



RV Series Solenoid Valve



ENGINEERING YOUR SUCCESS.

RV Series Solenoid Valve



Introduction

RV Series is a new range of piston pilot operated solenoid valves for the liquid line, suction line and hot gas service for refrigeration and AC applications. RV Series are compatible with all CFC, HCFC, HFC and Sub-critical CO₂ refrigerants and blends and most refrigeration oils in the limit of MRP of 650 psi (45 bar).

Features

- Applicable for fluid temperatures up to 120°C
- MOPD up to 35 bar
- Compact, Direct acting / Pilot available
- Mount Horizontally, on Side, or in a Vertical Line
- Multiple coil solutions available from Parker type 7 coil platform

Applications

- Air Conditioner
- Heat Pump
- Transportation Air Conditioner
- Supermarket System
- Chiller
- Refrigerated Device

Nomenclature

RV	3	S	3	0	CUSTOMER CODE
Valve Type	Orifice size	Connection Type	Connection size	Inlet X Outlet	Option
RV=Normally Close MRV=Manual Adjust ORV=Normally Open	3=3/32" 5=5/32" 6=6/32" 9=9/32" 10=10/32" 14=14/32" 19=19/32" 25=25/32" 35=35/32" 43=43/32"	S=ODF F=SAE	2=1/4" 3=3/8" 4=1/2" 5=5/8" 7=7/8" 9=1-1/8" 11=1-3/8" 13=1-5/8" 17=2-1/8"	空白=ODFXODF 1=ODFXODM 2=ODMXODF 3=ODMXODM	

Specifications

- Fluid Media: All CFC, HCFC, HFC and blend including R410A, Sub-critical CO₂ refrigerants
- Ambient Temperature: -40°C ~ 50°C
- Fluid Temperature: -40°C ~ 120°C
- Humidity Condition: No Limitation
- Minimum Operating Pressure Differential: 0.07 Bar for pilot, 0 Bar for direct acting

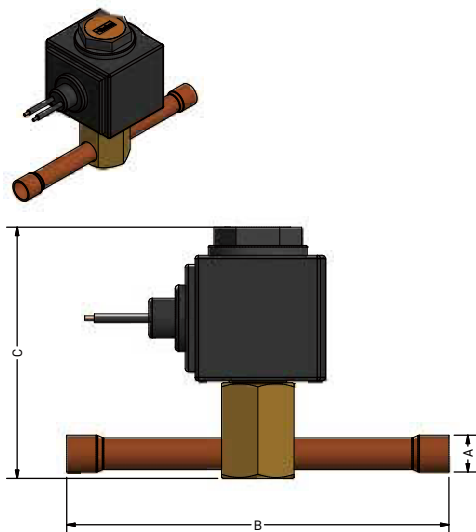
Valve type	Part Number	Connections		Cv	Kv	External Leakage	Internal Leakage	MOPD		MAX Working Pressure
		SAE	ODF					AC	DC	
RV3	RV3S2	-	1/4" ODF	0.2	0.2	2.8 gram/year (0.1 oz/year)	5cc/min@ 100PSI	30Bar (435PSI)	28Bar (400PSI)	45Bar (650PSI)
	RV3S3		3/8" ODF							
RV5	RV5S3	-	3/8" ODF	0.6	0.5		10cc/min@ 100PSI	35Bar (500PSI)		
	RV5F2	1/4" SAE	-							
RV6	RV6S3	-	3/8" ODF	0.9	0.8		30cc/min@ 100PSI	35Bar (500PSI)		
	RV6S4	-	1/2" ODF							
	RV6F3	3/8" SAE	-							
RV9	RV9S4	-	1/2" ODF	1.5	1.3		30cc/min@ 100PSI	35Bar (500PSI)		
	RV9S5	-	5/8" ODF							
	RV9F4	1/2" SAE	-							
RV10	RV10S5	-	5/8" ODF	2.3	2.0	15cc/min@ 100PSI	35Bar (500PSI)			
RV14	RV14S5	-	5/8" ODF	2.9	2.5			30cc/min@ 100PSI	35Bar (500PSI)	
	RV14S7	-	7/8" ODF							
	RV14F5	5/8" SAE	-							
RV19	RV19S7	-	7/8" ODF	4.6	4.0	100cc/min@ 100PSI	35Bar (500PSI)			
	RV19S9	-	1-1/8" ODF							
RV25	RV25S9	-	1-1/8" ODF	7.8	6.7	100cc/min@ 100PSI	35Bar (500PSI)			
	RV25S11	-	1-3/8" ODF							
RV35	RV35S9	-	1-1/8" ODF	13.7	11.8	100cc/min@ 100PSI	35Bar (500PSI)			
	RV35S11	-	1-3/8" ODF							
	RV35S13	-	1-5/8" ODF							
RV43	RV43S11	-	1-3/8" ODF	23.6	20.4	100cc/min@ 100PSI	35Bar (500PSI)			
	RV43S13	-	1-5/8" ODF							
	RV43S17	-	2-1/8" ODF							

