

PEV Valve Series



ENGINEERING YOUR SUCCESS.

Features

- Precision control: Full range 2000 step precision control of resolution is possible
- Reduction of driving noise: More than 30% driving noise is improved compared to direct drive type valves SEV and CEV by multi-stage reduction gear operation method
- Bidirectional control is possible and it is available to apply to heating/cooling system(Heat pump)
- It keeps the air tightness by completely shutting off the fluid flowing in Full Close state. (Solenoid replacement effect)
- Fast response and linear controllability, energy saving

Specifications

Part number	Connections		Orifice (mm)	Flow Coefficient KV[m ³ /h]	Max. Pressure Differential [bar]	Internal leakage cc/min	Capacity (KW)					
	Type	Size (Inch)					R-22	R134a	R404a	R507	R407C	R410A
PEV20-A	ODF	5/16"	2	0.11	35	≤100	8.8	6.6	11.4	11.4	8.8	10.5
PEV32-A	ODF	5/16"	3.2	0.18	35	≤100	14.1	10.6	18.3	18.3	14.1	16.9
PEV52-A	ODF	1/2"	5.2	0.41	35	≤600	28.1	21.1	36.6	36.6	28.2	33.8

Applications

- Applicable refrigerants: HCFC and HFC (R22, R134a, R404a, R407C, R410A, R507A....)
- Air conditioner
- Heat pump system
- Refrigerator cargo vehicles
- Supermarket system
- Semiconductor Chiller
- Other refrigerated device

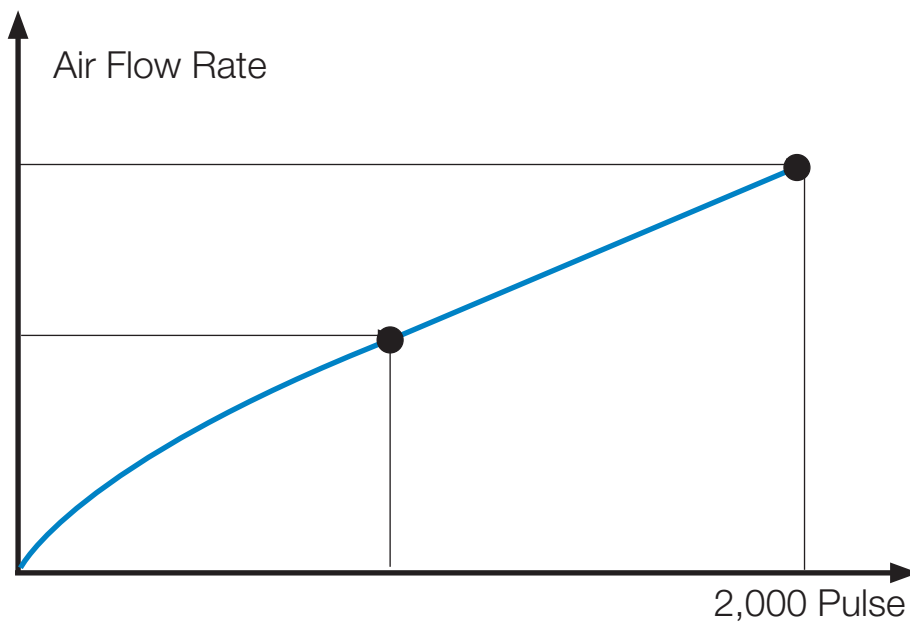
Electrical Specifications

- Rated voltage: DC12V ($\pm 10\%$)
- Drive system: 4-phase control gear reduction stepping motor
- Excitation Mechanism: 1-2 Phase Unipolar Excitation
- Pulse speed: 100~250pps (Pulse per Sec.)
- Coil Current: 0.1A Max. /Phase
- Motor Resistance: $150\Omega \pm 10\%$ (@ 20°C)
- Insulation Grade: Class E (120°C)

General Specifications

- Capacity: 1USRT~8USRT(R22 Refrigerant standard)
- Pulse Range : 0~2000step
- Operating Temp. Range: -40°C ~+60°C
- Refrigerant Temp. Range : -40°C ~ +70°C
- Relative humidity : 0~95% RH
- Flow direction: Bi-directional
- Installation direction: The coil is in the upward direction and the valve is in the vertical direction within $\pm 20^\circ$
- It is recommended that the entrance is a horizontal direction and the exit is a vertical direction.
- Acquisition standard: Need to acquire

