

Q Components Cross Reference

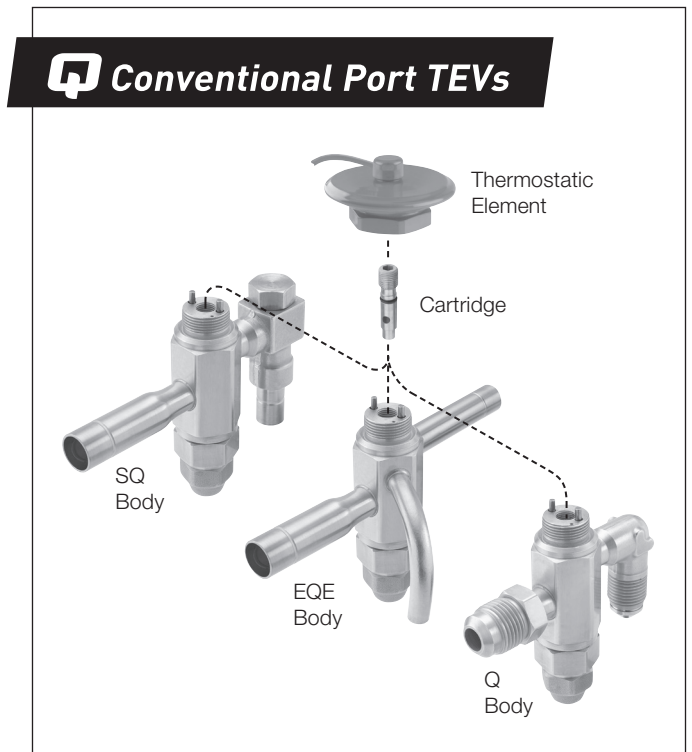
From Standard Sporlan Valves



The Sporlan Q Series Interchangeable Cartridge Style TEVs, both **Conventional Port (Type Q)** and Balanced Port (Type BQ), are supplied in three individual component parts: the thermostatic element, the replaceable cartridge or orifice, and the valve body.

Use this bulletin to cross reference a standard Sporlan valve for replacement with a Sporlan **Conventional Port (Type Q)** valve in four easy steps:

- 1. Identify the valve to be replaced.** The valve's body type, nominal capacity, and thermostatic charge can be determined by inspecting the valve. See the example below for a breakdown of a valve's description.
- 2. Select the cartridge required to handle the system load.** The nominal capacity of the valve to be replaced is marked in the brass body of the valve.
- 3. Choose the valve body.** Inspect the valve for replacement to determine the new valve body's fitting type, size, and orientation.
- 4. Verify the thermostatic charge.** The thermostatic charge will be marked on the thermostatic element on the top of the valve.



STEP 1 - Identify Valve to be Replaced

EXAMPLE - VALVE NOMENCLATURE



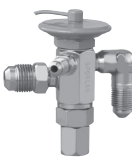



EG	V	E	1	C	3/8" ODF SOLDER	X	1/2" ODF SOLDER	X	1/4" ODF SOLDER	X	5'
Body Type	Sporlan Code – Refrigerant (Element Label Color Code) F = R-12 (Yellow) E = R-13 (Blue) V = R-22 (Green) G = R-23 (Blue) M = R-124 (Blue) J = R-134a (Blue) X = R-401A (Pink) L = R-402A (Sand) S = R-404A (Orange) V = R-407A (Green) N = R-407C (Lt. Brown) N = R-407F (Lt. Brown) S = R-408A (Purple) F = R-409A (Yellow) Z = R-410A (Rose) V = R-422D (Green) D* = R-448A (Blue) D* = R-449A (White) R = R-502 (Purple) W = R-503 (Blue) P = R-507A (Teal) W = R-508B (Blue) J = R-513A (White) J = R-1234yf (White)	"E" specifies external equalizer. Omission of letter "E" indicates valve with internal equalizer. e.g. EGV-1-C	Nominal Capacity in Tons	Thermostatic Charge	Inlet Connection Size and Style	Outlet Connection Size and Style	External Equalizer Connection Size and Style	Capillary Tubing Length Inches or Feet			

* Sporlan no longer supports valves manufactured for R-500 that previously used the D refrigerant code.



