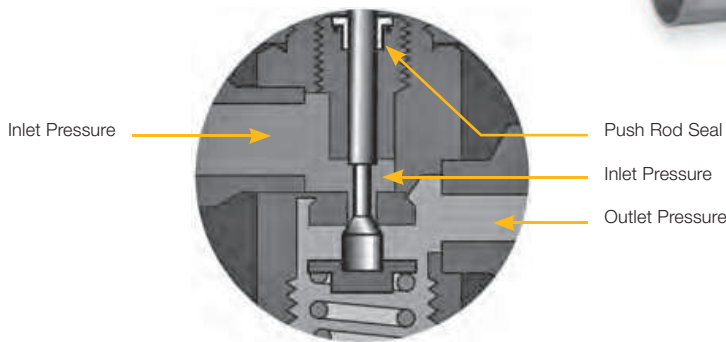


Type R, EBS & O

Parker Sporlan Thermostatic Expansion Valves

Balanced Port Design



Valve Nomenclature/Ordering Instructions

Combine the letters and numbers in the following manner to obtain the complete valve designation. Also include all connection sizes and the capillary tube length.

O	Z	E	-	35	-	GA	x	7/8" ODF Solder	x	1-1/8" ODF Solder	x	1/4" ODF Solder	x	5'
Body Type	Parker Sporlan Code Refrigerant Element Label Color Code	"E" specifies external equalizer. Omission of letter "E" indicates valve with internal equalizer.	-	Nominal Capacity in Tons	-	Thermostatic Charge	x	Inlet Connection Size and Style	x	Outlet Connection Size and Style	x	External Equalizer Connection Size and Style	x	Capillary Tubing Length Inches or Feet
	V = R-22 Green J = R-134a Blue S = R-404A Orange N = R-407C Lt. Brown F = R-409A Yellow Z = R-410A Rose P = R-507 Teal													

Parker Sporlan Selective Charges engineered for peak performance for each specific application

Recommended Thermostatic Charges*

Application	Refrigerant						Charges
	22, 422D	134a	404A	407C	R507	410A	
Air Conditioning	-	JCP60	-	-	-	-	FCP60
	VCP100	-	-	NCP100	-	-	VCP100
	VGA	-	-	NGA	-	-	VGA
	-	-	SCP115	-	PCP115	-	SCP115
	-	-	-	-	-	ZCP180	ZCP180
	-	-	-	-	-	ZGA	ZGA
Commercial Refrigeration 10°C to -25°C	-	JC	-	-	-	-	JC
	VC	-	-	NC	-	-	VC
	-	-	-	-	-	-	NC
	-	-	SC	-	PC	-	SC
Low Temperature Refrigeration -25°C to -40°C	-	-	SZ	-	PZ	-	SZ
	-	-	SZP	-	PZP	-	SZP

* APPLICATION FACTORS:

- The Type ZP,CP charges have essentially the same characteristics as the Type Z,C charge with one exception: they produce a pressure limit Maximum Operating Pressure (MOP). ZP,CP charges are not intended as replacements for Z,C charges. Each should be selected for its own unique purpose.
- All air conditioning and heat pump charges are intended for use with externally equalized valves.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
racecustomerservice@parker.com / www.parker.com/race



Type R

The Parker Sporlan **Type R** valve features balanced port design, an external adjustment assembly and the replaceable element assembly. The **Type R** with extended copper connections has recently been expanded to include three conventional body styles, the ER, SR and R, plus new fractional capacity versions. The ER with extended copper connections provides exceptional control in both flow directions making the ER an excellent choice for Bi-flow heat pump applications.

The ER also features the 60 x 50 mesh stainless steel wire cloth inlet strainer as a standard feature; the 100 mesh inlet strainer is an optional feature available for 5/8" ODF and larger fitting combinations. The Parker Sporlan **Type R**, with SAE flare connections, and the Type SR with the removable strainer assembly share the same balanced port construction as the ER. The R is complete with the 100 mesh inlet strainer as an integral part of the fitting while the SR has a 100 mesh removable strainer that can be cleaned or replaced while the valve remains soldered to the system tubing.

These valves are ideally suited for small to large capacity refrigeration applications that could operate over widely varying operating conditions and are now available in fractional capacities for refrigerants including R-407C, R-134a, R-404A, R-507 and R-410A.

Flare Connections



RE (SAE)
Externally Equalized



R (SAE)
Internally Equalized

Extended Solder Connections



ERE (ODF)
Externally Equalized



ER (ODF)
Internally Equalized

Extended Solder Connections with Forged Inlet and replaceable Strainer



SRE (ODF)
Externally Equalized



SR (ODF)
Internally Equalized

Accurate at the time of going to print.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
raccustomerservice@parker.com / www.parker.com/race

Specifications & Materials/Details of Construction

Body	Machined Brass Bar	
Seat	Brass Port Machined in Body	
Pin	Stainless Steel	
Pushrod	Stainless Steel	
Element to Body Joint Type	Knife Edge to Metal	
Connections	SAE Flare, ODF Copper Fittings Silver Soldered to Body	
Inlet Strainer	Insert Strainer, Removable Strainer Screen	
Operating Temp. Range	10°C to -40°C (50°F to -40°F)	
MRP	48.3 bar (700 psig) for R-410A only / 31.0 bar (450 psi)	
Maximum Temperature	121°C (250°F) Limited Exposure Time	
Max Ambient Temp.	60°C (140°F)	
Max Bulb Temp.	ZGA, ZCP180 (R410A) Element Charge	71.1°C (160°F)
	GA, CP, ZP all Refrigerants excl R410A	121°C (250°F)
	JC (R134a) Element Charge	87.8°C (190°F)
	VC (R407C) Element Charge	71.1°C (160°F)
	SC (R404A) Element Charge	65.6°C (150°F)
	SZ (R404A) Element Charge	76.7°C (170°F)
Max External Leakage	.10 oz/yr @ 300 psig (2.8 gram/yr @ 20 bar)	
UL	SA5460	
Compatibility	All HFC, HCFC, Refrigerants and blends	

The Type R Thermostatic Expansion Valves comply with the Directive(s) 97-23-EC.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
racecustomerservice@parker.com / www.parker.com/race

Benefits

- **Selective thermostatic charges provide optimum performance for all common applications - air conditioning and heat pump, medium and low temp. refrigeration**
- **Stainless steel diaphragm and welded element construction**
- **Large flat diaphragm permits precise valve control**
- **Balanced Port Design provides excellent control on applications with widely varying operation conditions**
- **Externally adjustable**
- **Excellent Bi-Flow Control for Heat Pump Applications (only for valves with external equalizer)**
- **The copper bulb design provides an excellent heat transfer**
- **Replaceable Thermostatic Elements**

Options

- ZCP180,ZGA charge available for R410A systems
- SAE (with 100 mesh strainer) or ODF (with 60 x 50 mesh stainless steel wire cloth strainer) connections
- ODF version also available with 100 mesh removable strainer
- External or internal equalizer
- Pressure limiting charge (CP) and anti hunting charge (GA) available
- Available with internal Check Valve