Valve type	Nominal Liquid Capacities Tons(kW) of Refrigerant					
	R22	R134a	R404A	R407C	R410A	R507
	Pressure Drop - psi(bar)					
	3(0.20)	2(0.14)	3(0.20)	3(0.20)	5(0.34)	3(0.20)
RV3	1.2(4.1)	0.8(3.1)	0.8(2.9)	1.1(3.9)	1.5(5.1)	0.7(2.6)
RV5	3.1(10.8)	2.3(8.1)	2.1(7.3)	2.9(10)	3.8(13.2)	2(7)
RV6	4.6(16.1)	3.6(12.5)	3.1(10.8)	4.2(14.8)	5.6(19.6)	3(10.5)
RV9	8(28.1)	6.2(21.5)	5.4(18.8)	7.3(25.7)	9.8(34.3)	5.2(18.1)
RV10	12.3(43.1)	9.4(33)	8.1(28.4)	11.3(39.6)	15(52.6)	8(28)
RV14	15.4(54.1)	11.7(41.1)	10.2(35.6)	14.1(49.6)	18.8(66)	10(34.9)
RV19	24.5(86.1)	18.7(65.5)	16.2(57)	22.6(79.4)	29.9(105.1)	15.9(55.9)
RV25	41.1(144.6)	31.3(110)	27.2(95.7)	37.8(132.7)	50.2(176.3)	26.6(93.6)
RV35	89.1(313.4)	66.6(234.3)	58.5(205.5)	81.5(286.4)	108.7(382.3)	57.3(201.6)
RV43	96.6(339.6)	75.5(265.3)	64.7(227.6)	89.6(315.1)	117.8(414.3)	63.2(222.1)

*Liquid capacity is based on 40°F evaporating and 100°F liquid

Dimensional Drawing

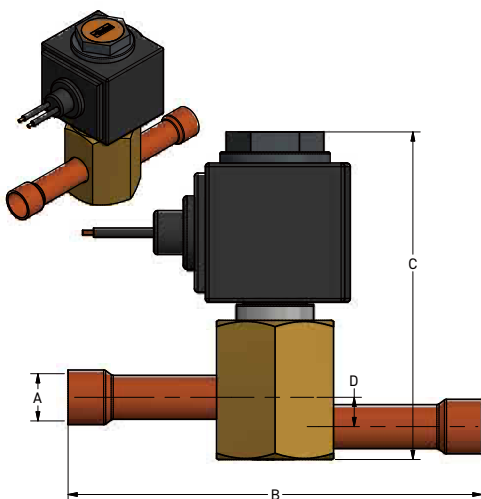
RV3&RV6



ODF Connection mode

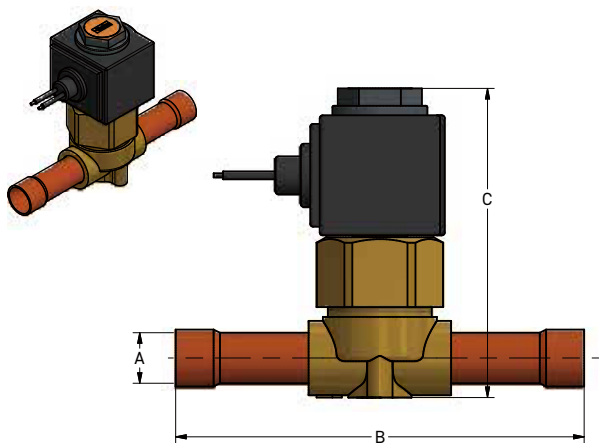
尺寸 (毫米)			
型号	A	B	C
RV3S2	7	88	76
RV3S3	10	116	76
RV6S3	10	118	78
RV6S4	13	127	78

