



Hermetic filter drier

DML/DMLE and DCL/DCLE

For uniflow liquid line

Description

All ELIMINATOR[®] driers have a solid core with binding material held to an absolute minimum.

There are two types of ELIMINATOR[®] cores. Type DML/DMLE driers have a core composition of 100% molecular sieve, while type DCL/DCLE contain 80% molecular sieve with 20% activated alumina.

ELIMINATOR[®] type DML/DMLE driers are designed for applications requiring the highest moisture capacity.

ELIMINATOR[®] type DML/DMLE driers are designed for applications requiring moisture capacity and acid adsorption capacity.

Available with solder pure copper and cu-plated steel connectors and flare connections.

Features & benefits

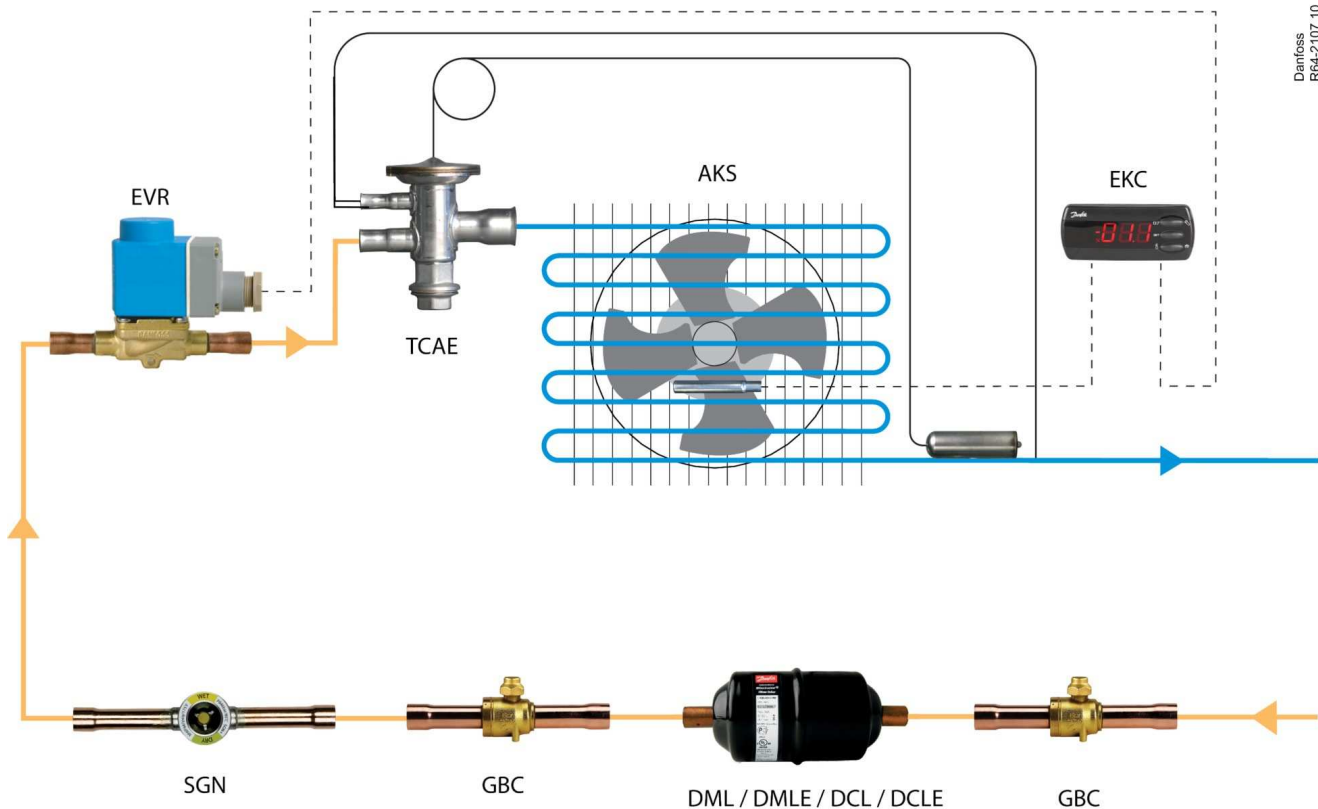
- The core type DML/DMLE is 100% molecular sieve core
 - High drying capacity minimizing the risk of acid formation (hydrolysis)
- The core type DCL/DCLE is 80% molecular sieve with 20% activated alumina
 - Perfect core blend for systems that operate at high condensing temperatures and require drying capacity and acid adsorption
- The shell is available with solder (cu-plated steel connectors) and flare connections
 - Corrosion resistant powder-painted finish. Special coating for marine applications available upon request
 - Allows installation with any orientation provided the arrow is in the flow direction
 - Available in sizes 1.5 – 75 cubic inches
- The filter is 25 µm (0.001 in.) filter provides high retention with minimal pressure drop
 - Thermally stable up to 120 °C

Applications

Intro-diagram

ELIMINATOR® Hermetic 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.

Figure: Application



DML/DMLE filter drier

Recommended for use with R23, R32, R134a, R290, R404A, R407C, R407f, R410A, R444B, R448A, R449A, R450A, R452A, R600, R600a, R1234yf and R1234ze refrigerants. Will not deplete oil additives.

DCL/DCLE filter drier

Recommended for use with R23, R32, R134a, R290, R404A, R407C, R407f, R410A, R444B, R448A, R449A, R450A, R452A, R600, R600a, R1234yf and R1234ze refrigerants.

Ordering

Product code numbers

Type DCL flare

Figure: DCL flare

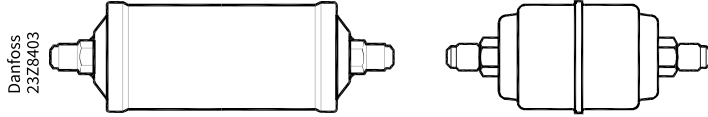


Table: DCL flare

Type	Connection size		Multi pack		Industrial pack for OEM only	
	[in.]	[mm]	Code no.	Qty.	Code no.	Qty.
DCL 032	1/4	6	023Z5000 ⁽¹⁾⁽²⁾	32	–	–
DCL 032	1/4	6	023Z5075 ⁽²⁾	32	–	–
DCL 033	3/8	10	023Z5001 ⁽¹⁾⁽²⁾	32	–	–
DCL 033	3/8	10	023Z5089 ⁽²⁾	32	–	–
DCL 052	1/4	6	023Z5002 ⁽²⁾	24	023Z8002 ⁽²⁾	16
DCL 053	3/8	10	023Z5003 ⁽²⁾	24	023Z8003 ⁽²⁾	16
DCL 082	1/4	6	023Z5004 ⁽²⁾	24	023Z8004 ⁽²⁾	16
DCL 083	3/8	10	023Z5005 ⁽²⁾	24	023Z8005 ⁽²⁾	16
DCL 084	1/2	12	023Z5006 ⁽²⁾	24	–	–
DCL 162	1/4	6	023Z5007 ⁽²⁾	12	023Z8007 ⁽²⁾	12
DCL 163	3/8	10	023Z5008 ⁽²⁾	12	023Z8008 ⁽²⁾	12
DCL 164	1/2	12	023Z5009 ⁽²⁾	12	023Z8009 ⁽²⁾	12
DCL 165	5/8	16	023Z5010 ⁽²⁾	12	023Z8010 ⁽²⁾	12
DCL 166	3/4	19	023Z5011 ⁽²⁾	12	–	–
DCL 303	3/8	10	023Z0012	8	–	–
DCL 304	1/2	12	023Z0013	8	023Z3013	8
DCL 305	5/8	16	023Z0014	8	023Z3014	8
DCL 306	3/4	19	023Z0156	8	–	–
DCL 414	3/4	19	023Z0102	8	–	–
DCL 415	5/8	16	023Z0103	8	–	–

