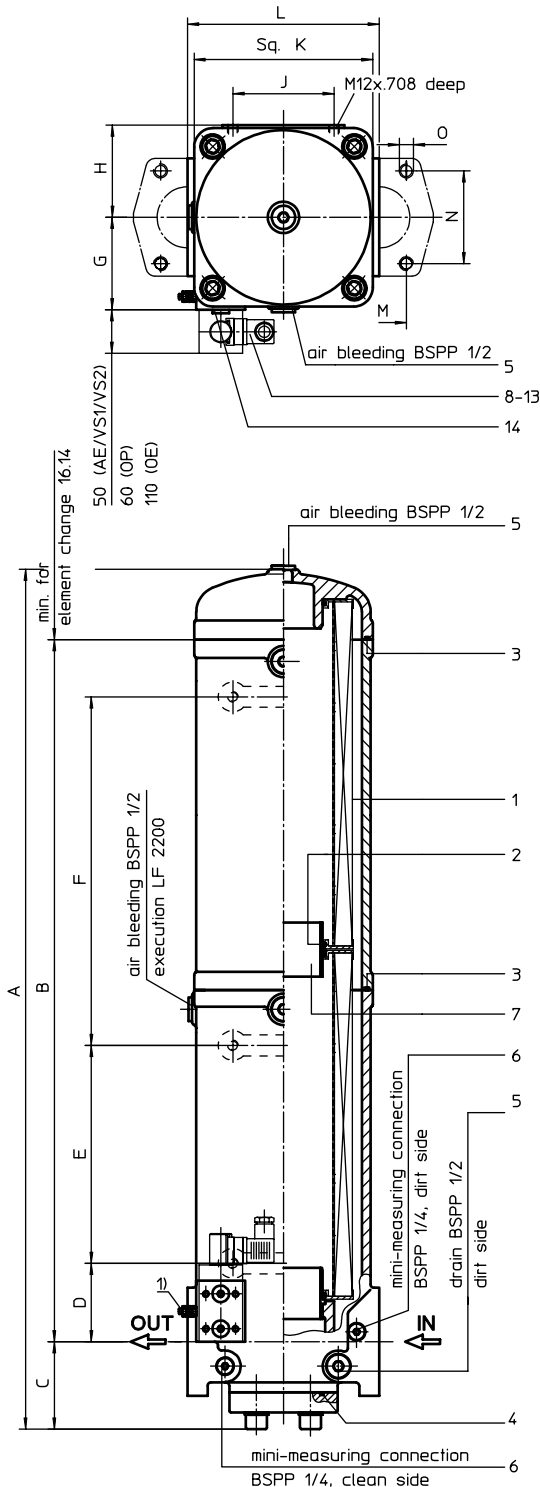


PRESSURE FILTER

Series LF 1950-2200 464 PSI

Sheet No.
1119 K



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

3. Dimensions:

type	connection	A	B	C	D	E	F	G	H	J	K	L	M	N	O	weight lbs.
LF 1950	SAE 3"	38.86	31.73	3.94	3.54	9.84	15.75	4.17	4.17	4.57	8.07 sq.	8.66	2.44	4.19	M16x .94 deep	150
LF 2200	SAE 5"	41.10	32.75	5.12	4.57	9.84	15.75	4.17	4.17	4.57	8.07 sq.	8.66	3.62	6.00	M16x .94 deep	163

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
---	---	---	---	---	---	---	---	---	----	----	----

- 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 fibre)
- 4 **resistance of pressure difference for filter element:**
10 = Δp 145 PSI
- 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 29 PSI
S1 = with by-pass valve Δp 51 PSI
- 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
---	---	---	---	---	---	---

- 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

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	½ BSPP	304678	
6	2	screw plug	¼ BSPP	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, electronic	VS1	see sheet-no. 1607	
12	1	clogging sensor, electronic	VS2	see sheet-no. 1608	
13	2	O-ring	14 x 2	304342 (NBR)	304722 (FPM)
14	2	screw plug	¼ BSPP	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 464 PSI.

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 and 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 fibre). 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.

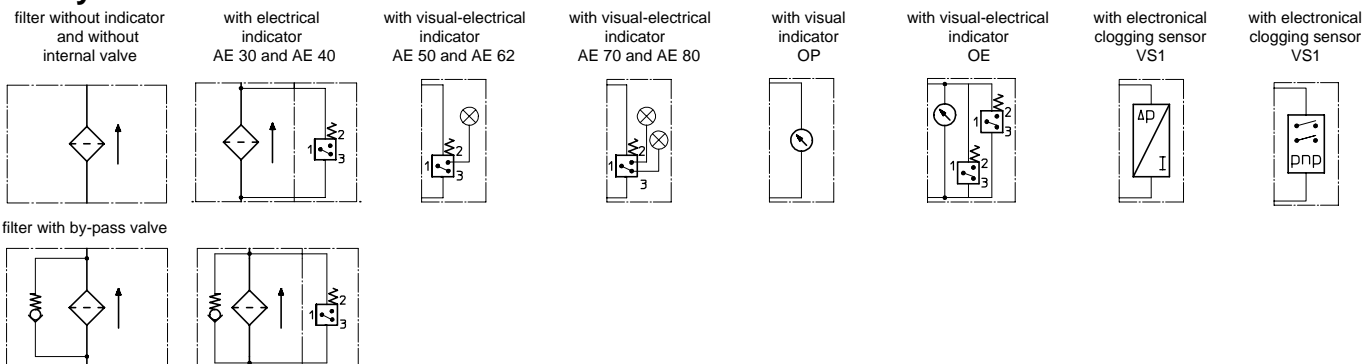
6. Technical data:

temperature range:	+14°F to +176°F (for a short time +212°C)
operating medium:	mineral oil, other media on request
max. operating pressure:	464 PSI
test pressure:	900 PSI
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:	¼ BSPP
evacuation-or bleeder-connection:	½ BSPP
volume tank LF 1950:	5.7 Gal
LF 2200:	5.8 Gal

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 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