Nominal Capacity Tons of Refrigeration				Connections - Inches*		Connections - mm*	
R-410A	R-407C	R-134a	R-404A, R507	Inlet	Outlet	Inlet	Outlet
1/3	1/3	1/6	1/6	1/4, 3/8	3/8, 1/2	6.4, 9.5	9.5, 12.7
1/2	1/2	1/4	1/4	1/4, 3/8	3/8, 1/2	6.4, 9.5	9.5, 12.7
1	1	1/2	1/2	1/4, 3/8	3/8, 1/2	6.4, 9.5	9.5, 12.7
1-1/2	1-1/2	1	1	3/8	1/2	9.5	12.7
2	2	1-1/2	1-1/2	3/8	1/2	9.5	12.7
3	3	2	2	3/8, 1/2	1/2, 5/8	9.5, 12.7	12.7, 15.9
4	4	2-1/2	3	3/8, 1/2	1/2, 5/8, 7/8	9.5, 12.7	12.7, 15.9, 22.2
5	5	3	3-1/2	3/8, 1/2	1/2, 5/8, 7/8	9.5, 12.7	12.7, 15.9, 22.2
6	6	4	4	3/8, 1/2, 5/8	1/2, 5/8, 7/8	9.5, 12.7, 15.9	12.7, 15.9, 22.2
8	8	5	6	1/2, 5/8	7/8, 1-1/8	12.7, 15.9	22.2, 28.6
12-1/2	10	-	-	5/8	7/8, 1-1/8	15.9	22.2, 28.6
15	12	-	-	5/8	7/8, 1-1/8	15.9	22.2, 28.6

* Some fitting combinations may not be available.

TEV capacity ratings for R-134a, R-401A, R-404A, R-407C, R-408A, 409A, R-410A, and R-422D are based on vapor free 38°C liquid refrigerant entering the expansion valve, a maximum opening superheat of 4K, and a standard factory air test superheat setting. A discussion of the relationship between valve capacities and superheat settings can be found in Bulletin 10-9. The ratings for evaporator temperatures 10°C, 5°C, -5°C, -15°C, -20°C, -30°C, -40°C in the capacity tables are in accordance with ANSI/ARI Standard Number 750. TEVs are tested in accordance with ANSI/ASHRAE 17. For TEV capacity ratings at operating conditions not shown in the following tables, contact RACE Division of Parker.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
raccustomerservice@parker.com / www.parker.com/race



Selection Tables

Air Conditioning, Heat Pump and Commercial Refrigeration Applications													
Valve Size	Nominal Capacity	Refrigerant											
		R422D						407C					
		Recommended Thermostatic Charge											
		VC, wVCP100, VGA				VZ, VZP40**				VC, VCP100*, VGA			
		Evaporator Temperature °C											
kW	10°	5°	-5°	-15°	-20°	-30°	-40°	10°	5°	-5°	-15°	-20°	
1/3	1.2	0.74	0.72	0.79	0.69	0.66	0.45	0.34	1.04	1.02	1.14	1.01	0.97
1/2	1.75	1.27	1.24	1.36	1.18	1.12	0.78	0.58	1.78	1.75	1.95	1.73	1.66
1	3.5	2.12	2.07	2.26	2	1.97	1.44	1.07	2.97	2.92	3.25	2.93	2.91
1-1/2	5.3	3.71	3.62	3.96	3.51	3.22	2.04	1.52	5.21	5.12	5.69	5.13	4.75
2	7	4.87	4.75	5.2	4.61	4.23	2.67	2	6.84	6.72	7.48	6.74	6.24
3	11	6.78	6.61	7.24	6.42	5.94	3.84	2.87	9.52	9.35	10.4	9.38	8.77
4	14	8.89	8.68	9.5	8.42	7.78	5.01	3.74	12.5	12.3	13.7	12.3	11.5
5	18	10.6	10.3	11.3	10	9.15	5.73	4.28	14.9	14.6	16.3	14.7	13.5
6	21	12.7	12.4	13.6	11.2	9.98	2.92	4.38	17.8	17.5	19.5	16.3	14.7
8	28	16.9	16.5	18.1	16	13.8	6.86	4.63	23.8	23.4	26	23.4	20.3
10	35	22.1	21.5	23.6	20.9	13.3	-	-	31	30.5	33.9	30.6	19.6
12	42	25.6	25	27.4	24.3	15.4	-	-	36	35.4	39.3	35.5	22.8

* MOP point CP100 ≈ 14°C, **MOP point ZP40 ≈ -12°C

Liquid Temperature Entering TEV °C							
Refrigerant	-10°C	0°	10°	20°	30°	50°	60°
	Correction Factor, CF Liquid Temperature						
407C	1.73	1.59	1.45	1.3	1.15	0.84	0.67
422D	1.86	1.68	1.5	1.33	1.14	0.77	0.57

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an evaporator temperature of -15°C. However, they may be used for any evaporator temperature from -40°C to 10°C since the variation in the actual factors across this range is insignificant.

R22, 407C, 422D Evaporator Temperature °C	Pressure Drop Across TEV (bar)							
	2	4	6	8	10	12	14	16
	Correction Factor, CF Pressure Drop							
5° & 10°	0.58	0.82	1.00	1.15	1.29	1.41	1.53	1.63
-5° & -15°	0.50	0.71	0.87	1.00	1.12	1.22	1.32	1.41
-20° & -30°	0.45	0.63	0.77	0.89	1.00	1.11	1.18	1.26
-40°	0.41	0.58	0.71	0.82	0.91	1.00	1.08	1.15

TEV Capacity = TEV Rating x CF Liquid Temperature x CF Pressure Drop
 Actual capacity of a nominal 5.3 kW R-407C Type R valve at -5°C evaporator, 10 bar pressure drop across the TEV and a 30°C liquid temperature entering the TEV = 3.96 (from rating chart) x 1.15 (CF liquid temperature) x 1.12 (CF pressure drop) = 5.1 kW.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
racecustomerservice@parker.com / www.parker.com/race

Selection Tables

Air Conditioning, Heat Pump and Commercial Refrigeration Applications					
Valve Size	Nominal Capacity	Refrigerant R410A			
		Recommended Thermostatic Charge			
		ZCP180*, ZGA			
		Evaporator Temperature °C			
	kW	10°	5°	-5°	-15°
1/3	1.2	1.44	1.43	1.58	1.42
1/2	1.8	2.47	2.45	2.7	2.43
1	3.5	4.12	4.08	4.5	4.12
1-1/2	5.3	7.21	7.14	7.88	7.21
2	7	9.47	9.38	10.4	9.48
3	11	13.2	13.1	14.4	13.2
4	14	17.3	17.1	18.9	17.3
5	18	20.6	20.4	22.5	20.6
6	21	24.7	24.5	27	23
8	28	33	32.6	36	33
12-1/2	44	43	42.5	46.9	43
15	53	49.8	49.4	54.4	49.9

* MOP point CP180 ≈ 15°C

4

Liquid Temperature Entering TEV °C					
Refrigerant	20°	30°	40°	50°	60°
	Correction Factor, CF Liquid Temperature				
410A	1.30	1.15	1.00	0.84	0.65

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an evaporator temperature of -15°C. However, they may be used for any evaporator temperature from -15°C to 10°C since the variation in the actual factors across this range is insignificant.

