



## Solenoid Valve

MDF series solenoid valves are direct operated or pilot operated solenoid valves, mainly used in refrigerant control of various devices such as refrigerating and freezing systems, air conditioners and heat pumps.



### FEATURES

- COILS: LOW ENERGY CONSUMPTION, RELIABLE
- GREAT VALVE OPENING PERFORMANCE, HIGH MOPD
- COILS ARE DOUBLE SEALED, WATER TIGHT AND SAFE

### GENERAL SPECIFICATIONS

- Applicable for all common HCFC and HFC refrigerants such as: R22, R134a, R407C, R404A, R410A, R507A
- Medium temperature TS min./max.:
  - MDF 2H...22H and MDF 2L...15L: -30°C/105°C
  - MDF 25H...40H: -40°C/140°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 or PED

### TECHNICAL PARAMETERS

*Technical parameters of Coil*

Model Coil <sup>1)</sup>	Rated Voltage [V]	Supply	Power [W]	Part Number	Frequ. [Hz]	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A03024-000001	24	AC	10,5W (50Hz) 8,5W (60Hz)	MDF-60001	50/60	-15% +10%	F	IP65	DIN Plug
MQ-A03111A-000001	110 to 120		12W (50Hz) 10W (60Hz)	MDF-60002					
MQ-A0322G-000001	220 to 240		12W (50Hz) 10W (60Hz)	MDF-60003					
MQ-D03024-000002	24	DC	12W (50Hz) 10W (60Hz)	MDF-60002	-	±10%			

**Note:** 1) Applicable to MDF-A03 and MDF-B03 valve bodies





# SANHUA *MDF SERIES* Solenoid Valve

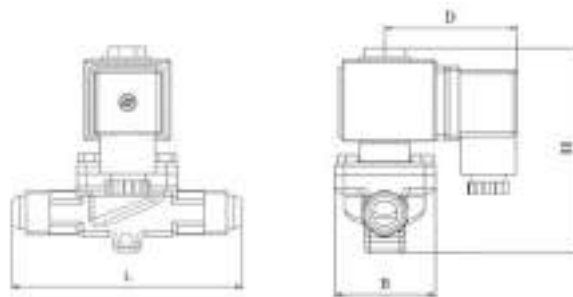
## Technical Parameters of Valve Body

Solder	Flare	Normal position	Actuation	Kv [m <sup>3</sup> /h]	MOP [Mpa]	Max. OPD [Mpa]	Min. OPD [Mpa]
MDF-A03-2H	MDF-A03-2L	NC	Direct	0,16	4,5	3,1	0,00
MDF-A03-3H	MDF-A03-3L			0,23			
MDF-A03-6H	MDF-A03-6L			0,8			
MDF-A03-10H	MDF-A03-10L		Pilot <sup>1)</sup>	1,9			0,02
MDF-A03-15H	MDF-A03-15L			2,3			
MDF-A03-20H	--			5,0			
MDF-A03-22H	--			5,9			
MDF-B03-25H	--		Pilot (P) <sup>2)</sup>	10,0			0,03
MDF-B03-32H	--			15,0			
MDF-B03-40H	--			25,0			

**Note:** 1) Membrane operated  
2) Piston operated

## DIMENSIONS

Valve Body  
Thread Connection



Model Valve Body	SAE Flare Connection [ inch ]	Part Number <sup>1)</sup>	PED Category	Dimensions [mm]			
				L	B	D	H
MDF-A03-2L 001	1/4	MDF-08039	3.3	59	30	53	82
MDF-A03-3L 001	1/4	MDF-08040	3.3	59	30	53	82
MDF-A03-3L 003	3/8	MDF-08041	3.3	59	30	53	82
MDF-A03-6L 001	3/8	MDF-08042	3.3	69	36	53	88
MDF-A03-6L 003	1/2	MDF-08043	3.3	69	36	53	88
MDF-A03-10L 003	1/2	MDF-08044	3.3	92	42	53	96
MDF-A03-10L 001	5/8	MDF-08045	3.3	92	42	53	96
MDF-A03-15L 001	5/8	MDF-08046	3.3	104	52	53	100
MDF-A03-15L 003	7/8	MDF-08047	3.3	104	52	53	100

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

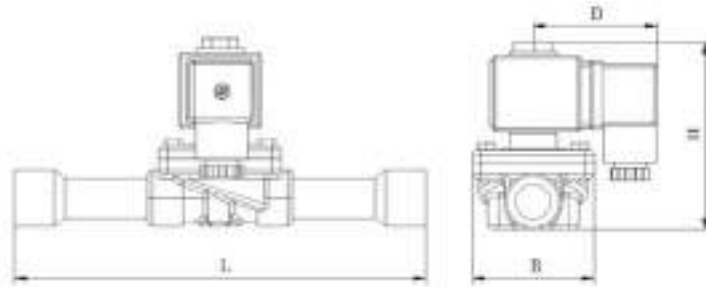




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## DIMENSIONS

Valve Body Solder Connection [inch]



