

MDF SERIES**SOLENOID VALVE
SERIES MDF
(SLEEVE Ø11 MM)**

(Standard range: for fluids GROUP 2 according to Directive 2014/68/EU or GROUP A1 according to ANSI-ASHRAE 34-2016)

MDF series solenoid valves are direct, or pilot operated solenoid valves optimised for small and medium size commercial refrigeration applications, heat pumps and air conditioners.

**FEATURES**

- COILS: OPTIMIZED SIZE AND LOW ENERGY CONSUMPTION, WITH DIN CONNECTOR
- SERVICEABLE DESIGN FOR EASY MAINTENANCE
- COMPACT AND LOW WEIGHT SOLUTION
- EXTENDED MEDIUM TEMPERATURE RANGE (FOR MDF2/MDF3/MDF6)

GENERAL SPECIFICATIONS

- Applicable for all common HFC, HFO refrigerants such as: R134a, R404A, R407A/F, R407C, R410A, R448A, R449A, R450A, R452A, R513A, R507A
- Suitable for oil-free systems: only models MDF 10H...22H
- Medium temperature TS min./max.:
 - MDF 2H...6H: -40°C/140°C
 - MDF 10H...22H: -30°C/105°C
- Ambient temperature min./max.: -30°C / +55°C
- Relative humidity: 0 to 95% RH
- Installation position:
 - Liquid, suction, and discharge line
 - Preferably coil upwards and flow direction corresponds to the arrow
- Declaration according to LVD and PED, UL approval



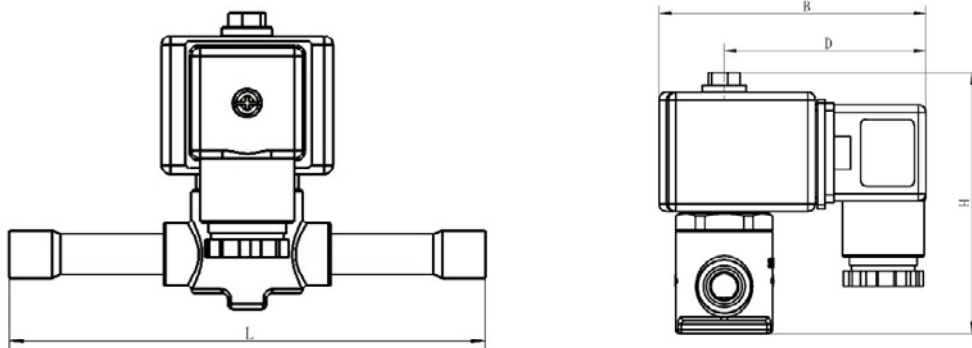
TECHNICAL PARAMETERS OF VALVE BODY

Valve Body Solder	Normal position	Actuation	Kv [m ³ /h]	MOP [bar]	Max. OPD [bar]		Min. OPD [bar]
					Air	Liquid	
MDF2	NC ¹⁾	Direct	0,16	45	31	21	0
MDF3			0,26	45	31	21	0,07
MDF6			0,8	45	31	21	0,07
MDF10		Pilot	1,9	45	31	21	0,05
MDF15			2,6	45	31	21	0,05
MDF16			3,3	45	31	21	0,05
MDF20			5	45	31	28	0,2
MDF22			6	45	31	28	0,2