R410A Evaporator Temperature °C	Pressure Drop Across TEV (bar)				
	8	11	14	17	20
	Correction Factor, CF Pressure Drop				
5° & 10°	0.85	1.00	1.13	1.24	1.35
-5° & -15°	0.76	0.89	1.00	1.10	1.20

TEV Capacity = TEV Rating x CF Liquid Temperature x CF Pressure Drop

Example: Actual capacity of a nominal 14 kW R-410A Type R valve at -15°C evaporator, 17 bar pressure drop across the TEV and a 30°C liquid temperature entering the TEV = 17.3 (from rating chart) x 1.15 (CF liquid temperature) x 1.10 (CF pressure drop) = 21.9 kW.

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Accurate at the time of going to print.



Selection Tables

Air Conditioning, Heat Pump and Commercial Refrigeration Applications													
Valve Size	Capacity	Refrigerant											
		404A, 507**						408A					
		Recommended Thermostatic Charge											
		SCP115*, SC			SZ, SZP*			SCP115, SC			SZ, SZP		
		Evaporator Temperature °C											
kW	5°	-5°	-15°	-20°	-30°	-40°	5°	-5°	-15°	-20°	-30°	-40°	
1/6	0.6	0.71	0.78	0.74	0.8	0.66	0.57	0.91	1.02	0.99	1.08	0.91	0.8
1/4	0.9	1.21	1.34	1.27	1.35	1.07	0.85	1.57	1.75	1.69	1.81	1.47	1.18
1/2	1.8	1.88	2.07	1.85	1.88	1.45	1.09	2.43	2.71	2.46	2.52	1.99	1.53
1	3.5	3.57	3.94	3.51	3.23	2.06	1.55	4.61	5.15	4.67	4.33	2.82	2.17
1-1/2	5.3	4.7	5.18	4.61	4.23	2.68	2.01	6.06	6.77	6.14	5.68	3.67	2.82
2	7.0	6.52	7.18	6.4	5.94	3.87	2.91	8.4	9.39	8.51	7.98	5.3	4.08
3	11.0	8.58	9.45	8.42	7.81	5.06	3.8	11.1	12.4	11.2	10.5	6.93	5.33
3-1/2	12.0	10.2	11.3	10	9.18	5.78	4.35	13.2	14.7	13.3	12.3	7.92	6.09
4	14.0	12.3	13.5	11.2	10.1	6.06	4.51	15.8	17.7	14.9	13.5	8.3	6.32
6	21.1	16.3	18	16	13.8	6.92	5.15	21.1	23.5	21.3	18.5	9.48	7.22

* MOP point CP115 ≈ 10°C, MOP point ZP ≈ -17°C

** At low temp. Applications capacities are almost the same when using the "S" charge for R507, for medium temp. Applications the Superheat may need adjusting.

Liquid Temperature Entering TEV °C								
Refrigerant	-10°C	0°	10°	20°	30°	40°	50°	60°
	Correction Factor, CF Liquid Temperature							
404A	1.89	1.72	1.56	1.37	1.19	1	0.79	0.56
408A	1.58	1.46	1.34	1.22	1.1	0.97	0.85	0.71

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an evaporator temperature of -15°C. However, they may be used for any evaporator temperature from -40°C to 5°C since the variation in the actual factors across this range is insignificant.

Evaporator Temperature °C	Pressure Drop Across TEV (bar)							
	2	4	6	8	10	12	14	16
	Correction Factor, CF Pressure Drop							
5°	0.58	0.82	1.00	1.15	1.29	1.41	1.53	1.63
-5° & -15°	0.50	0.71	0.87	1.00	1.12	1.22	1.32	1.41
-20° & -30°	0.45	0.63	0.77	0.89	1.00	1.10	1.18	1.26
-40°	0.41	0.58	0.71	0.82	0.91	1.00	1.08	1.15

TEV Capacity = TEV Rating x CF Liquid Temperature x CF Pressure Drop

Example: Actual capacity of a nominal 5.3 kW R-404A Type R valve at -5°C evaporator, 10 bar pressure drop across the TEV, and a 30°C liquid temperature entering the TEV = 5.18 (from rating chart) x 1.19 (CF liquid temperature) x 1.12 (CF pressure drop) = 6.9 kW.

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Selection Tables

Valve Size	Nominal Capacity	Refrigerant											
		134a				409A				401A			
		Recommended Thermostatic Charge											
		JC, JCP60*				JC, JCP60				JC, JCP60			
		Evaporator Temperature °C											
kW	10°	5°	-5°	-15°	10°	5°	-5°	-15°	10°	5°	-5°	-15°	
1/6	0.6	0.86	0.85	1	0.95	0.87	0.85	1.04	1.01	0.93	0.91	1.08	1.04
1/4	0.9	1.48	1.45	1.7	1.63	1.49	1.46	1.8	1.73	1.59	1.56	1.84	1.78
1/2	1.8	2.49	2.44	2.86	2.57	2.5	2.45	2.9	2.62	2.67	2.62	3.1	2.81
1	3.5	4.35	4.27	5.01	4.5	4.37	4.29	5.07	4.58	4.66	4.59	5.42	2.83
1-1/2	5.3	5.72	5.61	6.58	5.91	5.74	5.64	6.66	6.02	6.13	6.03	7.12	6.47
2	7	7.96	7.8	9.16	8.23	7.99	7.85	9.27	8.37	8.53	8.39	9.91	8.99
2-1/2	8.8	10.4	10.2	12	10.8	10.5	10.3	12.2	11	11.2	11	13.1	11.8
3	11	12.4	12.2	14.3	12.9	12.5	12.3	14.5	13.1	13.3	13.1	15.5	14.1
4	14	14.9	14.6	17.2	14.3	15	14.7	17.4	14.6	16	15.7	18.6	15.7
5	17.6	19.9	19.5	23	20.7	20.7	20.4	24.2	21.9	21.2	20.9	24.8	22.5

* MOP point CP60 ≈ 12°C

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Refrigerant	Liquid Temperature Entering TEV °C							
	-10°C	0°	10°	20°	30°	40°	50°	60°
	Correction Factor, CF Liquid Temperature							
134a	1.64	1.52	1.39	1.26	1.13	1.00	0.87	0.73
409A	1.51	1.41	1.31	1.21	1.11	1.00	0.89	0.78
401A	1.52	1.42	1.31	1.2	1.09	0.98	0.86	0.74

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an evaporator temperature of -15°C. However, they may be used for any evaporator temperature from -15°C to 10°C since the variation in the actual factors across this range is insignificant.