Flow characteristics



Dimensions

Figure 1

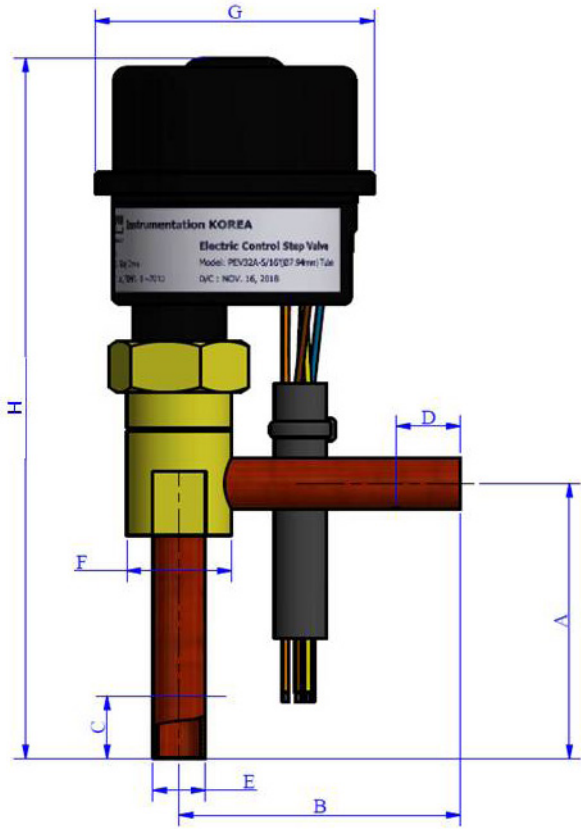
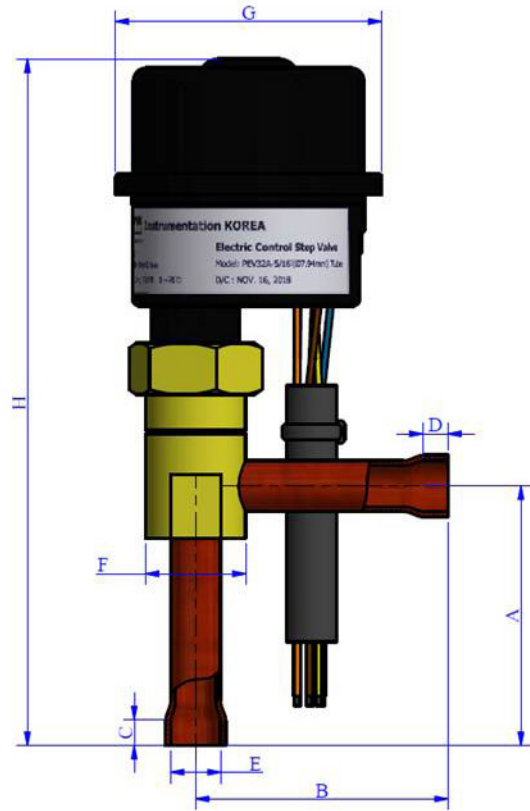


Figure 1-2



Part number	Dimensions								Figure No.
	A	B	C	D	E	F	G	H	
PEV20-A	43	43	9.8	9.8	Ø7.94	Ø16.0	Ø42.6	112.6	#1
PEV32-A	43	43	9.8	9.8	Ø7.94	Ø16.0	Ø42.6	112.6	
PEV52-A	50	50	9.8	9.8	Ø12.8	Ø20.0	Ø42.6	119.6	#2

Notes

Notes



Motion & Control Technologies...

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further information call:

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Aerospace

Key Markets

Aftermarket services
Commercial transports
Engines
General & business aviation
Helicopters
Launch vehicles
Military aircraft
Missiles
Power generation
Regional transports
Unmanned aerial vehicles

Key Products

Control systems & actuation products
Engine systems & components
Fluid conveyance systems & components
Fluid metering, delivery & atomization devices
Fuel systems & components
Fuel tank inerting systems
Hydraulic systems & components
Thermal management
Wheels & brakes



Climate Control

Key Markets

Agriculture
Air conditioning
Construction Machinery
Food & beverage
Industrial machinery
Life sciences
Oil & gas
Precision cooling
Process
Refrigeration
Transportation

