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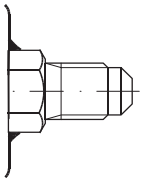
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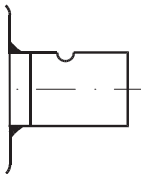
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Eliminator ® Liquid line filter driers, type DCL and DML



Flare connection



Solder connection (copper)

REFRIGERATION &
AIR CONDITIONING DIVISION

Technical leaflet

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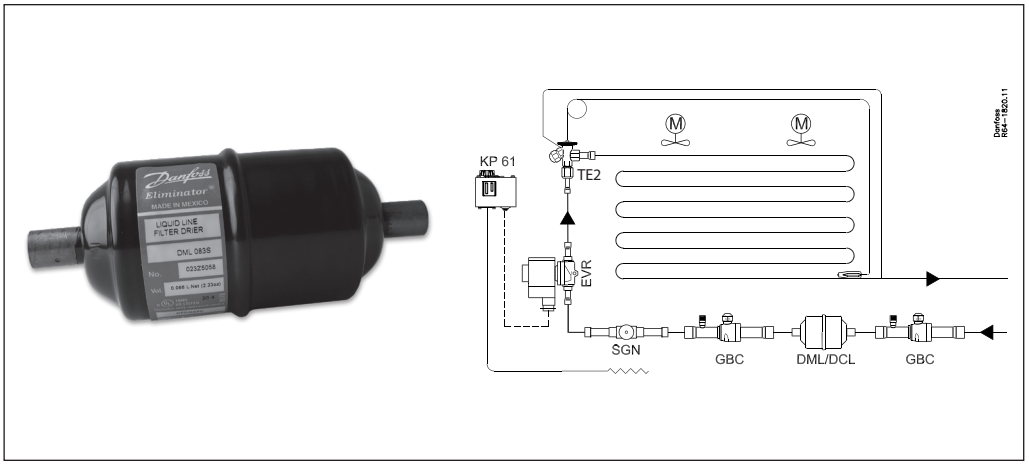
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Introduction



Eliminator ® liquid line filter driers protect refrigeration and air-conditioning systems from moisture, acids, and solid particles. With these contaminants eliminated, systems are safer from harmful chemical reactions and from abrasive impurities.

There are two types of ***Eliminator*** ® cores. Type DML driers have a core composition of 100% Molecular Sieve, while type DCL contain 80% Molecular Sieve with 20% activated alumina.

All ***Eliminator*** ® driers have a solid core with binding material held to an absolute minimum. Core selection is primarily based on the refrigerant oil used in the system.

Eliminator ® type DML, with a solid core of 100% Molecular Sieve, is optimized for use with HFC refrigerants and polyolester (POE) or polyalkyl glycol (PAG) oils. Type DML driers are designed for applications requiring high water adsorption, and can be used with any manufacturer's compressor. Because type DML driers contain no activated alumina, oil additives will not be depleted.

Eliminator ® type DCL, with a solid core of 80% Molecular Sieve and 20% activated alumina, is the drier of choice for systems with HCFC and CFC refrigerants and mineral or alkyl benzene oils. Type DCL driers are particularly suited for systems that operate at high condensing temperatures and require high drying capacity.

Features

The Core

Type DML

- 100% 3Å Molecular Sieve core.
- High drying capacity minimizing the risk of acid formation (hydrolysis).
- Optimized for HFC refrigerants (R134a, R404A, R410A, etc.) with POE or PAG oils. Compatible with R22.
- Will not deplete oil additives.

Type DCL

- 80% 3Å Molecular Sieve with 20% activated alumina.
- Perfect core blend for systems that operate at high condensing temperatures and require high drying capacity.
- Optimized for CFC and HCFC refrigerants (R22, R502, etc.) with mineral or alkyl benzene oils. Compatible with HFC's and refrigerant blends.

The Shell

- UL approved for MWP up to 42 bar (610 psig).
- Available with solder (copper) and flare connections.
- Compact 3 cubic inches drier ideal for refrigeration and air conditioning units.
- Corrosion resistant powder-painted finish. Can be used in all environments including marine applications.
- Allows installation with any orientation provided the arrow is in the flow direction.
- Available in sizes from 3 to 75 cubic inches.

The Filter

- 25 μm (0.001 in.) filter provides high retention with minimal pressure drop.
- Thermally stable up to 120°C (250°F).

Approvals

c UL us UL file no. SA 6398
PED 97/23/EC - a3p3

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Technical data

Surface and volume

Filter	Solid core surface [cm²]	Solid core volume [cm³]	Filter drier volume (shell volume) [l]	Filter drier volume (net volume) [l]
DML/DCL 03	82	41	0.08	0.038
DML/DCL 05	95	67	0.12	0.051
DML/DCL 08	131	104	0.17	0.065
DML/DCL 16	220	234	0.36	0.122
DML/DCL 30	378	494	0.72	0.224
DML/DCL 41	510	681	0.97	0.286
DML/DCL 60	756	988	1.34	0.352
DML/DCL 75	1019	1363	1.81	0.450

Acid capacity

Filter	Acid capacity [g]
DCL 03	0.58
DCL 05	0.87
DCL 08	1.36
DCL 16	3.12
DCL 30	6.40
DCL 41	8.90
DCL 60	12.80
DCL 75	17.80