⁽¹⁾ Wire mesh in filter drier outlet

⁽²⁾ India make is available with code 023ZXXXX91

Type DML flare

Figure: DML flare

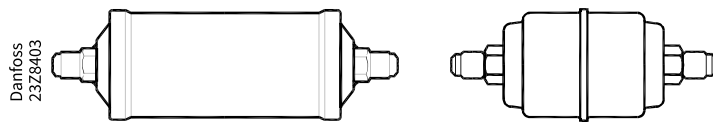


Table: DML flare

Type	Connection size		Multi pack		Industrial pack for OEM only	
	[in.]	[mm]	Code no.	Qty.	Code no.	Qty.
DML 032	1/4	6	023Z5035 ⁽¹⁾⁽²⁾	32	023Z8035 ⁽¹⁾⁽²⁾	28
DML 033	3/8	10	023Z5036 ⁽¹⁾⁽²⁾	32	023Z8036 ⁽¹⁾	28
DML 033	3/8	12	023Z5090 ⁽²⁾	32	–	–
DML 052	1/4	6	023Z5037 ⁽²⁾	24	023Z8037 ⁽²⁾	16
DML 053	3/8	10	023Z5038 ⁽²⁾	24	023Z8038 ⁽²⁾	16
DML 082	1/4	6	023Z5039 ⁽²⁾	24	023Z8039 ⁽²⁾	16
DML 083	3/8	10	023Z5040 ⁽²⁾	24	023Z8040 ⁽²⁾	16
DML 084	1/2	12	023Z5041 ⁽²⁾	24	023Z8041 ⁽²⁾	16
DML 085	5/8	16	023Z5073 ⁽²⁾	24	–	–
DML 162	1/4	6	023Z5042 ⁽²⁾	12	023Z8042 ⁽²⁾	12
DML 163	3/8	10	023Z5043 ⁽²⁾	12	023Z8043 ⁽²⁾	12
DML 164	1/2	12	023Z5044 ⁽²⁾	12	023Z8044 ⁽²⁾	12
DML 165	5/8	16	023Z5045 ⁽²⁾	12	023Z8045 ⁽²⁾	12
DML 166	3/4	19	023Z5046 ⁽²⁾	12	–	–
DML 303	3/8	10	023Z0049	8	023Z3049	8
DML 304	1/2	12	023Z0050	8	023Z3050	8
DML 305	5/8	16	023Z0051	8	023Z3051	8
DML 306	3/4	19	023Z0193	8	023Z3193	8
DML 385	5/8	16	023Z0189	8	–	–
DML 413	3/8	10	023Z0108	8	–	–
DML 414	1/2	12	023Z0109	8	–	–
DML 415	5/8	16	023Z0110	8	023Z3110	6
DML 416	3/4	19	023Z0195	8	023Z0210	6

⁽¹⁾ Wire mesh in filter drier outlet

⁽²⁾ India make is available with code 023ZXXXX91

Type DCL solder (cu-plated steel connectors)

Figure: DCL solder

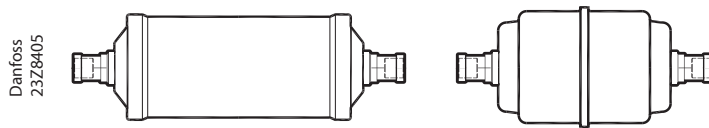


Table: DCL solder

Type	Conn. Size	Multi pack		Industrial pack for OEM only		Conn. size	Multi pack		Industrial pack for OEM only	
	[In.]	Code no.	Qty.	Code no.	Qty.	[mm]	Code no.	Qty.	Code no.	Qty.
DCL 032s	1/4	023Z4501 ⁽¹⁾	32	023Z4800 ⁽¹⁾	28	6	023Z4500 ⁽¹⁾	32	023Z4800 ⁽¹⁾	28
DCL 032.5s	5/16	023Z4502 ⁽¹⁾	32	023Z4803 ⁽¹⁾	28	8	-	-	-	-
DCL 033s	3/8	023Z4504 ⁽¹⁾	32	-	-	10	023Z4503 ⁽¹⁾	32	-	-
DCL 052s	1/4	023Z4506 ⁽¹⁾	24	023Z4805 ⁽²⁾	16	6	023Z4505 ⁽¹⁾	24	023Z4804 ⁽¹⁾	16
DCL 052s	5/16	023Z4507 ⁽¹⁾	24	-	-	10	-	-	-	-
DCL 053s	3/8	023Z4509 ⁽¹⁾	24	023Z4807 ⁽¹⁾	16	10	023Z4508 ⁽¹⁾	24	-	-
DCL 082s	1/4	023Z4511 ⁽¹⁾	24	-	-	6	023Z4510 ⁽¹⁾	24	-	-
DCL 082s	5/16	023Z4512 ⁽¹⁾	28	-	-	6	-	-	-	-
DCL 083s	3/8	023Z4514 ⁽¹⁾	24	023Z4811 ⁽¹⁾	16	10	023Z4513 ⁽¹⁾	24	023Z4809 ⁽¹⁾	16
DCL 084s	1/2	023Z4516 ⁽¹⁾	24	023Z4813 ⁽¹⁾	16	12	023Z4515 ⁽¹⁾	24	-	-
DCL 162s	1/4	023Z4518 ⁽¹⁾	12	-	-	6	023Z4517 ⁽¹⁾	12	-	-
DCL 163s	3/8	023Z4521 ⁽¹⁾	12	-	-	10	023Z4519 ⁽¹⁾	12	023Z4814	12
DCL 164s	1/2	023Z4523 ⁽¹⁾	12	023Z4815 ⁽¹⁾	12	12	023Z4522 ⁽¹⁾	12	-	-
DCL 165s	5/8	023Z4524 ⁽¹⁾	12	023Z4816 ⁽¹⁾	12	12	-	-	-	-
DCL 166s	3/4	023Z4525 ⁽¹⁾	12	-	-	-	-	-	-	-
DCL 167s	7/8	023Z4526 ⁽¹⁾	12	-	-	-	-	-	-	-
DCL 303s	3/8	023Z4528	8	023Z4817	8	10	023Z4527	8	-	-
DCL 304s	1/2	023Z4530	8	-	-	12	023Z4529	8	-	-
DCL 305s	5/8	023Z4531	8	023Z4819	8	16	-	8	-	-
DCL 306s	3/4	023Z4533	8	-	-	18	023Z4532	8	-	-
DCL 307s	7/8	023Z4534	8	023Z4820	8	22	-	8	-	-
DCL 309s	11/8	023Z4536	8	-	-	28	023Z4535	8	-	-
DCL 414s	1/2	023Z4538	8	-	-	12	-	8	-	-
DCL 415s	5/8	023Z4539	8	-	-	16	-	8	-	-
DCL 417s	7/8	023Z4540	8	-	-	22	-	8	-	-
DCL 419s	11/8	023Z4542	8	-	-	28	023Z4541	8	-	-
DCL 604s	1/2	023Z4544	12	-	-	22	-	-	-	-
DCL 607s	7/8	023Z4545	6	-	-	22	-	-	-	-
DCL 609s	11/8	-	12	-	-	28	023Z4546	6	-	-
DCL 757s	7/8	023Z4548	12	-	-	22	-	-	-	-
DCL 759s	11/8	023Z4550	12	-	-	28	023Z4549	12	-	-

⁽¹⁾ India make is available with code 0237XXX91

Type DML solder (cu-plated steel connectors)

