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Machines,
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Applications:
Ice Cream/Slush
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Applications:
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Machines,
Hot Gas Bypass,
Freeze Protection,
Refrigerant Reclaim,
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EC(E) Series

The EC(E) series features extended ODF solder connections, brass body and balanced port design. It is suited for both refrigeration and air conditioning applications.

Applications

- Small Chillers
- Air Conditioning Units
- Freezers
- Walk-in Boxes
- Refrigerated Cases
- Mobile Refrigeration

Features and Benefits

- Extended ODF connections
- Balanced port design
- 60" capillary tube
- Removable power element
- Field adjustable superheat
- 1/4" ODF external equalizer
- Weight: 1.0 lbs / 0.45 kg



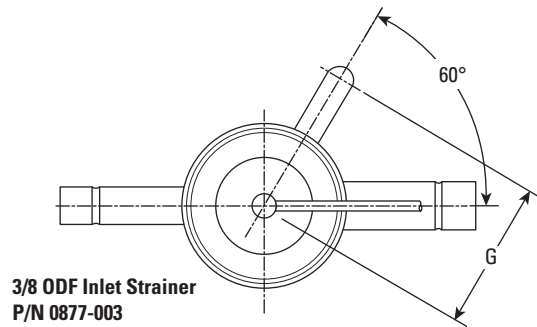
Specifications

Refrigerant	Refrigerant Designation	Orifice Designation	Nominal Capacity (Tons)	Capacity Range of Valve to be Replaced (Tons)	Valve Description		Rainbow Charges™	Connection - (Inches) Bold figures are standard		External Equalizer Connection (Inches)
					Internally Equalized	Externally Equalized		Inlet	Outlet	
R-12 R-134a R-401A R-401B	J	AA	1/4	1/6 to 1/4	EC-AA-J	ECE-AA-J	W X60	1/4 ODF	1/2 ODF	1/4 ODF
		A	1	1/2 to 1	EC-A-J	ECE-A-J		3/8 ODF	1/2 ODF	
		B	2	1 to 2	EC-B-J	ECE-B-J		3/8 ODF 1/2 ODF	1/2 ODF 5/8 ODF	
		C	3	2 to 3	EC-C-J	ECE-C-J		3/8 ODF 1/2 ODF 5/8 ODF	1/2 ODF 5/8 ODF 7/8 ODF	
		D	5	3 to 5	N/A	ECE-D-J		1/2 ODF 5/8 ODF	7/8 ODF	
R-402A R-402B R-404A R-502 R-507	S	AA	1/4	1/6 to 1/4	EC-AA-S	ECE-AA-S	W Z X110 X35	1/4 ODF	1/2 ODF	1/4 ODF
		A	1	1/2 to 1	EC-A-S	ECE-A-S		3/8 ODF	1/2 ODF	
		B	2	1 to 2	EC-B-S	ECE-B-S		3/8 ODF 1/2 ODF	1/2 ODF 5/8 ODF	
		C	3-1/2	2 to 3-1/2	EC-C-S	ECE-C-S		3/8 ODF 1/2 ODF 5/8 ODF	1/2 ODF 5/8 ODF 7/8 ODF	
		D	6	3-1/2 to 6	N/A	ECE-D-S		1/2 ODF 5/8 ODF	7/8 ODF	
R-22 R-407C R-422D	V	AA	1/2	1/3 to 1/2	EC-AA-V	ECE-AA-V	W Z X100 X35	1/4 ODF	1/2 ODF	1/4 ODF
		A	1-1/2	3/4 to 1-1/2	EC-A-V	ECE-A-V		3/8 ODF	1/2 ODF	
		B	3	1-1/2 to 3	EC-B-V	ECE-B-V		3/8 ODF 1/2 ODF	1/2 ODF 5/8 ODF	
		C	5	3 to 5	EC-C-V	ECE-C-V		3/8 ODF 1/2 ODF 5/8 ODF	1/2 ODF 5/8 ODF 7/8 ODF	
		D	8	5 to 8	N/A	ECE-D-V		1/2 ODF 5/8 ODF	7/8 ODF	
R-410A	Z	AA	1/2	1/3 to 1/2	EC-AA-Z	ECE-AA-Z	X200	1/4 ODF	1/2 ODF	1/4 ODF
		A	1-1/2	3/4 to 1-1/2	EC-A-Z	ECE-A-Z		3/8 ODF	1/2 ODF	
		B	3	1-1/2 to 3	EC-B-Z	ECE-B-Z		3/8 ODF 1/2 ODF	1/2 ODF 5/8 ODF	
		C	5	3 to 5	EC-C-Z	ECE-C-Z		3/8 ODF 1/2 ODF 5/8 ODF	1/2 ODF 5/8 ODF 7/8 ODF	
		D	8	5 to 8	N/A	ECE-D-Z		1/2 ODF 5/8 ODF	7/8 ODF	
		N/A	12-1/2	8 to 12-1/2	N/A	ECE-12-1/2-Z		5/8 ODF	7/8 ODF	
		N/A	15	12-1/2 to 15	N/A	ECE-15-Z		5/8 ODF	1-1/8 ODF	

