrow direction.
- The supply voltage must meet the rated input voltage shown on the label of the coil. It is forbidden to take away coils from the valve when the coil is energized.
- When brazing the valve with connect tube in system, below points are very important.
 - Before brazing, coil must be taken away and cover the valve body with wet rags to avoid damage.
 - The brazing flame must be avoided facing the valve body.
 - It is better to use low temperature type silver to braze.
 - For the valve with lift stem, you must turn the stem to open the valve, then make leakage test to protect diaphragm.