

ENGINEERING
TOMORROW



Food Retail Service Parts Catalog

A collection of the best components
and controls for **Supermarkets**

50,000

food retail
installations
worldwide

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TUA/TUAE—Thermostatic Expansion Valves



Danfoss TUA/TUAE stainless steel thermostatic expansion valves feature solder inlet and outlet connections. By pairing one valve body with one of ten replaceable orifices, a contractor can satisfy applications from -40°F to $+50^{\circ}\text{F}$ and up to $4\frac{1}{2}$ tons capacity (see capacity chart for specifics).

Product Selection

1. Select Valve Body

Equalization	R-22	R-407C	R-404A	R-134a
Internal	068U2235		068U2285	068U2205
External	068U2237		068U2287	068U2207

All valves above have $\frac{3}{8}$ in. \times $\frac{1}{2}$ in. solder ODF connections and are designed for evaporator temperatures -40°F to $+50^{\circ}\text{F}$ (N charge). Other variations available, please contact your local Danfoss authorized wholesaler.

2. Select Orifice

TUA/TUAE valve capacities are based on the installed orifice. To select the correct size, use one of the two methods below:

A. System characteristics: Select the orifice using appropriate refrigerant, evaporator temperature, and system capacity.

OR

B. Nominal capacity of the installed valve: Use the nominal capacity of the originally installed valve and match with the nominal capacity in chart (3rd column from left).

Easy to carry kits for truck stock

All TUA/TUAE valve bodies and orifice featured on the next page and a hex key for superheat adjustment. **068U7000**

Both TUA/TUAE valve bodies and orifices and T2/TE2 and orifices plus gaskets for TUA/TUAE and a hex key for superheat adjustment. **068U7001**

Kits are plastic cases with foam inserts, all valves and orifices, and instructions for selection and installation of the valves. Empty kits and foam available upon request.

TUA and TUAE (IF EXACT CAPACITY CANNOT BE FOUND, USE NEXT LARGER ORIFICE)

R-22		R-407C	Evaporator temperature (°F)										
Orifice size	Danfoss Code No.	Nominal capacity of installed valve ¹ (tons)	-40	-30	-20	-10	0	10	20	30	40	50	
			Rated capacity ² (tons)										
0	068U1030	$\frac{1}{8}$	$\frac{1}{15}$	$\frac{1}{15}$	$\frac{1}{15}$	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	
1	068U1031	$\frac{1}{5}$	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{4}$	
2	068U1032	$\frac{1}{4}$	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{3}$	
3	068U1033	$\frac{1}{3}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	
4	068U1034	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	
5	068U1035	$\frac{3}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	1	1	
6	068U1036	$1\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	1	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{1}{2}$	
7	068U1037	2	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	1	1	$1\frac{1}{5}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	2	
8	068U1038	$2\frac{3}{4}$	1	1	$1\frac{1}{3}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	$2\frac{1}{2}$	3	3	
9	068U1039	4	$1\frac{1}{3}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	$2\frac{3}{4}$	$3\frac{1}{4}$	$3\frac{1}{2}$	4	$4\frac{1}{2}$	

R-404A		Evaporator temperature (°F)										
Orifice size	Danfoss Code No.	Nominal capacity of installed valve ¹ (tons)	-40	-30	-20	-10	0	10	20	30	40	50
			Rated capacity ² (tons)									
0	068U1030	$\frac{1}{8}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{15}$	$\frac{1}{15}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
1	068U1031	$\frac{1}{5}$	$\frac{1}{15}$	$\frac{1}{15}$	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$
2	068U1032	$\frac{1}{4}$	$\frac{1}{15}$	$\frac{1}{15}$	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
3	068U1033	$\frac{1}{3}$	$\frac{1}{10}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
4	068U1034	$\frac{1}{2}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
5	068U1035	$\frac{3}{4}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
6	068U1036	$1\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	1	1	1	$1\frac{1}{3}$
7	068U1037	$1\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1	$1\frac{1}{3}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{3}{4}$
8	068U1038	$2\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1	$1\frac{1}{3}$	$1\frac{1}{2}$	2	2	$2\frac{1}{3}$	$2\frac{1}{2}$
9	068U1039	$3\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{3}$	$1\frac{1}{2}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$3\frac{3}{4}$

R-134a			Evaporator temperature (°F)										
Orifice size	Danfoss Code No.	Nominal capacity of installed valve ¹ (tons)	-40	-30	-20	-10	0	10	20	30	40	50	
			Rated capacity ² (tons)										
0	068U1030	1/8	1/30	1/20	1/20	1/20	1/15	1/15	1/10	1/10	1/6	1/6	
1	068U1031	1/8	1/20	1/15	1/15	1/10	1/10	1/8	1/6	1/6	1/6	1/5	
2	068U1032	1/8	1/15	1/15	1/15	1/10	1/8	1/6	1/6	1/6	1/5	1/5	
3	068U1033	1/4	1/15	1/10	1/8	1/8	1/6	1/5	1/5	1/5	1/4	1/4	
4	068U1034	1/8	1/6	1/6	1/5	1/5	1/4	1/4	1/3	1/3	1/3	1/2	
5	068U1035	1/2	1/5	1/5	1/4	1/4	1/3	1/3	1/2	1/2	1/2	1/2	
6	068U1036	3/4	1/4	1/4	1/3	1/3	1/2	1/2	3/4	3/4	1	1	
7	068U1037	1 1/4	1/3	1/3	1/2	1/2	3/4	3/4	1	1	1 1/4	1 1/2	
8	068U1038	1 3/4	1/2	1/2	3/4	3/4	1	1 1/4	1 1/2	1 3/4	2	2	
9	068U1039	2 1/2	3/4	1	1	1 1/3	1 1/2	1 3/4	2	2 1/3	2 3/4	3	

All capacity data is in accordance to ARI 750-2007.

¹ Nominal capacity based on condensing temperature of 100 °F, a vapor free liquid temperature of 98 °F ahead of the expansion valve and an evaporator temperature of 40 °F.

² Capacity based on condensing temperature of 95 °F and a vapor free liquid temperature of 85 °F ahead of the expansion valve.

TUA/TUAE Spare Parts and Accessories

Description	Notes	Danfoss Code No.
Bulb strap		068U3507
Metal gasket (24 pcs.)		068U0015
Filter for orifices 0-4 (clear; 24 pcs.)		068U1706
Filter for orifices 5-9 (blue; 24 pcs.)		068U0016

ETS—Electric Expansion Valves



ETS stepper motor electric expansion valves are designed for precise liquid injection in evaporators for air conditioning and refrigeration applications. The valve piston and linear positioning mechanism is fully balanced, providing bidirectional flow capability and tight solenoid shutoff in both flow directions. ETS valves cannot be used with flammable hydrocarbons.

Danfoss Type	R-410A (tons)	R-22 (tons)	R-134a (tons)	R-404A (tons)	Solder ODF Connection		Danfoss Code No.
					Inlet (in.)	Outlet (in.)	
ETS 12.5	20	16	13	12	1/2	1/2	034G4209
ETS 12.5	20	16	13	12	5/8	5/8	034G4210
ETS 12.5	20	16	13	12	7/8	7/8	034G4211
ETS 25	41	34	27	25	5/8	5/8	034G4202
ETS 25	41	34	27	25	7/8	7/8	034G4203
ETS 50	75.7	62	48.9	46.3	1 1/8	1 1/8	034G1706
ETS 100	140.9	115.4	91.2	86.6	1 3/8	1 3/8	034G0508

The rated capacity is based on an evaporation temperature of 40 °F, liquid temperature of 82 °F, and condensing temperature of 90 °F.

ETS Spare Parts and Accessories

Description	Danfoss Code No.
AST-G Service Driver: used to manually open or close valve	034G0013
M12 cable, 26 ft.	034G2323
M12 cable, 6 ft.	034G2330
Cable filter for long wire runs (in excess of 32 ft.); permits wire runs of up to 328 ft.	034G2238

AKV 10P, AKV 10PS—Electric Expansion Valves



AKV 10P and AKV10PS are electric operated expansion valves designed for refrigerating plants. The AKV 10P and AKV 10PS valves are normally controlled by a controller from the Danfoss range of ADAP- KOOL® controllers that ensure precise liquid injection into evaporators. The valves enable optimum utilization of the evaporator, increased energy efficiency, COP and improved overall system performance while being designed for use with a wide variety of refrigerants. Soft pulse operation provides for a low noise valve.