Key Products

Accumulators
Advanced actuators
CO₂ controls
Electronic controllers
Filter driers
Hand shut-off valves
Heat exchangers
Hose & fittings
Pressure regulating valves
Refrigerant distributors
Safety relief valves
Smart pumps
Solenoid valves
Thermostatic expansion valves



Electromechanical

Key Markets

Aerospace
Factory automation
Life science & medical
Machine tools
Packaging machinery
Paper machinery
Plastics machinery & converting
Primary metals
Semiconductor & electronics
Textile
Wire & cable

Key Products

AC/DC drives & systems
Electric actuators, gantry robots & slides
Electrohydraulic actuation systems
Electromechanical actuation systems
Human machine interface
Linear motors
Stepper motors, servo motors, drives & controls
Structural extrusions



Filtration

Key Markets

Aerospace
Food & beverage
Industrial plant & equipment
Life sciences
Marine
Mobile equipment
Oil & gas
Power generation & renewable energy
Process
Transportation
Water Purification

Key Products

Analytical gas generators
Compressed air filters & dryers
Engine air, coolant, fuel & oil filtration systems
Fluid condition monitoring systems
Hydraulic & lubrication filters
Hydrogen, nitrogen & zero air generators
Instrumentation filters
Membrane & fiber filters
Microfiltration
Sterile air filtration
Water desalination & purification filters & systems



Fluid & Gas Handling

Key Markets

Aerial lift
Agriculture
Bulk chemical handling
Construction machinery
Food & beverage
Fuel & gas delivery
Industrial machinery
Life sciences
Marine
Mining
Mobile
Oil & gas
Renewable energy
Transportation

Key Products

Check valves
Connectors for low pressure fluid conveyance
Deep sea umbilicals
Diagnostic equipment
Hose couplings
Industrial hose
Mooring systems & power cables
PTFE hose & tubing
Quick couplings
Rubber & thermoplastic hose
Tube fittings & adapters
Tubing & plastic fittings



Hydraulics

Key Markets

Aerial lift
Agriculture
Alternative energy
Construction machinery
Forestry
Industrial machinery
Machine tools
Marine
Material handling
Mining
Oil & gas
Power generation
Refuse vehicles
Renewable energy
Truck hydraulics
Turf equipment

Key Products

Accumulators
Cartridge valves
Electrohydraulic actuators
Human machine interfaces
Hybrid drives
Hydraulic cylinders
Hydraulic motors & pumps
Hydraulic systems
Hydraulic valves & controls
Hydrostatic steering
Integrated hydraulic circuits
Power take-offs
Power units
Rotary actuators
Sensors



Pneumatics

Key Markets

Aerospace
Conveyor & material handling
Factory automation
Life science & medical
Machine tools
Packaging machinery
Transportation & automotive

Key Products

Air preparation
Brass fittings & valves
Manifolds
Pneumatic accessories
Pneumatic actuators & grippers
Pneumatic valves & controls
Quick disconnects
Rotary actuators
Rubber & thermoplastic hose & couplings
Structural extrusions
Thermoplastic tubing & fittings
Vacuum generators, cups & sensors



Process Control

Key Markets

Alternative fuels
Biopharmaceuticals
Chemical & refining
Food & beverage
Marine & shipbuilding
Medical & dental
Microelectronics
Nuclear Power
Offshore oil exploration
Oil & gas
Pharmaceuticals
Power generation
Pulp & paper
Steel
Water/wastewater

Key Products

Analytical Instruments
Analytical sample conditioning products & systems
Chemical injection fittings & valves
Fluoropolymer chemical delivery fittings, valves & pumps
High purity gas delivery fittings, valves, regulators & digital flow controllers
Industrial mass flow meters/ controllers
Permanent no-weld tube fittings
Precision industrial regulators & flow controllers
Process control double block & bleeds
Process control fittings, valves, regulators & manifold valves



Sealing & Shielding

Key Markets

Aerospace
Biological processing
Consumer
Fluid power
General industrial
Information technology
Life sciences
Microelectronics
Military
Oil & gas
Power generation
Renewable energy
Telecommunications
Transportation

Key Products

Dynamic seals
Elastomeric o-rings
Electro-medical instrument design & assembly
EMI shielding
Extruded & precision-cut, fabricated elastomeric seals
High temperature metal seals
Homogeneous & inserted elastomeric shapes
Medical device fabrication & assembly
Metal & plastic retained composite seals
Shielded optical windows
Silicone tubing & extrusions
Thermal management
Vibration dampening

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