Temperature range

– 40 to 70°C (–40 to 160°F)

Technical data and capacities

DML

Drying and liquid capacity - Type DML

R134a, R507, R404A, R22, R407C, R410A

Type	Drying capacity [kg refrigerant] [1]						Liquid capacity [kW] [2]			Max Working Pressure PS [bar]
	R134a		R404A R507		R22, R407C R410A		R134a	R404A R507	R22 R407C R410A	
	24°C	52°C	24°C	52°C	24°C	52°C				
DML 032/032s	5.5	5	7.5	4.5	4.5	4	7	5	7	42
DML 032.5s	5.5	5	7.5	4.5	4.5	4	9	7	10	42
DML 033/033s	5.5	5	7.5	4.5	4.5	4	17	13	19	42
DML 034s	5.5	5	7.5	4.5	4.5	4	24	17	26	42
DML 052/052s	8.5	8	13	7.5	8	7	7	5	8	42
DML 052.5s	8.5	8	13	7.5	8	7	9	7	10	42
DML 053/053s	8.5	8	13	7.5	8	7	18	14	19	42
DML 054s	8.5	8	13	7.5	8	7	25	18	27	42
DML 055s	8.5	8	13	7.5	8	7	34	25	38	42
DML 082/082s	12.5	12	20	11.5	12.5	11	7	5	8	42
DML 082.5s	12.5	12	20	11.5	12.5	11	10	8	11	42
DML 083/083s	12.5	12	20	11.5	12.5	11	19	14	21	42
DML 084/084s	12.5	12	20	11.5	12.5	11	26	20	29	42
DML 085/085s	12.5	12	20	11.5	12.5	11	42	31	46	42
DML 162/162s	27	25.5	43.5	24	27	23	7	5	8	42
DML 162.5s	27	25.5	43.5	24	27	23	10	8	11	42
DML 163/163s	27	25.5	43.5	24	27	23	22	16	24	42
DML 164/164s	27	25.5	43.5	24	27	23	30	22	33	42
DML 165/165s	27	25.5	43.5	24	27	23	43	30	47	42
DML 166/166s	27	25.5	43.5	24	27	23	44	31	48	35
DML 167s	27	25.5	43.5	24	27	23	44	31	48	35
DML 303/303s	57	54	92.5	51	57	48.5	21	15	23	42
DML 304/304s	57	54	92.5	51	57	48.5	31	22	34	42
DML 305/305s	57	54	92.5	51	57	48.5	45	33	49	42
DML 306/306s	57	54	92.5	51	57	48.5	62	45	68	35
DML 307s	57	54	92.5	51	57	48.5	62	45	68	35
DML 309s	57	54	92.5	51	57	48.5	62	45	68	30
DML 413	80	75	130	70	80	74	25	18	27	42
DML 414/414s	80	75	130	70	80	74	32	23	35	42
DML 415/415s	80	75	130	70	80	74	53	37	58	42
DML 417s	80	75	130	70	80	74	91	65	100	35
DML 419s	80	75	130	70	80	74	91	65	100	30
DML 604s	113	107	185	101	114	97	27	20	31	42
DML 607s	113	107	185	101	114	97	75	54	82	35
DML 609s	113	107	185	101	114	97	87	64	95	30
DML 757s	160	150	260	140	160	148	82	60	90	35
DML 759s	160	150	260	140	160	148	94	68	102	30

[1]) Drying capacity is based on following moisture content test standards before and after drying:
R134a:
From 1050 ppm W to 75 ppm W.
If drying to 50 ppm W is required, reduce stated capacities by 15%.
R404A, R507:
From 1020 ppm W to 30 ppm W.
R407C:
From 1020 ppm W to 30 ppm W.
R410A:
From 1050 ppm W to 60 ppm W.
R22:
From 1050 ppm W to 60 ppm W in accordance with ARI 710-86.
R12:
From 565 ppm W to 15 ppm W in accordance with ARI 710-86.
R502:
From 1020 ppm W to 30 ppm W in accordance with ARI 710-86.

[2]) Given in accordance with ARI 710-86 for t_e = –15°C (5°F), t_c = 30°C (85°F) and Δp = 0.07 bar (1 psig).

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Technical data and capacities