AKV valves for fluorinated refrigerants

Danfoss Type ¹	Rated Capacity (tons)					Solder ODF Connection (in.)		Danfoss Code No.
	R-744 ²		R-407A ³	R-404A ³	R-507A ³	Inlet (in.)	Outlet (in.)	
	Refrig.	Freezing						
AKV 10P0	0.13	0.20	0.10		0.06	3/8	1/2	068F5210
AKV 10P1	0.33	0.53	0.26		0.23	3/8	1/2	068F5211
AKV 10P2	0.59	0.93	0.45		0.37	3/8	1/2	068F5212
AKV 10P3	0.90	1.41	0.69		0.57	3/8	1/2	068F5213
AKV 10P4	1.74	2.75	1.34		0.88	3/8	1/2	068F5214
AKV 10P5	2.42	3.82	1.87		1.39	3/8	1/2	068F5215
AKV 10P6	4.31	6.81	3.32		2.22	3/8	1/2	068F5216
AKV 10P7	7.00	11.10	5.39		3.55	1/2	5/8	068F5217
AKV 10PS4	1.74	2.75	1.34		0.88	3/8	1/2	068F4044
AKV 10PS5	2.42	3.82	1.87		1.39	3/8	1/2	068F4045
AKV 10PS6	4.31	6.81	3.32		2.22	3/8	1/2	068F4046
AKV 10PS7	7.00	11.10	5.39		3.55	1/2	5/8	068F4047

¹ AKV 10P type valve is direct operated; AKV 10PS type valve is servo operated.

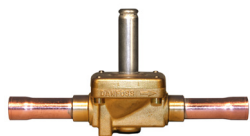
² Rated capacities are based on: Condensing temperature $t_c = 32$ °F, Evaporating temperature Refrig. $t_e = 14$ °F, temperature Freezing $t_e = -22$ °F, Subcooling = 1.8 °F.

³ Rated capacities are based on: Condensing temperature $t_c = 100$ °F, Liquid temperature $t_l = 98$ °F, Evaporating temperature $t_e = 39$ °F. AKV valves should be paired with standard BJ/BX coils (page 8).

Orifices and Filter/Gasket Kits

Description	Danfoss Code No.
AKV 10P0-P3 orifice kit (orifice, O-ring, strainer)	068F5151
AKV 10P4-P7 orifice kit (orifice, O-ring, strainer)	068F5152

EVR V2—Solenoid Valves



EVR V2 solenoid valves are direct- or servo-operated for liquid, suction, and hot gas lines. Available in both normally closed (NC) and normally open (NO) versions, EVR V2 valves feature interchangeable AC and DC coils. In standard applications, pair EVR valves with a BJ, BX, BT, or BU solenoid coil (page 8).

EVR V2 Solenoid Valves

Danfoss Type	Rated capacity (liquid tons)			Solder ODF connection (in.)	Port size (in.)	Max. working pressure (psig)	Danfoss Code No. ¹	
	R-22 R-407C	R-134a	R-404A R-507A				with manual stem	without manual stem
EVR 3	1.66	1.54	1.07	¼	⅝	655		032F1206
EVR 3	1.66	1.54	1.07	⅜	⅝	655		032F1204
EVR 6	5.47	5.07	3.51	⅜	15/64	655	032L7116	032L1212
EVR 6	5.47	5.07	3.51	½	15/64	655	032L7144	032L1209
EVR 8	6.52	6.03	4.18	½	5/16	655	032L7148	032L7121
EVR 10	11.50	10.64	7.38	5/8	3/8	655	032L7149	032L1214
EVR 15	17.71	16.39	11.37	5/8	9/16	655		032L1228
EVR 18	23.18	21.46	14.88	7/8	19/32	655	032L1004	
EVR 20	36.76	34.04	23.60	7/8	7/8	655	032L1254	032L1240
EVR 22	41.93	38.82	26.92	1 ⅛	15/16	655	032L7137	032L7145
EVR 25	60.19	55.72	38.64	1 ⅜	1	655	032L2207	032L2208
EVR 32	102.85	95.23	66.03	1 5/8	7/8	655	032L1103	032L1104

¹Valve body is normally closed (NC) and excludes coil. Additional code nos. available in Coolselector or contact Danfoss.

EVR V2 Spare Parts and Accessories

Description	Version(s) applied to	Applicable Danfoss Types	Danfoss Code No.
Permanent magnet coil for servicing and testing	1, 2	all	018F0091
Service kit (NC); O-ring, (4) screws, armature assembly, rubber gasket, compression spring	1, 2	EVR 3	032F0181
Seal kit (NC); O-ring for armature tube, rubber gasket, O-ring for steel cover, support ring	1	EVR 6, 8	032F8165
Service kit (NC); diaphragm, O-ring for armature tube, (4) screws T20, (4) screws T15, armature assembly, rubber gasket, O-ring for steel cover, support ring, compression spring	1	EVR 6, 8	032F8166
Seal kit (NC/NO); O-ring, rubber gasket, support ring	2	EVR 6, 8	032L0548
Service kit (NC); diaphragm, O-ring, (4) screws, armature assembly, rubber gasket, support ring, compression ring	2	EVR 6, 8	032L0550
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, compression spring	1	EVR 10	032F0185
Service kit (NC); diaphragm, O-ring, (4) screws, armature assembly, rubber gasket, support ring, compression ring	2	EVR 10	032L0552
Seal kit (NC/NO); O-ring for armature tube, (3) rubber gasket (1 ea. for EVR 10, 15, 20) (4) refrigeration gasket (2 ea. For EVR 15, 20)	1	EVR 10, 15, 20	032F8196
Service kit (NC); diaphragm, O-ring, (4) screws, armature assembly, rubber gasket, (2) refrigeration gasket (flange connections), compression ring	2	EVR 15, 18, 20, 22	032L0554
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, refrigeration gasket, compression spring	1	EVR 15, 18	032F0187
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, refrigeration gasket, compression spring	1	EVR 20, 22	032F0189
Manual spindle; spindle assembly	1, 2	EVR 20, 22	032F0193
Seal kit (NC); (2) Al. gasket, (3) O-rings, rubber gasket	1, 2	EVR 25	032F2326
Piston service kit (NC); (2) O-ring, compression spring, piston assembly, insert block, rubber gasket, piston ring	1, 2	EVR 25	032F2326
Piston service kit (NC); (5) O-rings, Al. gasket, piston assembly, insert block, gasket, piston ring, compression spring, refrigeration gasket	1, 2	EVR 32	042H0172
Pilot service kit (NC); (2) Al. gaskets, O-ring, orifice, armature tube assembly, armature, armature assembly, compression spring	1, 2	EVR 25, 32	042H0165
Seal kit (NC); (4) O-rings, (2) Al. gaskets	1, 2	EVR 32	032F2327

To determine the version of EVR, read the code number engraved on the armature. Codes beginning with 032F, 032G, and 042 are V1; codes beginning with 032L are V2. Kits for types not included in catalog may be available; contact Danfoss for more information.

BJ/BX/BT/BU—Solenoid Coils



BJ, BX, BT, and BU coils are designed to be used with Danfoss solenoid valves and electric expansion valves and offer easy mounting and dismounting with high-reliability. EVR solenoid valves and AKV electric expansion valves can be paired with standard BJ or BX coils, while only EVR solenoid can be paired with dual voltage/dual frequency BT or BU coils, which can be configured with one of four voltages and frequencies.

Coil type	Voltage (V)	Frequency (Hz)	Power consumption (W)	Danfoss Type (junction box)	Length of wire (in.)	Danfoss Code No.	Danfoss Type (conduit boss)	Length of wire (in.)	Danfoss Code No.
Standard Coil	24	50/60	14	BJ024CS	7	018F4100	BX024CS	18	018F4102
	110	50/60	16	BJ120CS	7	018F4110	BX120CS	18	018F4112
	120	60	15						
	208–240	60	14	BJ240CS	7	018F4120	BX240CS	18	018F4122
	230	50	17						
High MOPD Coil	120	60	16	BJ120BS	7	018F4130	BX120BS	98	018F4131
	208	60	16	BJ208BS	7	018F4132	BX208BS	98	018F4133
	240	60	16	BJ240BS	7	018F4134	BX240BS	98	018F4135

Dual Voltage/Dual Frequency Coils¹

Coil type	Voltage (V)	Frequency (Hz)	Power consumption (W)	Danfoss Type (junction box) ²	Length of wire (in.)	Danfoss Code No.	Danfoss Type (conduit boss) ³	Length of wire (in.)	Danfoss Code No.
EVR	110	50	12	BT240CS	7	018F4180	BU240CS	7	018F4181
	110–120	60							
	230	50							
	208–240	60							

¹ Only compatible with EVR solenoid valves

² Enclosure rating for BT coils is NEMA 2 ~ IP 12–32

³ Enclosure rating for BU coils is NEMA 4 ~ IP 54

SGP—Sight Glasses



Danfoss sight glasses indicate the presence of moisture in refrigeration and air conditioning systems.

Danfoss Type	Version	Connection (in.)	Ambient temp. (°F)	Max. working pressure (psig)	Danfoss Code No.
SGP 6 N	Flare int. x ext.	¼ x ¼	–60 to 175	750	014L0171
SGP 10 N		¾ x ¾			014L0172
SGP 12 N		½ x ½			014L0173
SGP 6s N	ODF x ODF solder	¼ x ¼			014L0181
SGP 10s N		¾ x ¾			014L0182
SGP 12s N		½ x ½			014L0183
SGP 16s N		¾ x ¾			014L0145
SGP 22s N		7/8 x 7/8			014L0186
SGP 1/2 RN	NPT	½			014L0006

GBC V2/GBC H—Ball Valves



GBC ball valves are manually operated shut-off valves suitable for bi-directional flow and can be used in liquid, suction, and hot gas lines. Features include: ball status indicator on spindle top, laser-welded construction, burst-proof spindle design, and holes for panel mounting. GBC H ball valves have been designed and tested to meet the high pressure requirements of CO₂ systems.