Figure: DML solder

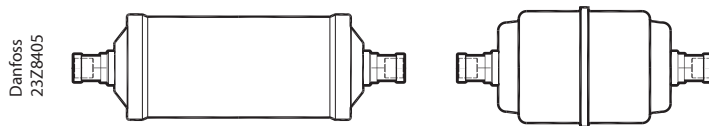


Table: DML Solder

Type	Conn. Size	Multi pack		Industrial pack for OEM only		Conn. size	Multi pack		Industrial pack for OEM only	
	[in]	Code no.	Qty.	Code no.	Qty.	[mm]	Code no.	Qty.	Code no.	Qty.
DML 032s	1/4	023Z4552 ⁽¹⁾	32	023Z4822 ⁽¹⁾	28	6	023Z4551 ⁽¹⁾	32	023Z4821 ⁽¹⁾	28
DML 032.5s	5/16	023Z4553 ⁽¹⁾	32	023Z4823 ⁽¹⁾	28	8	-	-	-	-
DML 033s	3/8	023Z4555 ⁽¹⁾	32	023Z4825 ⁽¹⁾	28	10	023Z4554 ⁽¹⁾	32	023Z4824 ⁽¹⁾	28
DML 034s	1/2	023Z4556 ⁽¹⁾	32	-	-	12	023Z4557	32	-	-
DML 052s	1/4	023Z4559 ⁽¹⁾	24	023Z4849 ⁽¹⁾	16	6	023Z4558 ⁽¹⁾	24	023Z4826 ⁽¹⁾	16
DML 052.5s	5/16	023Z4560 ⁽¹⁾	24	-	-	6	-	-	-	-
DML 053s	3/8	023Z4562 ⁽¹⁾	24	023Z4828 ⁽¹⁾	16	10	023Z4561	28	023Z4827 ⁽¹⁾	16
DML 054s	1/2	023Z4564 ⁽¹⁾	24	-	-	12	023Z4563 ⁽¹⁾	12	023Z4845 ⁽¹⁾	16
DML 055s	5/8	023Z4565 ⁽¹⁾	24	023Z4838 ⁽¹⁾	16	16	-	-	-	-
DML 082s	1/4	023Z4567 ⁽¹⁾	24	023Z4847 ⁽¹⁾	16	6	023Z4566 ⁽¹⁾	24	023Z4866 ⁽¹⁾	16
DML 083s	3/8	023Z4570 ⁽¹⁾	24	023Z4835 ⁽¹⁾	16	10	023Z4569	24	023Z4839 ⁽¹⁾	16
DML 084s	1/2	023Z4572 ⁽¹⁾	24	023Z4829 ⁽¹⁾	12	12	023Z4571 ⁽¹⁾	24	023Z4840 ⁽¹⁾	16
DML 085s	5/8	023Z4573 ⁽¹⁾	24	-	-	16	-	-	-	-
DML 162s	1/4	023Z4575 ⁽¹⁾	12	-	-	6	023Z4574 ⁽¹⁾	12	-	-
DML 163s	3/8	023Z4578 ⁽¹⁾	12	023Z4836 ⁽¹⁾	12	10	023Z4577 ⁽¹⁾	12	023Z4842 ⁽¹⁾	12
DML 164s	1/2	023Z4580 ⁽¹⁾	12	023Z4830 ⁽¹⁾	12	12	023Z4579 ⁽¹⁾	12	023Z4843 ⁽¹⁾	12
DML 165s	5/8	023Z4581 ⁽¹⁾	12	023Z4831 ⁽¹⁾	12	16	-	-	-	-
DML 166s	3/4	023Z4582 ⁽¹⁾	12	023Z4832 ⁽¹⁾	12	19	-	-	-	-
DML 167s	7/8	023Z4583 ⁽¹⁾	12	-	-	22	-	-	-	-
DML 303s	3/8	023Z4585	8	-	-	10	023Z4584	8	-	-
DML 304s	1/2	023Z4587	8	023Z4837	8	12	023Z4586	8	023Z4844	8
DML 305s	5/8	0023Z4588	8	023Z4833	8	16	-	-	-	-
DML 306s	3/4	023Z4589	8	023Z4848	8	19	-	-	-	-
DML 307s	7/8	023Z4590	8	023Z4834	8	22	-	-	-	-
DML 309s	11/8	023Z4592	8	-	-	28	023Z4591	8	-	-
DML 414s	1/2	023Z4594	8	-	-	12	023Z4593	8	-	-
DML 415s	5/8	023Z4595	8	-	-	16	-	-	-	-
DML 417s	7/8	023Z4596	8	023Z4896	6	22	-	-	-	-
DML 419s	11/8	023Z4598	8	023Z4898	6	28	023Z4597	8	-	-
DML 604s	1/2	023Z4600	12	-	-	12	023Z4599	12	-	-
DML 605s	1/2	-	-	-	-	18	023Z4601	6	-	-
DML 607s	7/8	023Z4602	6	023Z4902	-	22	-	-	-	-
DML 609s	11/8	023Z4604	12	-	-	28	023Z4603	12	-	-
DML 757s	7/8	023Z4605	12	023Z4905	4	22	-	-	-	-
DML 759s	11/8	023Z4607	12	023Z4907	4	28	023Z4606	12	-	-

⁽¹⁾ India make is available with code 0232XXX91

Type DCL solder (copper) connectors

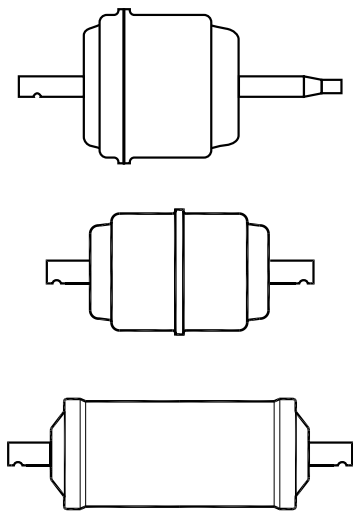


Table: Type DCL solder (copper)

Type	Conn.	Multi pack		Industrial pack for OEM only		Conn.	Multi pack	
	[in.]	Code no.	Qty.	Code no.	Qty.	[mm]	Code no.	Qty.
DCL 1.52X/L/2.8 mm s	1/4	–	–	023Z8252	36	–	–	–
DML 1.52X/2.8 mm	1/4	–	–	023Z8527	36	–	–	–
DCL 032s	1/4	023Z5013 ⁽¹⁾	32	023Z8013 ⁽¹⁾	28	3	–	–
DCL 032.5s	5/16	023Z5014	32	–	–	8	–	–
DCL 033s	3/8	023Z5015	32	–	–	10	023Z5016	32
DCL 052s	1/4	023Z5018	24	–	–	6	–	–
DCL 053s	3/8	023Z5019	24	023Z8011	16	10	023Z5020	24
DCL 082s	1/4	023Z5022	24	–	–	6	–	–
DCL 083s	3/8	023Z5023	24	023Z8023	16	10	023Z5024	24
DCL 084s	1/2	023Z5026	24	023Z8026	16	–	–	–
DCL 162s	1/4	023Z5028	12	–	–	–	–	–
DCL 163s	3/8	023Z5029	12	–	–	10	023Z5030	12
DCL 164s	1/2	023Z5032	12	023Z8032	12	12	023Z5031	12
DCL 165s	5/8	023Z5033	12	–	–	12	–	–
DCL 166s	3/4	023Z5070	12	–	–	–	–	–
DCL 167s	7/8	023Z5034	12	–	–	–	–	–
DCL 303s	3/8	023Z0030	8	–	–	10	–	–
DCL 304s	1/2	023Z0031	8	–	–	12	–	–
DCL 305s	5/8	023Z0032	8	023Z3032	8	16	–	–
DCL 306s	3/4	023Z0033	8	–	–	–	–	–
DCL 307s	7/8	023Z0034	8	–	–	22	–	–
DCL 309s	11/8	023Z0035	8	–	–	28	–	–
DCL 414s	1/2	023Z0104	8	–	–	12	–	–
DCL 415s	5/8	023Z0105	8	–	–	16	–	–
DCL 417s	7/8	023Z0106	8	–	–	22	–	–
DCL 419s	11/8	023Z0107	8	–	–	28	–	–
DCL 607s	7/8	023Z0036	12	–	–	22	–	–
DCL 609s	11/8	023Z0037	12	–	–	28	–	–
DCL 757s	7/8	023Z0115	12	–	–	22	–	–
DCL 759s	11/8	023Z0116	12	–	–	28	–	–