Evaporator Temperature °C	Pressure Drop Across TEV (bar)							
	2	4	6	8	10	12	14	16
	Correction Factor, CF Pressure Drop							
5° & 10°	0.71	1.00	1.22	1.41	1.58	1.73	1.87	2.00
-5° & -15°	0.58	0.82	1.00	1.15	1.29	1.41	1.53	1.63

TEV Capacity = TEV Rating x CF Liquid Temperature x CF Pressure Drop

Example: Actual capacity of a nominal 5.3 kW R-134a Type R valve at -5°C evaporator, 8 bar pressure drop across the TEV, and a 30°C liquid temperature entering the TEV = 6.58 (from rating chart) x 1.13 (CF liquid temperature) x 1.15 (CF pressure drop) = 8.55 kW.

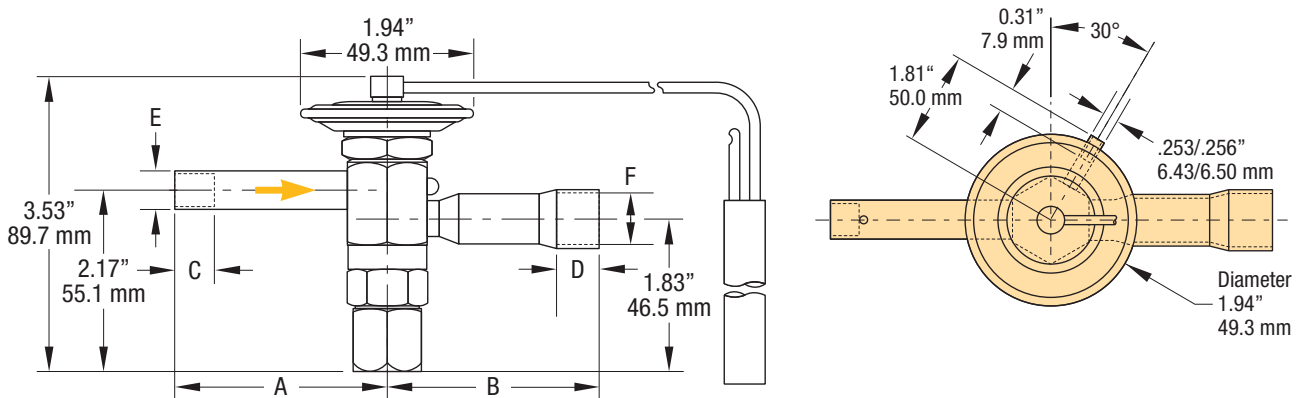
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Accurate at the time of going to print.



Valve Dimensions

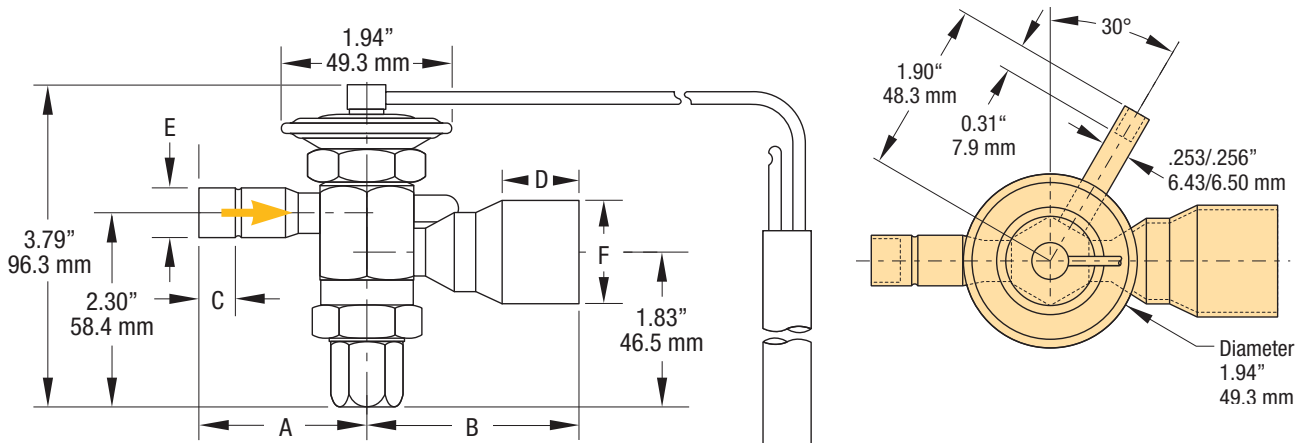
Type ERE - Small body



Dimensions - Connections

Fitting Size Inches		Inches						mm					
Inlet	Outlet	A	B	C	D	E	F	A	B	C	D	E	F
1/4	3/8	1.69	2.42	0.31	0.31	.253/.256	.377/.381	42.9	61.5	7.87	7.87	6.43/6.50	9.58/9.68
3/8	1/2	2.42	2.51	0.31	0.40	.377/.381	.502/.506	61.5	63.8	7.90	10.2	9.58/9.68	12.8/12.9
1/2	5/8	2.35	2.51	0.40	0.50	.502/.506	.627/.632	59.7	63.8	10.2	12.7	12.8/12.9	15.9/16.1
	7/8		2.41		0.78		.877/.882						19.8
5/8	7	2.35	2.41	0.50	0.91	.627/.632	1.128/1.135	59.7	61.2	12.7	23.1	15.9/16.1	28.7

Type ERE - Large body



Dimensions Connections

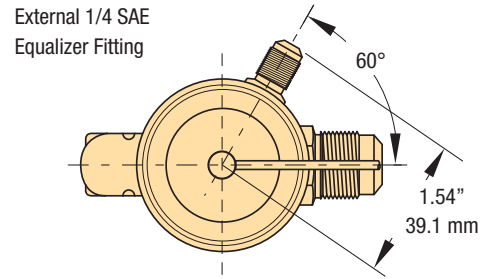
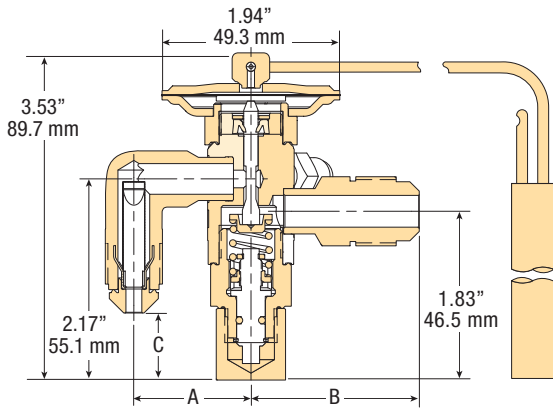
Fitting Size Inches		Inches						mm					
Inlet	Outlet	A	B	C	D	E	F	A	B	C	D	E	F
5/8	7/8	2.48	2.51	0.50	0.78	.627/.632	.877/.882	63.0	63.8	12.7	19.8	15.9/16.1	22.3/22.4
	1-1/8				0.91		1.128/1.135						28.7/28.8

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on: racecustomerservice@parker.com / www.parker.com/race

Accurate at the time of going to print.

