

## LPF SERIES

# Electronic Expansion Valve

LPF series Electronic Expansion Valves are especially designed for use in refrigeration systems. Thanks to the soft-sealing seat design, it can be as tight as a solenoid valve once it is completely shutoff thus to prevent liquid refrigerant migrate to evaporator or compressor.



### FEATURES

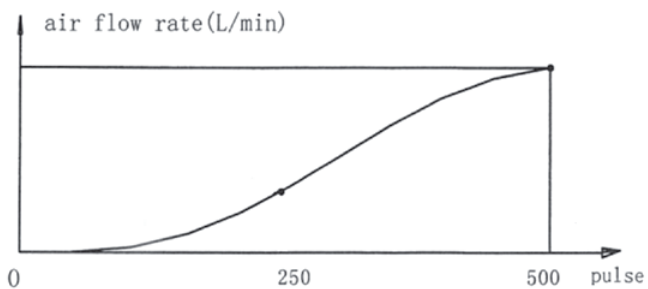
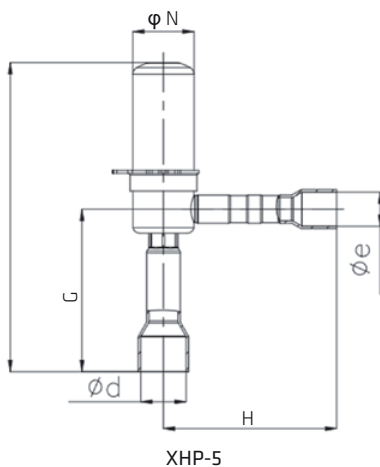
- FLOW DIRECTION: UNI-FLOW; THE FLOW RATE IS <1 ML / MIN WHEN THE VALVE IS CLOSED (UNDER 1.0MPA)
- LPF...F SERIES CAN BEAR 9MPA OPERATING PRESSURE, SUITABLE FOR CO2 SYSTEM
- FLOW CHANNEL OPTIMIZATION, LOWER NOISE
- FAST OPERATION, ENERGY SAVING
- APPLICABLE FOR OIL-FREE SYSTEM
- COMPATIBLE WITH SANHUA CONTROLLER SEC SERIES

### GENERAL SPECIFICATIONS

- Applicable for all common HFC, HFC and refrigerants such as R22, R134a, R404A, R407C, R410A, R744 (LPFTseries),etc.
- 500 steps (full stroke); 32 ± 20 opening steps
- Medium temperature TS min./max.: -40°C / +70°C (duty cycle rate below 40%)
- Ambient temperature min./max.: -40°C / +60°C (duty cycle rate below 40%)
- Relative humidity: 0 to 95% RH
- Design Pressure: 42 bar, MOPD: 35 bar (LPF series)  
90bar, MOPD: 35bar(LPFTseries (CO2))
- Certifications: UL&TUV, and declaration according to LVD or PED
- Installation position:
  - Coil installed in the upwards position, valve rotor central axis within ± 15° versus vertical axis
  - Inlet connection preferably sidewise, outlet preferably downwards

**LPF SERIES****Electronic Expansion Valve****ELECTRICAL PARAMETERS**

- Rated voltage: 12V DC( $\pm 10\%$ ), rectangular wave
- Actuating mode: 4-phase 8-step permanent magnet stepping motor of direct-acting type
- Excitation mode: 1 - 2 phase excitation, uni-polar actuation
- Excitation rate: 31.3pps
- Activation of self-holding mechanism: Maintain excitation in stop position min. 0.1~1.0 sec
- Coil current: 260mA/phase (20°C)
- Coil resistance:  $46 \pm 3.7 \Omega$ /phase (20°C)
- Insulation class of coil: E
- Protection class: IP 67

**FLOW CHARACTERISTIC (EQUAL PERCENTAGE)****DIMENSIONS**

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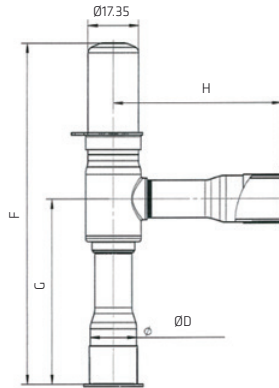


Valve Model	Dimensions (mm unless specified)					
	F	G	H	Øe inlet	Ød outlet	ØN
LPF08-001/LPF08T-001	87	46	49	3/8	1/2	17.35
LPF08-002/LPF08T-002				1/4	1/4	
LPF10-002/LPF10T-002				3/8	1/2	
LPF10-003/LPF10T-003				1/4	3/8	
LPF10-004/LPF10T-004				10mm	12mm	
LPF10-005/LPF10T-005				6mm	10mm	
LPF14-002/LPF14T-002				3/8	1/2	
LPF14-003/LPF14T-003				1/4	3/8	
LPF14-004/LPF14T-004				10mm	12mm	
LPF14-005/LPF14T-005				6mm	10mm	
LPF18-002/LPF18T-002				3/8	1/2	
LPF18-003/LPF18T-003				10mm	12mm	
LPF24-002/LPF24T-002				3/8	1/2	
LPF24-003/LPF24T-003				10mm	12mm	
LPF30-001/LPF30T-001				3/8	1/2	
LPF30-002/LPF30T-002				10mm	12mm	
LPF32-001/LPF32T-001				3/8	1/2	
LPF32-002/LPF32T-002				1/4	3/8	
LPF32-003/LPF30T-003				10mm	12mm	

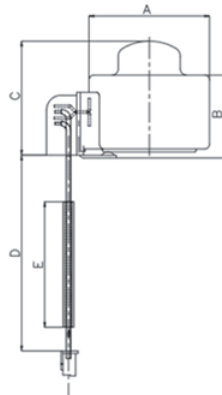
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**DIMENSIONS**



Valve Model	Dimensions				
	F	G	H	Øe inlet	Ød outlet
LPF45-001	116	62.5	57.2	5/8	5/8
LPF52-001					
LPF55-001					
LPF62-001					



Coil Model	Coil Dimensions [mm]				
	ØA	B	C	D	E
PQ-M24012-000007	39	26	35	1500	1450
PQ-M24012-000008	39	26	35	3000	2950
PQ-M24012-000009	39	26	35	6000	5950
PQ-M24012-000010	39	26	35	9000	8950