⁽¹⁾ Wire mesh in filter drier outlet

Type DML solder (copper)

Table: Type DML solder (copper)

Type	Conn.	Multi pack	Multi pack	Industrial pack for OEM only	Industrial pack for OEM only	Conn.	Multi pack	Multi pack	Industrial pack for OEM only	Industrial pack for OEM only
	[In.]	Code no.	Qty.	Code no.	Qty.	[mm]	Code no.	Qty.	Code no.	Qty.
DML 1.52s	1/4	–	–	023Z8253	36	–	–	–	–	–
DML 1.52x2/2s	1/4	–	–	023Z8250	36	–	–	–	–	–
DML 032s	1/4	023Z5048 ⁽¹⁾	32	023Z8048 ⁽¹⁾	28	6	–	–	023Z8047	28
DML 032.5s	5/16	023Z5049	32	–	–	8	–	–	–	–
DML 033s	3/8	023Z5050	32	–	–	10	023Z5051	32	–	–
DML 034s	3/8	023Z5121	32	–	–	12	–	–	–	–
DML 052s	1/4	023Z5053	24	–	–	6	–	–	–	–
DML 053s	3/8	023Z5054	24	023Z8054	16	10	023Z5055	24	023Z8055	16
DML 054s	1/2	023Z5101	24	–	–	–	–	–	–	–
DML 082s	1/4	023Z5057	24	–	–	6	–	–	–	–
DML 082.5s	5/16	023Z5117	24	–	–	8	–	–	–	–
DML 083s	3/8	023Z5058	24	–	–	10	023Z5059	24	–	–
DML 084s	1/2	023Z5061	24	–	–	12	023Z5060	24	–	–
DML 085s	5/8	023Z5072	24	–	–	16	–	–	–	–
DML 162s	1/4	023Z5063	12	–	–	6	–	–	–	–
DML 163s	3/8	023Z5064	12	–	–	10	023Z5065	12	–	–
DML 164s	1/2	023Z5067	12	023Z8067	12	12	023Z5066	12	–	–
DML 165s	5/8	023Z5068	12	023Z8068	12	16	–	–	–	–
DML 166s	3/4	023Z5071	12	–	–	19	–	–	–	–
DML 167s	7/8	023Z5069	12	–	–	22	–	–	–	–
DML 303s	3/8	023Z0067	8	–	–	10	–	–	–	–
DML 304s	1/2	023Z0068	8	–	–	12	–	–	–	–
DML 305s	5/8	023Z0069	8	–	–	16	–	–	–	–
DML 306s	3/4	023Z0070	8	–	–	19	–	–	–	–
DML 307s	7/8	023Z0071	8	–	–	22	–	–	–	–
DML 309s	11/8	023Z0072	8	–	–	28	–	–	–	–
DML 414s	1/2	023Z0111	8	–	–	12	–	–	–	–
DML 415s	5/8	023Z0112	8	–	–	16	–	–	–	–
DML 416s	3/4	–	–	–	–	19	–	–	–	–
DML 417s	7/8	023Z0113	8	–	–	22	–	–	–	–
DML 419s	11/8	023Z0114	8	023Z3114	6	28	–	–	–	–
DML 604s	1/2	–	–	–	–	12	–	–	–	–
DML 607s	7/8	023Z0073	12	–	–	22	–	–	–	–
DML 609s	1 1/8	023Z0074	12	–	–	28	–	–	–	–
DML 757s	7/8	023Z0117	12	–	–	22	–	–	–	–
DML 759s	11/8	023Z0118	12	–	–	28	–	–	–	–

Type DMLE/DCLE copper/cu-plated/flare

Type	Connector size	Multi pack		Industrial pack for OEM only	
	[in]	Code	Qty	Code	Qty
DMLE 032S	1/4	-	-	023Z8199	28
DMLE 053S	3/8	-	-	023Z8200	16
DMLE 1.52S	1/4	-	-	023Z8201	36
DMLE 052S	1/4	023Z8202	24	-	-
DMLE 083	3/8	023Z8203	12	-	-
DCLE 032S	1/4	023Z8317	12	-	-
DCLE 053S	3/8	023Z8318	24	-	-
DCLE 083	3/8	023Z8319	12	-	-

Product details

General data

Table: Technical data

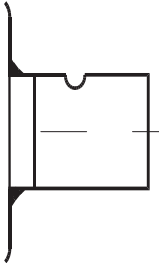
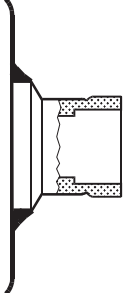
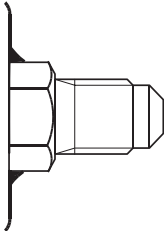
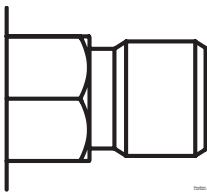
Connector type	Drier size	Connector size [In.]	Max. working pressure PS/MWP	Temperature
Solder pure copper 	DML/DCL: 1.5 to 16 cu.in	1/4" to 7/8"	50 bar / 725 psig	-40 – 120 °C (-40 – 248 °F)
	DML/DCL: 30, 38, 41 and 60 cu.in	1/2 to 5/8"	46 bar / 667 psig	-40 – 120 °C (-40 – 248 °F)
	DML/DCL: 41 and 75 cu.in	3/4" to 1 1/8"	35 bar / 500 psig	-40 – 120 °C (-40 – 248 °F)
	DMLE/DCLE: 1.5 to 75 cu.in	1/4" to 1 1/8"	50 bar / 725 psig	-40 – 120 °C (-40 – 248 °F)
Solder cu-plated 	DML/DCL: 03 to 16 cu.in	1/4" to 7/8"	50 bar / 725 psig	-40 – 120 °C (-40 – 248 °F)
	DML/DCL: 30, 41, 60 and 75 cu.in	1/2" to 1 1/8"	46 bar / 667 psig	-40 – 120 °C (-40 – 248 °F)
	DMLE/DCLE: 03 to 75 cu.in	1/4" to 1 1/8"	50 bar / 725 psig	-40 – 120 °C (-40 – 248 °F)
Flare 	DML/DCL: 03 to 16 cu.in	1/4" to 3/4"	50 bar / 725 psig	-40 – 120 °C (-40 – 248 °F)
	DML/DCL: 30, 38 and 41 cu.in	3/8 to 3/4"	46 bar / 667 psig	-40 – 120 °C (-40 – 248 °F)
	DMLE/DCLE: 03 to 60 cu.in	1/4 to 3/4"	1/4 to 3/4"	-40 – 120 °C (-40 – 248 °F)
Flare O-ring and face seal 	DML/DCL: 03 to 16 cu.in	1/4 to 3/4"	50 bar / 725 psig	-40 – 70 °C (-40 – 160 °F)
	DML/DCL :30, 41 and 60 cu.in	1/2"to 3/4"	46 bar / 667 psig	-40 – 70 °C (-40 – 160 °F)
	DMLE/DCLE: 05 and 08 cu.in	1/4 to 3/4"	50 bar / 725 psig	-40 – 70 °C (-40 – 160 °F)

Table: Surface and volume DML/DCL

Filter	Solid core surface [cm ²]	Solid core volume [cm ³]	Filter drier volume (shell volume) [l]	Filter drier volume (net volume) [l]
DML/DCL 1.5	46	16	0.05	0.034
DML/DCL 03	82	29	0.08	0.051
DML/DCL 05	95	35	0.12	0.085
DML/DCL 08	131	56	0.17	0.114
DML/DCL 16	220	134	0.36	0.226
DML/DCL 30	378	256	0.72	0.464
DML/DCL 41	510	350	0.97	0.62
DML/DCL 60	756	513	1.34	0.827
DML/DCL 75	1019	702	1.81	1.108

Table: Surface and volume DMLE/DCLE

Filter	Solid core surface [cm ²]	Solid core volume [cm ³]	Filter drier volume (shell volume) [l]	Filter drier volume (net volume) [l]
DMLE/DCLE 1.5	46	16	0.05	0.034
DMLE/DCLE 03	82	29	0.08	0.051
DMLE/DCLE 05	95	35	0.12	0.085
DMLE/DCLE 08	131	56	0.17	0.114

Table: Acid capacity DCL

Filter	Acid capacity ⁽¹⁾ [g]
DCL 1.5	0.3
DCL 03	0.5
DCL 05	0.8
DCL 08	1.3
DCL 16	2.9
DCL 30	6.1
DCL 41	8.3
DCL 60	12.2
DCL 75	16.6

⁽¹⁾ Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number).