Valve Dimensions

Type RE



Dimensions Connections

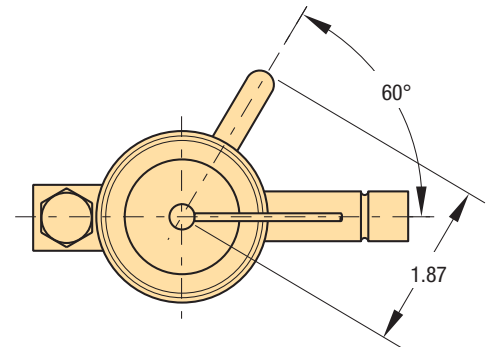
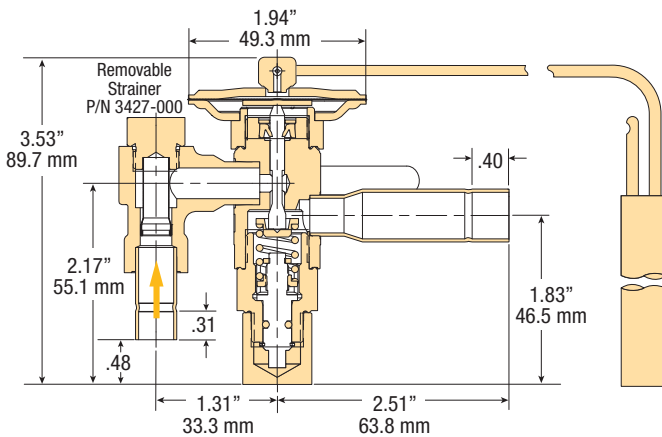
Fitting Size Inches		Inches			mm		
		A	B	C	A	B	C
Inlet	Outlet						
1/4	3/8	1.09	1.63	1.13	27.7	41.4	28.7
3/8	1/2	1.27	1.82	0.71	38.1	46.2	18.0

Bulb Sizes*

Standard Charges	Dimensions	
	Inches	mm
C, Z, MOP Type Charges	0.50 OD x 3.00	12.7 mm x 76.2 mm
GA	0.75 OD x 2.00	19.1 mm x 50.8 mm

* Bulb size dimensions apply to all valve types and refrigerants.

Type SRE



SRE dimension based on 3/8 x 1/2 connections

Accurate at the time of going to print.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on: raccustomerservice@parker.com / www.parker.com/race



Order Selection Guide R Type

R407C, R22, R422D

Valve Type	Valve Size	Valve Description	With External Equalizer	Capillary Tube Length in mm	Thermostatic Charge			
					C	CP100	Z	GA
					R Type with 22 (V) Refrigerant			
					Part Number	Part Number	Part Number	Part Number
R	RV-1/3	* 1/4 x 1/2 SAE - 30"	NO	760	169313	Special order valve	Special order valve	Special order valve
	RV-1/2	* 1/4 x 1/2 SAE - 30"	NO	760	169312	Special order valve	Special order valve	Special order valve
	RV-1/2	* 3/8 x 1/2 SAE - 30"	NO	760	169345	Special order valve	Special order valve	Special order valve
	RV-1	* 1/4 x 1/2 SAE - 5'	NO	1500	169311	Special order valve	Special order valve	Special order valve
	RV-1	* 3/8 x 1/2 SAE - 5'	NO	1500	169338	Special order valve	Special order valve	Special order valve
	RV-1-1/2	* 3/8 x 1/2 SAE - 5'	NO	1500	169342	Special order valve	Special order valve	Special order valve
	RV-2	* 3/8 x 1/2 SAE - 5'	NO	1500	169340	Special order valve	Special order valve	Special order valve
	RVE-1/3	* 1/4 x 1/2 SAE - 30"	YES	760	169324	Special order valve	Special order valve	Special order valve
	RVE-1/2	* 3/8 x 1/2 SAE - 30"	YES	760	169380	Special order valve	Special order valve	Special order valve
	RVE-1	* 1/4 x 1/2 SAE - 5'	YES	1500	169322	Special order valve	Special order valve	Special order valve
	RVE-1	* 3/8 x 1/2 SAE - 5'	YES	1500	169366	Special order valve	Special order valve	Special order valve
	RVE-1-1/2	* 3/8 x 1/2 SAE - 5'	YES	1500	169378	Special order valve	Special order valve	Special order valve
	RVE-2	* 3/8 x 1/2 SAE - 5'	YES	1500	169368	Special order valve	Special order valve	Special order valve
	RVE-3	* 3/8 x 1/2 SAE - 5'	YES	1500	169370	Special order valve	Special order valve	Special order valve
	RVE-4	* 3/8 x 1/2 SAE - 5'	YES	1500	169372	Special order valve	Special order valve	Special order valve
	RVE-5	* 3/8 x 1/2 SAE - 5'	YES	1500	169374	Special order valve	Special order valve	Special order valve
RVE-6	* 3/8 x 1/2 SAE - 5'	YES	1500	169376	Special order valve	Special order valve	Special order valve	
ER	ERV-1/3	* 1/4 x 3/8 ODF - 30"	NO	760	169159	Special order valve	Special order valve	Special order valve
	ERV-1/3	* 1/4 x 1/2 ODF - 30"	NO	760	169173	Special order valve	Special order valve	Special order valve
	ERV-1/3	* 3/8 x 1/2 ODF - 30"	NO	760	169209	Special order valve	Special order valve	Special order valve
	ERV-1/2	* 1/4 x 3/8 ODF - 30"	NO	760	169158	Special order valve	Special order valve	Special order valve
	ERV-1/2	* 1/4 x 1/2 ODF - 30"	NO	760	169172	Special order valve	Special order valve	Special order valve
	ERV-1/2	* 3/8 x 1/2 ODF - 30"	NO	760	169208	Special order valve	Special order valve	Special order valve
	ERV-1	* 3/8 x 1/2 ODF - 5'	NO	1500	169206	Special order valve	Special order valve	Special order valve
	ERV-2	* 3/8 x 1/2 ODF - 5'	NO	1500	169207	Special order valve	Special order valve	Special order valve
	ERVE-1/3	* 1/4 x 1/2 ODF - 30"	YES	760	169187	Special order valve	Special order valve	Special order valve
	ERVE-1/2	* 1/4 x 1/2 ODF - 30"	YES	760	169186	Special order valve	Special order valve	Special order valve
	ERVE-1/2	* 3/8 x 1/2 ODF - 30"	YES	760	169246	Special order valve	Special order valve	Special order valve
	ERVE-1	* 1/4 x 1/2 ODF - 5'	YES	1500	169185	Special order valve	Special order valve	Special order valve
	ERVE-1	* 3/8 x 1/2 ODF - 5'	YES	1500	169230	168796	Special order valve	168798
	ERVE-1-1/2	* 3/8 x 1/2 ODF - 5'	YES	1500	169243	168742	Special order valve	168743
	ERVE-2	* 3/8 x 1/2 ODF - 5'	YES	1500	169231	168744	Special order valve	168745
	ERVE-3	* 3/8 x 1/2 ODF - 5'	YES	1500	169234	168746	Special order valve	168748
	ERVE-3	1/2 x 5/8 ODF - 5'	YES	1500	169265	168747	Special order valve	168749
	ERVE-4	* 3/8 x 1/2 ODF - 5'	YES	1500	169238	168750	Special order valve	168753
	ERVE-4	1/2 x 5/8 ODF - 5'	YES	1500	169268	168751	Special order valve	168754
	ERVE-4	1/2 x 7/8 ODF - 5'	YES	1500	169282	168752	Special order valve	168755

* Supplied with an inlet strainer.