Standard Ball Valves

Danfoss Type	Solder ODF connection (in.)	C _v Value (gal/min)	Working pressure (psig)	Danfoss Code No.
GBC 6s	¼	2.12	650	009L8050
GBC 10s	⅜	9.29		009L8051
GBC 12s	½	15.22		009L8052
GBC 16s	⅝	18.10		009L8053
GBC 18s	¾	25.35		009L8054
GBC 22s	⅞	38.54		009L8065
GBC 28s	1 ¼	71.96		009L8066
GBC 35s	1 ⅜	107.23		009L8067
GBC 42s	1 ½	155.78		009L8068
GBC 54s	2 ⅛	277.57		009L8059
GBC 67s	2 ⅝	424.69		009L8069

Ball Valves for High Pressure Refrigerants (CO₂)

Danfoss Type	Solder ODF connection (in.)	C _v Value (gal/min)	Working pressure (psig)	Danfoss Code No.
GBC 6s H	¼	1.09	1305	009G7415
GBC 10s H	⅜	3.52		009G7416
GBC 12s H	½	8.05		009G7417
GBC 16s H	⅝	11.11		009G7418
GBC 18s H	¾	17.88		009G7419
GBC 22s H	⅞	24.64		009G7420

Seal Cap Kits

Danfoss Type	Valve connection size in.	Industrial pack (no. of pcs)	Code no. for 009GXXXX series	Code no. for 009LXXXX 650 psig series
GBC 6s – GBC 12s	¼–½	6	009G7210	009L7209
GBC 16s – GBC 22s	⅝–⅞	6		009L7210
GBC 28s – GBC 35s	1 ⅛–1 ⅜	4	009G7211	–
		3	–	009L7211
GBC 42s – GBC 79s	1 ½–3 ⅛	4	009G7212	–
		3	–	009L7212

Bracket Kits

Danfoss Type	Valve connection size in.	Industrial pack (no. of pcs)	Code no. for 009GXXXX series	Code no. for 009LXXXX 650 psig series
GBC 6s – GBC 12s	¼–½	12	009G7084	009G7089
GBC 16s	⅝	12		009G7084
GBC 18s – GBC 22s	¾–⅞	12	009G7085	
GBC 28s	1 ¼	10	009G7086	
GBC 35s	1 ⅜	5	009G7087	
GBC 42s	1 ½	4	009G7088	

Ball Valves Spare Parts and Accessories

Danfoss Type	Type(s) applied to	Danfoss Code No.
Ball valve service kit	GBC 6, 10, 12, 16, 18, 22	009G7012
Ball valve service kit	GBC 28, 35	009G7014
Ball valve service kit	GBC 42, 54, 67	009G7016
Ball valve replacement cap	GBC 6, 10, 12, 16, 18, 22	009G7210
Ball valve replacement cap	GBC 28, 35	009G7211
Ball valve replacement cap	GBC 42, 54, 67	009G7212

Codes listed above are for GBC V1; for GBC V2 spare parts and accessories, contact Danfoss.

Filter Driers



Danfoss filter driers function as simple drop-in replacements for most driers sold in the aftermarket or installed on equipment by manufacturers. All Danfoss filter driers are constructed with a solid core design, maximizing moisture removal while minimizing pressure drop. DC cores and DCL filter driers include both moisture and acid adsorption properties, while DM cores and DML filter driers only include moisture adsorption properties. Danfoss recommends DC cores and DCL filter driers for standard liquid line aftermarket applications and DM cores and DML filter driers when acid reduction is not necessary. For acid reduction after a burnout, Danfoss recommends suction line DAS filter driers or DA cores. For CO₂ applications, Danfoss recommends DM cores or DMT filter driers.

DCL/DCB Filter Driers

Danfoss Type	Connection (in.)	Max. working pressure (psig)	Drying capacity (lbs. of refrigerant)								Liquid capacity (tons)				Danfoss Code No.
			R-134a		R-404A		R-22		R-410A		R-134a	R-404A	R-22	R-410A	
			75 °F	125 °F	75 °F	125 °F	75 °F	125 °F	75 °F	125 °F					
DCL 1.52/2.8mms	¼ solder	667	5.10	4.60	5.30	5.10	5.10	4.60	4.60	4.20	0.80	0.50	0.90	0.80	023Z8255
DCL 032s	¼ solder	667	8.50	8.00	9.10	8.70	8.60	8.00	7.80	7.20	1.90	1.42	2.12	2.11	023Z5013 ¹
DCL 032	¼ flare	667	8.50	8.00	9.10	8.70	8.60	8.00	7.80	7.20	1.90	1.42	2.12	2.11	023Z5000 ¹
DCL 052s	¼ solder	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	2.18	1.60	2.40	2.37	023Z5018
DCL 052	¼ flare	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	2.18	1.60	2.40	2.37	023Z5002
DCL 053s	⅜ solder	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	3.66	2.79	4.10	4.15	023Z5019
DCL 053	⅜ flare	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	3.66	2.79	4.10	4.15	023Z5003
DCL 082s	¼ solder	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	2.18	1.55	2.37	2.28	023Z5022
DCL 082	¼ flare	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	2.18	1.55	2.37	2.28	023Z5004
DCL 083s	⅜ solder	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	4.03	3.12	4.56	4.65	023Z5023
DCL 084s	½ solder	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	8.14	6.07	9.03	8.99	023Z5026
DCL 084	½ flare	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	8.14	6.07	9.03	8.99	023Z5006
DCL 162	¼ flare	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	2.18	1.54	2.36	2.28	023Z5007
DCL 163s	⅜ solder	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	4.64	3.18	4.95	4.67	023Z5029
DCL 163	⅜ flare	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	4.64	3.18	4.95	4.67	023Z5008
DCL 164s	½ solder	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	9.15	6.69	10.07	9.90	023Z5032
DCL 165s	⅝ solder	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	12.69	10.41	14.74	15.59	023Z5033
DCL 165	⅝ flare	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	12.69	10.41	14.74	15.59	023Z5010
DCL 303s	⅜ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	4.46	3.00	4.72	4.40	023Z0030
DCL 303	⅜ flare	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	4.46	3.00	4.72	4.40	023Z0012
DCL 304s	½ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	9.24	7.11	10.41	10.58	023Z0031
DCL 304	½ flare	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	9.24	7.11	10.41	10.58	023Z0013
DCL 305s	⅝ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	13.00	10.51	14.99	15.72	023Z0032
DCL 305	⅝ flare	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	13.00	10.51	14.99	15.72	023Z0014
DCL 307s	⅞ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	18.27	15.34	21.44	23.05	023Z0034
DCL 415s	⅝ solder	667	139.50	131.90	150.00	142.20	141.30	130.70	127.30	117.30	15.78	11.9	17.61	17.66	023Z0105
DCL 417s	⅞ solder	500	139.50	131.90	150.00	142.20	141.30	130.70	127.30	117.30	18.98	16.01	22.32	24.08	023Z0106
DCL 607s	⅞ solder	667	200.90	189.90	216.00	204.80	203.50	188.20	183.30	168.90	19.93	19.94	25.16	30.71	023Z0036
DCB 083s	⅜ solder	667	15.60	14.70	16.70	15.80	15.60	14.50	14.10	13.00	2.10	1.50	2.30	2.30	023Z1433
DCB 163s	⅜ solder	667	29.30	27.70	31.50	29.90	29.70	27.50	26.80	24.60	5.10	3.70	5.70	5.70	023Z1437
DCB 164s	½ solder	667	29.30	27.70	31.50	29.90	29.70	27.50	26.80	24.60	8.00	5.70	9.10	9.10	023Z1436
DCB 165s	⅝ solder	667	29.30	27.70	31.50	29.90	29.70	27.50	26.80	24.60	10.60	8.30	11.40	11.40	023Z1435

¹ Wire mesh in filter drier outlet.

DAS Filter Driers

Danfoss Type	Connection in.	Max. working pressure (psig)	Rated capacity (tons) ²			Acid capacity (oz.)	Danfoss Code No.
			R-134a	R-404A	R-22		
					R-410A		
DAS 164SVV	½ solder	500	1.7	2.4	6.3	0.3	023Z1009
DAS 165SVV	⅝ solder		2.7	3.7	4.3	0.3	023Z1010
DAS 166SVV	¾ solder		3.4	4.9	5.7	0.3	023Z1011
DAS 167SVV	⅞ solder		3.9	5.4	6.3	0.3	023Z1012
DAS 306SVV	¾ solder		4	5.4	6.3	0.64	023Z1014
DAS 307SVV	⅞ solder		4.6	6.3	7.4	0.64	023Z1015
DAS 309SVV	1½ solder		5.7	7.7	8.9	0.64	023Z1016
DAS 419SVV	1½ solder		6.3	8.6	10	0.86	023Z1018

² For rated capacities for R-290, R-448A, R-449A, R-452A, and other HFO, HC, HFC, and HCFC refrigerants not listed, see Coolselector®2 or contact Danfoss.

