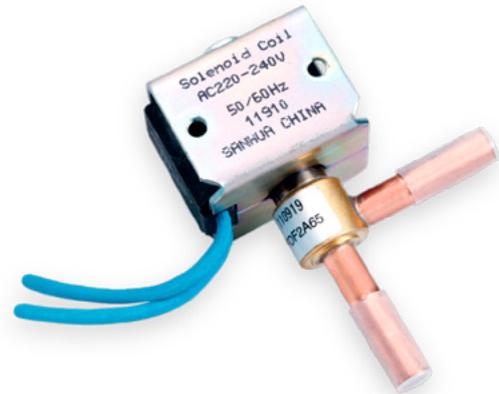


FDF (NC) SERIES

SOLENOID VALVE



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, HFO, HC refrigerants.
 - fluids GROUP 2 (according to Directive 2014/68/EU) or GROUP A1 (according to ANSI-ASHRAE 34-2016): R22, R134a, R404A, R410A, R507, R407C, R407A/F, R448A/R449A, R452A, R450A/R513A
 - fluids GROUP 1 (according to Directive 2014/68/EU) or GROUP A3/A2L (according to ANSI-ASHRAE 34-2016): R290, R1234yf, R1234ze(E), R32, R447A, R452B, R454B, R454C, R600a
- 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
- Declarations/Certification/Approvals:
 - DoC acc. PED (2014/68/EU), LVD (2014/35/EU), RoHS (2011/65/EU), REACH, Pressure Equipment (Safety) Regulation 2016 (2016/1105), Electrical Equipment (Safety) Regulation 2016 (2016/1101), EN60335-2-24/40/89 for flammable refrigerants (together with coil FQ-A05 22G-001022 VDE certification acc. EN60335-2-24/40/89 for flammable refrigerants)

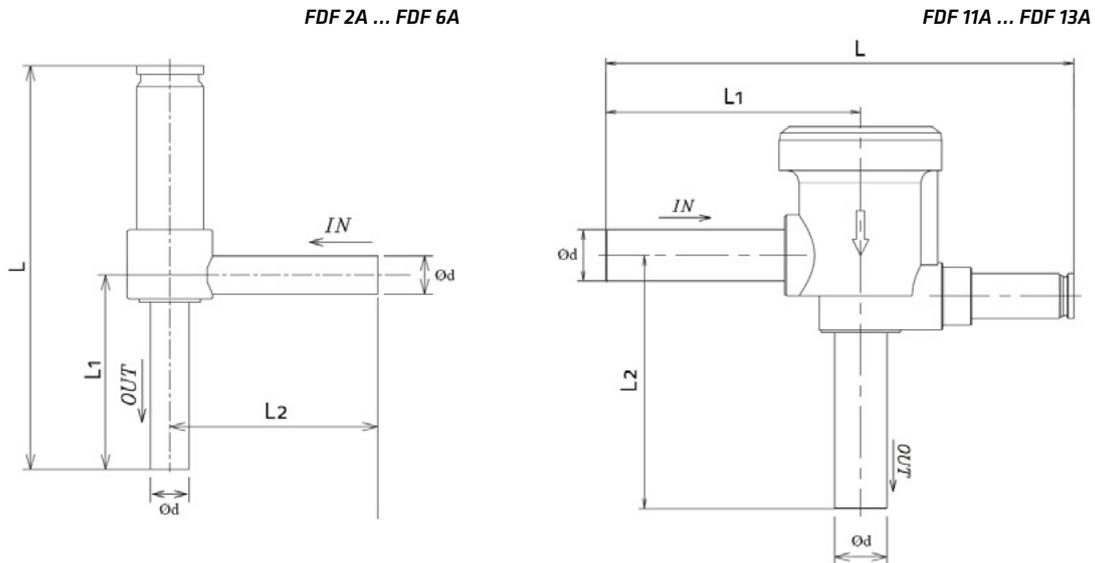
TECHNICAL PARAMETERS OF VALVE BODY

Model Valve Body	Product 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	84,6	37,5	38
FDF 3A 08	10120019302				2,7		0,26	3,4	0	7,94	5/16	81,4	34,5	35,7
FDF 4A 10	10120025302				4,0		0,30	2,8	0	6,35	1/4	81,2	35,3	37,8
FDF 6A 58	10120018702				5,8		0,56	3,4	0,01	7,94	5/16	81,6	34,5	35,7
FDF 11A 14	10120020402				11		2,40	2,8	0,02	12,7	1/2	117,5	62	62
FDF 13A08	10120026402				13		3,5			15,88	5/8	117,5	62	62

Note: 1) New model with stainless steel body (lead free)



DIMENSIONS - VALVE BODY



TECNHICAL PARAMETERS OF COIL

Model Coil	Product 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: 1) FQ-A0522G power consumption based on 240V; FQ-A05120 power consumption based on 120V

DIMENSIONS - COIL