DCL

Drying and liquid capacity - Type DCL

R134a, R507, R404A, R407C, R410A

Type	Drying capacity [kg refrigerant] [1]						Liquid capacity [kW] [2]			Max Working Pressure PS [bar]
	R134a		R404A R507		R407C R410A		R134a	R404A R507	R407C R410A	
	24°C	52°C	24°C	52°C	24°C	52°C				
DCL 032/032s	4.5	4	7	3.5	4	3.5	7	5	7	42
DCL 032.5s	4.5	4	7	3.5	4	3.5	9	7	10	42
DCL 033/033s	4.5	4	7	3.5	4	3.5	17	13	19	42
DCL 052/052s	6.5	6	10	5.5	6	5.5	7	5	8	42
DCL 052.5s	6.5	6	10	5.5	6	5.5	9	7	10	42
DCL 053/053s	6.5	6	10	5.5	6	5.5	18	14	19	42
DCL 082/082s	10	9	16	8	9.5	9	7	5	8	42
DCL 082.5s	10	9	16	8	9.5	9	10	8	11	42
DCL 083/083s	10	9	16	8	9.5	9	19	14	21	42
DCL 084/084s	10	9	16	8	9.5	9	26	20	29	42
DCL 162/162s	24	22	37	20	22	20	7	5	8	42
DCL 162.5s	24	22	37	20	22	20	10	8	11	42
DCL 163/163s	24	22	37	20	22	20	22	16	24	42
DCL 164/164s	24	22	37	20	22	20	30	22	33	42
DCL 165/165s	24	22	37	20	22	20	43	30	47	42
DCL 166/166s	24	22	37	20	22	20	43	30	47	35
DCL 167s	24	22	37	20	22	20	43	30	47	35
DCL 303/303s	47	44	77	41	44	41	21	15	23	42
DCL 304/304s	47	44	77	41	44	41	31	22	34	42
DCL 305/305s	47	44	77	41	44	41	45	33	49	42
DCL 306/306s	47	44	77	41	44	41	62	45	68	35
DCL 307s	47	44	77	41	44	41	62	45	68	35
DCL 309s	47	44	77	41	44	41	62	45	68	30
DCL 413	65	61	106	56	61	56	25	18	27	42
DCL 414/414s	65	61	106	56	61	56	32	23	35	42
DCL 415/415s	65	61	106	56	61	56	53	37	58	42
DCL 417s	65	61	106	56	61	56	91	65	100	35
DCL 419s	65	61	106	56	61	56	91	65	100	30
DCL 604s	94	76	150	82	89	82	27	20	31	42
DCL 607s	94	76	150	82	89	82	75	54	82	35
DCL 609s	94	76	150	82	89	82	87	64	92	30
DCL 757s	130	128	212	114	121	112	82	60	90	35
DCL 759s	130	128	212	114	121	112	94	68	102	30

[1] Drying capacity is based on following moisture content test standards before and after drying:
R134a:
From 1050 ppm W to 75 ppm W.
If drying to 50 ppm W is required, reduce stated capacities by 15%.
R404A, R507:
From 1020 ppm W to 30 ppm W.
R407C:
From 1020 ppm W to 30 ppm W.
R410A:
From 1050 ppm W to 60 ppm W.
R22:
From 1050 ppm W to 60 ppm W in accordance with ARI 710-86.
R12:
From 565 ppm W to 15 ppm W in accordance with ARI 710-86.
R502:
From 1020 ppm W to 30 ppm W in accordance with ARI 710-86.

[2] Given in accordance with ARI 710-86 for
t_e = −15°C (5°F),
t_c = 30°C (85°F) and
Δp = 0.07 bar (1 psig).

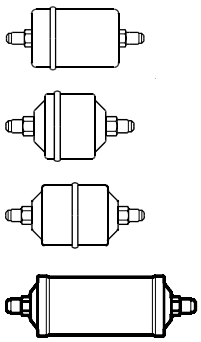
R22, R12, R502

Type	Drying capacity [kg refrigerant] [1]						Liquid capacity [kW] [2]			Max Working Pressure PS [bar]
	R22		R12		R502		R22	R12	R502	
	24°C	52°C	24°C	52°C	24°C	52°C				
DCL 032/032s	4	3.5	15	15	7	3.5	7	6	5	42
DCL 032.5s	4	3.5	15	15	7	3.5	10	8	7	42
DCL 033/033s	4	3.5	15	15	7	3.5	19	14	13	42
DCL 052/052s	5.5	5	20	20	10	5	8	6	5	42
DCL 052.5s	5.5	5	20	20	10	5	10	8	8	42
DCL 053/053s	5.5	5	20	20	10	5	19	15	14	42
DCL 082/082s	9	8	30	30	15	8	8	6	5	42
DCL 082.5s	9	8	30	30	15	8	10	8	8	42
DCL 083/083s	9	8	30	30	15	8	21	15	14	42
DCL 084/084s	9	8	30	30	15	8	29	22	20	42
DCL 162/162s	20	19	70	70	35	18	8	6	5	42
DCL 162.5s	20	19	70	70	35	18	13	10	9	42
DCL 163/163s	20	19	70	70	35	18	24	18	16	42
DCL 164/164s	20	19	70	70	35	18	33	24	22	42
DCL 165/165s	20	19	70	70	35	18	47	35	30	42
DCL 166/166s	20	19	70	70	35	18	47	35	30	35
DCL 167s	20	19	70	70	35	18	47	35	30	35
DCL 303/303s	42	41	140	140	75	37.5	23	17	15	42
DCL 304/304s	42	41	140	140	75	37.5	34	25	22	42
DCL 305/305s	42	41	140	140	75	37.5	49	37	33	42
DCL 306/306s	42	41	140	140	75	37.5	68	51	45	35
DCL 307s	42	41	140	140	75	37.5	68	51	45	35
DCL 309s	42	41	140	140	75	37.5	68	51	45	30
DCL 413	59	56	200	200	100	50	26	20	18	42
DCL 414/414s	59	56	200	200	100	50	35	26	23	42
DCL 415/415s	59	56	200	200	100	50	58	43	37	42
DCL 417s	59	56	200	200	100	50	100	74	65	35
DCL 419s	59	56	200	200	100	50	100	74	65	30
DCL 604s	84	80	250	250	150	75	29	22	19	42
DCL 607s	84	80	250	250	150	75	83	63	54	35
DCL 609s	84	80	250	250	150	75	97	73	63	30
DCL 757s	120	110	300	300	200	100	91	69	59	35
DCL 759s	120	110	300	300	200	100	104	79	68	30