DMT Filter Driers for CO₂

Danfoss Type	Connection in.	Max. working pressure (psig)	Drying capacity						Liquid capacity	Danfoss Code No.
			20 °F			75 °F				
			Water (g)	Ref. (Kg)	Water (drops)	Water (g)	Ref. (Kg)	Water (drops)	Tons	
DMT 083s	¾ solder	2030	7.2	7.2	143	5.7	5.8	114	3	023Z8416

DCR Cores and Gaskets

Danfoss Type	Material	Danfoss Code No.
48-DM	100% molecular sieve	023U1392
48-F	strainer	023U1921
48-DC	80% molecular sieve/20% activated alumina	023U4381
48-DA	solid core	023U5381
DCR gasket kit	various	023U0058

DCR Drier Housing

Danfoss Type	Connection (in.)	Connection Type	Weight	Max. Pressure (psig)	Temperature Range (°F)	Danfoss Code No.
DCR 0489	1	butt weld/solder, ODF	10 lbs. 6 oz.	667	-40 to +160	023U7453
DCR 0969	1	butt weld/solder, ODF	13 lbs. 12 oz.			023U7459
DCR 09617	2 ⅝	butt weld/solder, ODF	14 lbs. 9 oz.			023U7464

DCL with Schrader valve - Filter Drier

Danfoss Type	Connection inlet (in.)/ outlet	Maximum working pressure (psig)	Drying capacity (lbs. of refrigerant)										Liquid capacity (tons)					Danfoss Code No.
			R-134a		R-404A		R-22		R-407C		R-410A		R-134a	R-404A	R-22	R-407C	R-410A	
			75 °F	125 °F	75 °F	125 °F	75 °F	125 °F	75 °F	125 °F	75 °F	125 °F						
DCL 1.52/ CAPsV	¼/ capillary tube	667	5.2	4.8	5.5	5.2	5.3	4.9	5.1	4.7	4.7	4.2	1.0	0.7	1.1	1.0	1.0	023Z8261
DCL 032/ CAPsV	¼/ capillary tube	667	8.4	7.7	8.8	8.3	8.5	7.8	8.2	7.6	7.6	6.8	1.2	0.8	1.3	1.2	1.2	023Z5174
DCL 052/ CAPsV	¼/ capillary tube	667	13.5	12.4	14.1	13.4	13.6	12.5	13.1	12.1	12.3	10.9	1.2	0.8	1.3	1.2	1.2	023Z5181

NRV V2—Check Valves



NRV check valves are used in liquid suction and hot gas lines in refrigeration and air conditioning applications. NRV valves ensure the correct flow direction and prevent back-condensation from a warm part of the system to the cold evaporator. The hermetic design of solder version meets environmental demands for today and the future. The built-in damping piston makes the valves suitable for installation in lines where pulsation can occur, e.g., in a compressor discharge line.

Danfoss Type	Design/conn. type	Conn. size (in.)	Min. ODP Δp ¹	C _v value (gal./min.) ³	Danfoss Code No.
NRV 6s V2	straight- way/ solder ODF	¼	0.58	0.77	020B1010
NRV 10s V2		⅜	0.58	1.90	020B1011
NRV 12s V2		½	0.29	2.89	020B1012
NRV 16s V2		⅝	0.29	4.62	020B1018

¹ Minimum Opening Pressure Differential

³ The C_v value is the flow of water in gal./min. at a pressure drop across value of 14.5 psig; ρ = 62.4 lbs./ft.³ = 8.34 lbs./gal.

KVP/KVL/KVR/NRD/KVC/CPCE—Pressure Regulators



Danfoss pressure regulators are available across a wide range, controlling the low and high pressure sides and the efficiencies of refrigeration systems under varying load conditions.

Application	Danfoss Type	Rated capacity (tons)				Solder ODF Connection Inlet (in.)	Setting Range (psig)	Factory setting (psig)	Maximum Working Pressure (psig)	Maximum Test Pressure (psig)	Minimum Temp. of Medium (°F)	Maximum Temp of Medium (°F)	Danfoss Code No.
		R-22	R-134a	R-404A	R-407C								
Evaporating Pressure Regulator	KVP 12	1.30	0.90	1.20	1.20	½	0 to 80	29	260	286	-50	265	034L0023
	KVP 15	1.30	0.90	1.20	1.20	⅝	0 to 80	29	260	286	-50	265	034L0029
	KVP 22	1.30	0.90	1.20	1.20	⅞	0 to 80	29	260	286	-50	265	034L0025
	KVP 28	2.80	1.90	2.40	2.60	1 ½	0 to 80	29	260	286	-50	265	034L0026
	KVP 35	2.80	1.90	2.40	2.60	1 ¾	0 to 80	29	260	286	-50	265	034L0032
Crankcase Pressure Regulator	KVL 12	1.20	0.80	1.00	1.10	½	3 to 87	29	260	286	-75	266	034L0043
	KVL 15	1.20	0.80	1.00	1.10	⅝	3 to 87	29	260	286	-75	266	034L0049
	KVL 22	1.20	0.80	1.00	1.10	⅞	3 to 87	29	260	286	-75	266	034L0045
	KVL 28	4.10	2.60	3.40	3.80	1 ½	3 to 87	29	260	286	-75	266	034L0046
	KVL 35	4.10	2.60	3.40	3.80	1 ¾	3 to 87	29	260	286	-75	266	034L0052
Condensing Pressure Regulator	KVR 12	Liquid: 12.70 Hot gas: 4.13	Liquid: 11.80 Hot gas: 3.03	Liquid: 8.20 Hot gas: 3.27	Liquid: 13.80 Hot gas: 4.50	½	73 to 254	145	406	450	-50	266	034L0093
	KVR 15	Liquid: 12.70 Hot gas: 4.13	Liquid: 11.80 Hot gas: 3.03	Liquid: 8.20 Hot gas: 3.27	Liquid: 13.80 Hot gas: 4.50	⅝	73 to 254	145	406	450	-50	266	034L0097
	KVR 22	Liquid: 12.70 Hot gas: 4.13	Liquid: 11.80 Hot gas: 3.03	Liquid: 8.20 Hot gas: 3.27	Liquid: 13.80 Hot gas: 4.50	⅞	73 to 254	145	406	450	-50	266	034L0094
	KVR 28	Liquid: 32.60 Hot gas: 10.93	Liquid: 30.20 Hot gas: 8.04	Liquid: 20.90 Hot gas: 8.66	Liquid: 35.50 Hot gas: 11.91	1 ½	73 to 254	145	406	450	-50	266	034L0095
	KVR 35	Liquid: 32.60 Hot gas: 10.93	Liquid: 30.20 Hot gas: 8.04	Liquid: 20.90 Hot gas: 8.66	Liquid: 35.50 Hot gas: 11.91	1 ¾	73 to 254	145	406	450	-50	266	034L0100
Differential Pressure Regulator	NRD 12s ¹					½	73 to 254	145	667	870	-50	266	020-1132
Hot Gas Bypass	KVC 12	2.14	1.36	2.02	2.31	½	3 to 87	29	406	450	-50	266	034L0143
	KVC 15	4.17	2.65	3.93	4.5	⅝	3 to 87	29	406	450	-50	266	034L0147
	KVC 22	5.35	3.41	5.04	5.78	⅞	3 to 87	29	406	450	-50	266	034L0144
	CPCE 12	6.20	4.30	6.30	6.70	½	0 to 87	5.8	406	450	-58	285	034N0082
	CPCE 15	9.20	6.30	9.10	9.90	⅝	0 to 87	5.8	406	450	-58	285	034N0083
CPCE 22	12.20	8.40	12.10	12.20	⅞	0 to 87	5.8	406	450	-58	285	034N0084	

¹NRD generally used in conjunction with a KVR to regulate the condensing pressure.

KVP/KVL/KVR/NRD/KVC/CPCE Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Schrader valve	all KVP, KVR	034L0006

KPU—Temperature Switches



Designed specifically for the North American aftermarket, KPU temperature switches function as easy and direct replacements for most controls on the market. KPU 60/70 temperature switches feature snap-action switches, highly visible contrast scales, fingertip tests, and are easily adjustable using a standard refrigeration wrench. KPU 19 temperature switches feature easy installation and service with bottom and rear knockouts, differential adjustment dial, a tamper-resistant design, and a robust thermoplastic housing.