Table: Acid capacity DML

Filter	Acid capacity ⁽¹⁾ [g]
DML 1.5	0.13
DML 03	0.2
DML 05	0.3
DML 08	0.5

⁽¹⁾ Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number).

Table: Acid capacity DCLE

Filter	Acid capacity ⁽¹⁾ [g]
DCLE 1.5	0.3
DCLE 03	0.5
DCLE 05	0.8
DCLE 08	1.3

⁽¹⁾ Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number).

Table: Acid capacity DMLE

Filter	Acid capacity ⁽¹⁾ [g]
DMLE 1.5	0.13
DMLE 03	0.2
DMLE 05	0.3
DMLE 08	0.5

⁽¹⁾ Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number).

Conversions

$$\text{Drop of water} = \frac{[1 \text{ kg of refrigerant} \times (\text{Initial PPM of water} - \text{Final PPM of water})]}{50}$$

See ARI standard AHRI 710 -I-P 2009 for recommended initial and final PPM values for different refrigerants.

Table: Identification

Type	Codes	Description
Filter drier	D	Drier
Solid core	C	80% molecular sieve / 20% activated alumina
	M	100% molecular sieve core
Application	L	Liquid line
	E	Flammable refrigerants
Size (volume)	3	3 in. ³
	5	5 in. ³
	8	8 in. ³
	16	16 in. ³
	30	30 in. ³
	38	38 in. ³
	41	41 in. ³
	60	60 in. ³
	75	75 in. ³
Connection (filter connection in 1/8 of an inch increments)	2	1/4 in. / 6 mm
	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

Example for type codes

D	C	L	05	3	s
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D	Filter drier
C	Solid core
L	Application
05	Size (volume)
3	Connection (filter connection in 1/8 of an inch increments)
s	Connection type

Selection

Type selection is made considering the application

Table: Selection

Refrigerant	and oil types	DCL	DML
Refrigerant	HFO	Recommended	Recommended
	HC ⁽¹⁾	Recommended	Recommended
	HFC	Recommended	Recommended
	HCFC	Recommended	Recommended
Oil	Mineral or AB	Recommended	Recommended
	POE or PAG, pure	Recommended	Recommended
	POE or PAG, with additives	Not recommended ⁽²⁾	Recommended

⁽¹⁾ Only solder versions (cu-plated / pure copper) and connection sizes below 25 mm are approved for flammable refrigerants now.

⁽²⁾ DCL Hermetic filter driers contain activated alumina, which is a polar material used for acid adsorption. Many oil additives are also polar substances and can be adsorbed by the activated alumina, rendering them useless, and reducing the drier's acid capacity, though this is not harmful to the system.

Filter drier selection based on capacity calculation

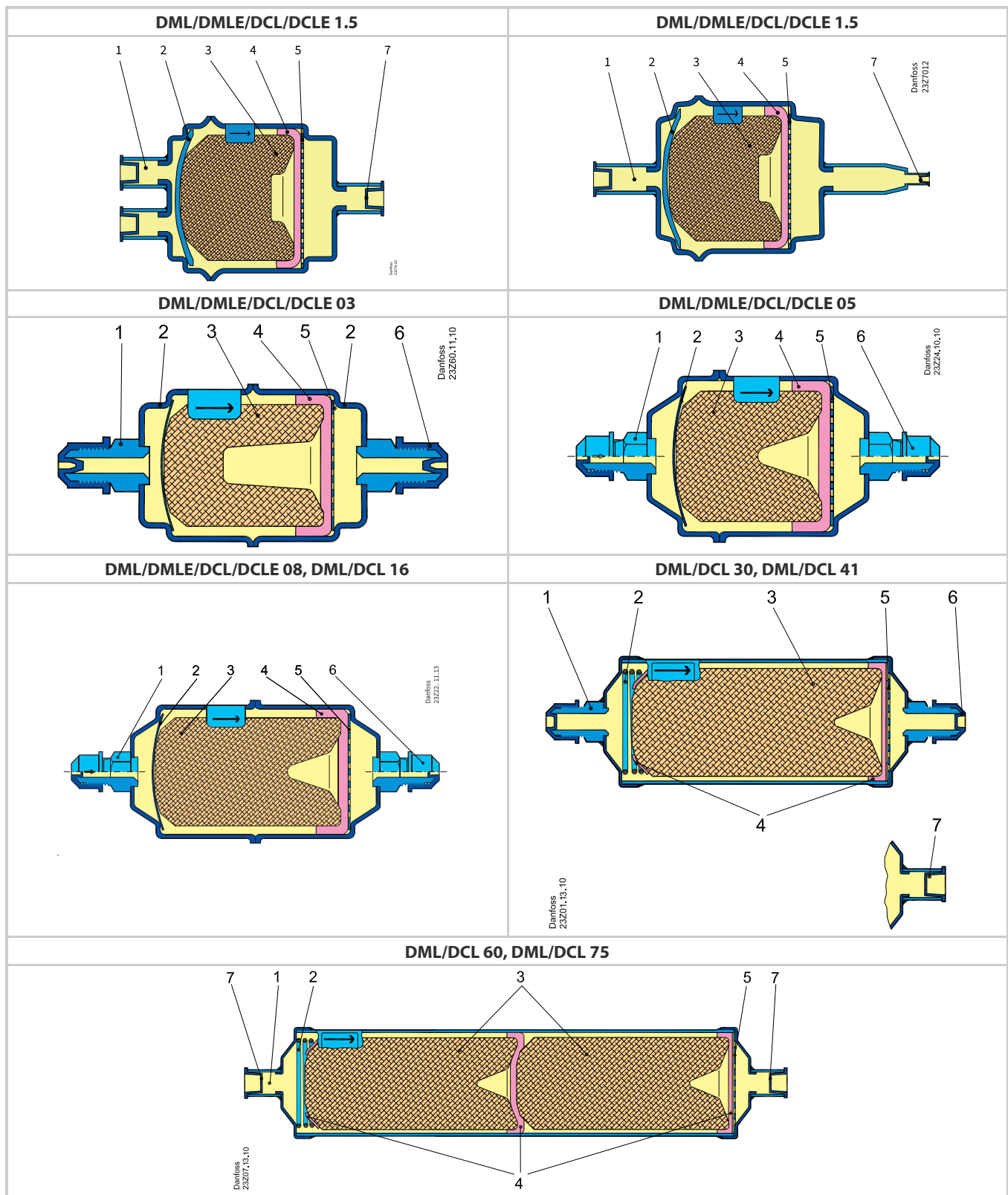
Drier selection based on capacities and refrigerants, please refer to Coolselector®2. Rated and extended capacities are calculated with the Coolselector®2 calculation engine to ARI standards with the ASEREP equations based on laboratory measurements of selected valves.