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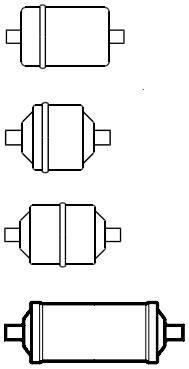


Flare

DCL

Type	Conn.		Multipack	Industrialpack	
	in.	mm	**Code no.**	**Code no.**	Qty.
DCL 032	1/4	6	**023Z5000***		
DCL 032	1/4	6	**023Z5075**	**023Z8075**	28
DCL 033	3/8	10	**023Z5001***		
DCL 033	3/8	10	**023Z5089**	**023Z8089**	
DCL 052	1/4	6	**023Z5002**	**023Z8002**	16
DCL 053	3/8	10	**023Z5003**	**023Z8003**	
DCL 082	1/4	6	**023Z5004**	**023Z8004**	
DCL 083	3/8	10	**023Z5005**	**023Z8005**	16
DCL 084	1/2	12	**023Z5006**	**023Z8006**	
DCL 162	1/4	6	**023Z5007**	**023Z8007**	
DCL 163	3/8	10	**023Z5008**	**023Z8008**	
DCL 164	1/2	12	**023Z5009**	**023Z8009**	12
DCL 165	5/8	16	**023Z5010**	**023Z8010**	
DCL 166	3/4	19	**023Z5011**		
DCL 303	3/8	10	**023Z0012**		
DCL 304	1/2	12	**023Z0013**	**023Z3013**	8
DCL 305	5/8	16	**023Z0014**	**023Z3014**	
DCL 306	3/4	19	**023Z0156**	**023Z3156**	
DCL 413	3/8	10	**023Z0101**		
DCL 414	1/2	12	**023Z0102**		
DCL 415	5/8	16	**023Z0103**		

* Wire mesh in filter drier outlet



Solder (copper)

DCL

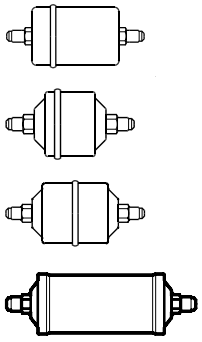
Type	Conn.	Multipack	Industrialpack		Conn.	Multipack	Industrialpack	
	in.	**Code no.**	**Code no.**	Qty.	mm	**Code no.**	**Code no.**	Qty.
DCL 032s	1/4	**023Z5013***	**023Z8013***		6	**023Z5012***	**023Z8012***	
DCL 032.5s	5/16	**023Z5014**	**023Z8014***	28	8	**023Z5014**	**023Z8014***	28
DCL 033s	3/8	**023Z5015**			10	**023Z5016**		
DCL 052s	1/4	**023Z5018**	**023Z8018**		6	**023Z5017**	**023Z8017**	
DCL 052.5s	5/16	**023Z5114**		16	8	**023Z5114**		16
DCL 053s	3/8	**023Z5019**	**023Z8019**		10	**023Z5020**	**023Z8020**	
DCL 082s	1/4	**023Z5022**	**023Z8022**		6	**023Z5021**		
DCL 082.5s	5/16	**023Z5116**		16	8	**023Z5116**		16
DCL 083s	3/8	**023Z5023**	**023Z8023**		10	**023Z5024**		
DCL 084s	1/2	**023Z5026**	**023Z8026**		12	**023Z5025**	**023Z8025**	
DCL 162s	1/4	**023Z5028**			6	**023Z5027**		
DCL 162.5s	5/16	**023Z5118**			8	**023Z5118**		
DCL 163s	3/8	**023Z5029**			10	**023Z5030**	**023Z8030**	
DCL 164s	1/2	**023Z5032**	**023Z8032**	12	12	**023Z5031**		12
DCL 165s	5/8	**023Z5033**	**023Z8033**		16	**023Z5033**	**023Z8033**	
DCL 166s	3/4	**023Z5070**			19	**023Z5070**		
DCL 167s	7/8	**023Z5034**			22	**023Z5034**		
DCL 303s	3/8	**023Z0030**	**023Z3030**		10	**023Z0196**		
DCL 304s	1/2	**023Z0031**			12	**023Z0198**	**023Z3198**	
DCL 305s	5/8	**023Z0032**	**023Z3032**	8	16	**023Z0032**	**023Z3032**	8
DCL 306s	3/4	**023Z0033**			18	**023Z0216**		
DCL 307s	7/8	**023Z0034**	**023Z3034**		22	**023Z0034**	**023Z3034**	
DCL 309s	1 1/8	**023Z0035**			28	**023Z0200**		
DCL 414s	1/2	**023Z0104**			12	**023Z0227**		
DCL 415s	5/8	**023Z0105**			16	**023Z0105**		
DCL 417s	7/8	**023Z0106**			22	**023Z0106**		
DCL 419s	1 1/8	**023Z0107**			28	**023Z0202**		
DCL 604s	1/2	**023Z0241**			12	**023Z0221**		
DCL 607s	7/8	**023Z0036**			22	**023Z0036**		
DCL 609s	1 1/8	**023Z0037**			28	**023Z0204**		
DCL 757s	7/8	**023Z0115**			22	**023Z0115**		
DCL 759s	1 1/8	**023Z0116**			28	**023Z0206**		

