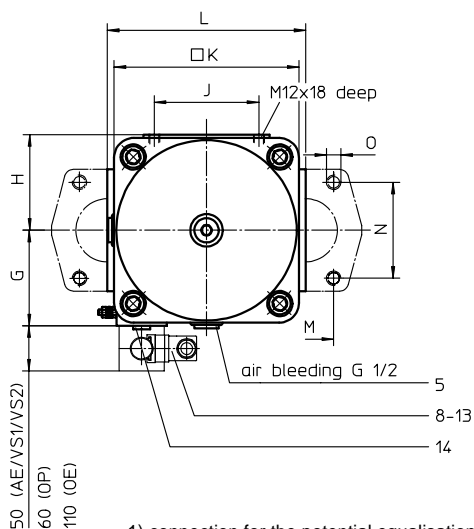
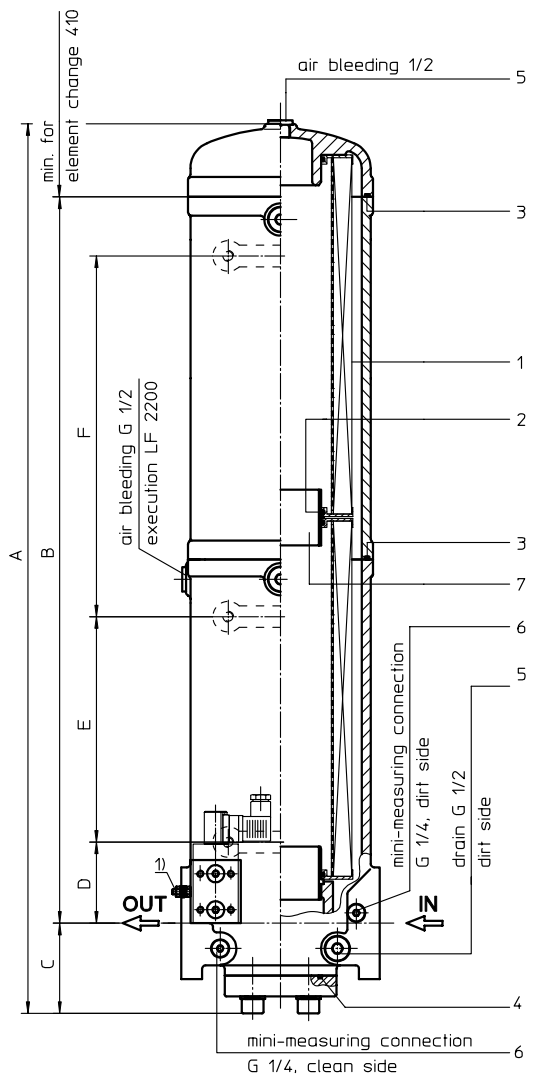


PRESSURE FILTER

Series LF 1950-2200 DN 80-125 PN 32

Sheet No.
1119 K



1. Type index:

1.1. Complete filter: (ordering example)

LF.1950.10VG.10. B. P. -. FS. A. -. -. AE

1	2	3	4	5	6	7	8	9	10	11	12
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- 1 **series:**
LF = in-line filter
- 2 **nominal size:** 1950, 2200
- 3 **filter-material and filter-fineness:**
80 G = 80 μm , 40 G = 40 μm , 25 G = 25 μm
stainless steel wire mesh
25 VG = 20 $\mu\text{m}_{(c)}$, 16 VG = 15 $\mu\text{m}_{(c)}$, 10 VG = 10 $\mu\text{m}_{(c)}$,
6 VG = 7 $\mu\text{m}_{(c)}$, 3 VG = 5 $\mu\text{m}_{(c)}$ Interpor fleece (glass fiber)
- 4 **resistance of pressure difference for filter element:**
10 = Δp 10 bar
- 5 **filter element design:**
B = both sides open
- 6 **sealing material:**
P = Nitrile (NBR)
V = Viton (FPM)
- 7 **filter element specification:** (see catalog)
- = standard
VA = stainless steel
IS06 = see sheet-no. 31601
IS07 = see sheet-no. 31602
- 8 **connection:**
FS = SAE-flange connection 3000 PSI
- 9 **connection size:**
A = 3" (LF 1950)
C = 5" (LF 2200)
- 10 **filter housing specification:** (see catalog)
- = standard
IS06 = see sheet-no. 31605
- 11 **internal valve:**
- = without
S = with by-pass valve Δp 2,0 bar
S1 = with by-pass valve Δp 3,5 bar
- 12 **clogging indicator or clogging sensor :**
- = without
OP = visual, see sheet-no. 1628
OE = visual-electrical, see sheet-no. 1628
AE = visual-electrical, see sheet-no. 1609
VS1 = electronical, see sheet-no. 1607
VS2 = electronical, see sheet-no. 1608

1.2. Filter element: (ordering example)

01NR. 1000.10VG.10. B. P. -

1	2	3	4	5	6	7
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- 1 **series:**
01NR. = standard filter element according to DIN 24550, T4
- 2 **nominal size:** 1000
- 3 - 7 see type index-complete filter

2. Accessories:

- measure- and bleeder-connection, se sheet-no. 1650
- evacuation- and bleeder-connection, see shet-no. 1651
- counter flange, see sheet-no. 1652

3. Dimensions:

type	connection	A	B	C	D	E	F	G	H	J	K	L	M	N	O	weight kg
LF 1950	SAE 3"	987	806	100	90	250	400	106	106	116	205	220	62	106,4	M16 x 24 deep	68
LF 2200	SAE 5"	1043	832	130	116	250	400	106	106	116	205	220	92	152,4	M16 x 24 deep	74

EDV 11/07

Changes of measures and design are subject to alteration!

