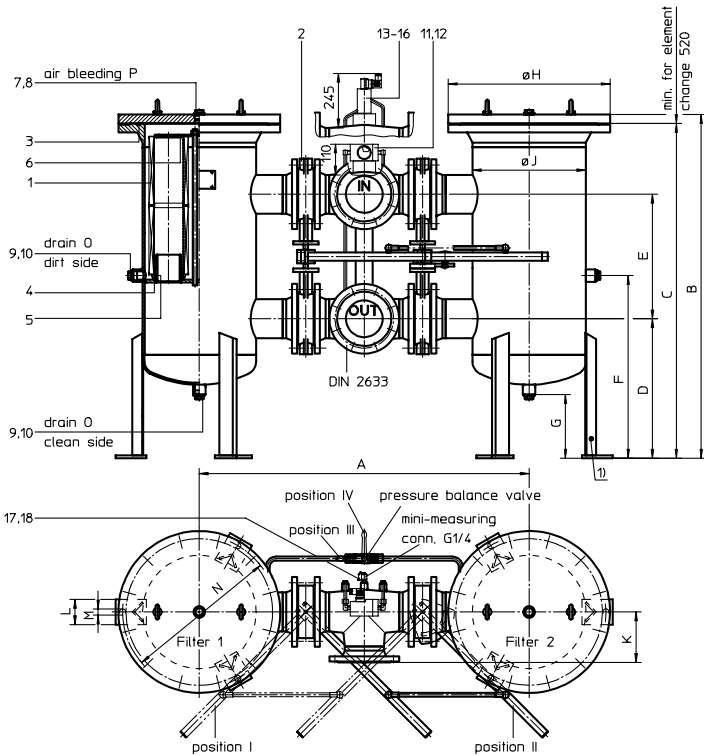


PRESSURE FILTER, change-over
Series DSF 1201-10001 DN 50-250 PN 16

Sheet No.
2133 M



Pos I: filter 1 in operation
 Pos II: filter 2 in operation

with pressure balance valve:
 Pos III: valve open
 Pos IV: valve closed

Connection standard as in drawing.
 On request: inlet- on top and backside
 outlet- bottom and backside

Please specify on order!

1) connection for the potential equalisation,
 only for application in the explosive area

3. Dimensions:

Typ	connection DN	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	weight kg	volume tank
DSF 1201	50	796				330					111							
	65	822	1035	1015	395	347	490	183	340	219	123	70	18	330	G1	G ½	200	2x 26,0 l
	80	862				400					138							
	100	914				421					159							
DSF 2001	65	902				347					123							
	80	942	1100	1075	425	400	550	186	405	273	138	70	18	380	G1	G1	280	2x 44,0 l
	100	984				421					159							
	125	1032				446					181							
DSF 2401	65	952				347					123							
	80	982	1115	1085	425	400	540	183	460	324	138	70	18	450	G1	G1	355	2x 63,0 l
	100	1034				421					159							
	125	1082				446					181							
DSF 3601	150	1150	1185	1155	445	492	610				200							2x 67,0 l
	80	1092				400					138							
	100	1144	1235	1200	500	421	655	238	580	406	159	90	22	550	G1	G1	580	2x 109,0 l
	125	1182				446					181							
DSF 4001	150	1212				492					200							
	65	902				347					123							
	80	942	1596	1570	425	400	550	186	405	273	138	70	18	380	G1	G1	340	2x 70,0 l
	100	984				421					159							
DSF 4801	125	1032				446					181							
	100	1274	1240	1200	520	421	655				159							2x 171,0 l
	125	1322				446					181	90	22	650	G1	G1	800	2x 171,0 l
	150	1352	1290	1250	530	492	705				200							2x 180,0 l
DSF 6001	200	1440	1390	1350	560	543	785				242							2x 199,0 l
	125	1592	1340	1300	620	446	755				181							2x 355,0 l
DSF 10001	150	1632	1390	1350	630	492	805				200	120	22	900	G1 ½	G1 ½	950	2x 374,0 l
	200	1700	1490	1450	650	543	870				242							2x 411,0 l
	250	1800	1620	1580	680	618	1000				288							2x 460,0 l

