



FDF (NC) SERIES

SOLENOID VALVE



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

GENERAL SPECIFICATIONS

- Applicable for all common HCFC, HFC refrigerants such as: R22, R134a, R404A, R407C, R410A, R507, R407A/F, R448A/R449A, R452A, R450A/R513A
- Medium temperature TS min./max.: -30°C / 120°C
- Ambient temperature min./max.: -30°C / +50°C
- Relative humidity: 0 to 95% RH
- Installation position: - Liquid, suction and discharge line
- Coil upwards, coil axis $\pm 15^\circ$ tolerance versus vertical axis
- Flow direction corresponds to the arrow
- Certifications: UL and declaration according to LVD or PED

TECHNICAL PARAMETERS OF VALVE BODY

Model Valve Body	Part Number*	Normal Position	Actuation	Ø Seat	Kv	MOP	Max. OPD	Min. OPD	Ød OD	Ød OD	Measurement [mm]			
				[mm]	[m ³ /h]	[MPa]	[MPa]	[MPa]	[mm]	[inch]	L	L1	L2	
FDF 2A 94	10120019802	NC	Direct	1,9	0,08	4,5	3,4	0	6,35	1/4	66,5	32	34	
FDF 2.5A 08	10120021102		Pilot		2,5		0,21	2,1	0,01	6,35	1/4	85	37,5	38
FDF 3A 08	10120019302				2,7		0,26	3,4	0	7,94	5/16	81	34,5	35,5
FDF 4A 10	10120006502				4,0		0,30	3,4	0	6,35	1/4	81	35	38
FDF 6A 58	10120018702				5,8		0,56	3,4	0,01	7,94	5/16	81	34,5	35,5
FDF 11A 16	10120020302				11		2,40	2,8	0,02	12,7	1/2	114	61	61
FDF 13A 12	10120020502				13		3,50	15,88	5/8	114	61	61		

* Available also as industrial package. Contact Sanhua for more details.

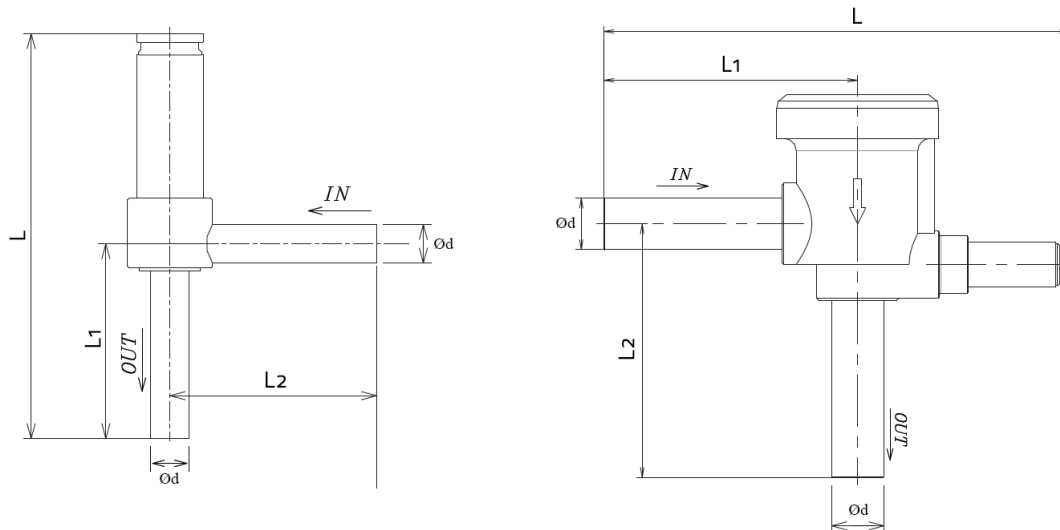
SOLENOID VALVE



DIMENSIONS - VALVE BODY

FDF 2A ... FDF 6A

FDF 8A ... FDF 13A



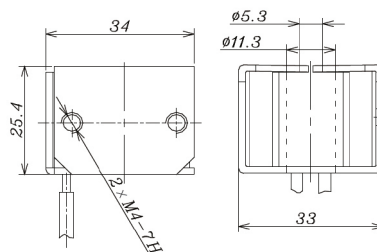
TECNHICAL PARAMETERS OF COIL

Model Coil	Part Number*	Rated Voltage [V]	Supply	Power ¹⁾ [W]	Freq. [Hz]	Voltage Tolerance	Insulation Class	Wiring type: flying leads [mm]
FQ-A05 024-000709	10800072302	24	AC	5 (50Hz) 4,5 (60Hz)	50/60	-15% +10%	B	1800±50
FQ-A05 120-001098	10800062002	110 to 120		5 (50Hz) 4,5 (60Hz)				800±30
FQ-A05 22G-001022	10800057302	220 to 240		5 (50Hz) 4,5 (60Hz)				600±20

Note: * Available also as industrial package. Contact Sanhua for more details.

1) FQ-A0522G power consumption based on 240V; FQ-A05120 power consumption based on 120V

DIMENSIONS - COIL (FQ-A05)

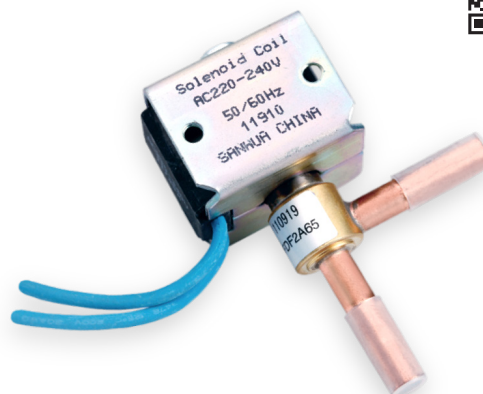


For complete product family information please visit us at www.sanhuaeurope.com and download the full range of datasheet at TECHNICAL INFORMATION LINK.