Special order valves or other valve configurations might be available upon request.

All external equalized "R" Type valves are supplied with a 1/4" ODF/SAE equalizer connection.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
racecustomerservice@parker.com / www.parker.com/race

Order Selection Guide R Type

R407C, R22, R422D

Valve Type	Valve Size	Valve Description	With External Equalizer	Capillary Tube Length in mm	Thermostatic Charge			
					C	CP100	Z	GA
					R Type with 22 (V) Refrigerant			
					Part Number	Part Number	Part Number	Part Number
ER	ERVE-5	* 3/8 x 1/2 ODF - 5'	YES	1500	169241	168756	Special order valve	168759
	ERVE-5	1/2 x 5/8 ODF - 5'	YES	1500	169271	168757	Special order valve	168760
	ERVE-5	1/2 x 7/8 ODF - 5'	YES	1500	169283	168758	Special order valve	168761
	ERVE-6	1/2 x 5/8 ODF - 5'	YES	1500	169274	168762	Special order valve	168766
	ERVE-6	1/2 x 7/8 ODF - 5'	YES	1500	169284	168763	Special order valve	168767
	ERVE-6	5/8 x 7/8 ODF - 5'	YES	1500	169293	168764	Special order valve	168768
	ERVE-8	1/2 x 7/8 ODF - 5'	YES	1500	Special order valve	168769	Special order valve	168772
	ERVE-8	5/8 x 7/8 ODF - 5'	YES	1500	169294	168770	Special order valve	168773
	ERVE-8	5/8 x 1-1/8 ODF - 5'	YES	1500	Special order valve	168771	Special order valve	168774
	ERVE-10	5/8 x 7/8 ODF - 5'	YES	1500	169295	168775	Special order valve	168777
	ERVE-10	5/8 x 1-1/8 ODF - 5'	YES	1500	Special order valve	168776	Special order valve	168778
	ERVE-12	5/8 x 7/8 ODF - 5'	YES	1500	169296	168779	Special order valve	168781
ERVE-12	5/8 x 1-1/8 ODF - 5'	YES	1500	Special order valve	168780	Special order valve	168782	
SR	SRV-1/3	3/8 x 1/2 ODF EXT - 30"	NO	1500	169405	Special order valve	Special order valve	Special order valve
	SRV-1/2	3/8 x 1/2 ODF EXT - 30"	NO	1500	169404	Special order valve	Special order valve	Special order valve
	SRV-1	3/8 x 1/2 ODF EXT - 5'	NO	1500	169402	Special order valve	Special order valve	Special order valve
	SRV-2	3/8 x 1/2 ODF EXT - 5'	NO	1500	169403	Special order valve	Special order valve	Special order valve
	SRVE-1/3	3/8 x 1/2 ODF EXT - 30"	YES	760	169446	Special order valve	Special order valve	Special order valve
	SRVE-1/2	3/8 x 1/2 ODF EXT - 30"	YES	760	169445	Special order valve	Special order valve	Special order valve
	SRVE-1	3/8 x 1/2 ODF EXT - 5'	YES	1500	169435	Special order valve	Special order valve	Special order valve
	SRVE-2	3/8 x 1/2 ODF EXT - 5'	YES	1500	169438	Special order valve	Special order valve	Special order valve
	SRVE-3	3/8 x 1/2 ODF EXT - 5'	YES	1500	169441	Special order valve	Special order valve	Special order valve
	SRVE-5	3/8 x 1/2 ODF EXT - 5'	YES	1500	169444	Special order valve	Special order valve	Special order valve

* Supplied with an inlet strainer.
Special order valves or other valve configurations might be available upon request.

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Accurate at the time of going to print.

All external equalized "R" Type valves are supplied with a 1/4" ODF/SAE equalizer connection.
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racecustomerservice@parker.com / www.parker.com/race