* Wire mesh in filter drier outlet

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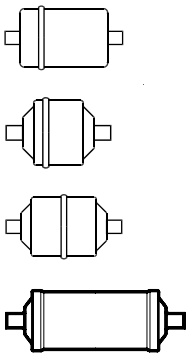


Flare

DML

Type	Conn.		Multipack	Industrialpack	
	in.	mm	**Code no.**	**Code no.**	Qty.
DML 032	1/4	6	**023Z5035***	**023Z8035***	
DML 033	3/8	10	**023Z5036***	**023Z8036***	28
DML 033	3/8	10	**023Z5090**	**023Z8090**	
DML 052	1/4	6	**023Z5037**	**023Z8037**	16
DML 053	3/8	10	**023Z5038**	**023Z8038**	
DML 082	1/4	6	**023Z5039**	**023Z8039**	
DML 083	3/8	10	**023Z5040**	**023Z8040**	16
DML 084	1/2	12	**023Z5041**	**023Z8041**	
DML 085	5/8	16	**023Z5073**	**023Z8073**	
DML 162	1/4	6	**023Z5042**	**023Z8042**	
DML 163	3/8	10	**023Z5043**	**023Z8043**	
DML 164	1/2	12	**023Z5044**	**023Z8044**	12
DML 165	5/8	16	**023Z5045**	**023Z8045**	
DML 166	3/4	19	**023Z5046**	**023Z8046**	
DML 303	3/8	10	**023Z0049**	**023Z3049**	
DML 304	1/2	12	**023Z0050**	**023Z3050**	8
DML 305	5/8	16	**023Z0051**	**023Z3051**	
DML 306	3/4	19	**023Z0193**	**023Z3193**	
DML 413	3/8	10	**023Z0108**	**023Z3108**	
DML 414	1/2	12	**023Z0109**	**023Z3109**	6
DML 415	5/8	16	**023Z0110**	**023Z3110**	

* Wire mesh in filter drier outlet



Solder (copper)

DML

Type	Conn.	Multipack	Industrialpack		Conn.	Multipack	Industrialpack	
	in.	**Code no.**	**Code no.**	Qty.	mm	**Code no.**	**Code no.**	Qty.
DML 032s	1/4	**023Z5048***	**023Z8048***		6	**023Z5047***	**023Z8047***	
DML 032.5s	5/16	**023Z5049**	**023Z8049**	28	8	**023Z5049**	**023Z8049**	28
DML 033s	3/8	**023Z5050**	**023Z8050***		10	**023Z5051**	**023Z8051***	
DML 034s	1/2	**023Z5121**			12	**023Z5123**		
DML 052s	1/4	**023Z5053**			6	**023Z5052**	**023Z8052**	
DML 052.5s	5/16	**023Z5115**			8	**023Z5115**		
DML 053s	3/8	**023Z5054**	**023Z8054**	16	10	**023Z5055**	**023Z8055**	16
DML 054s	1/2	**023Z5101**			12	**023Z5099**		
DML 055s	5/8	**023Z5100**			16	**023Z5100**		
DML 082s	1/4	**023Z5057**			6	**023Z5056**		
DML 082.5s	5/16	**023Z5117**			8	**023Z5117**		
DML 083s	3/8	**023Z5058**		16	10	**023Z5059**		
DML 084s	1/2	**023Z5061**	**023Z8061**		12	**023Z5060**		
DML 085s	5/8	**023Z5072**			16	**023Z5072**		
DML 162s	1/4	**023Z5063**	**023Z8133**		6	**023Z5062**		
DML 162.5s	5/16	**023Z5119**			8	**023Z5119**		
DML 163s	3/8	**023Z5064**	**023Z8134**		10	**023Z5065**		
DML 164s	1/2	**023Z5067**	**023Z8067**	12	12	**023Z5066**		12
DML 165s	5/8	**023Z5068**	**023Z8068**		16	**023Z5068**	**023Z8068**	
DML 166s	3/4	**023Z5071**	**023Z8071**		19	**023Z5071**	**023Z8071**	
DML 167s	7/8	**023Z5069**			22	**023Z5069**		
DML 303s	3/8	**023Z0067**			10	**023Z0197**		
DML 304s	1/2	**023Z0068**			12	**023Z0199**		
DML 305s	5/8	**023Z0069**	**023Z3069**	8	16	**023Z0069**	**023Z3069**	8
DML 306s	3/4	**023Z0070**			19	**023Z0070**		
DML 307s	7/8	**023Z0071**	**023Z3071**		22	**023Z0071**	**023Z3071**	
DML 309s	1 1/8	**023Z0072**			28	**023Z0201**		
DML 414s	1/2	**023Z0111**			12	**023Z0228**		
DML 415s	5/8	**023Z0112**		6	16	**023Z0112**		6
DML 417s	7/8	**023Z0113**	**023Z3113**		22	**023Z0113**	**023Z3113**	
DML 419s	1 1/8	**023Z0114**	**023Z3114**		28	**023Z0203**		
DML 604s	1/2	**023Z0224**			12	**023Z0229**		
DML 607s	7/8	**023Z0073**			22	**023Z0073**		
DML 609s	1 1/8	**023Z0074**			28	**023Z0205**		
DML 757s	7/8	**023Z0117**	**023Z3117**	4	22	**023Z0117**	**023Z3117**	4
DML 759s	1 1/8	**023Z0118**	**023Z3118**		28	**023Z0207**		

