

HDF SERIES | *Solenoid Valve*



HDF series solenoid valves are piston type pilot operated solenoid valves, and are designed for use in all air conditioning and refrigeration systems. The HDF valves can tolerate discharge line temperatures (up to 285°F) and can be installed in hot gas bypass or gas injection applications.

FEATURES

- COMPACT DESIGN, EASY TO INSTALL
- HERMETIC VALVE BODY DESIGN GREATLY REDUCES THE RISK OF EXTERNAL LEAKAGE
- WIDE REFRIGERANT TEMPERATURE RANGE
- HIGH MAXIMUM OPENING PRESSURE DIFFERENTIAL (MOPD)
- LOW ENERGY CONSUMPTION COIL
- COILS ARE DOUBLE SEALED, WATER TIGHT AND SAFE
- COILS CAN BE SUPPLIED WITH DIN CONNECTOR OR LEAD WIRES (JUNCTION BOX ALSO AVAILABLE)

GENERAL SPECIFICATION

- Applicable for all common HCFC and HFC refrigerants such as: R-22, R-134a, R-404A, R-407C, R-410A, R-507
- Applicable ambient temperatures: -22°F to +130°F
- Fluid temperature range: -40°F to +285°F
- Relative Humidity: 0 to 95 percent
- Installation Position:
 - Liquid, suction and discharge line
 - Coil preferably on top with flow direction corresponding to the arrow
- Certifications: UL/CSA

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TECHNICAL PARAMETERS OF VALVE BODY

Valve Body	Normal position	Actuation	Cv	MOP (psig)	Max. OPD (psi)		Min. OPD (psi)
					AC coil	DC coil	
HDF 3	Normally Closed	Pilot (piston)	0.35	650	550	400	1
HDF 6			0.92				
HDF 10			2.2				
HDF 15			3.0				
HDF 20			4.6				
HDF 22			6.6				

DIMENSIONS (HDF WITH DIN COILS AND LEAD WIRE COILS)

Model Valve Body	Solder Connection ODF (in)	Cv	Part Number ¹⁾	Dimensions (in)			
				L	B	D ²⁾	H
HDF3H01	1/4	0.35	HDF-71001	4.65	1.30	2.13	3.74
HDF3H02	3/8	0.35	HDF-71003	4.57	1.30	2.13	3.74
HDF6H02	3/8	0.92	HDF-71005	4.65	1.30	2.13	3.74
HDF6H03	1/2	0.92	HDF-71007	5.00	1.30	2.13	3.74
HDF10H01	1/2	2.2	HDF-71009	5.00	1.73	2.13	4.02
HDF10H02	5/8	2.2	HDF-71011	6.54	1.73	2.13	4.02
HDF15H01	5/8	3.0	HDF-71012	6.89	1.89	2.13	4.13
HDF15H02	7/8	3.0	HDF-71013	6.89	1.89	2.13	4.13
HDF20H01	7/8	4.6	HDF-71014	7.13	2.24	2.13	4.49
HDF20H02	11/8	4.6	HDF-71015	8.43	2.24	2.13	4.49
HDF22H01	7/8	6.6	HDF-71017	7.48	2.28	2.13	4.49
HDF22H03	11/8	6.6	HDF-71018	8.43	2.28	2.13	4.49
HDF22H02	13/8	6.6	HDF-71020	11.06	2.28	2.13	4.49

Note: 1. Valve supplied less coil

2. Dimension "D": Din coils = 2.13" Lead wire coils (MQ-A07/D07) = 1.93"

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DIMENSIONS (HDF with Junction Box Coils)