KPU 19 Series

KPU series	Bulb type	Range (°F)	Contact/reset	Capillary tube length (in.)	Differential at lowest temp. setting	Max. bulb temperature (°F)	Competitor part no.	Danfoss Code No.
KPU 9	Remote bulb	-30 to 80	SPDT/Auto	120	3.6 to 12.6	140	A19ABC-24C, A19ABC-37C, A19ABC-74C, A19AAC-4C, A19AAF-20C	060L2150¹
KPU 19			SPST/Auto	80			A19AAD-5C, A19ABA-40C, A19AAD-12C	060L2151¹
KPU 19	Room sensor	SPDT/Auto	Room sensor	A19BBC-2C, A19BAB-3C, A19BAC-1C, A198AF-1C			060L2152	

Contact load	Resistive load		0.5~16A/120V AC, 0.5~8A/240V AC
	Inductive load	Full load	0.5~16A/120V AC, 0.5~8A/240V AC
		Locked load	96A/120V AC, 48A/240V AC
	Pilot duty		125VA/240V DC

KPU 60/70 Series

KPU Type	Bulb type	Range (°F)	Contact/reset	Capillary tube length (in.)	Low temperature differential	High pressure differential	Max. bulb temperature (°F)	Competitor part no.	Danfoss Code No.
KPU 61	Straight capillary tube ¹	-20 to 60	SPDT/Auto	80	10 to 40	2.5 to 13	250	O10-1416, O10-1010, O16-111, O10-1419	060L5201
KPU 61	Remote air coil ¹	-20 to 60	SPDT/Auto	80	8 to 40	2.5 to 13	250	O10-1408, O10-1409, O10-1473, O16-104, O10-1410	060L5203
KPU 62	Room sensor ¹	-20 to 60	SPDT/Auto	Room sensor	10 to 40	2.5 to 13	250	O10-1072, O10-1418, O16-594, O60-101	060L5206
KPU 68	Room sensor ¹	25 to 95	SPDT/Auto	Room sensor	8 to 45	3 to 13	250	O10-1802, O16-595, O10-301, O16-165	060L5215
KPU 73	Remote bulb ²	-15 to 60	SPDT/Auto	80	6.5 to 32	5 to 50	175	O60-100, O60-120	060L5208
KPU 71	Remote bulb ²	25 to 70	SPDT/Auto	80	5.5 to 18	4 to 16	175		060L5218
KPU 77	Remote bulb ²	60 to 140	SPDT/Auto	80	6 to 18	6.3 to 18	265	O60-200, A19AAF-12C, A19AAB-4C, A19ABB-2C, A19ABB-7C	060L5223

¹Bulb must be installed in colder position than thermostat housing and capillary tube.

²Temperature variations in excess of 70 °F between sensing bulb, housing, and capillary tube will influence scale accuracy.

Contact load	Resistive load		24A/120V AC, 24A/240V AC
	Inductive load	Full load	24A/120V AC, 24A/240V AC
		Locked load	144A/120V AC, 144A/240V AC
	Pilot duty		12W/120V DC

KPU—Pressure Switches



Designed with contractors in mind, KPU pressure switches are used in refrigeration and air conditioning systems to protect against excessively low suction or high discharge pressures. Available in single and dual versions, KPU pressure switches cover a comprehensive range of applications, are designed for use with fluorinated and non-aggressive refrigerants, and can also be applied to start-and-stop compressors and the fans of air-cooled condensers.

KPU Pressure Switches

Danfoss Type	Pressure	Reset type	Contact system	Range (in. Hg/psig)	Differential (psig)	Max. working pressure (psig)	Competitor part no.	Danfoss Code No.	
								¼ in. M flare	36 in. capillary tubes with ¼ in. flare nuts
KPU 1	Low	Automatic	SPDT	6 to 108	10.2 to 58	250	O10-1483	060-5231	060-5233
KPU 2	Low	Automatic	SPST (NO)	6 to 73	6 to 30	250	O10-1402	060-5237	060-5235
KPU 2	Low	Automatic	SPDT	6 to 73	6 to 30	250		060-5239	060-5240
KPU 1B	Low	Manual	SPDT	28 to 100	10.2	250	P70AB12, P70AB2	060-5232	060-5234
KPU 5	Fan cycling	Automatic	SPST (NO)	100 to 465	26.1 to 87	510	O10-2054, P70AA118	060-5241	060-5242
KPU 6W	High	Automatic	SPDT	100 to 600	58 to 145	675	O16-108	060-5243	060-5245
KPU 6B	High	Manual	SPDT	100 to 600	60	675		060-5244	060-5246

KPU Dual Pressure Switches

Danfoss Type	Low pressure side		High pressure side		Rest		Contact system (LP/HP)	Max. working pressure (low/high side) (psig)	Competitor part no.	Danfoss Code No.	
	Range (in. Hg/psig)	Differential (psig)	Range (psig)	Differential (psig)	Low pressure side	High pressure side				¼ in. M flare	36 in. capillary tubes with ¼ in. flare nuts
KPU 15	6 to 108	10 to 60	100 to 465	60	Automatic	Automatic	SPST (NO/NC)	250/510	012-1549	060-5247	060-5248
KPU 15B	6 to 108	10 to 60	100 to 465		Automatic	Manual	SPST (NO/NC)	250/510	P170LB1, P70LB1, P70MA1	060-5249	060-5250
KPU 16B	6 to 108	10 to 60	100 to 600		Convertible	Convertible	SPDT/SPST (NO)	250/675	O12-4834	060-5253	060-5254

¹Competitor part no. equipped with capillary tube for all but P170LB1 which has flare connections.

²KPU 6 and the high pressure side of KPU 16 are designed with fail-safe double bellows.

³Convertible reset controls can be adjusted for either automatic or manual reset.

All controls are supplied with universal mounting bracket and mounting screws.

Ambient temperature: -40 °F to +122 °F (175 °F for maximum 2 hours).

KPU 1, 2, 6, 16 suitable for all HFC refrigerants, including R-410A.

	120/240 VAC
Alternating Current	
Motor Full Load Amps (FLA)	24
Locked Rotor Amps (LRA)	144
Direct Current	240 V DC: 12W pilot duty

KVS—Electronic Evaporator Regulators



KVS electric evaporator pressure regulators modulate refrigerant flow evaporators and must be paired with a current or voltage driver. The balanced design provides bi-flow operation as well as solenoid shut-off function in both flow directions. KVS regulators are compatible with R-410A, R-407C, R-134a, R-507, R-22 refrigerants and more.

KVS Regulators

Danfoss Type	Rated capacity (tons)			Connection (in.)	Max. working pressure (psig)	Danfoss Code No.
	R-22	R-134a	R-404A R-507A			
KVS 15	1.3	0.9	1	3/8	660	034G4252
KVS 42	11.4	8.3	10	1 1/8	493	034G2850
KVS 42	11.4	8.3	10	1 3/8	493	034G2851
KVS 42	11.4	8.3	10	1 5/8	493	034G2852
KVS 42	11.4	8.3	10	7/8	493	034G2858

KVS Spare Parts and Accessories

Description	Danfoss Code No.
AST-G Service Driver; used to manually open or close valve	034G0013
M12 cable, 26 ft.	034G2323
M12 cable, 6 ft.	034G2330
Cable filter for long wire runs (in excess of 32 ft.). Permits wire runs of up to 328 ft.	084B2238

CCM—Gas Bypass Valves



CCM electric valves are designed for CO₂ systems and are capable of functioning as either expansion valves or as gas bypass valves with back pressure regulation in subcritical applications. Additional features include: precise positioning for optimal control of intermediate pressure in transcritical CO₂ systems or liquid injection in heat exchangers, combined stainless steel butt weld and solder connections for installation in copper piped systems, and a standard M12 connector for simple and flexible connection to the motor driver.

CCM Valves

Danfoss Type	Conn. Standard	Solder conn. size (in.)	Weld conn. size (in.)	Cv valve (gpm)	MWP (psig)	Danfoss Code No.
CCM 10	EN10220	3/8	1/2	0.81	1305	027H7188
CCM 20	EN10220	7/8	3/4	2.14		027H7187
CCM 30	EN10220	1 1/8	1	3.22		027H7186
CCM 40	EN10220	1 3/8	1	5.55		027H7185

CCM Spare Parts and Accessories

Description	Danfoss Code No.
Actuator for CCM CO ₂ valve	027H7184
AST-G Service Driver: used to manually open or close valve	034G0013
M12 cable, 26 ft.	034G2323
M12 cable, 6 ft.	034G2330
Cable filter for long wire runs (in excess of 32 ft.). Permits wire runs of up to 328 ft.	084B2238

CCMT—Gas Cooler Expansion Valves



CCMT electronic valves are designed specifically for CO₂ systems and can function as expansion valves, pressure regulators for gas coolers, or as gas bypass valves with back pressure regulation in transcritical applications. Large sizes (16–42) feature integrated serviceable strainer and integrated pressure transducer. Additional features include: compatibility with PAG, POE, and PVE oils; combined butt weld and solder connections; and a light weight and compact design.

CCMT Valves

Danfoss Type	Temp. range (°F)	Conn. Standard	Solder conn. size (in.)	Weld conn. size (in.)	Cv valve (gpm)	Diff. Range (psi)	Max. working pressure (psig)	Danfoss Code No.
CCMT 2	-40 to 40	EN10220	5/8	1/2	0.19	1305	2030	027H7200
CCMT 4			5/8	1/2	0.52			027H7201
CCMT 8			5/8	1/2	0.92			027H7202
CCMT 16			1 1/8	1	1.85			027H7231
CCMT 24			1 1/8	1	2.77			027H7232
CCMT 30			1 1/8	1	3.70			027H7233
CCMT 42			1 1/8	1	5.32			027H7234

CCMT Spare Parts and Accessories

Description	Danfoss Code No.
AST-G Service Driver; used to manually open or close valve	034G0013
M12 cable, 26 ft.	034G2323
MBS 8250 pressure transducer	064G4032
Cable filter for long wire runs (in excess of 32 ft.). Permits wire runs of up to 328 ft.	084B2238
EKD 316—valve driver or superheat controller	084B8040
EKA 164A—display and control buttons for EKD 316	084B8563

ICMTS—Large Capacity Gas Cooler Expansion Valves



ICMTS motorized valves regulate the flow of transcritical gas or subcritical liquid from gas coolers in transcritical CO₂ systems. ICMTS valves are driven by ICAD 600A-TS actuators and may be manually operated using the multi-function tool.