EC(E) Series

Dimensions

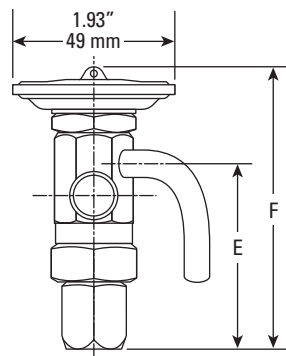
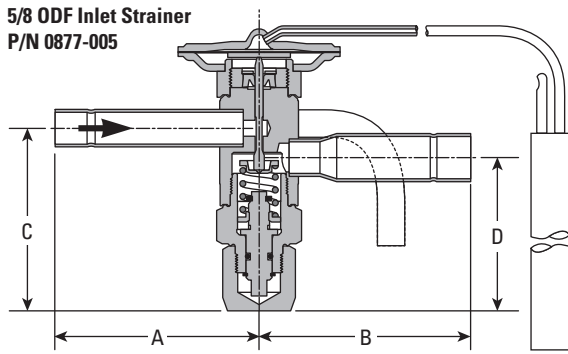
ECE-AA, -A, -B, -C, -D



3/8 ODF Inlet Strainer
P/N 0877-003

1/2 ODF Inlet Strainer
P/N 0877-004

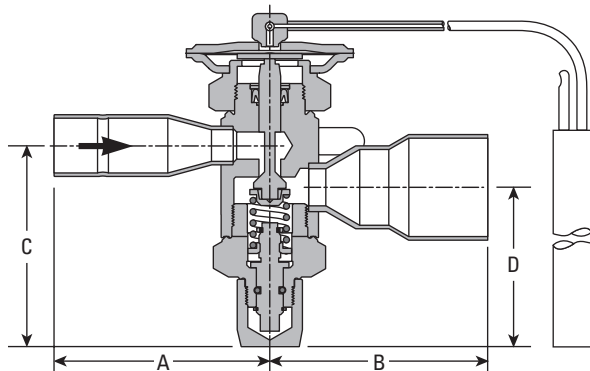
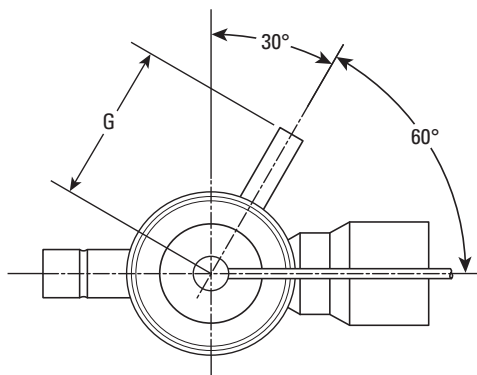
5/8 ODF Inlet Strainer
P/N 0877-005



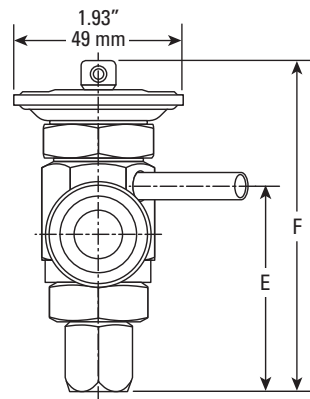
Replacement Elements

Refrigerant Designation	Element
V	KT-46-VW KT-46-VX100
J	KT-46-JW
S	KT-46-SZ KT-46-SW KT-46-SX35
Z	KT-46-ZX200