Note: 1) NC means: Normally closed valve

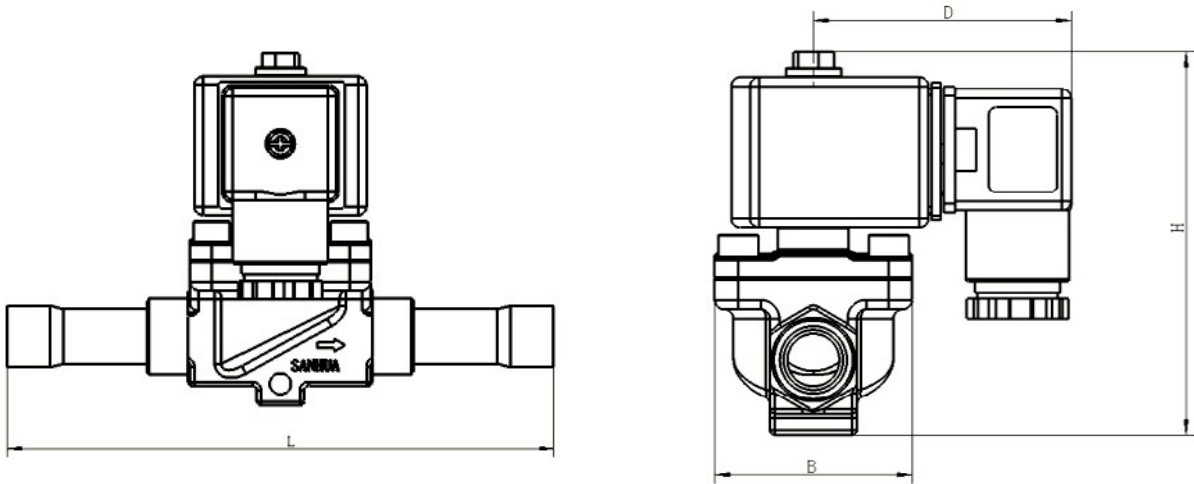
DIMENSIONS

Valve Body - Solder connections



Model Valve Body	Part Number ¹⁾²⁾	Solder connection		Kv [m ³ /h]	PED Category Fluid Group 2	Dimensions [mm]			
		Inch	mm			L	B	D	H
MDF2H01	10125031102	1/4		0,16	4.3	102	71,4	54	64
MDF2H02	10125028502	-	6	0,16	4.3	102	71,4	54	64
MDF3H01	10125031402	1/4		0,26	4.3	102	71,4	54	66
MDF3H02	10125028602	-	6	0,26	4.3	102	71,4	54	66
MDF3H03	10125031502	3/8		0,26	4.3	102	71,4	54	66
MDF3H04	10125031302	-	10	0,26	4.3	102	71,4	54	66
MDF6H01	10125020602	3/8		0,8	4.3	111	71,4	54	71
MDF6H02	10125028702	-	10	0,8	4.3	111	71,4	54	71
MDF6H03	10125030102	1/2		0,8	4.3	120	71,4	54	71
MDF6H04	10125030002	-	12	0,8	4.3	120	71,4	54	71

SOLENOID VALVE SERIES MDF



Model Valve Body	Part Number ¹⁾²⁾	Solder connection		Kv [m ³ /h]	PED Category Fluid Group 2	Dimensions [mm]			
		Inch	mm			L	B	D	H
MDF10H01	10125020702	1/2		1,9	4.3	127	42	54	83
MDF10H02	10125020102	-	12	1,9	4.3	127	42	54	83
MDF10H03	10125031202	5/8	16	1,9	4.3	160	42	54	83
MDF15H01	10125020802	5/8	16	2,6	4.3	176	51	54	91
MDF15H02	10125023702	7/8	22	2,6	4.3	176	51	54	91
MDF16H01	10125030302	5/8	16	3,3	4.3	176	51	54	91
MDF16H02	10125030202	7/8	22	3,3	4.3	176	51	54	91
MDF20H11	10125031002	7/8	22	5	4.3	191	60	54	104
MDF20H12	10125030902	1-1/8		5	4.3	214	60	54	104
MDF20H13	10125030802	-	28	5	4.3	214	60	54	104
MDF22H11	10125030702	7/8	22	6	4.3	281	60	54	104
MDF22H12	10125030602	1-1/8		6	4.3	281	60	54	104
MDF22H13	10125030502	-	28	6	4.3	281	60	54	104
MDF22H14	10125030402	1-3/8	35	6	4.3	281	60	54	104

Note: 1) Extent of delivery: valve body without coil

2) Available also as industrial package. Contact Sanhua for more details.