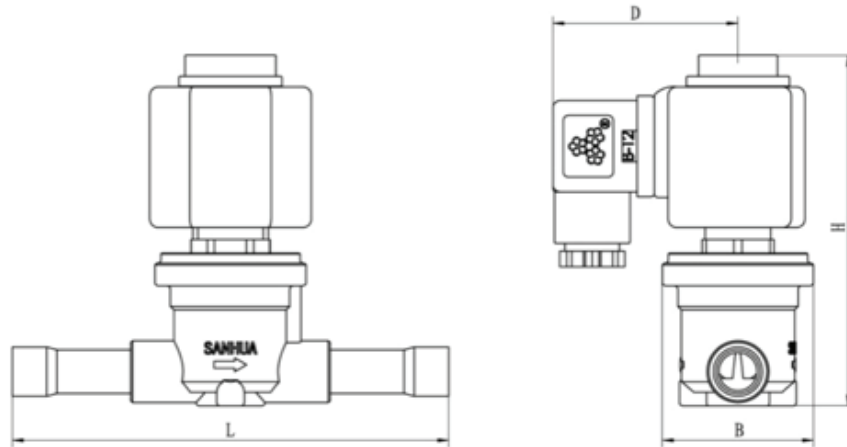
Model Valve Body	Solder Connection ODF (in)	Cv	Part Number ¹⁾	Dimensions (in)				
				L	B	D	H	W
HDF3H01	1/4	0.35	HDF-71001	4.65	1.30	64	3.46	1.81
HDF3H02	3/8	0.35	HDF-71003	4.57	1.30	64	3.46	1.81
HDF6H02	3/8	0.92	HDF-71005	4.65	1.30	64	3.46	1.81
HDF6H03	1/2	0.92	HDF-71007	5.00	1.30	64	3.46	1.81
HDF10H01	1/2	2.2	HDF-71009	5.00	1.73	64	3.74	1.81
HDF10H02	5/8	2.2	HDF-71011	6.54	1.73	64	3.74	1.81
HDF15H01	5/8	3.0	HDF-71012	6.89	1.89	64	3.86	1.81
HDF15H02	7/8	3.0	HDF-71013	6.89	2.24	64	3.86	1.81
HDF20H01	7/8	4.6	HDF-71014	7.13	2.24	64	4.21	1.81
HDF20H02	1 1/8	4.6	HDF-71015	8.43	2.28	64	4.21	1.81
HDF22H01	7/8	6.6	HDF-71017	7.48	2.28	64	4.21	1.81
HDF22H03	1 1/8	6.6	HDF-71018	8.43	2.28	64	4.21	1.81
HDF22H02	1 3/8	6.6	HDF-71020	11.06	2.28	65	4.21	1.81

Note: 1. Valve supplied less coil

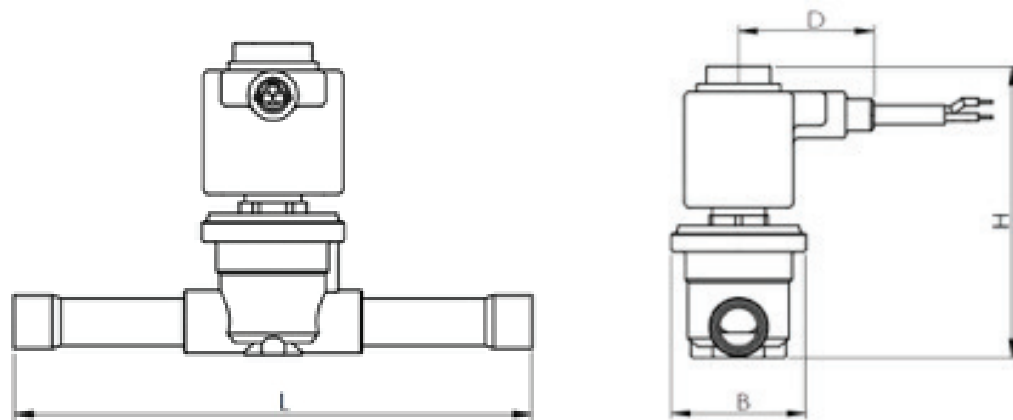
2. Dimension "D": Junction Box Coil (MQ-A14/A10) = 1.81"

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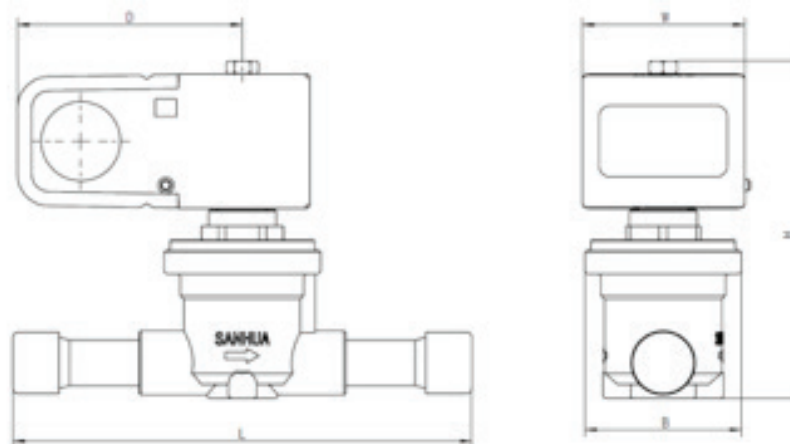
1. Valve Body Solder Connection - with DIN coils



2. Valve Body Solder Connection - with Coils and Lead wires (MQ-A07/D07)



3. Valve Body Solder Connection - with Coils and Junction Box (MQ-A14/A10)



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TECHNICAL PARAMETERS OF COIL

1. DIN coils (MQ-A03 and MQ-D03)

Model Coil ¹⁾	Part Number ²⁾	Rated Voltage	Supply	Power (W)	Frequency (Hz)	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A03 024-000001	MDF-60001	24	AC	10.5 (50Hz) 8.5 (60Hz)	50/60	-15% to +10%	F	IP65	DIN Plug
MQ-A03 11A-000001	MDF-60002	110 to 120		12.0 (50Hz) 10.0 (60Hz)					
MQ-A03 22G-000001	MDF-60003	220 to 240		12.0 (50Hz) 10.0 (60Hz)					
MQ-D03 024-000002	MDF-60004	24	DC	15.0	-	±10%			