Conventional Port TEVs






STEP 2 - Cartridge Selection

SPORLAN VALVE BODY TYPE	NOMINAL CAPACITY (Stamped on Valve Body)				Q VALVE CARTRIDGE			
	REFRIGERANT				PART NUMBER	SIZE	COLOR CODE	ITEM NUMBER
	R-134a R-1234yf R-513A R-401A R-409A R-12	R-22 R-407A R-407C R-407F	R-448A R-449A	R-404A R-502 R-507A R-402A				
Type S Use EQ or EQE Body 	—	2	2	—	QC-4	4	Pink	168078
	2	3	2-1/2	2	QC-5	5	Black	168080
	2-1/2	4	3-1/2	3	QC-6	6	White	168082
	3	5	5	—	QC-6	6	White	168082
Type EG Use SQ or SQE Body 	—	1/5	1/5	—	QC-0	0	Red	168070
	1/8	1/4	—	1/8	QC-0	0	Red	168070
	1/6	1/3	1/4	1/6	QC-0	0	Red	168070
	—	1/2	1/3	—	QC-1	1	Yellow	168072
	1/4	3/4	1/2	1/4	QC-1	1	Yellow	168072
	1/2	1	1	1/2	QC-2	2	Green	168074
	1	1-1/2	—	1	QC-3	3	Blue	168076
	1-1/2	2-1/2	1-1/2	1-1/2	QC-4	4	Pink	168078
Type F Use Q or QE Body 	—	1/5	1/5	—	QC-0	0	Red	168070
	1/8	1/4	—	1/8	QC-0	0	Red	168070
	1/6	1/3	1/4	1/6	QC-0	0	Red	168070
	1/4	1/2	1/3	1/4	QC-1	1	Yellow	168072
	1/2	1	3/4	1/2	QC-2	2	Green	168074
	1	1-1/2	1	1	QC-3	3	Blue	168076
	1-1/2	2	—	1-1/2	QC-4	4	Pink	168078
	—	2-1/2	2	—	QC-4	4	Pink	168078
	2	3	2-1/2	2	QC-5	5	Black	168080
	3	5	5	3	QC-6	6	White	168082
Type EF Use EQ or EQE Body 	—	1/5	1/5	—	QC-0	0	Red	168070
	1/8	1/4	—	1/8	QC-0	0	Red	168070
	1/6	1/3	1/4	1/6	QC-0	0	Red	168070
	1/4	1/2	1/3	1/4	QC-1	1	Yellow	168072
	1/2	1	3/4	1/2	QC-2	2	Green	168074
	1	1-1/2	1	1	QC-3	3	Blue	168076
	1-1/2	2	—	1-1/2	QC-4	4	Pink	168078
	—	2-1/2	2	—	QC-4	4	Pink	168078
	2	3	2-1/2	2	QC-5	5	Black	168080
	3	5	5	3	QC-6	6	White	168082
Type G Use Q or QE Body 	—	1/5	1/5	—	QC-0	0	Red	168070
	1/8	1/4	—	1/8	QC-0	0	Red	168070
	1/6	1/3	1/4	1/6	QC-0	0	Red	168070
	1/4	—	1/6	1/4	QC-1	1	Yellow	168072
	—	1/2	1/3	—	QC-1	1	Yellow	168072
	—	3/4	1/2	—	QC-1	1	Yellow	168072
	1/2	1	1	1/2	QC-2	2	Green	168074
	1	1-1/2	—	1	QC-3	3	Blue	168076
	1-1/2	2	1-1/2	1-1/2	QC-4	4	Pink	168078
	—	2-1/2	—	—	QC-4	4	Pink	168078
Type C Use Q or QE Body 	2	3	3-1/2	2	QC-5	5	Black	168080
	2-1/2	4	3-1/2	3	QC-6	6	White	168082
	3	5	5	—	QC-6	6	White	168082

Conventional Port TEVs

STEP 3 - Body Selection

The valve body type will be marked in the brass body of the valve. Inspect the valve for replacement to determine the new valve body's fitting type, size, and orientation.

Q VALVE BODY		
VALVE TYPE	STANDARD CONNECTIONS	ITEM NUMBER
	Inches Inlet x Outlet	
Q Internally Equalized 	3/8" x 1/2" SAE	168000
	1/4" x 1/2" SAE	168011
	1/2" x 3/8" SAE	168012
QE Externally Equalized 	1/4" x 3/8" x 1/4" SAE	168017
	1/4" x 1/2" X 1/4" SAE	168016
	3/8" x 1/2" x 1/4" SAE	168005
SQ Internally Equalized 	1/4" x 1/2" ODF	168009
	3/8" x 1/2" ODF	168010
SQE Externally Equalized 	1/4" x 3/8" x 1/4" ODF	168034
	1/4" x 1/2" x 1/4" ODF	168014
	3/8" x 1/2" x 1/4" ODF	168015
EQ* Internally Equalized 	1/4" x 3/8" ODF	168029
	1/4" x 1/2" ODF	168030
	3/8" x 3/8" ODF	168196
	3/8" x 1/2" ODF	168144
	3/8" Elbow x 1/3" ODF	168007
	3/8" x 5/8" ODF	168164
EQE* Externally Equalized 	1/2" x 5/8" ODF	168153
	1/4" x 3/8" x 1/4" ODF	168031
	1/4" x 1/2" x 1/4" ODF	168032
	3/8" x 1/2" x 1/4" ODF	168150
	3/8" Elbow x 1/2" x 1/4" ODF	168018
	3/8" x 5/8" x 1/4" ODF	168156
1/2" x 5/8" x 1/4" ODF	168151	
1/2" x 7/8" x 1/4" ODF	168152	

* The straight extended connections of the EQ body series are designed for easy installation on air conditioning applications. The longer connections and resulting body configurations do not allow it to be packaged in the Q Carrying Case. All EQ and EQE bodies are supplied with an inlet strainer: Item No. 908014, P/N 877-003 (3/8 ODF) or Item No. 908012, P/N 877-004 (1/2 ODF).

STEP 4 - Thermostatic Charge Selection

Thermostatic element cap tube length is typically 30" or 60". OEM style valves may have different length cap tubes. When replacing these valves, the excess cap tube length can be coiled up and out of the way.

VALVE APPLICATION	THERMOSTATIC ELEMENT		
	ITEM DESCRIPTION	ITEM NUMBER	
			30"
R-134a, R-1234yf, R-513A, R-401A, R-409A, R-12			
Air Conditioning	KT-43-JCP60	180206	180312
Commercial Refrigeration	KT-43-JC	180314	180310
R-22, R-407A, R-407C, R-407F, R-448A, R-449A			
Air Conditioning	KT-43-VCP100	180270	180272
	KT-43-NGA	180292	179957
Commercial Refrigeration	KT-43-VC	180269	180319
Low Temperature Refrigeration	KT-43-VZ	180273	180323
	KT-43-VZP40	180326	180324
R-404A, R-502, R-507A, R-402A			
Air Conditioning	KT-43-SCP115	180372	180360
Commercial Refrigeration	KT-43-SC/PC	183387	183388
	KT-43-SZ	180228	180318
Low Temp. Refrigeration	KT-43-SZP	180230	180060

⚠ 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.