RV5&RV9



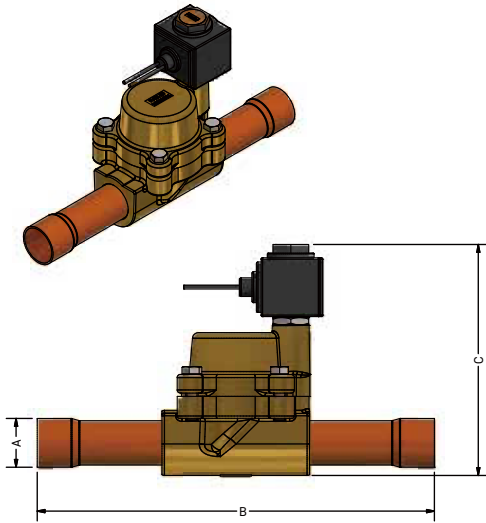
尺寸 (毫米)				
型号	A	B	C	D
RV5S3	10	116	76	9
RV9S4	13	113	90	8
RV9S5	16	113	90	8

RV10~RV25



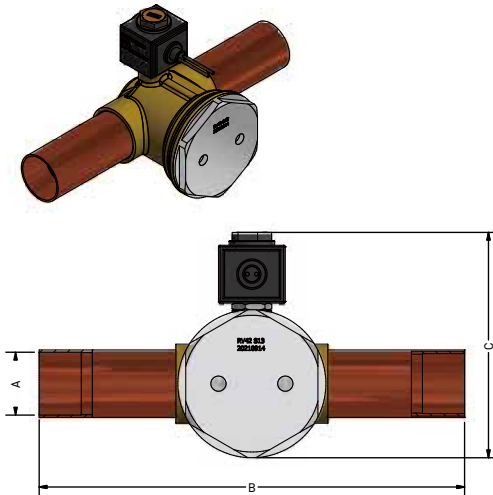
Dimensions (mm)			
Model	A	B	C
RV10S5	16	129	98
RV14S5	16	129	98
RV14S7	22	129	98
RV19S7	22	150	106
RV19S9	29	150	106
RV25S9	29	156	107
RV25S11	35	156	107

RV35



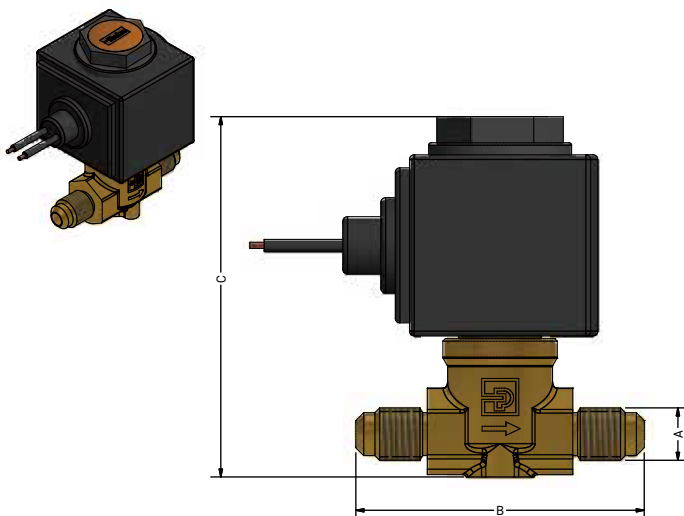
Model	Dimensions (mm)		
	A	B	C
RV35S9	29	256	149
RV35S11	35	281	149
RV35S13	42	281	149

RV43



Model	Dimensions (mm)		
	A	B	C
RV43S11	35	281	148
RV43S13	42	281	148
RV43S17	54	281	148


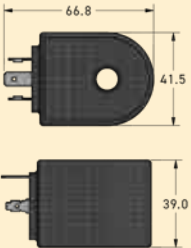

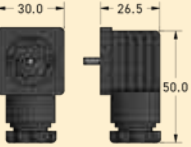

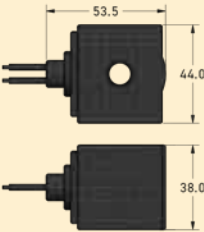
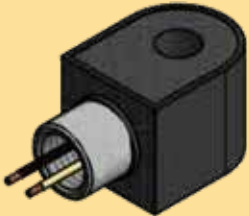
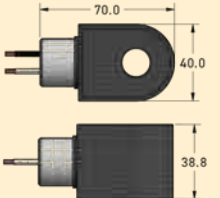
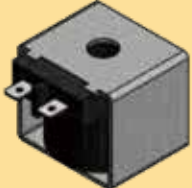
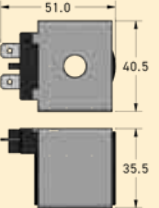
RV5-RV14



SAE Connection mode

Model	Dimensions (mm)		
	A	B	C
RV5F2	1/4" SAE	61	76
RV6F3	3/8" SAE	64	76
RV9F4	1/2" SAE	76	80
RV14F5	5/8" SAE	94	91