1. Type index:

1.1. Complete filter: (ordering example)

DSF. 3601. 10VG. 10. E. P. -. FD1. B. -. AE

1	2	3	4	5	6	7	8	9	10	11
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- series:
DSF = duplex filter
- nominal size: 1201, 2001, 2401, 3601, 4001, 4801, 6001, 10001
- filter material and filter fineness:
80 G = 80 µm, 40 G = 40 µm, 25 G = 25 µm stainless steel wire mesh,
25 VG = 20 µm_(c), 16 VG = 15 µm_(c), 10 VG = 10 µm_(c), 6 VG = 7 µm_(c), 3 VG = 5 µm_(c) Interpor fleece (glass fibre)
25 P = 25 µm, 10 P = 10 µm paper
- resistance of pressure difference for filter element:
10 = Δp 10 bar
- filter element design:
E = without by-pass valve; S = with by-pass valve Δp 2,0 bar
- sealing material:
P = Nitrile (NBR); V = Viton (FPM)
- filter element specification: (see catalog)
- = standard
VA = stainless steel
ISO6 = see sheet-no. 31601
- connection:
FD1 = flange connection DIN 2633, design C DIN 2526; FD2 = flange connection DIN 2633, design E DIN 2526
- connection size:

DN	filter nominal size						
8 = 50	1201						
9 = 65	1201	2001	2401		4001		
A = 80	1201	2001	2401	3601	4001		
B = 100	1201	2001	2401	3601	4001	4801	6001
C = 125		2001	2401	3601	4001	4801	6001
D = 150			2401	3601		4801	6001
E = 200						4801	6001
F = 250							10001

- filter housing specification: (see catalog)
- = standard
ISO6 = see sheet-no. 31605
- clogging indicator or clogging sensor:
- = without
OP = visual, see sheet-no.1614
AE = visual-electrical, see sheet-no.1609; VS1 = electronic, see sheet-no.1607
OE = visual-electrical, see sheet-no 1614; VS2 = electronic, see sheet-no.1608

1.2. Filter element: (ordering example)

01E. 1201. 10VG. 10. E. P. -

1	2	3	4	5	6	7
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- series:
01E. = filter element according to INTERNORMEN factory specification
- nominal size: 1201, 2001, 4001
- 7 see type index-complete filter

2. Accessories:

- measure-and bleeder -connections, see sheet-no. 1650
- evacuation- and bleeder-connections, see sheet-no. 1651
- counter flanges, see sheet-no. 1653
- shut-off valve, see sheet-no. 1655
- lifting mechanism, see sheet-no. 1661

Changes of measures and design are subject to alteration!



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4. Spare parts:

4.1. Depending on different series:

item	designation	qty.	dimension and article-no. DSF 1201	dimension and article-no. DSF 2001	qty.	dimension and article-no. DSF 2401	qty.	dimension and article-no. DSF 3601	qty.	dimension and article-no. DSF 4001	qty.	dimension and article-no. DSF 4801	qty.	dimension and article-no. DSF 6001	dimension and article-no. DSF 10001
1	filter element	2	01E.1201	01E.2001	4	01E.1201	6	01E.1201	2	01E.4001	8	01E.1201	6	01E.2001	01E.2001
2	stop flap ¹⁾	4	DN 50-100	DN 65-125	4	DN 65-150	4	DN 80-150	4	DN 65-125	4	DN 100-200	4	DN 100-200	DN 125-250
3	O-ring	2	225 x 5 308652 (NBR) 311473 (FPM)	275 x 5 307414 (NBR) 310288 (FPM)	2	330 x 5 303080 (NBR) 310275 (FPM)	2	429 x 6 308659 (NBR) 310273 (FPM)	2	275 x 5 307414 (NBR) 310288 (FPM)	2	516 x 6 301962 (NBR) 311474 (FPM)	2	516 x 6 301962 (NBR) 311474 (FPM)	722 x 8 308145 (NBR) 311805 (FPM)
4	O-ring	2	85 x 10 304386 (NBR) 304541 (FPM)	125 x 10 304388 (NBR) 306006 (FPM)	4	85 x 10 304386 (NBR) 304541 (FPM)	6	85 x 10 304386 (NBR) 304541 (FPM)	2	125 x 10 304388 (NBR) 306006 (FPM)	8	85 x 10 304386 (NBR) 304541 (FPM)	6	125 x 10 304388 (NBR) 306006 (FPM)	125 x 10 304388 (NBR) 306006 (FPM)
5	O-ring	2	93 x 5 307588 (NBR) 307589 (FPM)	135 x 5 306016 (NBR) 307045 (FPM)	4	93 x 5 307588 (NBR) 307589 (FPM)	6	93 x 5 307588 (NBR) 307589 (FPM)	2	135 x 5 306016 (NBR) 307045 (FPM)	8	93 x 5 307588 (NBR) 307589 (FPM)	6	135 x 5 306016 (NBR) 307045 (FPM)	135 x 5 306016 (NBR) 307045 (FPM)
6	spring	2	Da = 95 304414		2	pressure plate			2	Da = 95 304414		2	pressure plate		
7	screw plug	2	G ½ 309730	G 1 309732	2	G1 309732						2	G 1 ½ 318556		
8	gasket	2	A 22 x 27 305564	A 33 x 39 308257	2	A 33 x 39 308257						2	A 48 x 55 309764		
9	screw plug	4	G1 309732		4	G1 309732						4	G 1 ½ 318556		
10	gasket	4	A 33 x 39 308257		4	A 33 x 39 308257						4	A 48 x 55 309764		