* Wire mesh in filter drier outlet

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Identification

Example for type codes

D	C	L	05	3	s

Type codes

Filter drier	**D**	
Solid core	**C**	80 / 20% composite core
	M	100% Molecular Sieve core
Application	**L**	Liquid line
Size (volume)	**03**	3 in³
	05	5 in³
	08	8 in³
	16	16 in³
	30	30 in³
	41	41 in³
	60	60 in³
	75	75 in³
Connection (filter connection in 1/8 of an inch increments)	**2**	1/4 in. / 6mm
	2.5	5/16 in. / 8 mm
	3	3/8 in. / 10 mm
	4	1/2 in. / 12 mm
	5	5/8 in. / 16 mm
	6	3/4 in. / 18 (19) mm
	7	7/8 in. / 22 mm
	9	1 1/8 in. / 28 mm
Connection type	**(blank)**	Flare connection
	s	Solder connection

Selection

Type selection is made considering the application

		DCL	DML
Refrigerant	HFC	Can be used	Recommended
	HCFC	Recommended	Can be used
	CFC	Recommended	Not recommended [1]
Oil	Mineral or AB	Recommended	Can be used
	POE or PAG, pure	Can be used	Recommended
	POE or PAG, with additives	Not recommended [2]	Recommended

[1] For CFC systems, DCL filter driers are recommended. In these systems, circumstances may require the use of a filter drier with acid adsorbing properties.

[2] Use of filter driers containing activated alumina are not recommended in systems with oils containing additives.

Selection example SI-units

Select the appropriate type (DML or DCL) based on refrigerant and oil type. Then select the drier size based on the adsorption and liquid capacity required.

a. Amount of charge: 25 kg R134a at t_L = 24°C To dry 25 kg R134a at 24°C from 1050 to 60 ppm moisture, a DML 16 is necessary.

b. Cooling capacity: Q_e = 20 kW
To obtain a mass flow corresponding to 20 kW cooling capacity with a DML 16 filter drier, a 3/8 inch connection must be chosen. Larger connections can be chosen in accordance with the liquid line dimension.

c. Result
DML 163 or DML 163s can be used.

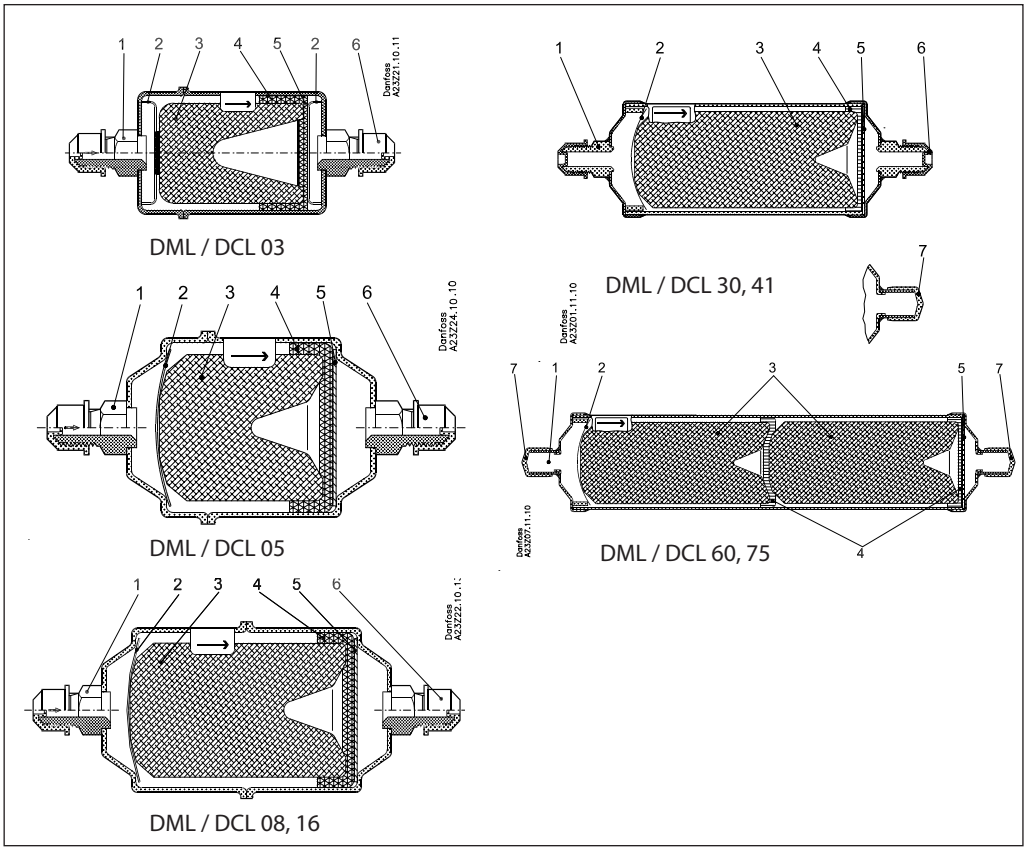
If the initial moisture content is very small or a planned change of the filter drier is considered, a smaller filter drier size can be chosen.