4. Spare parts:

item	qty.	designation	dimension	article-no.	
1	2	filter element	01NR. 1000		
2	4	O-ring	90 x 4	306941 (NBR)	307031 (FPM)
3	2	O-ring	185 x 4	305593 (NBR)	306309 (FPM)
4	1	O-ring LF 1950	85,32 x 3,53	305590 (NBR)	306308 (FPM)
	1	O-ring LF 2200	136,12 x 3,53	320162 (NBR)	320163 (FPM)
5	4	screw plug	G ½	304678	
6	2	screw plug	G ¼	305003	
7	1	connecting pipe	21689-4	313233	
8	1	clogging indicator, visual	OP	see sheet-no. 1628	
9	1	clogging indicator, visual-electrical	OE	see sheet-no. 1628	
10	1	clogging indicator, visual-electrical	AE	see sheet-no. 1609	
11	1	clogging sensor, electronical	VS1	see sheet-no. 1607	
12	1	clogging sensor, electronical	VS2	see sheet-no. 1608	
13	2	O-ring	14 x 2	304342 (NBR)	304722 (FPM)
14	2	screw plug	G ¼	305003	

item 14 execution only without clogging indicator or clogging sensor

5. Description:

In-line filters of the type LF 1950-2200 are suitable for a working pressure up to 32 bar.

Pressure peaks are absorbed with a sufficient margin of safety.

The filter is mounted in such a way that inlet and outlet are on the same level. It can be used as suction filter, pressure filter and 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.

For cleaning (see special leaflet 21070-4 resp. 39448-4) the mesh element respectively to change the glass fiber element remove the cover and take out the element.

Filter finer than 40 µm should use throw-away elements made of paper or Interpor fleece (glass fiber). Filter elements as fine as 5 µm_(c) 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 „Shipyards Classification Societies“ D.N.V.; B.V.; G.L.; L.R.S.; R.I.N.A.; A.B.S. and others are possible.

The internal valve is integrated in the filter cover. After reaching the opening pressure the by-pass valve causes that an unfiltered partial flow passes the filter.

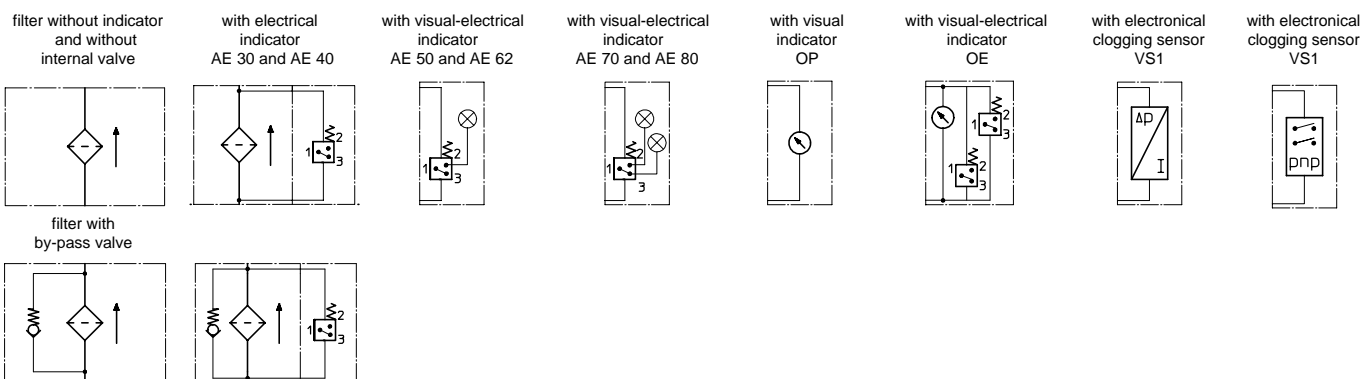
6. Technical data:

temperature range:	-10°C to +80°C (for a short time +100°C)
operating medium:	mineral oil, other media on request
max. operating pressure:	32 bar
test pressure:	64 bar
connection system:	SAE-flange connection 3000 PSI
housing material:	GGG 40.3
sealing material:	Nitrile (NBR) or Viton (FPM), other materials on request
installation position:	vertical
mini-measuring connection:	G ¼
evacuation-or bleeder-connection:	G ½
volume tank LF 1950:	21,7 l
LF 2200:	22,0 l

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).

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 specification:

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