Download Coolselector®2 for free at coolselector.danfoss.com

Connector type	Drier size	Connector size [In.]	Max. working pressure PS/MWP	Temperature
Solder pure copper	DML/DCL: 1.5 to 16 cu.in	1/4" to 7/8"	50 bar /725 psig	-40 to 120 °C (-40 to 248°F)
	DML/DCL: 30, 38, 41 and 60 cu.in	1/2 to 5/8"	46 bar /667 psig	-40 to 120 °C (-40 to 248°F)
	DML/DCL: 41 and 75 cu.in	3/4" to 11/8"	35 bar /500 psig	-40 to 120 °C (-40 to 248°F)
	DMLE/DCLE: 1.5 to 75 cu.in	1/4" to 11/8"	50 bar /725 psig	-40 to 120 °C (-40 to 248°F)
Solder Cu-plated	DML/DCL: 03 to 16 cu.in	1/4" to 7/8"	50 bar /725 psig	-40 to 120 °C (-40 to 248°F)
	DML/DCL: 30, 41, 60 and 75 cu.in	1/2" to 11/8"	46 bar /667 psig	-40 to 120 °C (-40 to 248°F)
	DMLE/DCLE: 03 to 75 cu.in	1/4" to 11/8"	50 bar /725 psig	-40 to 120 °C (-40 to 248°F)
Flare	DML/DCL: 03 to 16 cu.in	1/4" to 3/4"	50 bar /725 psig	-40 to 120 °C (-40 to 248°F)
	DML/DCL: 30, 38 and 41 cu.in	3/8 to 3/4"	46 bar /667 psig	-40 to 120 °C (-40 to 248°F)
	DMLE/DCLE: 03 to 60 cu.in	1/4 to 3/4"	1/4 to 3/4"	-40 to 120 °C (-40 to 248°F)

Design

Table: Design



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 hermetic 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

Flare connections

Figure: DML/DMLE/DCL/DCLE 032

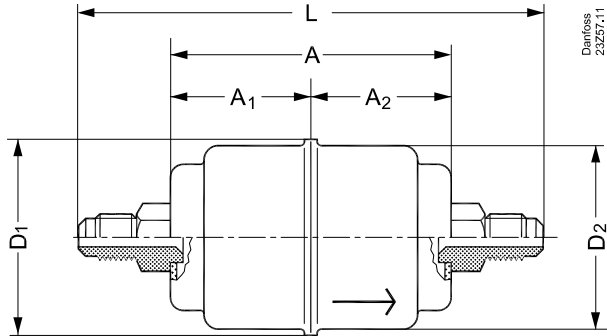
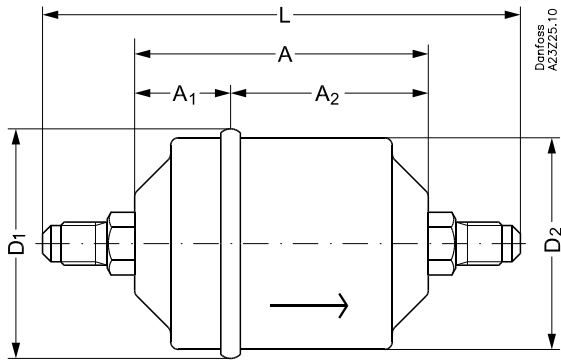
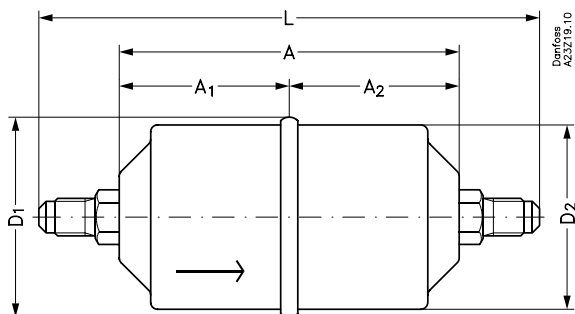


Table: DML/DMLE/DCL/DCLE 032

Type	A	A1	A2	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
DML/DMLE/DCL/ DCLE 032	66	33	33	110	46	43	0.17
DML/DMLE/DCL/ DCLE 033	66	33	33	123	46	43	0.19

Figure: DML/DMLE/DCL/DCLE 053**Table: DML/DMLE/DCL/DCLE 053**

Type	A	A1	A2	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
DML/DMLE/DCL/ DCLE 052	75	24.5	50.5	119	58	54	0.24
DML/DMLE/DCL/ DCLE 053	75	24.5	50.5	132	58	54	0.27

Figure: DML/DCL 083**Table: DML/DCL 083**

Type	A	A1	A2	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
DCL/DML 082	101	50.5	50.5	145	58	54	0.31
DCL/DML 083	101	50.5	50.5	158	58	54	0.35
DCL/DML 084	101	50.5	50.5	166	58	54	0.37
DCL/DML 085	101	50.5	50.5	175	58	54	0.4
DCL/DML 162	110	55	55	154	80	76	0.65
DCL/DML 163	110	55	55	167	80	76	0.67
DCL/DML 164	110	55	55	175	80	76	0.74
DCL/DML 165	110	55	55	184	80	76	0.74
DCL/DML 166	110	55	55	182	80	76	0.84

Figure: DML/DCL 303

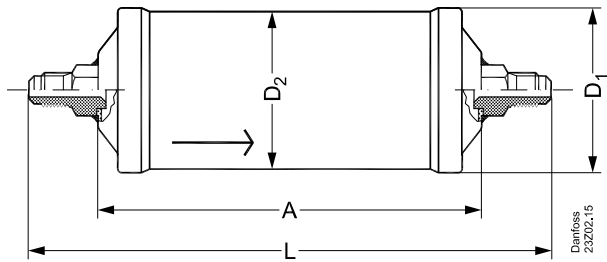


Table: DML / DCL 303

Type	A	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[Kg]
DCL/DML 303	186	243	80	76	1.28
DCL/DML 304	186	251	80	76	1.32
DCL/DML 305	186	260	80	76	1.35
DCL/DML 306	186	258	80	76	1.45
DML 385	151	225	93	89	1.59
DCL/DML 413	187	244	93	89	1.79
DCL/DML 414	187	252	93	89	1.82
DCL/DML 415	187	261	93	89	1.87

Solder connection (cu-plated steel connectors)

Figure: DML/DCL 033s

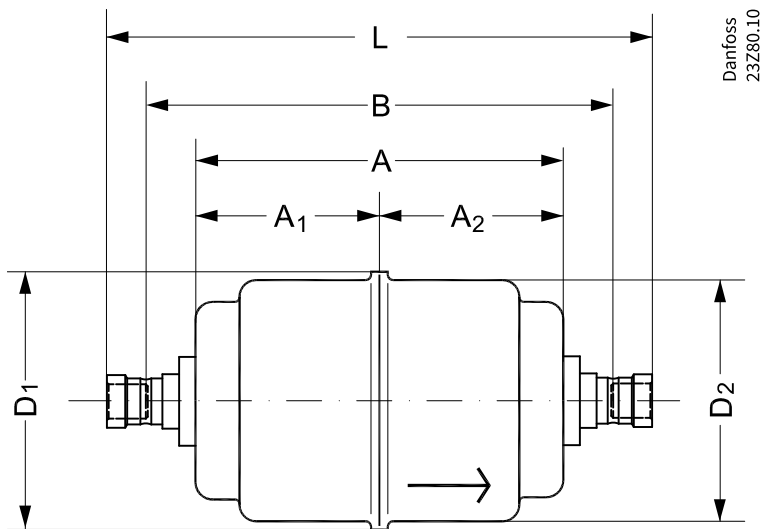


Table: DML/DCL 033s

Type	A	A1	A2	B	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
DML/DMLE/DCL/ DCLE 032s	66	33	33	84	98	46	43	0.17
DCL/DML 032.5s	66	33	33	85	101	46	43	0.16
DCL/DML 033s	66	33	33	86	104	46	43	0.16
DML/DMLE/DCL/ DCLE 034s	66	33	33	84	108	46	43	0.16