FDF (NC) SERIES

SOLENOID VALVE



(GreenTech range: for fluids GROUP 1 according to Directive 2014/68/EU or GROUP A3/A2L according to ANSI-ASHRAE 34-2016)

FDF 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

GENERAL SPECIFICATIONS

- Applicable for all common HFC/HFO/HC refrigerants such as: R290, R1234yf, R1234ze(E), R32¹⁾, R447A, R452B, R454B, R454C
- Medium temperature TS min./max.: -30°C / 120°C
- Ambient temperature min./max.: -30°C / +50°C
- Relative humidity: 0 to 95% RH
- Installation position: - Liquid, suction and discharge line
- Coil upwards, coil axis $\pm 15^\circ$ tolerance versus vertical axis
- Flow direction corresponds to the arrow
- Certifications: UL and declaration according to LVD/PED

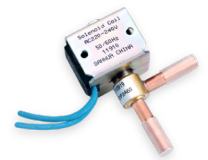
Note: 1) With R32 only respecting MOP 45 bar

TECHNICAL PARAMETERS OF VALVE BODY

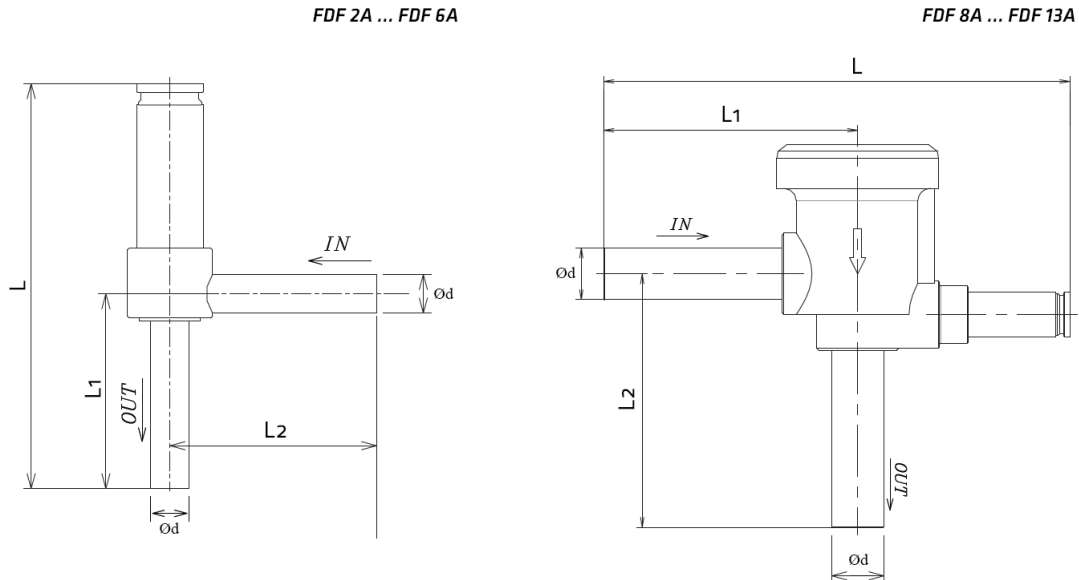
Model Valve Body	Part Number*	Normal Position	Actuation	Ø Seat	Kv	MOP	Max. OPD	Min. OPD	Ød OD	Ød OD	Measurement [mm]		
				[mm]	[m ³ /h]	[MPa]	[MPa]	[MPa]	[mm]	[inch]	L	L1	L2
FDF 2A 94	10120019802	NC	Direct	1,9	0,08	4,5	3,4	0	6,35	1/4	66,5	32	34
FDF 2.5A 08	10120021102			2,5	0,21		2,1	0,01	6,35	1/4	85	37,5	38
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FDF 4A 10	10120006502		4,0	0,30	3,4		0	6,35	1/4	81	35	38	
FDF 6A 58	10120018702		5,8	0,56	3,4		0,01	7,94	5/16	81	34,5	35,5	
FDF 11A 16	10120020302		11	2,40	2,8		0,02	12,7	1/2	114	61	61	
FDF 13A 12	10120020502		13	3,50	15,88		5/8	114	61	61			

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DIMENSIONS - VALVE BODY

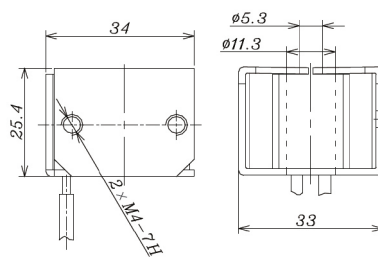


TECNHICAL PARAMETERS OF COIL

Model Coil	Part Number	Rated Voltage [V]	Supply	Power ¹⁾ [W]	Freq. [Hz]	Voltage Tolerance	Insulation Class	Wiring type: flying leads [mm]
FQ-A05 22G-001022	10800057302	220 to 240	AC	5 (50Hz) 4,5 (60Hz)	50/60	-15% +10%	B	600±20

Note: 1) FQ-A0522G power consumption based on 240V; FQ-A05120 power consumption based on 120V

DIMENSIONS - COIL (FQ-A05)



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