ICMTS Valves

Danfoss Type	Conn. Standard	Inlet type	Inlet size (in.)	Outlet type	Outlet size (in.)	Cv valve (gpm)	Diff. range (psi)	Max. working pressure (psig)	Danfoss Code No.
ICMTS 20-A33	EN10220	butt weld	1	butt weld	1	0.23	1305	2030	027H1084
ICMTS 20-A						0.69			027H1085
ICMTS 20-B						2.78			027H1086
ICMTS 20-C						5.32			027H1087

ICAD 600TS Actuator

Danfoss Type	Cable length	Supply voltage DC (V)	Supply voltage load (A)	Analog input voltage options (V) DC	Analog input current options (mA)	Analog output options (mA)	Dig. Output/ext. supply voltage DC (V)	Danfoss Code No.
ICD 600A-TS	4 ft. 11 in.	24	1.2	0–10/ 2–10	0–20/ 4–20	0–20/ 4–20	5–24	027H9078
ICD 600A-TS	—							027H9123

ICMTS Spare Parts and Accessories

Description	Danfoss Code No.
Muti-function tool for manual operation	027H0181
ICMT/S 20-A33 top part w/cone & orifice	027H1088
ICMT/S 20-A top part w/cone & orifice	027H1080
ICMT/S 20-B66 top part w/cone & orifice	027H1094
ICMT/S 20-B top part w/cone & orifice	027H1081
ICMT/S 20-C top part w/cone & orifice	027H1082

ADAP KOOL (AK) Electronic Controllers and Accessories



The AK family of supermarket and commercial refrigerator controllers and system managers are ideal for both new installations and as replacement controllers. Danfoss electronic controls use the latest technology to provide the maximum benefit to end users, in terms of energy savings, control options, and full web user access.

AK-SM System Manager



The key component of an ADAP-KOOL® refrigeration system controller is the system manager. This unit coordinates data communication to and from individual refrigeration controllers, acquires temperature data for logging, and registers and forwards alarms to defined recipients. The web-enabled AK-SM 800 series is Danfoss' newest system manager and features "case to cloud" connectivity for enterprise level data sharing. Danfoss systems manager can be controlled remotely through a web browser, Danfoss software, or smartphone app. The AK-SM 800 series replaces legacy controllers such as Com-Trol, ECI, and other previously released Danfoss system controllers.

AK-SM Controllers

Danfoss Type	License	Frequency (Hz)	Communication types	Danfoss Code No.
AK-SM 850	refrigeration	50/60	LON RS485, Modbus	080Z4001
AK-SM 820	refrigeration & HVAC (convenience store version)		LON RS485, Modbus	080Z4004
AK-SM 880	refrigeration & HVAC		LON RS485, Modbus	080Z4008
AK-SM 880	refrigeration & HVAC		LON TP78, Modbus	080Z4009
AK-AL 800	alarm logger; touchscreen		N/A	080Z4014

AK2 SC-255 Spare Parts and Accessories

Description	Notes	Danfoss Code No.
PC direct connect cable	Can be used to connect PC to SC 255 using AKA 65 software and PC to AK-PC 700 series and AK-CC 700 series controller	080Z0262
Serial USB adapter kit for PC direct connect cable	Approved USB 2.0 to DB 9 pin M connector	080Z0267

MCX—Programmable Controller



Easy to program using the C programming language, MCX controllers provide unique versatility and freedom compared to proprietary systems. All units are delivered with a low level operating system, including hardware drivers, services, and a virtual machine. Connections to peripheral equipment take place via open standard protocols that enable easy integration with electromechanical components and building management systems. Open programming standards allow full control of applications such as chillers, rooftop units, air-handling units, close control, shelter units, and heat pumps.

Danfoss Type	Application	Communication type	Supply voltage (AC)	Danfoss Code No.
MCX08M2	Expansion module for MCX 152V	CANBUS, MODBUS, RS485	110 to 230 V	080G0307
MCX152V	RTU App	CANBUS, ETHERNET, MODBUS, RS485	110 to 230 V	080G0304

MCX Accessories

Danfoss Type	Application	Danfoss Code No.
MMIGRS2	Remote Display	080G0294
ACCCBI Cable-1.5m	Cable for Display to MCX	080G0075
ACCCBI Cable-3m	Cable for Display to MCX	080G0076
MMIMYK	Programming Tool for MCX	080G0073

Input/Output Communication and Extension Modules

Input/Output (I/O) expansion modules are used in applications requiring more connections than featured on a given control: up to nine extension modules may communicate through each communication module. I/O modules require a communication module to communicate with frontend system managers.



AK-CM Communication Modules

Danfoss Type	Description	Danfoss Code No.
AK-CM 101A	Communication Module (LON TP-78)	080Z0061
AK-CM 101C	Communication Module (LON RS485)	080Z0063



AK-XM Extension Modules

Danfoss Type	Analog inputs	On/off outputs		On/off supply voltage (DI signal)		Analog outputs	Stepper outputs	Module with switches	Uses	Danfoss Code No.
	For sensors, pressure transmitters, etc.	Relay (SPDT)	Solid state	Low voltage (80 V max.)	High voltage (260 V max.)	0-10 V DC	For valves with step control	For overriding relay outputs		With screw terminals
AK-XM 101A	8								Sensors, pressure transmitters, contact signals	080Z0007
AK-XM 102A				8					On/off voltage signals, low voltage (24 V)	080Z0008
AK-XM 102B					8				On/off voltage signals, high voltage (230 V)	080Z0013
AK-XM 103A	4					4			Sensors, pressure transmitters, contact signal, analog outputs (0-10 V DC)	080Z0032
AK-XM 107A pulse module									Pulse measuring	080Z0020
AK-XM 204A		8							On/off relay outputs	080Z0011
AK-XM 204B		8							On/off relay outputs with overriding function	080Z0018
AK-XM 205A	8	8							Sensors, pressure transmitters, and on/off outputs	080Z0010
AK-XM 205B	8	8		x					Sensors, pressure transmitters, and on/off output with overriding function	080Z0017
AK-XM 208B							4		Stepper output	080Z0022
AK-XM 208C	8						4		Sensors, pressure transmitters, and stepper output. Can only be used with AK-PC 7xx pack controllers	080Z0023

I/O Spare Parts and Accessories

Description	Notes	Danfoss Code No.
DIN Rail for AK2 module mounting	1 Meter	080Z0290
AK2 light ballast dimmer driver board	Boosts signal from a variable output (such as AK-XM 103A) board to drive multiple ballasts	080Z0270
RTC to AK2 board conversion kit	Converts obsolete RTC board to AK2 IO modules; includes documentation, power supply, and wire	080Z2117
CO ₂ indoor sensor	For measuring indoor CO ₂ levels	LDC02
Air flow switch	For proofing RTU airflow	CAFS-1

Input/Output Communication and Extension Modules *(continued)*

Power Suppliers for AK series controls

Danfoss Type	Input Voltage	Output		Mount	Note	Danfoss Code No.
		Voltage	Capacity			
IOPS	115/230	12/24V AC	56 VA	Chassis	Use for 12VAC or special application only; replaced by 080Z0055 for AK2 applications	080Z0052
AK-PS 250	100–240	24V AC	60 VA	Din Rail	Replaces 080Z0052	080Z0055
AK-PS 75	100–240	24V AC	18 VA	Din Rail	Can power one com module and combo board	080Z0053

Repeaters, Bridges, and Gateways

Gateways permit communication from one piece of equipment to another. Repeaters boosts signals to overcome issues resulting from excess wire length and poor installation. Bridges convert communication signals from one protocol to another.