Figure: DML/DCL 053s

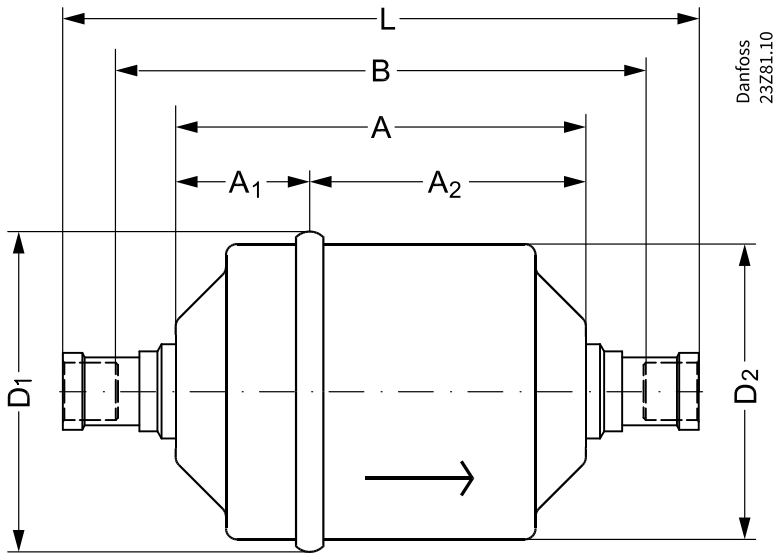


Table: DML/DCL 053s

Type	A	A1	A2	B	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
DML/DMLE/DCL/ DCLE 052s	75	24.5	50.5	93	107	58	54	0.24
DCL/DML 052.5s	75	24.5	50.5	94	110	58	54	0.24
DCL/DML 053s	75	24.5	50.5	95	113	58	54	0.23
DML/DMLE/DCL/ DCLE 054s	75	24.5	50.5	97	117	58	54	0.24
DML/DMLE/DCL/ DCLE 055s	75	24.5	50.5	101	125	58	54	0.26

Figure: DML/DCL 085s

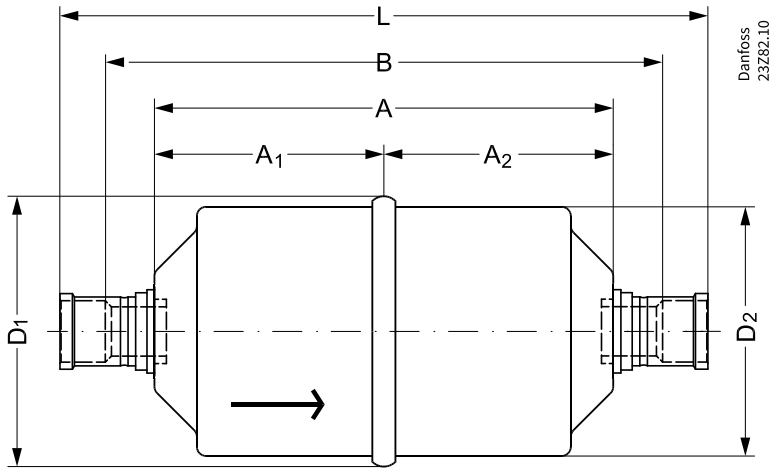


Table: DML/DCL 085s

Type	A	A1	A2	B	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
DCL/DML 082s	101	50.5	50.5	119	133	58	54	0.3
DCL/DML 082.5s	101	50.5	50.5	120	136	58	54	0.3
DCL/DML 083s	101	50.5	50.5	121	139	58	54	0.3
DCL/DML 084s	101	50.5	50.5	123	143	58	54	0.31
DCL/DML 085s	101	50.5	50.5	127	151	58	54	0.32
DCL/DML 162s	110	55	55	128	142	80	76	0.64
DCL/DML 162.5s	110	55	55	129	145	80	76	0.64
DCL/DML 163s	110	55	55	130	148	80	76	0.65
DCL/DML 164s	110	55	55	132	152	80	76	0.65
DCL/DML 165s	110	55	55	136	160	80	76	0.66
DCL/DML 166s	110	55	55	136	164	80	76	0.69
DCL/DML 167s	110	55	55	136	170	80	76	0.7

Figure: DML/DCL 305s

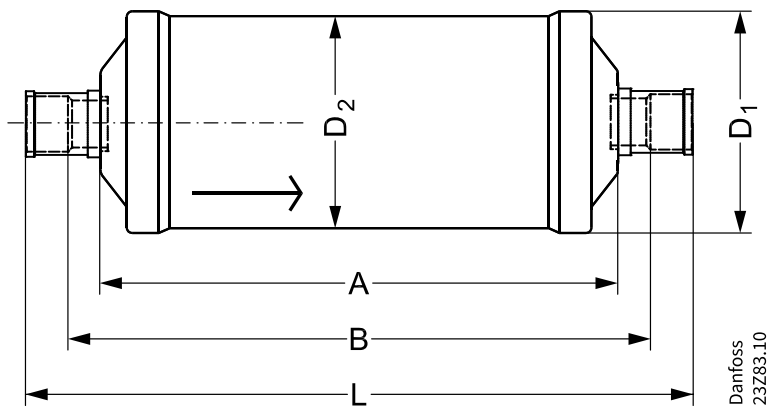


Table: DML/DCL 305s

Type	A	B	L	D1	D2	Net weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
DCL/DML 303s	186	206	224	80	76	1.28
DCL/DML 304s	186	208	228	80	76	1.26
DCL/DML 305s	186	212	236	80	76	1.27
DCL/DML 306s	186	212	240	80	76	1.3
DCL/DML 307s	186	212	246	80	76	1.32
DCL/DML 309s	186	196	250	80	76	1.37
DCL/DML 414s	187	209	229	93	89	1.84
DCL/DML 415s	187	213	237	93	89	1.85
DCL/DML 417s	187	213	247	93	89	1.88
DCL/DML 419s	187	197	251	93	89	1.9
DCL/DML 604s	337	359	379	80	76	2.98
DCL/DML 606s	337	363	391	80	76	2.21
DCL/DML 607s	337	363	397	80	76	2.21
DCL/DML 609s	337	347	401	80	76	2.32
DCL/DML 757s	338	364	398	93	89	3.1
DCL/DML 759s	338	348	402	93	89	3.1

Solder connections

Figure: DML/DMLE 1.52s

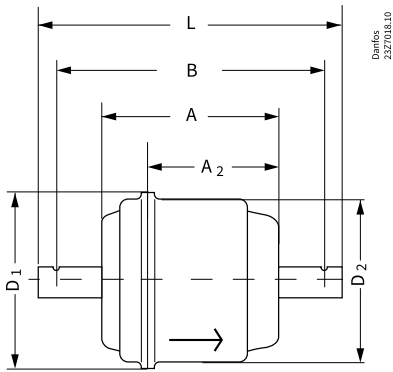


Figure: DCL 1.52x2/2s

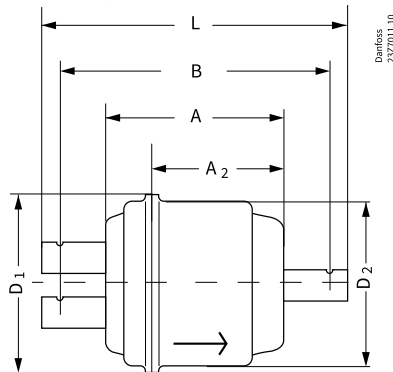
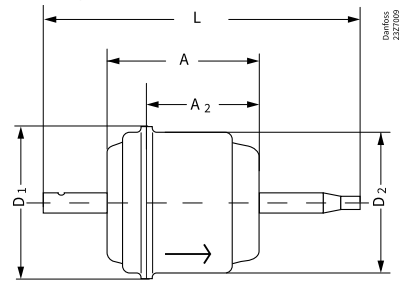


Figure: DCL 1.52XL/2.8mm s



Type	A	A2	B	L	D1	D2	Net weight
	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	
DML/DMLE 1.52s	1.77	1.3	2.48	3	1.81	1.69	0.26
DML 1.52x2/2s	1.77	1.3	2.48	3	1.81	1.69	0.26
DCL 1.52XL/2.8mm s	1.77	1.3	-	4.17	1.81	1.69	0.26