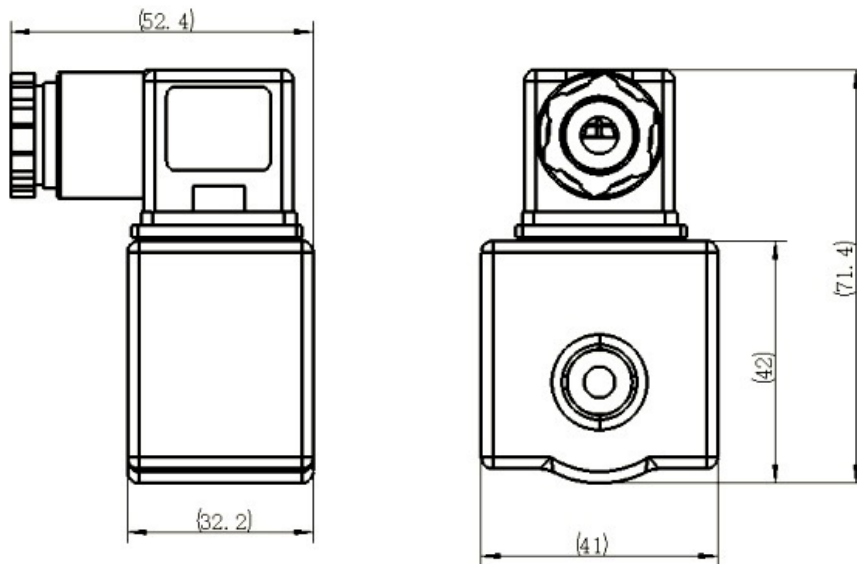
TECHNICAL PARAMETERS OF COIL

Model	Part Number ¹⁾	Type	Power Supply	Rated Voltage [V]	Power [W] [50Hz/60Hz]	Voltage Tolerance	Ins. Class	IP Class (w/plug)	UL Approval
HQ1G11	10780000402	DIN ²⁾ Plug	AC	220~240	7/5.5	-15% +10%	F	IP67	Yes, ins. class B
HQ1D11	10780000602			120	6/5				
HQ1K11	10780000702			24	6/5				

Note: 1) Extent of delivery: coil body, O ring and fastening screw for the coil body, plug for electrical connection incl. gaskets and fastening screws
 2) Outer cable diameter: 6,5 to 7,3 mm

DIMENSIONS - COILS

HQ1 (Coil with DIN Plug):



MDF SERIES**SOLENOID VALVE
SERIES MDF
(SLEEVE Ø11 MM)**

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- SERVICEABLE DESIGN FOR EASY MAINTENANCE
- COMPACT AND LOW WEIGHT SOLUTION
- EXTENDED MEDIUM TEMPERATURE RANGE (FOR MDF2/MDF3/MDF6)

GENERAL SPECIFICATIONS

- Applicable for HC, HFC/HFO, HFO refrigerants such as: R290, R1234ze(E), R1234yf, R447A, R452B, R454B, R454C, R455A
- Suitable for oil-free systems: only models MDF 10H...22H
- Medium temperature TS min./max.:
 - MDF 2H...6H: -40°C/140°C
 - MDF 10H...22H: -30°C/105°C
- Ambient temperature min./max.: -30°C / +55°C
- Relative humidity: 0 to 95% RH
- Installation position:
 - Liquid, suction, and discharge line
 - Preferably coil upwards and flow direction corresponds to the arrow
- Declaration according to LVD and PED, EN60335-2-24/40/89, UL approval



