

1-800-GRAINGER (472-4643)



Thermostatic Expansion Valves

Capacity is at ARI standard 750-70; at 10°F liquid subcooling. Not for use with ammonia.



12RD4

Nom. Cap. (tons)	Connection	Connector (in.) Inlet	Connector (in.) Outlet	Equalizer Type	Mfr. Model	Item No.
Adjustable Balanced Port Expansion Valves						
R-134A Refrigerant						
1/6 to 1/4	SAE Flare Angle	1/4	1/2	Internal	C-AA-JW	12RE5
1/6 to 1/4	Straight Through Solder	1/4	1/2	Internal	EC-AA-JW	12RE6
1/2 to 1	SAE Flare Angle	3/8	1/2	Internal	CAJW	5A433
1/2 to 1	Straight Through Solder	3/8	1/2	Internal	EC-A-JW	12RE7
1 to 2	Angle Solder	3/8	1/2	External	SCE-B-JW	12RF3
1 to 2	Straight Through Solder	1/2	5/8	External	ECE-B-JW	12RE8
2 to 3	SAE Flare Angle	3/8	1/2	Internal	CGJW	6X237
2 to 3	SAE Flare Angle	3/8	1/2	External	CECJW	6X239
1 to 2	SAE Flare Angle	3/8	5/8	External	CEBJW	5A435
2 to 3	Straight Through Solder	1/2	5/8	External	ECE-C-JW	12RE9
R-134A Compact Adjustable, Non-Balanced Port						
1/4 to 1/2	SAE Flare Angle	1/4	1/2	Internal	N 1/2 JW	3A664
R-12/R-134A Compact Adjustable, Non-Balanced Port						
1 to 2	SAE Flare Angle	3/8	1/2	Internal	N2JW	6X245
R-22 Refrigerant						
1/2 to 1/2	SAE Flare Angle	1/4	1/2	Internal	CAAVX35	1H767
1/2 to 1/2	SAE Flare Angle	1/4	1/2	Internal	CAAVW	1H768
2 to 3	SAE Flare Angle	3/8	1/2	External	CEBVX100	12RD4
7 1/2 to 8	Straight Through Solder	3/8	5/8	External	EBSE8VX100	12RD5
10 to 11	Straight Through Solder	3/8	5/8	External	EBSE11VX100	12RD6
15	Straight Through Solder	7/8	1 1/8	External	EBSE15VX100	12RD7
15	Straight Through Solder	7/8	1 1/8	External	OE-15-VX100	12RE1
20	Straight Through Solder	7/8	1 3/8	External	OE-20-VX100	12RE2
30	Straight Through Solder	1 1/8	1 3/8	External	OE-30-VX100	12RE3
40	Straight Through Solder	1 1/8	1 3/8	External	OE-40-VX100	12RE4
1/2 to 1/2	Straight Through Solder	1/4	1/2	External	ECE-AA-VZ	12RG6
3/4 to 1 1/2	Straight Through Solder	3/8	1/2	External	ECE-A-VZ	12RG7
1 1/2 to 3	Straight Through Solder	3/8	1/2	External	ECE-B-VZ	12RG8
1/2 to 1/2	Angle Solder	1/4	1/2	External	SCE-AA-VZ	12RG9
3/4 to 1 1/2	Angle Solder	3/8	1/2	External	SCE-A-VZ	12RH1
1 1/2 to 3	Angle Solder	3/8	1/2	External	SCE-B-VZ	12RH2
3/4 to 1 1/2	SAE Flare Angle	1/4	1/2	External	CEAVW	4E638
1 1/2 to 3	SAE Flare Angle	3/8	1/2	External	CEBVW	4E639
3/4 to 1 1/2	SAE Flare Angle	3/8	1/2	External	CEAVX35	4E642
3/4 to 1 1/2	SAE Flare Angle	3/8	1/2	Internal	CAVW	5A440
3 to 5	SAE Flare Angle	3/8	1/2	Internal	CCVW	5A442
3 to 5	SAE Flare Angle	3/8	1/2	Internal	CCVX100	6X238
3 1/2 to 5	SAE Flare Angle	3/8	1/2	External	CECVX100	6X240
R-22 Refrigerant w/ Check Valve						
1 1/2 to 3	Straight Through Solder	3/8	1/2	External	HCAE-3-VX100	12RD1
3 to 5	Straight Through Solder	3/8	5/8	External	HCAE-5-VX100	12RD3
R-404A Refrigerant						
1/6 to 1/4	SAE Flare Angle	1/4	1/2	Internal	C-AA-SZ	12RF4
1/2 to 1	SAE Flare Angle	3/8	1/2	Internal	C-A-SZ	12RF5
1 to 2	SAE Flare Angle	3/8	1/2	External	CE-B-SZ	12RF6
2 to 3 1/2	SAE Flare Angle	3/8	1/2	External	CE-C-SZ	12RF7
1/6 to 1/4	Straight Through Solder	1/4	1/2	Internal	EC-AA-SZ	12RF8
1/2 to 1	Straight Through Solder	3/8	1/2	Internal	EC-A-SZ	12RF9
1 to 2	Straight Through Solder	1/2	1/2	External	ECE-B-SZ	12RG1
2 to 3 1/2	Straight Through Solder	3/8	1/2	External	ECE-C-SZ	12RG2
1 to 2	Angle Solder	3/8	1/2	External	SCE-B-SZ	12RG5
1/2 to 1	SAE Flare Angle	3/8	1/2	Internal	CASW	5A436
1/2 to 1	SAE Flare Angle	3/8	1/2	Internal	CASX35	5A437
2 to 3 1/2	SAE Flare Angle	3/8	1/2	Internal	CCSW	5A438
2 to 3 1/2	SAE Flare Angle	3/8	1/2	External	CECSW	5A439
R-410A Refrigerant						
3 1/2 to 5	Straight Through Solder	3/8	5/8	External	HAES2X200	1VW45
1 1/2 to 3	Straight Through Solder	3/8	1/2	External	HAES3X200	1VW47
1 1/2 to 3	Straight Through Solder	3/8	1/2	External	HAES3X200B15	1VW48
5 to 8	Straight Through Solder	3/8	5/8	External	ECE-D-XZ200	11X594
8 to 12 1/2	Straight Through Solder	3/8	1 1/8	External	ECE-12.5-XZ200	11X595
12 1/2 to 15	Straight Through Solder	3/8	1 1/8	External	ECE-15-XZ200	11X596
R-410A Refrigerant w/ Check Valve						
1 1/2 to 3	Straight Through Solder	3/8	1/2	External	HCAE3X200	1VW49
3 1/2 to 5	Straight Through Solder	3/8	5/8	External	HCAE5X200	1VW50
Constant Pressure Adjustable, Non-Balanced Port, All Refrigerants						
0.88 to 4.24	SAE Flare Angle	1/4	1/2	External	A-2	4X859
0.88 to 4.24	Inlet SAE Flare Angle / Outlet (F)NPT	1/4	1/4	External	A-1	5A446