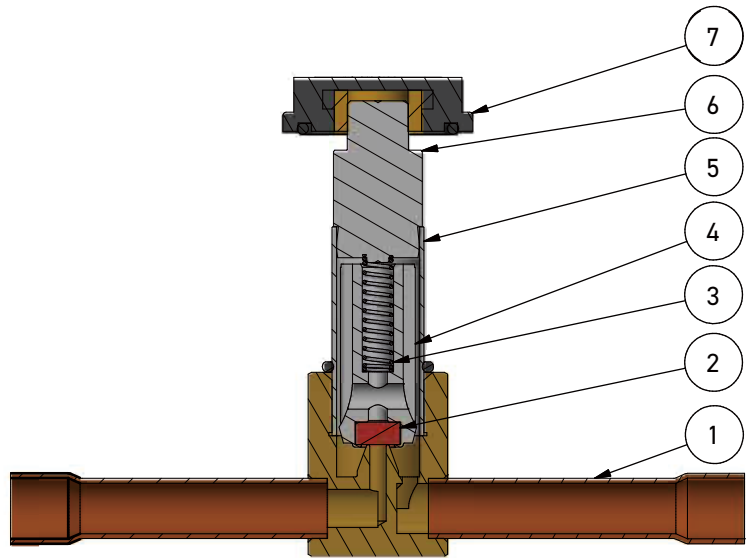
Coil Specification

Coil Type	Picture	Part Number	Voltage	IP Grade	Insulation Grade	Watts(Cold)	Coil Dimensions
DIN		690012P0	24/50-60	65	F	11	
		6900122W	100/50 110-120/50-60				
		6900124P	220-240/50-60				
		690012C1	12V DC			22	
		690012C2	24V DC				
		690012C5	110V DC				
DIN Connector		C300456	N/A	N/A	N/A	N/A	
Lead Wire		690007P0	24/50-60	67	F	11	
		6900072W	100/50 110-120/50-60				
		6900074P	220-240/50-60				
		690007C1	12V DC			22	
		690007C2	24V DC				
		690007C5	110V DC				
Conduit Boss		690011P0	24/50-60	67	F	11	
		6900112W	100/50 110-120/50-60				
		6900114P	220-240/50-60				
		690011C1	12V DC			22	
		690011C2	24V DC				
		690011C5	110V DC				
Top Spade		690001P0	24/50-60	65	F	11	
		6900012W	100/50 110-120/50-60				
		6900014P	220-240/50-60				