Type	Drying capacity [kg refrigerant] [1]						Liquid capacity [kW] [2]			Max Working Pressure PS [bar]
	R134a		R404A R507		R22, R407C R410A		R134a	R404A R507	R22 R407C R410A	
	24°C	52°C	24°C	52°C	24°C	52°C				
DML 032/032s	5.5	5	7.5	4.5	4.5	4	7	5	7	42
DML 032.5s	5.5	5	7.5	4.5	4.5	4	9	7	10	42
DML				4.5	4.5	4	17			
DML 162/162s	27	25.5						5	8	
DML 162.5s	27	25.5	43.5	24	27	23	10	8	11	42
DML 163/163s	27	25.5	43.5	24	27	23	22	16	24	42
DML 164/164s	27	25.5	43.5	24	27	23	30	22	33	42
DML 165/165s	27	25.5	43.5	24	27	23	43	30	47	42
DML 166/166				24	27	23	44	31		35
DML					27	23	44			

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Design and function



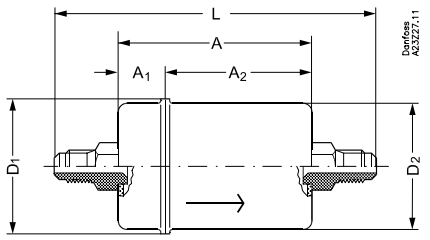
1. Inlet
2. Spring
3. Solid core
4. Polyester mat
5. Perforated plate
6. Seal cap, flare connection
7. Seal cap, solder connection

The relatively large diameter of the filter drier means that the liquid flow velocity is suitably low and the pressure drop minimal.

Powder formation is eliminated because the solid core grains are bonded and cannot move against each other.

Dimensions and weights

Flare connections

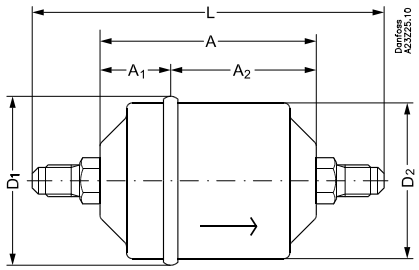


Type		A	A_1	A_2	L	D_1	D_2	Weight
DCL/DML 032	mm	66	16	50	110	46	43	0.20 kg
DCL/DML 033	mm	66	16	50	123	46	43	0.23 kg

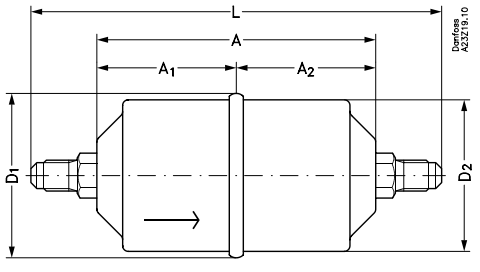
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Dimensions and weights *(cont.)*

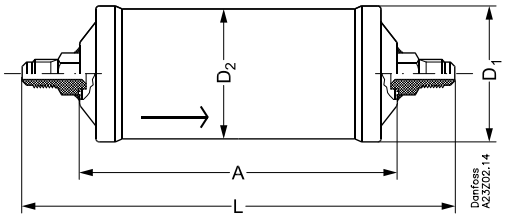
Flare connections



Type		A	A_1	A_2	L	D_1	D_2	Weight
DCL/DML 052	mm	75	24.5	50.5	119	58	54	0.39 kg
DCL/DML 053	mm	75	24.5	50.5	132	58	54	0.42 kg



Type		A	A_1	A_2	L	D_1	D_2	Weight
DCL/DML 082	mm	101	50.5	50.5	145	58	54	0.40 kg
DCL/DML 083	mm	101	50.5	50.5	158	58	54	0.44 kg
DCL/DML 084	mm	101	50.5	50.5	166	58	54	0.48 kg
DML 085	mm	101	50.5	50.5	175	58	54	0.52 kg
DCL/DML 162	mm	110	55	55	154	80	76	0.79 kg
DCL/DML 163	mm	110	55	55	167	80	76	0.82 kg
DCL/DML 164	mm	110	55	55	175	80	76	0.87 kg
DCL/DML 165	mm	110	55	55	184	80	76	0.91 kg
DCL/DML 166	mm	110	55	55	182	80	76	0.99 kg



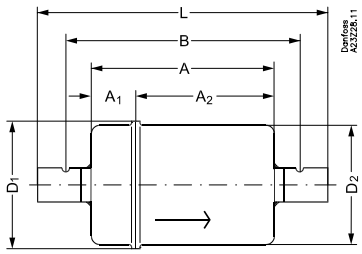
Type		A	A_1	A_2	L	D_1	D_2	Weight
DCL/DML 303	mm	186	-	-	243	80	76	1.33 kg
DCL/DML 304	mm	186	-	-	251	80	76	1.38 kg
DCL/DML 305	mm	186	-	-	260	80	76	1.42 kg
DCL/DML 306	mm	186	-	-	258	80	76	1.49 kg
DCL/DML 413	mm	187	-	-	244	93	89	1.86 kg
DCL/DML 414	mm	187	-	-	252	93	89	1.91 kg
DCL/DML 415	mm	187	-	-	261	93	89	1.95 kg

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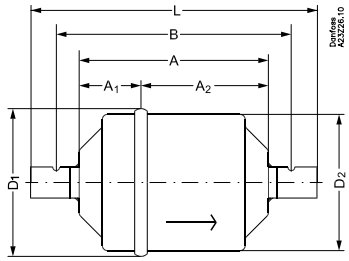
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Dimensions and weights
(cont.)