Order Selection Guide R Type

R404A, R507, R408A

Valve Type	Valve Size	Valve Description	With External Equalizer	Capillary Tube Length in mm	Thermostatic Charge			
					C	CP115	Z	ZP
					R Type with 404A (S) Refrigerant			
					Part Number	Part Number	Part Number	Part Number
R	RS-1/4	* 1/4 x 1/2 SAE - 30"	NO	760	169308	special order valve	169310	169309
	RS-1/2	* 1/4 x 1/2 SAE - 5'	NO	1500	169305	special order valve	169306	169307
	RS-1/2	* 3/8 x 1/2 SAE - 5'	NO	1500	169337	special order valve	169335	169336
	RS-1	* 3/8 x 1/2 SAE - 5'	NO	1500	169330	special order valve	169331	169329
	RS-1-1/2	* 3/8 x 1/2 SAE - 5'	NO	1500	169332	special order valve	169334	169333
	RSE-1/4	* 1/4 x 1/2 SAE - 30"	YES	760	169319	special order valve	169320	169321
	RSE-1/2	* 1/4 x 1/2 SAE - 5'	YES	1500	169318	special order valve	169317	169316
	RSE-1/2	* 3/8 x 1/2 SAE - 5'	YES	1500	169364	special order valve	169365	169363
	RSE-1	* 3/8 x 1/2 SAE - 5'	YES	1500	169352	special order valve	169353	169351
	RSE-1-1/2	* 3/8 x 1/2 SAE - 5'	YES	1500	169359	special order valve	169358	169357
	RSE-2	* 3/8 x 1/2 SAE - 5'	YES	1500	169356	special order valve	169355	169354
	RSE-3	* 3/8 x 1/2 SAE - 5'	YES	1500	169362	special order valve	169360	169361
ER	ERS-1/6	* 1/4 x 3/8 ODF - 30"	NO	760	169155	special order valve	169156	169157
	ERS-1/6	* 1/4 x 1/2 ODF - 30"	NO	760	169169	special order valve	169170	169171
	ERS-1/6	* 3/8 x 1/2 SAE - 30"	NO	760	169203	special order valve	169204	169205
	ERS-1/4	* 1/4 x 3/8 ODF - 30"	NO	760	169152	special order valve	169153	169154
	ERS-1/4	* 1/4 x 1/2 ODF - 30"	NO	760	169166	special order valve	169167	169168
	ERS-1/4	* 3/8 x 1/2 SAE - 30"	NO	760	169200	special order valve	169201	169202
	ERS-1/2	* 1/4 x 3/8 ODF - 5'	NO	1500	169149	special order valve	169150	169151
	ERS-1/2	* 1/4 x 1/2 ODF - 5'	NO	1500	169163	special order valve	169165	169164
	ERS-1/2	* 3/8 x 1/2 ODF - 5'	NO	1500	169198	special order valve	169197	169199
	ERS-1	* 3/8 x 1/2 ODF - 5'	NO	1500	169191	special order valve	169192	169193
	ERS-1-1/2	* 3/8 x 1/2 ODF - 5'	NO	1500	169195	special order valve	169196	169194
	ERSE-1/6	* 1/4 x 1/2 ODF - 30"	YES	760	169184	special order valve	-	-
	ERSE-1/4	* 1/4 x 1/2 ODF - 30"	YES	760	169181	special order valve	169183	169182
	ERSE-1/2	* 1/4 x 1/2 ODF - 5'	YES	1500	169178	special order valve	169180	169179
	ERSE-1/2	* 3/8 x 1/2 ODF - 5'	YES	1500	169228	special order valve	169229	169227
	ERSE-1	* 1/4 x 1/2 ODF - 5'	YES	1500	169177	special order valve	169176	-
	ERSE-1	* 3/8 x 1/2 ODF - 5'	YES	1500	169216	special order valve	169217	169215
	ERSE-1-1/2	* 3/8 x 1/2 ODF - 5'	YES	1500	169224	special order valve	169223	169222
	ERSE-2	* 3/8 x 1/2 ODF - 5'	YES	1500	169219	special order valve	169220	169218
	ERSE-3	* 3/8 x 1/2 ODF - 5'	YES	1500	169226	special order valve	169221	169225
ERSE-3	1/2 x 5/8 ODF - 5'	YES	1500	169260	special order valve	169261	169262	
ERSE-4	1/2 x 7/8 ODF - 5'	YES	1500	169278	special order valve	169280	169279	
ERSE-6	5/8 x 7/8 ODF - 5'	YES	1500	169287	special order valve	169288	169289	

* Supplied with an inlet strainer.
Special order valves or other valve configurations might be available upon request.

All external equalized "R" Type valves are supplied with a 1/4" ODF/SAE equalizer connection.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
racecustomerservice@parker.com / www.parker.com/race



Order Selection Guide R Type

R404A, R507, R408A

Valve Type	Valve Size	Valve Description	With External Equalizer	Capillary Tube Length in mm	Thermostatic Charge			
					C	CP115	Z	ZP
					R Type with 404A (S) Refrigerant			
					Part Number	Part Number	Part Number	Part Number
SR	SRS-1/6	3/8 x 1/2 ODF EXT - 30"	NO	760	169399	special order valve	169400	169401
	SRS-1/4	3/8 x 1/2 ODF EXT - 30"	NO	760	169396	special order valve	169397	169398
	SRS-1/2	3/8 x 1/2 ODF EXT - 5'	NO	1500	169393	special order valve	169394	169395
	SRS-1	3/8 x 1/2 ODF EXT - 5'	NO	1500	169389	special order valve	169387	169388
	SRS-1-1/2	3/8 x 1/2 ODF EXT - 5'	NO	1500	169390	special order valve	169391	169392
	SRSE-1/6	3/8 x 1/2 ODF EXT - 30"	YES	760	169432	special order valve	169433	169434
	SRSE-1/4	3/8 x 1/2 ODF EXT - 30"	YES	760	169429	special order valve	169431	169430
	SRSE-1/2	3/8 x 1/2 ODF EXT - 5'	YES	1500	169426	special order valve	169427	169428
	SRSE-1	3/8 x 1/2 ODF EXT - 5'	YES	1500	169413	special order valve	169415	169414
	SRSE-1-1/2	3/8 x 1/2 ODF EXT - 5'	YES	1500	169423	special order valve	169424	169425
	SRSE-2	3/8 x 1/2 ODF EXT - 5'	YES	1500	169417	special order valve	169419	169418
	SRSE-3	3/8 x 1/2 ODF EXT - 5'	YES	1500	169420	special order valve	169422	169421

* Supplied with an inlet strainer.
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Accurate at the time of going to print.

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Order Selection Guide R Type

R134a, R409A, R401A

Valve Type	Valve Size	Valve Description	With External Equalizer	Capillary Tube Length in mm	Thermostatic Charge	
					C	CP60
					R Type with R134a (J) Refrigerant	
					Part Number	Part Number
R	RJ-1/4	* 1/4 x 3/8 SAE - 30"	NO	760	169298	Special order valve
	RJ-1/4	* 1/4 x 1/2 SAE - 30"	NO	760	169302	Special order valve
	RJ-1/4	* 3/8 x 1/2 SAE - 30"	NO	760	169328	Special order valve
	RJ-1/2	* 1/4 x 3/8 SAE - 5'	NO	1500	169297	Special order valve
	RJ-1/2	* 1/4 x 1/2 SAE - 5'	NO	1500	169299	Special order valve
	RJ-1/2	* 3/8 x 1/2 SAE - 5'	NO	1500	169327	Special order valve
	RJ-1	* 3/8 x 1/2 SAE - 5'	NO	1500	169325	Special order valve
	RJ-1-1/2	* 3/8 x 1/2 SAE - 5'	NO	1500	169326	Special order valve
	RJ-1-1/2	* 1/4 x 1/2 SAE - 30"	YES	760	169315	Special order valve
	RJE-1/2	* 1/4 x 1/2 SAE - 5'	YES	1500	169314	Special order valve
	RJE-1/2	* 3/8 x 1/2 SAE - 5'	YES	1500	169350	Special order valve
	RJE-1	* 3/8 x 1/2 SAE - 5'	YES	1500	169346	Special order valve
	RJE-1-1/2	* 3/8 x 1/2 SAE - 5'	YES	1500	169349	Special order valve
	RJE-2	* 3/8 x 1/2 SAE - 5'	YES	1500	166347	Special order valve
	RJE-3	* 3/8 x 1/2 SAE - 5'	YES	1500	169348	Special order valve
	ERJ-1/6	* 1/4 x 3/8 ODF - 30"	NO	760	169148	Special order valve
ER	ERJ-1/6	* 1/4 x 1/2 ODF - 30"	NO	760	169162	Special order valve
	ERJ-1/4	* 1/4 x 3/8 ODF - 30"	NO	760	169147	Special order valve
	ERJ-1/4	* 1/4 x 1/2 ODF - 30"	NO	760	169161	Special order valve
	ERJ-1/2	* 1/4 x 3/8 ODF - 5'	NO	1500	169146	Special order valve
	ERJ-1/2	* 1/4 x 1/2 ODF - 5'	NO	1500	169160	Special order valve
	ERJ-1/2	* 3/8 x 1/2 ODF - 5'	NO	1500	169190	Special order valve
	ERJ-1	* 3/8 x 1/2 ODF - 5'	NO	1500	169188	Special order valve
	ERJ-1-1/2	* 3/8 x 1/2 ODF - 5'	NO	1500	169189	Special order valve
	ERJE-1/4	* 3/8 x 1/2 ODF - 5'	YES	760	169175	Special order valve
	ERJE-1/2	* 1/4 x 1/2 ODF - 5'	YES	1500	169174	Special order valve
	ERJE-1/2	* 3/8 x 1/2 ODF - 5'	YES	1500	169214	Special order valve
	ERJE-1	* 3/8 x 1/2 ODF - 5'	YES	1500	169210	Special order valve
	ERJE-1-1/2	* 3/8 x 1/2 ODF - 5'	YES	1500	169213	Special order valve
	ERJE-2	* 3/8 x 1/2 ODF - 5'	YES	1500	169211	Special order valve
	ERJE-2	1/2 x 5/8 ODF - 5'	YES	1500	Special order valve	169257
	ERJE-3	* 3/8 x 1/2 ODF - 5'	YES	1500	169212	Special order valve
	ERJE-3	1/2 x 5/8 ODF - 5'	YES	1500	Special order valve	169258
	ERJE-4	1/2 x 5/8 ODF - 5'	YES	1500	Special order valve	169259
	ERJE-4	1/2 x 7/8 ODF - 5'	YES	1500	Special order valve	169277
	ERJE-5	5/8 x 7/8 ODF - 5'	YES	1500	Special order valve	169285

