

Solenoid Valve series MDF-RH

(GreenTech range: for R32)



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. The Design Pressure (PS) of the versions MDF-RH has been increased to 49 bars allowing the usage in R32 systems.

Features

- Coils: low energy consumption, reliable
- Great valve opening performance, high MOPD
- Coils are double sealed, watertight, and safe
- Certified according PED cat.II by TUV Rheinland

General Specification

- Applicable for all common HCFC, HFC and HFO refrigerants such as:
R22, R134a, R404A, R407A/C/F, R410A, R507A, R448A, R449A, R450A, R452A, R513A
R32, R1234yf, R1234ze, R454A/B/C, R455A
R290, R1270, R600a
- Maximum Operating Pressure: 4,9 MPa (49 bar)
- Medium temperature TS min./max.: -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
- PED Declaration of Conformity
- Note: third party certification according ignition risk evaluation is ongoing

Technical Parameters of Valve Body

Valve Body	Normal position	Actuation	Kv [m ³ /h]	MOP [MPa]	Max. OPD [MPa]	Min. OPD ⁴⁾ [MPa]
Solder						
MDF-A03-2RH	NC ¹⁾	Direct	0,16	4,9	3,1 ³⁾	0,00
MDF-A03-3RH			0,23			
MDF-A03-6RH		Pilot ²⁾	0,8			0,005
MDF-A03-10RH			1,9			
MDF-A03-15RH			2,3			
MDF-A03-20RH			5,0			
MDF-A03-22RH			5,9			

Note: 1) NC means: Normally closed valve

2) Membrane operated

3) Max. OPD at 85% Ue. Other coils on request

4) Min. OPD: values referred to 60% of nominal flow

Dimensions

Valve Body - Inch Solder Connection, Models with MOP 49 bar

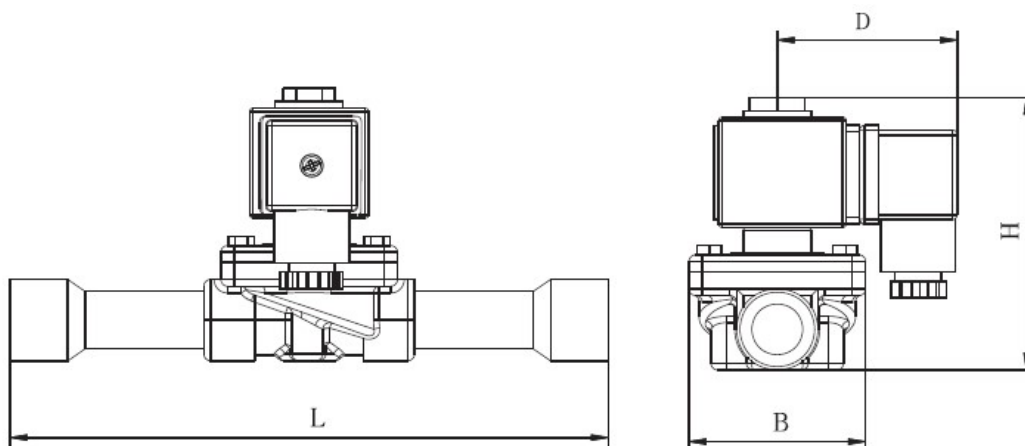
Model Valve Body	Part Number ¹⁾²⁾	Solder Connection ODF	Kv	PED Category Fluid Group I	Dimensions [mm]			
		[inch]	[m ³ /h]		L	B	D	H
MDF-A03-2RH01	10125023002	1/4	0,16	4.3	102	30	53	82
MDF-A03-3RH01	10125023202	1/4	0,23	4.3	102	30	53	82
MDF-A03-3RH03	10125023302	3/8	0,23	4.3	117	30	53	82
MDF-A03-6RH01	10125021402	3/8	0,8	4.3	111	36	53	88
MDF-A03-6RH03	10125021502	1/2	0,8	4.3	127	36	53	88
MDF-A03-10RH01	10125021802	1/2	1,9	4.3	127	42	53	95
MDF-A03-10RH03	10125021902	5/8	1,9	4.3	160	42	53	95
MDF-A03-15RH05	10125022202	5/8	2,3	4.3	176	52	53	100
MDF-A03-15RH03	10125022102	7/8	2,3	4.3	176	52	53	100
MDF-A03-20RH01	10125022302	7/8	5	4.3	191	60	53	117
MDF-A03-22RH01	10125022602	7/8	5,9	4.3	281	60	53	117
MDF-A03-20RH03	10125022402	1-1/8	5	4.3	214	60	53	117
MDF-A03-22RH09	10125022802	1-1/8	5,9	4.3	281	60	53	117
MDF-A03-22RH03	10125022702	1-3/8	5,9	Cat. II	281	60	53	117