ECE-12-1/2-Z and ECE-15-Z Only



Fitting Size	A	B	C	D	E	F	G
1/4	—	—	—	—	2.36" 60 mm	3.79" 96 mm	1.90" 48 mm
5/8	2.48" 63 mm	—	2.30" 58 mm	—	—	3.79" 96 mm	—
7/8	—	2.51" 64 mm	—	1.83" 46 mm	—	3.79" 96 mm	—
1-1/8	—	2.51" 64 mm	—	1.83" 46 mm	—	3.79" 96 mm	—

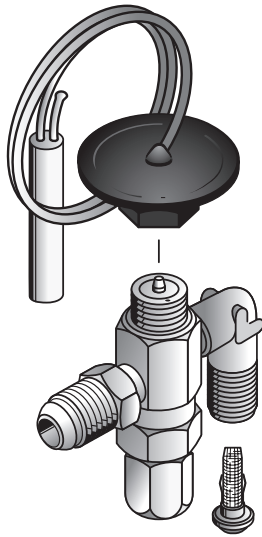


Replacement Elements

Refrigerant Designation	Element
Z	KT-46-5-ZX200*

* For ECE-12-1/2-Z and ECE-15-Z only.

C Series Interchangeable Valve



The C series replaceable element style valves are designed for small refrigeration systems, such as refrigerated cases, coolers, and freezers. The externally equalized versions of these valves are ideal for air conditioning and refrigeration systems. C valves are balanced ported, engineered specifically for systems with a wide range of operating conditions and may be applied on bi-directional applications.

C valves are supplied as 2 individual component parts: the **thermostatic element**, and the **valve body**. The interchangeable nature of the C family makes it ideal for reducing inventory, while increasing valve options — so, the right valve is always on hand.

Body Features

C brass body type valves feature traditional knife edge, metal-to-metal thermostatic element to valve body construction, which ensures a leak-proof joint.

Selective Charges

The selective thermostatic charges are specifically designed for low temperature, medium temperature, and air conditioning applications. The elements are manufactured with a large flat diaphragm to reduce diaphragm stresses and provide precise control. And, because C valve bodies and thermostatic elements are supplied as independent components, the installer is able to select the best possible thermostatic charge for the application.

Internal Port Design

Refrigerant flow through the valve port opposes the pin movement in all type C valves. This provides improved stability at light loads, when the pin modulates to a position close to the port. Additionally, charge migration, is reduced or eliminated by the C valve design. By engineering the liquid flow to enter through the top of the valve body, the liquid refrigerant warms the thermostatic element and minimizes the potential for charge migration.

Applications

- Small Refrigeration Systems
- Air Conditioning Systems
- Heat Pump Systems
- Freezers
- Walk-in Coolers
- Refrigerated Cases

Features and Benefits

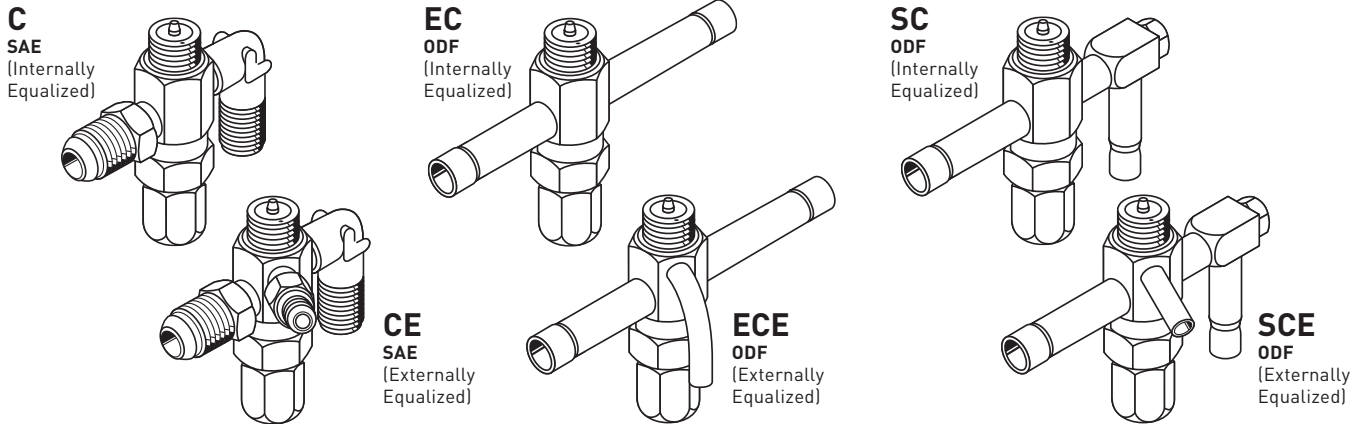
- Balanced port design
- Removable power element
- Inlet strainer – 100 mesh
- 60" capillary tube
- Field adjustable superheat
- 1/4" SAE external equalizer
- Weight: 1.0 lbs / 0.45 kg