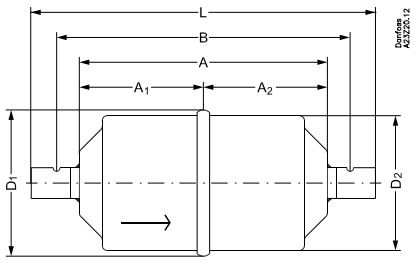
Solder connections



Type		A	A_1	A_2	B	L	D_1	D_2	Weight
DCL/DML 032s	mm	66	16	50	82	98	46	43	0.18 kg
DCL/DML 032.5s	mm	66	16	50	84	102	46	43	0.19 kg
DCL/DML 033s	mm	66	16	50	85	104	46	43	0.19 kg
DCL/DML 034s	mm	66	16	50	87	108	46	43	0.20 kg



Type		A	A_1	A_2	B	L	D_1	D_2	Weight
DCL/DML 052s	mm	75	24.5	50.5	91	107	58	54	0.37 kg
DCL/DML 052.5s	mm	75	24.5	50.5	93	111	58	54	0.38 kg
DCL/DML 053s	mm	75	24.5	50.5	94	113	58	54	0.38 kg
DML 054s	mm	75	24.5	50.5	96	117	58	54	0.39 kg
DML 055s	mm	75	24.5	50.5	99	123	58	54	0.40 kg



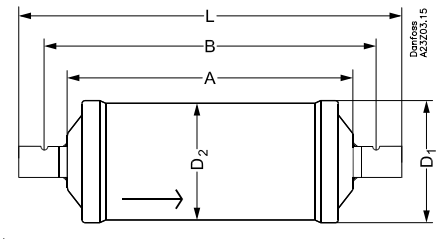
Type		A	A_1	A_2	B	L	D_1	D_2	Weight
DCL/DML 082s	mm	101	50.5	50.5	117	133	58	54	0.38 kg
DCL/DML 082.5s	mm	101	50.5	50.5	119	137	58	54	0.39 kg
DCL/DML 083s	mm	101	50.5	50.5	120	139	58	54	0.39 kg
DCL/DML 084s	mm	101	50.5	50.5	122	143	58	54	0.40 kg
DML 085s	mm	101	50.5	50.5	125	149	58	54	0.41 kg
DCL/DML 162s	mm	110	55	55	126	142	80	76	0.77 kg
DCL/DML 162.5s	mm	110	55	55	128	146	80	76	0.78 kg
DCL/DML 163s	mm	110	55	55	129	148	80	76	0.78 kg
DCL/DML 164s	mm	110	55	55	131	152	80	76	0.79 kg
DCL/DML 165s	mm	110	55	55	134	158	80	76	0.80 kg
DCL/DML 166s	mm	110	55	55	140	170	80	76	0.82 kg
DCL/DML 167s	mm	110	55	55	136	172	80	76	0.84 kg

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Dimensions and weights *(cont.)*

Solder connections



Type		A	A_1	A_2	B	L	D_1	D_2	Weight
DCL/DML 303s	mm	186	-	-	205	224	80	76	1.29 kg
DCL/DML 304s	mm	186	-	-	207	228	80	76	1.30 kg
DCL/DML 305s	mm	186	-	-	210	234	80	76	1.31 kg
DCL/DML 306s	mm	186	-	-	216	246	80	76	1.33 kg
DCL/DML 307s	mm	186	-	-	212	248	80	76	1.35 kg
DCL/DML 309s	mm	186	-	-	207	249	80	76	1.36 kg
DCL/DML 414s	mm	187	-	-	208	229	93	89	2.03 kg
DCL/DML 415s	mm	187	-	-	211	235	93	89	2.04 kg
DCL/DML 417s	mm	187	-	-	213	249	93	89	2.08 kg
DCL/DML 419s	mm	187	-	-	208	250	93	89	2.09 kg
DCL/DML 604s	mm	337	-	-	358	379	80	76	2.34 kg
DCL/DML 607s	mm	337	-	-	363	399	80	76	2.39 kg
DCL/DML 609s	mm	337	-	-	358	400	80	76	2.40 kg
DCL/DML 757s	mm	338	-	-	364	400	93	89	3.38 kg
DCL/DML 759s	mm	338	-	-	359	401	93	89	3.39 kg

Conversions

$$\text{Drops of water} = \frac{(\text{kg of refrigerant} \times (\text{Initial PPM of water} - \text{Final PPM of water}))}{50}$$

See ARI standard 710-86 for recommended initial and final PPM values for different refrigerants.

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