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Refrigeration Controls

3XL11 terminates defrost and delays the evaporator fan operation on electric heat, hot gas, and reverse cycle commercial refrigeration systems. 3XL05 and 3XL06 provide off-cycle defrost. Generally used in systems without hot gas or electric defrost.



12Z392

Type	Voltage	Control Range (°F)	Capillary Type	Capillary L (in.)	Brand	Mfr. Model	Item No.
Freezer Controls							
Constant Differential Control	24/120/240/277	-3 to 5.5	Capillary	84	Ranco	A30-301	4E048
Extra Low Temp.	120/240	-35 to 15	Capillary	72	Ranco	o10-1419	12Z392
Extra Low Temp.	120/240	-35 to 15	Capillary w/ Bulb Sensor	72	Ranco	o10-1433	12Z393
Extra Low Temp.	120/240	-55 to 0	Capillary	72	Ranco	o10-1000	12Z391
Low Temp.	120/240	-15 to 40	Capillary w/Air Coil Sensor	—	Ranco	o10-1072	12Z394
Med. Temp.	120/240	-12 to 15	Capillary w/ Bulb Sensor	47 1/4	Ranco	K500-1126-001	6KXG4
Soft Ice Cream Machine	120/240	-15 to 40	Capillary	72	Ranco	o16-588	12Z399
Refrigeration Controls							
Bulk Milk Cooler	120/240	22.5 to 47.5	Capillary w/ Bulb Sensor	72	Ranco	o16-601	12Z401
High Temp.	120/240	25 to 75	Capillary w/Air Coil Sensor	—	Ranco	o10-1802	12Z397
High Temp.	120/240	25 to 75	Capillary w/ Bulb Sensor	72	Ranco	o10-1491	12Z398
Constant Differential Control	24/120/240/277	32 to 42	Capillary	84	Ranco	A30-261	4E051
Constant Differential Control	120/240	32 to 61	Capillary	48	Ranco	A30-2210	3XL09 †
Med. Temp.	120/208/240V	19 to 38	Capillary w/ Bulb Sensor	72	Ranco	A12-1560	6KXC4
Med. Temp.	120	25 to 75	Capillary w/Air Coil Sensor	—	Ranco	O10-1418	1A005
Med. Temp.	120/240	34 to 55	Capillary w/ Bulb Sensor	47 1/4	Ranco	K500-1127-001	6KXG5
Refrigeration or Freezer Control							
Temporary Control	120/240	-5F to +38F	Capillary	9	Robertshaw	CC-1	3PE19
Refrigerator/Freezer Controls							
Constant Differential Control	24/120/240/277	3 to 43	Capillary	84	Ranco	A30-262	4E050
Med. Temp.	24	-15 to 40	Capillary w/ Bulb Sensor	72	Ranco	O10-1409	1A003
Med. Temp.	24	-2 to 38	Capillary	72	Ranco	O10-1408	1A002 *
Med. Temp.	120/240	0 to 47	Capillary w/ Bulb Sensor	47 1/4	Ranco	K500-1125-001	6KXG3
Med. Temp.	240	0 to 55	Capillary	72	Ranco	O10-1416	1A020
Med. Temp.	120	25 to 75	Capillary w/ Bulb Sensor	72	Ranco	O10-1410	1A004
Med. Temp.	120/240	0 to 55	Capillary	0 to 55	Ranco	o10-1010	12Z395
Med. Temp.	120/240	0 to 55	Capillary w/ Bulb Sensor	72	Ranco	o10-1473	12Z396
Med. Temp.	120/240	0 to 55	Capillary	72	Ranco	o16-111	12Z402
Med. Temp.	120/240	0 to 55	Capillary	96	Ranco	o16-264	12Z404
Med. Temp.	120/240	0 to 55	Capillary w/ Bulb Sensor	72	Ranco	o16-263	12Z405
Temperature and Defrost Controls							
Defrost Control	120/240	40 to 75	Cross Ambient Bulb	60	Ranco	F25-107	3XL11
Constant Cut In Cold Control	120/240	18 to 27	Capillary	84	Ranco	A12-700	3XL05
Constant Cut In Control	120/240	35 to 41	Capillary	84	Ranco	A12-701	3XL06
Water Cooler Control							
OEM Replacement	120/208/240	37 to 61	Capillary	48	Ranco	K-3001	3XL12

† Not adaptable; direct fit with dial shaft. * Air coil.