Valve Body – Metrical Solder Connection, Models with MOP 49 bar

Model Valve Body	Part Number ¹⁾²⁾	Solder Connection ODF	Kv	PED Category Fluid Group I	Dimensions [mm]			
		[mm]	[m ³ /h]		L	B	D	H
MDF-A03-2RH03	10125023102	6	0,16	4.3	102	30	53	82
MDF-A03-3RH05	10125021202	6	0,23	4.3	102	30	53	82
MDF-A03-3RH07	10125021302	10	0,23	4.3	117	30	53	82
MDF-A03-6RH05	10125021602	10	0,8	4.3	111	36	53	88
MDF-A03-6RH07	10125021702	12	0,8	4.3	127	36	53	88
MDF-A03-10RH05	10125022002	12	1,9	4.3	127	42	53	95
MDF-A03-10RH03	10125021902	16	1,9	4.3	160	42	53	95
MDF-A03-15RH05	10125022202	16	2,3	4.3	176	52	53	100
MDF-A03-15RH03	10125022102	22	2,3	4.3	176	52	53	100
MDF-A03-20RH01	10125022302	22	5	4.3	191	60	53	117
MDF-A03-22RH01	10125022602	22	5,9	4.3	281	60	53	117
MDF-A03-20RH07	10125022502	28	5	4.3	214	60	53	117
MDF-A03-22RH11	10125022902	28	5,9	4.3	281	60	53	117
MDF-A03-22RH03	10125022702	35	5,9	Cat. II	281	60	53	117

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

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



Technical Parameters of Coil

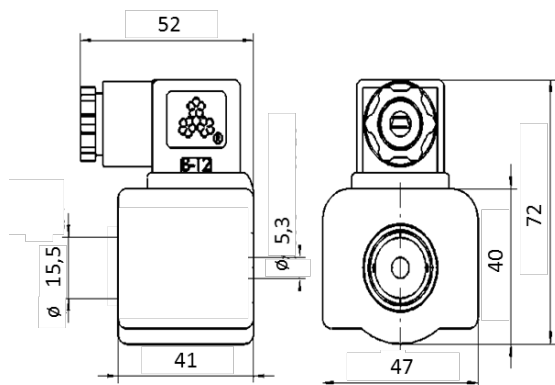
Model Coil	Part Number ¹⁾	Plug type	Supply	Rated Voltage [V]	Power [W]	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	UL Approval
MQ-A0322G-000001 ²⁾	10820010002	DIN	AC	220 to 240	12 (50Hz) 10 (60Hz)	-15% +10%	F	IP67	NO

Note:

- 1) Extent of delivery: coil body, fastening screw for the coil body, plug for electrical connection incl. Gaskets and fastening screws
- 2) Usage of the other coils – please contact Sanhua.

Dimensions - Coils

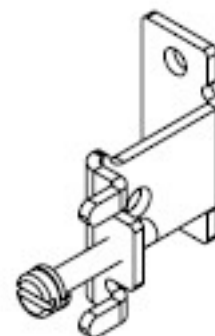
MQ-A03 (Coil with DIN Plug):



Accessories

Bracket

Model ¹⁾	Part Number	Applicable Valve Models
		Solder
MDF-A03-033001	20125000902	MDF-A03-2RH
		MDF-A03-3RH
		MDF-A03-6RH
		MDF-A03-10RH
		MDF-A03-15RH



Note: 1) Extent of delivery: bracket and screw