C Series Interchangeable Valve

Selecting Components

■ Body



Capacities

Nominal Capacity - Tons (Capacity Range of Valve to be Replaced - Tons)									Orifice Designation Letter Code	Available Valve Body Configurations*
R-12	R-22 R-407C R-422D	R-134a	R-401A R-401B	R-402A R-402B	R-404A	R-410A	R-502	R-507		
1/4 (1/6 to 1/4)	1/2 (1/3 to 1/2)	1/4 (1/6 to 1/4)	1/4 (1/6 to 1/4)	1/4 (1/6 to 1/4)	1/4 (1/6 to 1/4)	1/2 (1/3 to 1/2)	1/4 (1/6 to 1/4)	1/4 (1/6 to 1/4)	AA	C - AA - 1/4 X 1/2 SAE CE - AA - 1/4 X 1/2 X 1/4 SAE EC - AA - 3/8 X 1/2 ODF ECE - AA - 3/8 X 1/2 X 1/4 ODF SC - AA - 3/8 X 1/2 ODF SCE - AA - 3/8 X 1/2 X 1/4 ODF
1 (1/2 to 1)	1-1/2 (3/4 to 1-1/2)	1 (1/2 to 1)	1 (1/2 to 1)	1 (1/2 to 1)	1 (1/2 to 1)	1-1/2 (3/4 to 1-1/2)	1 (1/2 to 1)	1 (1/2 to 1)	A	C - A - 1/4 X 1/2 SAE CE - A - 1/4 X 1/2 X 1/4 SAE EC - A - 3/8 X 1/2 ODF ECE - A - 3/8 X 1/2 X 1/4 ODF SC - A - 3/8 X 1/2 ODF SCE - A - 3/8 X 1/2 X 1/4 ODF
2 (1 to 2)	3 (1-1/2 to 3)	2 (1 to 2)	2 (1 to 2)	2 (1 to 2)	2 (1 to 2)	3 (1-1/2 to 3)	2 (1 to 2)	2 (1 to 2)	B	CE - B - 1/4 X 1/2 X 1/4 SAE ECE - B - 3/8 X 1/2 X 1/4 ODF SCE - B - 3/8 X 1/2 X 1/4 ODF
3 (2 to 3)	5 (3 to 5)	3 (2 to 3)	3 (2 to 3)	3-1/2 (2 to 3-1/2)	3-1/2 (2 to 3-1/2)	5 (3 to 5)	3-1/2 (2 to 3-1/2)	3-1/2 (2 to 3-1/2)	C	CE - C - 1/4 X 1/2 X 1/4 SAE ECE - C - 3/8 X 1/2 X 1/4 ODF SCE - C - 3/8 X 1/2 X 1/4 ODF
5 (3 to 5)	8 (5 to 8)	5 (3 to 5)	5 (3 to 5)	6 (3-1/2 to 6)	6 (3-1/2 to 6)	8 (5 to 8)	6 (3-1/2 to 6)	6 (3-1/2 to 6)	D	ECE - D - 3/8 X 1/2 X 1/4 ODF

*See Pages 5 through 8 for Valve Assembly Dimensions.

Body Nomenclature (Example)