Material Specification

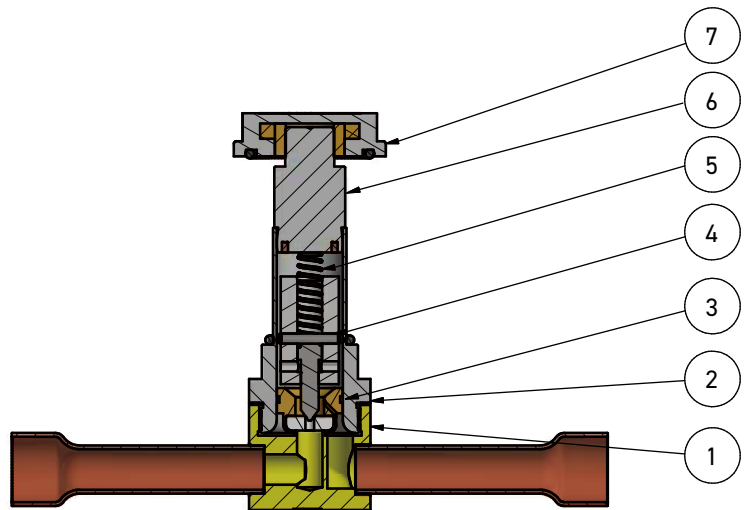
RV3 Series

Num.	Component
1	Body
2	Disc
3	Spring
4	Plunger
5	Tube
6	Stopper
7	Plastic nut



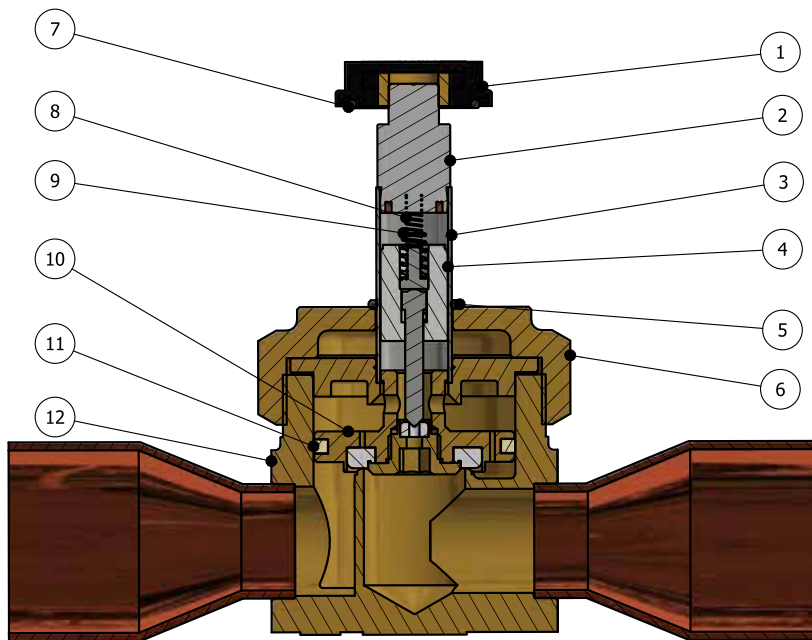
RV6 Series

Num.	Component
1	Body
2	Sleeve
3	Piston
4	Plunger
5	Spring
6	Stopper
7	Plastic nut



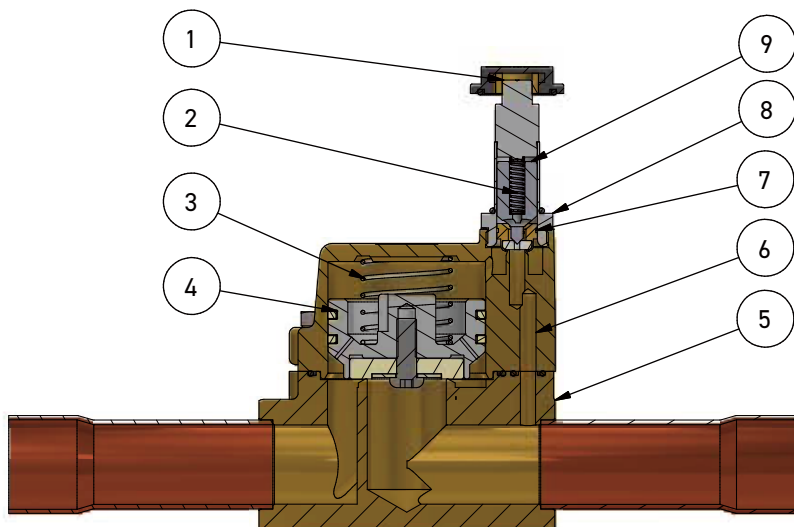
RV5&RV9-RV25 Series

Num.	Component
1	Plastic nut
2	Stopper
3	Tube
4	Plunger
5	O-Ring
6	Cover Nut
7	O-Ring
8	Small Spring
9	Short Spring
10	Piston
11	Guide Ring
12	Body



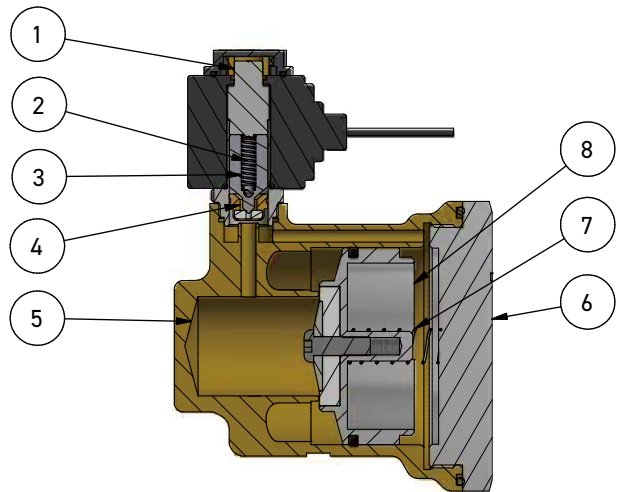
RV35 Series

Num.	Component
1	Stopper
2	Spring
3	Spring
4	Piston
5	Body
6	End cap
7	Piston
8	Sleeve
9	Plunger



RV43 Series

Num.	Component
1	Stopper
2	Spring
3	Plunger
4	Piston
5	Body
6	End cap
7	Spring
8	Piston



⚠ WARNING – USER RESPONSIBILITY

Failure or improper selection or improper use of the products described herein or related items can cause death, personal injury and property damage.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

22-09-C-ING-EN-10P-Climate Control RV



Parker Hannifin Motion and Control (Wuxi) Co., Ltd
No. 200 Fu Rong Zhong Si Road, Xi Shan Economic
Development Zone, Wuxi; 214192
Tel : 86- 510-81167000
www.parker.com