* Supplied with an inlet strainer.
Special order valves or other valve configurations might be available upon request.

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Order Selection Guide R Type

R134a, R409A, R401A

Valve Type	Valve Size	Valve Description	With External Equalizer	Capillary Tube Length in mm	Thermostatic Charge	
					C	CP60
					R Type with R134a (J) Refrigerant	
					Part Number	Part Number
SR	SRJ-1/6	3/8 x 1/2 ODF EXT - 30"	NO	760	169386	Special order valve
	SRJ-1/4	3/8 x 1/2 ODF EXT - 30"	NO	760	169385	Special order valve
	SRJ-1/2	3/8 x 1/2 ODF EXT - 5'	NO	1500	169384	Special order valve
	SRJ-1	3/8 x 1/2 ODF EXT - 5'	NO	1500	169383	Special order valve
	SRJ-1-1/2	3/8 x 1/2 ODF EXT - 5'	NO	1500	169382	Special order valve
	SRJE-1/6	3/8 x 1/2 ODF EXT - 30"	YES	760	169410	Special order valve
	SRJE-1/4	3/8 x 1/2 ODF EXT - 30"	YES	760	169411	Special order valve
	SRJE-1	3/8 x 1/2 ODF EXT - 5'	YES	1500	169412	Special order valve
	SRJE-1/2	3/8 x 1/2 ODF EXT - 5'	YES	1500	169408	Special order valve
	SRJE-1-1/2	3/8 x 1/2 ODF EXT - 5'	YES	1500	169409	Special order valve
	SRJE-2	3/8 x 1/2 ODF EXT - 5'	YES	1500	169406	Special order valve
	SRJE-3	3/8 x 1/2 ODF EXT - 5'	YES	1500	169407	Special order valve

* Supplied with an inlet strainer.
Special order valves or other valve configurations might be available upon request.

Accurate at the time of going to print.

All external equalized "R" Type valves are supplied with a 1/4" ODF/SAE equalizer connection.
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Order Selection Guide R Type

R410A

Valve Type	Valve Size	Valve Description	With External Equalizer	Capillary Tube Length in mm	Thermostatic Charge	
					CP180	GA
					R Type with R410A (Z) Refrigerant	
					Part Number	Part Number
ER	ERZE-1/3	* 1/4 x 3/8 ODF - 5'	YES	1500	Special order valve	Special order valve
	ERZE-1/2	* 1/4 x 3/8 ODF - 5'	YES	1500	Special order valve	Special order valve
	ERZE-1	* 3/8 x 1/2 ODF - 5'	YES	1500	168878	168790
	ERZE-1-1/2	* 3/8 x 1/2 ODF - 5'	YES	1500	168783	168784
	ERZE-2	* 3/8 x 1/2 ODF - 5'	YES	1500	168737	168786
	ERZE-3	* 3/8 x 1/2 ODF - 5'	YES	1500	168787	168788
	ERZE-4	* 3/8 x 1/2 ODF - 5'	YES	1500	168789	168718
	ERZE-5	* 3/8 x 1/2 ODF - 5'	YES	1500	168791	168792
	ERZE-6	1/2 x 5/8 ODF - 5'	YES	1500	168793	168794
	ERZE-8	1/2 x 7/8 ODF - 5'	YES	1500	168795	168797
	ERZE-8	5/8 x 7/8 ODF - 5'	YES	1500	168736	168719
	ERZE-12-1/2	5/8 x 7/8 ODF - 5'	YES	1500	168799	168801
	ERZE-12-1/2	5/8 x 1-1/8 ODF - 5'	YES	1500	168800	168802
	ERZE-15	5/8 x 7/8 ODF - 5'	YES	1500	168803	168720
ERZE-15	5/8 x 1-1/8 ODF - 5'	YES	1500	168804	168807	

* Supplied with an inlet strainer.
Special order valves or other valve configurations might be available upon request.

R Type Valve

with internal check valve

Valve Type	Refrigerant (Code)	Part Number	Valve Size	VALVE DESCRIPTION	With External Equalizer	Capillary Tube Length in mm
RC	407C, 22 (V)	151265	RCVE-2-GA	3/8 x 1/2 ODF - 30"	YES	760
		151245	RCVE-3-GA	3/8 x 1/2 ODF - 30"	YES	760
		151252	RCVE-4-GA	1/2 x 1/2 ODF - 30"	YES	760
		151258	RCVE-5-GA	1/2 x 1/2 ODF - 30"	YES	760
	410A (Z)	151365	RCZE-2-GA	3/8 x 1/2 ODF - 30"	YES	760
		151366	RCZE-3-GA	3/8 x 1/2 ODF - 30"	YES	760
		151368	RCZE-4-GA	1/2 x 1/2 ODF - 30"	YES	760
		151369	RCZE-5-GA	1/2 x 5/8 ODF - 30"	YES	760
	22 (V)	Special order valves	RCVE-2, 3, 4, 5, 6 - 30"		YES	760
	410A (Z)		RCZE-2, 3, 4, 5, 6 - 30"		YES	760

Special order valves or other valve configurations might be available upon request.

All external equalized "R" Type valves are supplied with a 1/4" ODF/SAE equalizer connection.

For all requests, consult your nearest Parker Sporlan Wholesaler or contact us on:
racecustomerservice@parker.com / www.parker.com/race