Danfoss Type	Description	Applicable protocols	Notes	Danfoss Code No.
TP78-01	Repeater	LON TP 78	Requires 12V AC, old part no. TP78-01	084B2251
TP78-02	Bridge	LON TP 78 to LON FTT-10	Requires 12V AC, old part no. TP78-02	084B2252
TP78-04	Bridge	LON TP 78 to LON RS485	Old part no. TP78-04	084B2254
AKA 222	Repeater	Modbus		084B2240
AKA 223	Repeater	LON RS485		084B2241
TP78-05	Bridge	LON FTT-10 to LON RS485	Old part no. TP78-05	084B2255

I/O Enclosures

Enclosures for input/output boards

Description	Notes	Danfoss Code No.
AK2 enclosure for 1 row of 4 full-sized modules	Includes power supply and 1 AK2 comm. module (080Z0061) 13 × 30 × 5	AK2I08
AK2 enclosure for 2 row of 4 full-sized modules	Includes power supply and 1 AK2 comm. module (080Z0061) 25 × 30 × 5	AK2I016
AK2 comm. mod. + AK2 XM 205B in RTC box filtered; power input	24V AC only; no power supply included 12 in. × 12 in.	AK2RTCB
AK2 comm. mod. RTC filtered power V.2	Contains 080Z0061, 080Z0017, 080Z0053	AK2RTCB-2
Lighting control panel/8 relay output		080Z2164
AK2 enclosure for 1 row of 4 full-sized modules	Includes power supply and 1 AK2 comm. module (080Z0063) 13 × 30 × 5	080Z2118
AK2 enclosure for 2 row of 4 full-sized modules	Includes power supply and 2 AK2 comm. module (080Z0063) 25 × 30 × 5	080Z2119
AK2 comm. mod. + AK2 XM 205B in RTC box filtered; power input	24V AC only; no power supply included 12 in. × 12 in.	080Z2184
12 in. × 24 in. enclosure	080Z0055, with comm. module (080Z0063), and combo board	080Z2188
12 in. × 24 in. enclosure	080Z0055, with comm. module (080Z0061), combo board	080Z2165
12 in. × 24 in. enclosure with power supply	080Z0053 only	080Z2114

AKS—Pressure Transmitters



AKS 32 and AKS 33 pressure transmitters measure and convert pressures to a standard signal (1 to 5 V DC for AKS 32 and 4 to 20 mA for AKS 33). AKS 32R and AKS 2050 ratiometric pressure transmitters measure and convert pressure to a linear output signal (the minimum value of the output signal is 10% of the actual supply voltage and the maximum value is 90% of the actual supply voltage). AKS 2050 pressure transmitters are designed specifically for CO₂ pressure ranges.

Danfoss Type	Pressure range (psig)	Electrical connection	System connection (in.)	Notes	Danfoss Code No.
AKS 32	0 to 200	26 ft. cable	1/8 NPT	For Danfoss rack controllers	060G3990
AKS 32	0 to 500	26 ft. cable	1/8 NPT	For Danfoss rack controllers	060G3991
AKS 32	0 to 100	26 ft. cable	1/8 NPT	For ECI rack controllers	060G1889
AKS 32	0 to 500	26 ft. cable	1/8 NPT	For ECI rack controllers	060G1890
AKS 33	-14.5 to 174	DIN plug	1/4 NPT	Use with EKC 316	060G2101
AKS 32R	-14.5 to 174	DIN plug	1/4 NPT	Use with AK CC controllers	060G1037
AKS 2050	-14.5 to 855	DIN plug	1/4 NPT	Designed for CO ₂	060G6342
AKS 2050	-14.5 to 2306	DIN plug	1/4 NPT	Designed for CO ₂	060G6344
MBS 8250	14.5 to 2320	Packard 3 pin male	7/16 UNF 20	Used as integrated pressure transducer in CCMT valves	064G4032

AKS Spare Parts and Accessories

Description	Notes	Danfoss Code No.
DIN plug for AKS transducer	Fits AKS 32, 32R, 33, and 2050	060G000812
Cable with end plug for AKS transducer	16 ft., fits AKS 32, 32R, 33, and 2050	060G1034

Temperature Sensors

Danfoss Type	Sensor type	Sensor temp. range (°F)	Wire length (ft.)	Description	Danfoss Code No.
AKS 21W	PT1000	-94 to 356	1	Boiler temp. probe, fits well with ½ NPT	084N2032
AKS 11	PT1000	-60 to 212	11.5	Single packed 084N0027	084N0003
AKS 11	PT1000	-60 to 212	18	Single packed 084N0028	084N0005
AKS 11	PT1000	-60 to 212	27.5	Single packed 084N0029	084N0008
AKS 12	PT1000	-40 to 176	5	Single packed 084N0035	084N0036
AKS 12	PT1000	-40 to 176	18		084N0038
AKS 21	PT1000	-94 to 356	8	Used for high temp. pipe applications	084N2003
AKS 21	PT1000	-94 to 356	16	Used for high temp. pipe applications	084N2008
MBT 153	NTC	-40 to 158	18	General purpose sensor—replace Com-Trol and ECI TP 2L	084Z3016
Air supply/duct probe		-94 to 356	8	Old part no. ASTP2	084Z2186
Box temp. probe assembly		-13 to 221		Probe length 18 in.	084Z2185
Product temp. sensor		-22 to 122	18	PT1000; calibration certificate included	084N1007
Zone temp. sensor		-40 to 122		PT1000; temp. sensor on cover plate for HVAC room temp.; old part no. ZTP2	080N2187
Condenser air probe		-40 to 122		PT1000; temp. sensor for measuring air temp. under condenser	AKOTC

AKS 11 Temperature Sensors with Case Locations Specific Colors

Insulation color	Purpose	Wire length (ft.)	Danfoss Code No.
Blue	S1 coil in	27.8	097U0063
Red	S2 coil out		097U0064
Purple	S3 return air		097U0065
Green	S4 discharge air		097U0066
Orange	S5 defrost termination		067U0067

Temperature Sensor Resistors (Permit use of non-Danfoss sensors on AK2 input boards)

Description	Notes	Danfoss Code No.
Com-Trol, CPC, and Altech Temp. Sensor Resistor Kit	Kit contains 2 resistors	CTPKIT
AK-2 Pullup kit for ECI TP-1 Probe	Kit contains 4 resistors	TP1KIT

Humidity Sensors and Light Level Sensors

Description	Notes	Danfoss Code No.
Outdoor Photo Cell/Humidity Sensor/Temp Sensor	Mounts on ½ in. conduit knockout; box not included	AKCOTHP
Outdoor humidity sensor	Mounts in ½ in. conduit knock out; replaces EMHS-4	080Z2167
Humidity sensor w/indoor temp. sensor	Old part no. EMHS3-1	080Z2171
Outdoor photo cell with temp. sensor	Old part no. PHOTO-OD-1	080Z2172
Skylight Photocell 0-5000 FC with resistor	Old part no. PHOTO-MAS	080Z2169

Door Monitors, Current Transducer

Description	Notes	Danfoss Code No.
Magnetic Door Monitor Assembly	Door contacts; typically used for walk in coolers and freezers	DRMON-1
Current transducer 0-5/100/200 A	Connects to inboards for current monitoring. Frequently used for compressor, fan motor or other loads requiring current monitoring.	080Z2251
Current sensing relay	Provides contact closure when current is detected.	49-100

Miscellaneous Relays and Transformers

Description	Notes	Danfoss Code No.
Relay	24V coil 2 pole Form C relay	41-062
Transformer	24V 150 VA wall mount control transformer	55-168
Power supply	5Vdc Din rail mounted power supply	68-102

Alarm Devices

Description	Notes	Danfoss Code No.
24V horn/strobe; red	For indoor use	AKAHS01
24V horn/strobe; blue	For outdoor use	AKAHS02
Strobe alarm light; amber		99-242
Strobe alarm light; blue		99-272
Office alarm box PC board w/audio, LED signal & reset	Requires 12V AC	OAB-1

AK-CC—Case Controllers



All of the controls below control anti-sweat heaters, fan operation, lighting door alarms, case cleaning, dual temperature control, and provide alarm notification.

Danfoss Type	AK-CC 210	AK-CC 550A	AK-CC 750	AK-CC 525A	AK-CC 55 Compact	AK-CC 55 Single Coil	AK-CC 55 Multi Coil
Overview	Single evaporator on/off (typically solenoid valve) control. May be used on self-contained cases or rack systems. May be stand alone or tied into front end controller.	550A Single evaporator control which controls Danfoss AKV based on superheat. May be stand alone or tied into front end controller.	750 Multi-evaporator control (up to 4) which controls Danfoss AKV based on superheat or temperature.	525A single evaporator control which controls Danfoss AKV based on superheat; may be stand alone or tied into front end controller (no local display)	Single evaporator on/off solenoid control for TXV system or EEV control for AKV system. Can be stand alone or tied into front end controller	AK-CC 55 single evaporator control which controls Danfoss AKV based on superheat; may be stand alone or tied into front end controller	AK-CC 55 multi-evaporator control (up to 3) which controls Danfoss AKV based on superheat or temperature
No. of evaporators	Single	Single	Multiple	Single	Single	Single	Multiple
Valve Control	On/off—Typically solenoid valve with TXV	EEV	AKV or Solenoid	EEV	AKV or solenoid	EEV	EEV
Mounting	Panel mount	DIN rail or wall	DIN rail or wall	DIN rail or wall	DIN rail or wall	DIN rail or wall	DIN rail or wall
Display	On front	On front	Connection for 1–4 displays	No	No	UI-version only	No
Temp. control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Defrost	Yes with connections	Yes, adaptive with skip and coordination	Yes, adaptive with skip and coordination	Yes with connections	Yes	Yes, adaptive with skip and coordination	Yes
No. of compressors	1 or 2	1 or 2	1	1 or 2	1 or 2	1 or 2	1
No. of outputs	4	5 × AKV	8, max. 4 AKV	5 + 1 AKV	4	5 + 1 AKV	4 + 3 AKV
No. sensors	3	6	11	6	3	6	6
No. DI	2	3	11	3	2	3	2
Communication	Opt. LON RS 485 or MODBUS	MODBUS + opt. LON RS 485	LON RS 485 or LON TP 78	MODBUS + opt. LON RS485	MODBUS	MODBUS	MODBUS