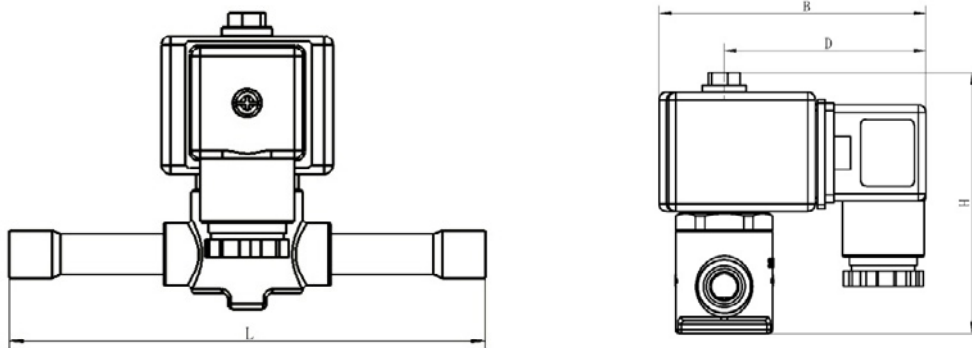
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MDF6			0,8	45	31	21	0,07
MDF10		Pilot	1,9	45	31	21	0,05
MDF15			2,6	45	31	21	0,05
MDF16			3,3	45	31	21	0,05
MDF20			5	45	31	28	0,2
MDF22			6	45	31	28	0,2

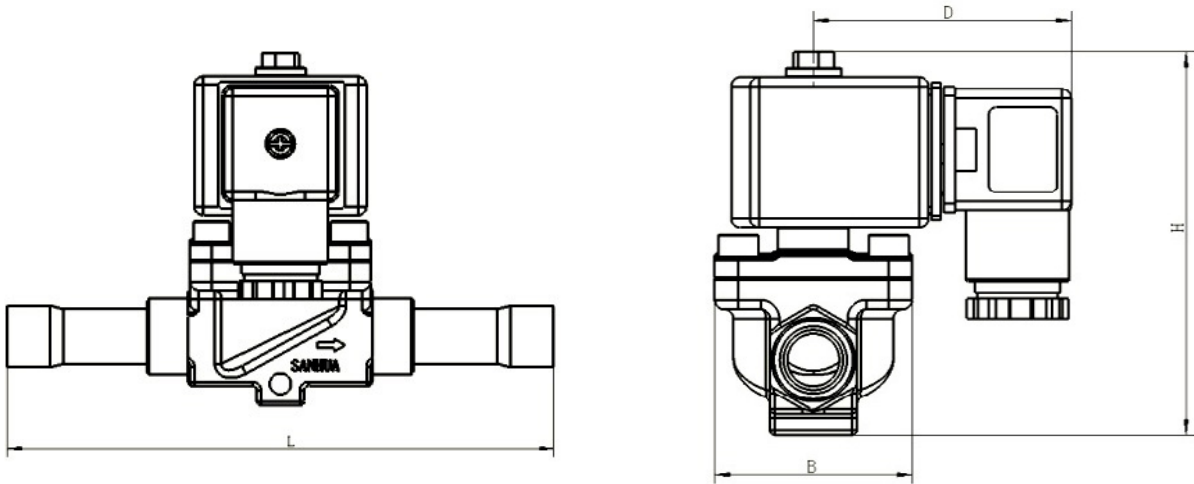
Note: 1) NC means: Normally closed valve

DIMENSIONS

Valve Body - Solder connections



Model Valve Body	Part Number ¹⁾²⁾	Solder connection		Kv [m ³ /h]	PED Category Fluid Group 1	Dimensions [mm]			
		Inch	mm			L	B	D	H
MDF2H01	10125031102	1/4		0,16	4.3	102	71,4	54	64
MDF2H02	10125028502	-	6	0,16	4.3	102	71,4	54	64
MDF3H01	10125031402	1/4		0,26	4.3	102	71,4	54	66
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MDF10H01	10125020702	1/2		1,9	4.3	127	42	54	83
MDF10H02	10125020102	-	12	1,9	4.3	127	42	54	83
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MDF16H01	10125030302	5/8	16	3,3	4.3	176	51	54	91
MDF16H02	10125030202	7/8	22	3,3	4.3	176	51	54	91
MDF20H11	10125031002	7/8	22	5	4.3	191	60	54	104
MDF20H13	10125030802	-	28	5	4.3	214	60	54	104
MDF22H11	10125030702	7/8	22	6	4.3	281	60	54	104
MDF22H13	10125030502	-	28	6	4.3	281	60	54	104

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HQ1D11	10780000602			120	6/5				
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