Note: 1. Coil supplied with fastening screw for the coil body and DIN plug for electrical connection, including gaskets

2. Coils with lead wires (MQ-A07 and MQ-D07 Series)

Model Coil ¹⁾	Part Number ²⁾	Rated Voltage	Supply	Power (W)	Frequency (Hz)	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A03 024-000001	MDF-60001	24	AC	10.5 (50Hz) 8.5 (60Hz)	50/60	-15% to +10%	F	IP65	DIN Plug
MQ-A03 11A-000001	MDF-60002	110 to 120		12.0 (50Hz) 10.0 (60Hz)					
MQ-A03 22G-000001	MDF-60003	220 to 240		12.0 (50Hz) 10.0 (60Hz)					
MQ-D03 024-000002	MDF-60004	24	DC	15.0	-	±10%			

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2. Coils with lead wires (MQ-A07 and MQ-D07 Series)

Model Coil ¹⁾	Part Number ²⁾	Rated Voltage	Supply	Power (W)	Frequency (Hz)	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A07024-000 001	HDF-60001	24	AC	7.5 (50Hz) 6.5 (60Hz)	50/60	-15% to +10%	B	IP67	Lead Wires
MQ-A07100-000 001	HDF-60002	100		8.5 (50Hz) 7.5 (60Hz)					
MQ-A0711A-000 001	HDF-60003	110 to 120		8.5 (50Hz) 7.5 (60Hz)					
MQ-A07200-000 001	HDF-60004	200		8.0 (50Hz) 7.0(60Hz)					
MQ-A0722G-000 001	HDF-60005	220 to 240		7.0 (50Hz) 6.0 (60Hz)					
MQ-D07012-000 001	HDF-60006	12	DC	9.0	-	±10%			
MQ-D07024-000 001	HDF-60007	24		9.0					

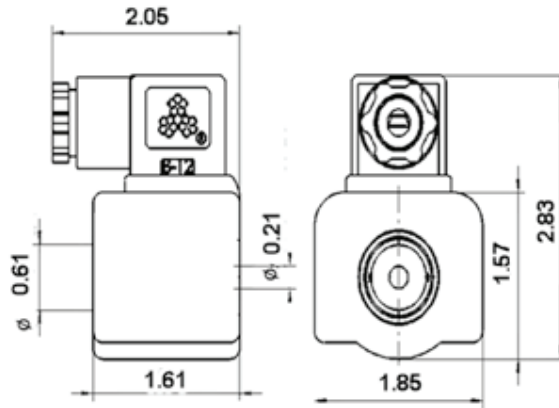
2. Coils with Junction Box (MQ-A14 and MQ-A10 Series)

Model Coil ¹⁾	Part Number ²⁾	Rated Voltage	Supply	Power (W)	Frequency (Hz)	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A14024-000 001	HDF-60008	24	AC	9.0 (50Hz) 8.0 (60Hz)	50/60	-15% to +10%	F	IP67	Lead Wires
MQ-A14120-000 001	HDF-60009	120							
MQ-A1420E-000 001	HDF-60010	208 to 240							
MQ-A1022S-000 001	HDF-60011	120V/208 to 240							

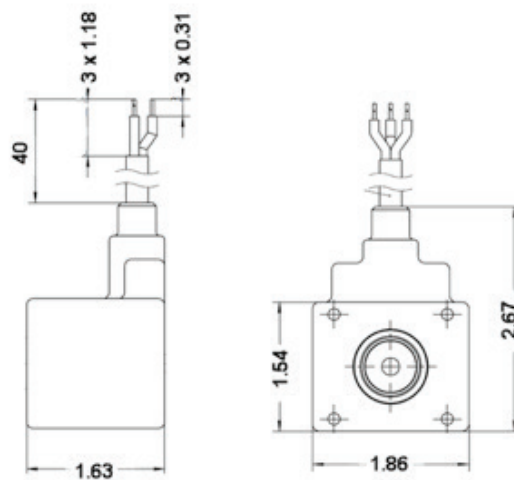
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DIMENSIONS OF THE COILS

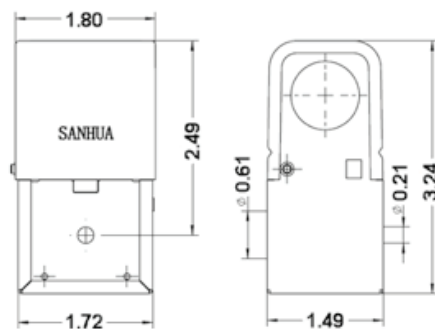
DIN Coils (MQ-A03 and MQ-D03 Series)



Coils with Lead wires (MQ-A07 and MQ-D07 Series)



Coils with Junction Box (MQ-A10 and MQ-A14 Series)



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