Danfoss Type	Supply Voltage (V)	Notes	Danfoss Code No.
AK-CC 210	115		084B8534
AK-CC 210	220		084B8520
AK-CC 525A	115		084B8017
AK-CC 525A	2230		084B8019
AK-CC 550A	115		084B8036
AK-CC 550A	230		084B8030
AK-CC 750	24 AC/DC	LON TP78	080Z0130
AK-CC 750	24 AC/DC	LON RS485	080Z0139
AK-CC 55 Compact	115/230V	Modbus	084B4081
AK-CC 55 Single Coil	115/230V	Modbus	084B4082
AK-CC 55 Single Coil UI	115/230V	Modbus	084B4083
AK-CC 55 Multi Coil	115/230V	Modbus	084B4084

Displays and Display Accessories for AK-CC

Danfoss Type	Description	Notes	Danfoss Code No.
EKA 163A	Display unit	Screw terminals	084B8562
EKA 163B		With plug connector	084B8574
EKA 164A	Display unit with operation buttons	Screw terminals	084B8563
EKA 164B		With plug connector	084B8575
EKC 202D2	Walmart temperature Display	EKA Remote Display (Green Display)	084B8670
EKC 202D2	Walmart temperature controller	Stand Alone Display Unit 110V (Green Display) & LON 485 communication card	084B8693
	Cable with plugs for display unit	6.5 ft.	084B7298
	Cable with plugs for display unit	19.5 ft.	084B7299
AK-UI55 Bluetooth	AK-CC 55 Bluetooth Display		084B4075
AK-UI55 Set Display	AK-CC 55 Display w/Buttons		084B4076
AK-UI55 Info Display	AK-CC 55 Display	Display only, no buttons	084B4077
AK-UI Cable	AK-CC 55 Display Cable	3m length	084B4078
AK-UI Cable	AK-CC 55 Display Cable	6m length	084B4079

Other Accessories for AK2 Case/Rack Controllers

Danfoss Type	Description	Applicable Product	Danfoss Code No.
EKA 173	LON FTT10 card	EKC 316	084B7092
EKA 175	LON RS485 card	Top of form EKC 3XX, AK-CC 450/550/550A	084B8579
EKA 178	AK-CC 210 MODBUS card	Top of form EKC 202/210 Bottom of form	084B8564
EKA 179	AK-CC 210 LON RS485 card	Top of form EKC 202/210 Bottom of form	084B8565
EKA 183A	Programming Key	EKC 102, 202, 204, 3XX (excl. EKC 301), 4XX and 5XX, AK-CC 210 and 550, AK-CT, ERC 211, 213 and 214	084B8582
	EKA mounting flange kit	EKA 163, 164	084B8584
	Metal EKC Bracket	Any standard 71mm x 29mm panel mount display or controller	60-274

AK-PC—Pack Controllers



The AK-PC 700 controller series offers rack-level control for a variety of designs, including standard HFC systems, transcritical CO₂ systems, and cascade systems.

Danfoss Type	Function	Supply Voltage (V)	Communication Types	No. of compressors (max.)	Danfoss Code No.
AK-PC 781	medium-large transcritical (single suction)	24	LON RS485	8	080Z0186
AK-PC 781A	medium-large transcritical (single suction)			10	080Z0191
AK-PC 782A	medium-large transcritical (triple suction)			8	080Z0192
AK-PC 351	HFC Rack Controller-max 4 compressors, 1 condenser (Modbus)	24			080G0289
AK-PC 551	HFC Rack Controller-max 8 compressors, 1 condenser (Modbus)	115/230			080G0281
AK-PC 551	HFC Rack Controller-max 8 compressors, 1 condenser (Modbus)	24			080G0283
AK-PC 651	HFC Rack Controller-max 10 compressors, 1 condenser (Modbus)	115/230			080G0312
AK-PC 772A	3MT x 2LT Transcritical CO ₂ System	24			080Z0201
AK-PC 783A	4MT x 4LT Cascade CO ₂ system	24			080Z0193

When installing or modifying Danfoss AK-SM/CC/CM/PC or other controllers, it is critical to follow the wiring specifications as outlined in the installation guide; failure to do so may result in communication errors or failures

EKC/EKD—Industrial Superheat Controllers



Evaporator controllers regulate superheat in specialized applications.

Danfoss type	Controller type	Danfoss Code No.
EKC 326A	CO ₂ gas cooler controller	084B7252

EKE Superheat Controllers

Danfoss type	Controller type	Danfoss Code No.
EKE 1A	Superheat controller (no data comm.). Requires ratiometric transducer and NTC 10K temp sensor	080G5300
EKE 1B	Superheat controller (no data comm.). Requires ratiometric transducer and NTC 10K temp sensor	080G5350
EKE 1C	Superheat controller w/Modbus. Requires ratiometric transducer. Temp sensor can be PT1000 or NTC 10K	080G5400

Displays and Display Accessories for EKE Superheat Controllers

Controller type	Danfoss Code No.
MMIGRS2 EKE remote display	080G0294
ACCCBI EKE to display cable (1.5m)	080G0075
ACCCBI EKE to display cable (3m)	080G0076

KW Transducers and CTS for Energy Metering

Description	Danfoss Code No.
Split Core Buss Bar Style CT W3.5 × L3.5 800A Wattnode CT	CTB0800
Split Core Buss Bar Style CT W3.5 × L3.5 1200A Wattnode CT	CTB1200
Split Core Buss Bar Style CT W3.5 × L3.5 2000A Wattnode CT	CTB2000
WATTNODE PLUS 120/208–240V kWh, kW, PF, V, A, KVA meter—requires 3 wattnode CTs (LON communication)	WATTNODEP1
Wattnode Modbus meter 208V. Requires 3 wattnode CTs	080Z2144
Wattnode Modbus meter 400V. Requires 3 wattnode CTs	080Z2146
Veris kWh Power Transducer 100 amp 3 amp Phase incl. 3 CTs w/embedded transducer (requires pulse module)	C20106600
Veris kWh Power Transducer 300 amp 3 amp Phase incl. 3 CTs w/embedded transducer (requires pulse module); for balanced loads	080Z2142

DGS—Refrigerant Leak Detectors



Using either semi-conductor (SC) or infrared (IR) technology, DGS leak detectors provide a rapid response when detecting a wide range of different refrigerants, including CO₂. DGS detectors can be used in standalone or integrated systems where continuous, real-time, automatic monitoring is required. DGS detectors comply with environmental regulations and health and safety requirements for new or existing systems.

Leak Detectors

Product description	Danfoss Code No.
DGS-SC HFC gr. 1 ¹	080Z2803
DGS-SC HFC gr. 2 ²	080Z2804
DGS-SC HFC gr. 3 ³	080Z2805
DGS-PE Propane	080Z2806
DGS-IR-CO ₂	080Z2800
DGS-IR-CO ₂ 5 m	080Z2801
DGS-IR 2 * CO ₂ - 5 m	080Z2802
DGS-SC HFC gr.1* + B&L	080Z2809
DGS-SC HFC gr.2* + B&L	080Z2810
DGS-SC HFC gr.3* + B&L	080Z2811
DGS-PE Propane + B&L	080Z2812
DGS-IR CO ₂ + B&L	080Z2807
DGS-IR-CO ₂ 5 m + B&L	080Z2808
HGM-MZ (8 zones)	080Z2151
HGM-MZ (16 zones)	080Z2153

DGS Spare Parts and Accessories

Product description	Notes	Danfoss Code No.
Spare sensor HFC gr.1 ¹	Spare	080Z2815
Spare sensor HFC gr.2 ²	Spare	080Z2816
Spare sensor HFC gr.3 ³	Spare	080Z2817
Spare sensor Propane	Spare	080Z2818
Spare sensor CO ₂	Spare	080Z2813
Spare sensor CO ₂ - 5 m	Spare	080Z2814
Handheld service tool	Accessory	080Z2820
Strobe & Horn	Accessory	080Z2819
Splash guard	Accessory	148H6226
Duct guard	Accessory	148H6236
Calibration adaptor for SC2	Accessory	148H6232
Remote kit	Accessory	148H6238
Power supply AK-PS075	Accessory	080Z0053
HGM-MZ air sample line coupler	For joining 2 sample tubes	080Z2195
HGM-MZ 2-way splitter kit-model	Permits sensing of 2 zones from 1 tube	080Z2196
HGM-MZ connection kit for SM controllers and HGM-MZ	Permits communication between Danfoss AKS/SM controllers and HGM-MZ	080Z2154

¹R-1234ze, R-454c, **R-1234yf**, R-454a, R-452A, R-454b, R-513a

²R-407F, R-416a, R-417a, R-407A, R-422a, R-427a, R-449A, R-437a, **R-134a**, R-438a, R-422D

³R-448A, R-125, R-404A, R-32, R-507A, R-434a, R-410A, R-452b, **R-407C**, R-143b

Bold = calibration gas; changing refrigerants requires Danfoss handheld service tool (080Z2820)

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