¹⁾ dimension of stop flap = connection size

4.2. Depending on the series:

item	qty.	designation	dimension	article-no.
11	1	clogging indicator, visual	OP	see sheet-no. 1614
12	1	clogging indicator, visual-electrical	OE	see sheet-no. 1614
13	1	clogging indicator, visual-electrical	AE	see sheet-no. 1609
14	1	clogging sensor, electrical	VS1	see sheet-no. 1607
15	1	clogging sensor, electrical	VS2	see sheet-no. 1608
16	2	O-ring	14 x 2	304342 (NBR) 304722 (FPM)
17	2	gasket	A 14 x 18	306330
18	2	screw plug	G ¼	309734

5. Description:

Duplex filters of the series DSF 1201 - 10001 are suitable for a working pressure up to 16 bar.

Pressure peaks can be absorbed with a sufficient margin of safety.

Four mechanically connected change-over flaps enabling the change-over without service-interruption from the clean to the dirty filter-side.

The filters can be installed as suction filter, pressure filter or return-line filter.

The filter element consist of star-shaped, pleated filter material which is supported on the inside by a perforated core tube and is bonded to the end caps with a high-quality adhesive. The flow direction is from outside to the inside. Filter finer than 40 µm should use throw-away elements made of paper or Interpor fleece (glass fibre). Filter elements as fine as 5 µm are available; finer filter elements on request.

INTERNORMEN-Filter elements are known as elements with a high intrinsic stability and an excellent filtration capability, a high dirt-retaining capacity and a long service life.

INTERNORMEN-Filter are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.

Approvals according to TÜV, and the major „Shipyard Classification Societies“ D.N.V.; B.V.; G.L.; L.R.S.; R.I.N.A.; A.B.S.; P.R.S.;USS.R.S. and others are possible.

6. Technical data:

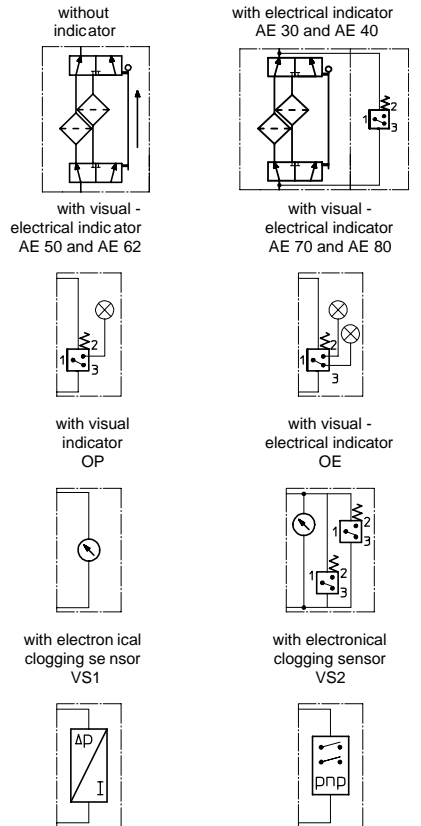
temperature range:	- 10°C to + 80°C (for a short time + 100°C)
operating medium:	mineral oil, other media on request
max. operating pressure:	16 bar
test pressure:	23 bar
connection system:	flange connection DIN 2633, 16 bar
housing material:	C-steel
sealing material:	Nitrile (NBR) or Viton (FPM), other materials on request
installation position:	vertical
mini-measuring connection:	G ¼

Classified under the Pressure Equipment Directive 97/23/EC for mineral oil (fluid group 2), Article 3, Para. 3.

Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4).

E 2133 M

7. Symbols:



8. Pressure drop flow curves:

Precise flow rates see 'INT-Expert-System Filter', respectively Δp-curves; depending on filter fineness and viscosity.

9. Test methods:

Filter elements are tested according to the following ISO standards:

ISO 2941	Verification of collapse/burst resistance
ISO 2942	Verification of fabrication integrity
ISO 2943	Verification of material compatibility with fluids
ISO 3723	Method for end load test
ISO 3724	Verification of flow fatigue characteristics
ISO 3968	Evaluation of pressure drop versus flow characteristics
ISO 16889	Multi-pass method for evaluating filtration performance