

# Solenoid Valve

HDF series solenoid valves are piston type pilot operated solenoid valves, mainly used in refrigerant control of various devices such as refrigerating and freezing systems, air conditioners and heat pumps. The maximum admitted refrigerant temperature (equal to +140°C) permits to install HDF valves in gas injection or hot gas bypass lines such as in the compressor discharge line.



## FEATURES

- VALVE BODY WITH A COMPACT DESIGN, EASY TO MANAGE AND INSTALL
- VALVE BODY WITH HERMETIC DESIGN TO ELIMINATE THE RISK OF EXTERNAL LEAKAGE
- SOLENOID VALVES PILOTED BY PISTON ACTUATION. WIDE MEDIUM TEMPERATURE RANGE ALLOWED
- GREAT VALVE OPENING PERFORMANCE, HIGH MAX. OPD
- COILS: LOW ENERGY CONSUMPTION, RELIABLE
- COILS ARE DOUBLE SEALED, WATER TIGHT AND SAFE
- COILS CAN BE SELECTED WITH DIN CONNECTOR

## GENERAL SPECIFICATIONS

- Applicable for all common HCFC, HFC refrigerants such as: R22, R134a, R404A, R407C, R410A, R507, R407A/F, R448A/R449A, R452A, R450A/R513A<sup>1)</sup>
- Medium temperature TS min./max.: -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
- Certifications: Declaration according to LVD and PED (2014/68/EU)

**Note:** 1) Flammable refrigerants like R32, R290, R1234ze(E), R1234yf on request

## TECHNICAL PARAMETERS OF VALVE BODY

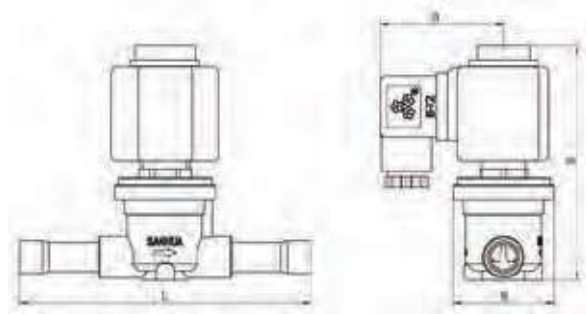
Valve body (solder connections)	Normal Position	Actuation	Kv [m <sup>3</sup> /h]	MOP [MPa]	Max. OPD [MPa]		Min. OPD [MPa]
					AC coil	DC coil	
HDF 3	NC	Pilot (piston operated)	0,3	4,5	3,8	2,8	0.007
HDF 6			0,8	4,5	3,8	2,8	0.007
HDF 10			1,9	4,5	3,8	2,8	0.007
HDF 15			2,6	4,5	3,8	2,8	0.007
HDF 20			4,0	4,5	3,8	2,8	0.007
HDF 22			5,7	4,5	3,8	2,8	0.007



**DIMENSIONS**

Model Valve body	Part Number <sup>1)</sup>	Solder Connection (ODF)		Kv [m <sup>3</sup> /h]	PED Category Group 2	Dimensions [mm]			
		[inch]	[inch]			L	B	D	H
HDF3H01	10129000302	1/4"	-	0,3	4.3	118	33	54	95
HDF3H03	10129000502	-	6	0,3	4.3	118	33	54	95
HDF3H02	10129000402	3/8"	-	0,3	4.3	118	33	54	95
HDF3H05	10129000602	-	10	0,3	4.3	118	33	54	95
HDF6H02	10129000102	3/8"	-	0,8	4.3	118	33	54	95
HDF6H04	10129000802	-	10	0,8	4.3	118	33	54	95
HDF6H03	10129000702	1/2"	-	0,8	4.3	127	33	54	95
HDF6H07	10129000202	-	12	0,8	4.3	127	33	54	95
HDF10H01	10129003402	1/2"	-	1,9	4.3	127	44	54	102
HDF10H03	10129000902	-	12	1,9	4.3	127	44	54	102
HDF10H02	10129001702	5/8"	16	1,9	4.3	166	44	54	102
HDF15H01	10129003502	5/8"	16	2,6	4.3	175	48	54	105
HDF15H02	10129001002	7/8"	22	2,6	4.3	175	48	54	105
HDF20H01	10129001102	7/8"	22	4,0	4.3	181	57	54	114
HDF20H02	10129001202	1 1/8"	-	4,0	4.3	214	57	54	114
HDF20H03	10129001302	-	28	4,0	4.3	214	57	54	114
HDF22H01	10129003602	7/8"	22	5,7	4.3	190	58	54	114
HDF22H03	10129001502	1 1/8"	-	5,7	4.3	214	58	54	114
HDF22H04	10129001602	-	28	5,7	4.3	214	58	54	114
HDF22H02	10129001402	1 3/8"	35	5,7	I	281	58	54	114

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



Valve Body Solder Connection- with standard coils (DIN connector) - (MQ-A03)



**TECHNICAL PARAMETERS OF COIL**

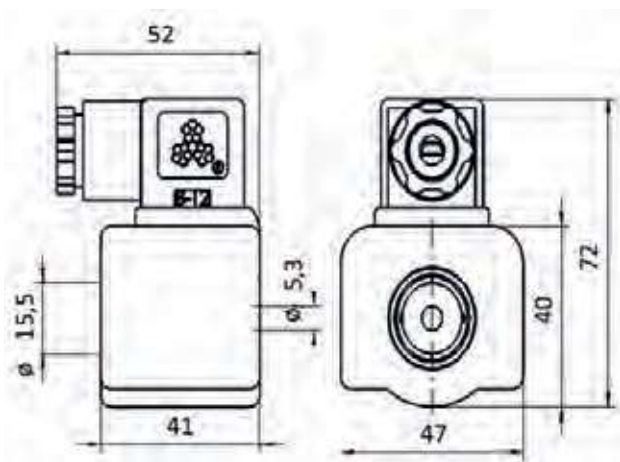
Standard coils with DIN connector (MQ-A03)

Model Coil <sup>1)</sup>	Part Number <sup>2)</sup>	Rated Voltage [V]	Supply	Power [W]	Frequency [Hz]	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A03 024-001001	10820006102	24	AC	8,5 (50Hz) 7,5 (60Hz)	50/60	-15% to +10%	F	IP65	DIN Plug
MQ-A03 11A-001001	10820006302	110 to 120		8,5 (50Hz) 7,5 (60Hz)					
MQ-A03 22G-001001	10820005702	220 to 240		8,5 (50Hz) 7,5 (60Hz)					

**Note:** Extent of delivery: coil body, fastening screw for the coil body, DIN plug for electrical connection incl. gaskets

**DIMENSIONS OF THE COILS**

Coils with DIN Plug (MQ-A03)



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