Figure: DML/DCL 033s

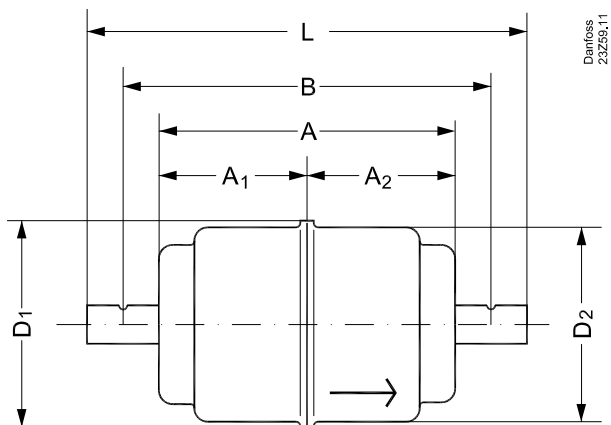


Table: DML/DCL 033s

Type	A	A1	A2	B	L	D1	D2	Net weight
	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	[lbs]
DCL/DML 032s	2.6	1.3	1.3	3.23	3.86	1.81	1.69	0.33
DCL/DML 032.5s	2.6	1.3	1.3	3.31	4.02	1.81	1.69	0.33
DCL/DML 033s	2.6	1.3	1.3	3.35	4.09	1.81	1.69	0.33
DCL/DML 034s	2.6	1.3	1.3	3.43	4.25	1.81	1.69	0.33

Figure: DML/DCL 053s

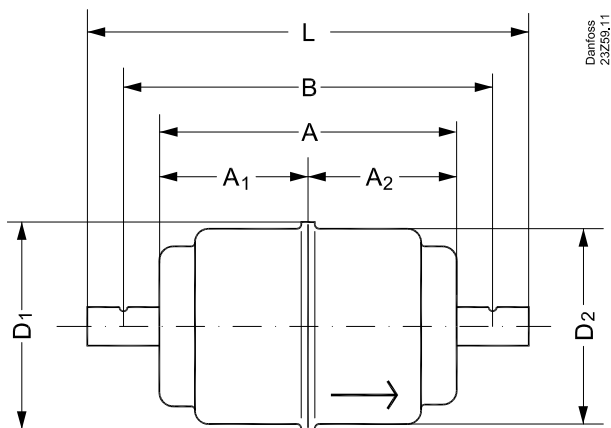


Table: DML/DCL 053s

Type	A	A1	A2	B	L	D1	D2	Net weight
	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	[lbs]
DCL/DML 052s	2.95	0.96	1.99	3.58	4.21	2.28	2.13	0.52
DCL/DML 052.5s	2.95	0.96	1.99	3.66	4.37	2.28	2.13	0.52
DCL/DML 053s	2.95	0.96	1.99	3.7	4.45	2.28	2.13	0.52
DML 054s	2.95	0.96	1.99	3.78	4.61	2.28	2.13	0.52
DML 055s	2.95	0.96	1.99	3.9	4.84	2.28	2.13	0.53

Figure: DML/DCL 083s

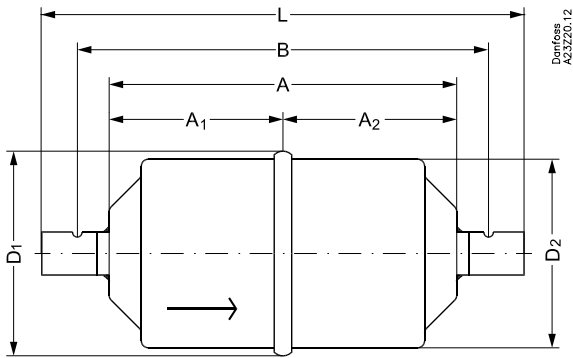


Table: DML/DCL 083s

Type	A	A1	A2	B	L	D1	D2	Net weight
	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	[lbs]
DCL/DML 082s	3.98	1.99	1.99	4.61	5.24	2.28	2.13	0.74
DCL/DML 082.5s	3.98	1.99	1.99	4.69	5.39	2.28	2.13	0.67
DCL/DML 083s	3.98	1.99	1.99	4.72	5.47	2.28	2.13	0.67
DCL/DML 084s	3.98	1.99	1.99	4.8	5.63	2.28	2.13	0.67
DML 085s	3.98	1.99	1.99	4.92	5.87	2.28	2.13	0.77
DCL/DML 162s	4.33	2.17	2.17	4.96	5.59	3.15	2.99	1.36
DCL/DML 162.5s	4.33	2.17	2.17	5.04	5.75	3.15	2.99	1.39
DCL/DML 163s	4.33	2.17	2.17	5.08	5.83	3.15	2.99	1.39
DCL/DML 164s	4.33	2.17	2.17	5.16	5.98	3.15	2.99	1.43
DCL/DML 165s	4.33	2.17	2.17	5.28	6.22	3.15	2.99	1.45
DCL/DML 166s	4.33	2.17	2.17	5.51	6.69	3.15	2.99	1.47
DCL/DML 167s	4.33	2.17	2.17	5.35	6.77	3.15	2.99	1.49

Figure: DML/DCL 304s

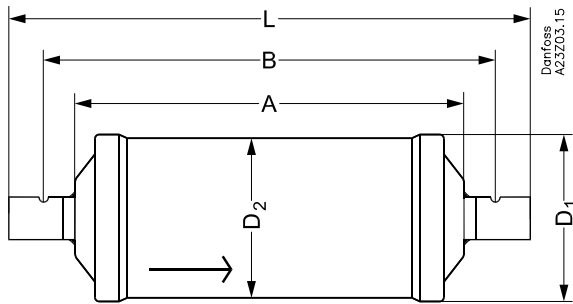


Table: DML/DCL 304s

Type	A	B	L	D1	D2	Net weight
	[in.]	[in.]	[in.]	[in.]	[in.]	[lbs]
DCL/DML 303s	7.32	8.07	8.82	3.15	2.99	2.74
DCL/DML 304s	7.32	8.15	8.98	3.15	2.99	2.74
DCL/DML 305s	7.32	8.27	9.21	3.15	2.99	2.74
DCL/DML 306s	7.32	8.5	9.69	3.15	2.99	2.74
DCL/DML 307s	7.32	8.35	9.76	3.15	2.99	2.74
DCL/DML 309s	7.32	8.15	9.8	3.15	2.99	3.16
DCL/DML 414s	7.36	8.19	9.02	3.66	3.5	3.83
DCL/DML 415s	7.36	8.31	9.25	3.66	3.5	3.83
DCL/DML 417s	7.36	8.39	9.8	3.66	3.5	3.84
DCL/DML 419s	7.36	8.19	9.84	3.66	3.5	3.84
DCL/DML 604s	13.27	14.09	14.92	3.15	2.99	6.4
DCL/DML 607s	13.27	14.29	14.71	3.15	2.99	6.45
DCL/DML 609s	13.27	14.09	14.75	3.15	2.99	6.49
DCL/DML 757s	13.31	14.33	15.75	3.66	3.5	9.03
DCL/DML 759s	13.31	14.13	15.79	3.66	3.5	9.07

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Mechanical Safety Certificate	UL SA6398 19980330 US-CA	UL - Underwriters Laboratories inc.	
Pressure Safety Certificate	LLC CDC EURO-TYSK UA.TR.089.1015.07-22	LLC CDC EURO TYSK - Ukraine	Pressure
Manufacturer's Declaration	Danfoss MD 023U9601.AI	Danfoss	PED, Pressure, EU RoHS, ATEX, Explosive
Export Control Declaration	Filter Driers 023U and 023Z	Danfoss	
UA Declaration	Danfoss UA 2023-01-10 Filters PL01	Danfoss	PED, Pressure
Pressure Safety Certificate	TSSA CRN 0E24090.5123467890TNY	TSSA - Technical Standards & Safety Authority	Pressure
Manufacturer's Declaration	Danfoss MD 023Z9610.AA	Danfoss	China RoHS

Contact details

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