Model Valve Body	Solder Connection [inch]	Part Number <sup>1)</sup>	PED Category	Dimensions [mm]			
				L	B	D	H
MDF-A03-2H 001	1/4	MDF-08001	3.3	102	30	53	82
MDF-A03-3H 001	1/4	MDF-08002	3.3	102	30	53	82
MDF-A03-3H 003	3/8	MDF-08003	3.3	102	30	53	82
MDF-A03-6H 001	3/8	MDF-08004	3.3	111	36	53	88
MDF-A03-6H 003	1/2	MDF-08005	3.3	111	36	53	88
MDF-A03-10H 001	1/2	MDF-08006	3.3	127	42	53	95
MDF-A03-10H 003	5/8	MDF-08007	3.3	127	42	53	95
MDF-A03-15H 001	5/8	MDF-08008	3.3	176	52	53	100
MDF-A03-15H 003	7/8	MDF-08009	3.3	176	52	53	100
MDF-A03-20H 001	7/8	MDF-08010	3.3	191	52	53	117
MDF-A03-20H 003	1-1/8	MDF-08011	3.3	191	52	53	117
MDF-A03-22H 001	7/8	MDF-08012	3.3	191	60	53	117
MDF-A03-22H 009	1-1/8	MDF-08048	3.3	191	60	53	117
MDF-A03-22H 003	1-3/8	MDF-08013	I	191	60	53	117
MDF-B03-25H 003	1-1/8	MDF-08014	3.3	280	76	53	144
MDF-B03-25H 004	1-3/8	MDF-08015	I	280	76	53	144
MDF-B03-32H 001	1-3/8	MDF-08016	I	281	76	53	144
MDF-B03-32H 002	1-5/8	MDF-08017	I	281	76	53	144
MDF-B03-40H 002	1-5/8	MDF-08018	I	281	84	53	152
MDF-B03-40H 004	2-1/8	MDF-08019	I	281	84	53	152

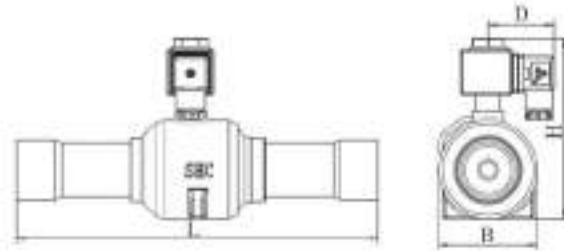
**Note:** 1) Extent of delivery: valve body without coil



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Valve Body Solder Connection [ mm ]



Model Valve Body	Solder Connection [mm]	Part Number <sup>1)</sup>	PED Category	Dimensions [mm]			
				L	B	D	H
MDF-A03-2H 003	6	MDF-08020	3.3	102	30	53	82
MDF-A03-3H 005	6	MDF-08021	3.3	102	30	53	82
MDF-A03-3H 007	10	MDF-08022	3.3	102	30	53	82
MDF-A03-6H 005	10	MDF-08023	3.3	111	36	53	88
MDF-A03-6H 007	12	MDF-08024	3.3	111	36	53	88
MDF-A03-10H 005	12	MDF-08025	3.3	127	42	53	95
MDF-A03-10H 003	16	MDF-08007	3.3	127	42	53	95
MDF-A03-15H 001	16	MDF-08008	3.3	176	52	53	100
MDF-A03-15H 003	22	MDF-08009	3.3	176	52	53	100
MDF-A03-20H 001	22	MDF-08010	3.3	191	52	53	117
MDF-A03-20H 007	28	MDF-08030	3.3	191	52	53	117
MDF-A03-22H 001	22	MDF-08012	3.3	191	60	53	117
MDF-A03-22H 011	28	MDF-08031	3.3	191	60	53	117
MDF-A03-22H 003	35	MDF-08013	I	191	60	53	117
MDF-B03-25H 005	28	MDF-08033	3.3	280	76	53	144
MDF-B03-25H 004	35	MDF-08015	I	280	76	53	144
MDF-B03-32H 001	35	MDF-08016	I	281	76	53	144
MDF-B03-32H 003	42	MDF-08036	I	281	76	53	144
MDF-B03-40H 003	42	MDF-08037	I	281	84	53	152
MDF-B03-40H 004	54	MDF-08019	I	281	84	53	152

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