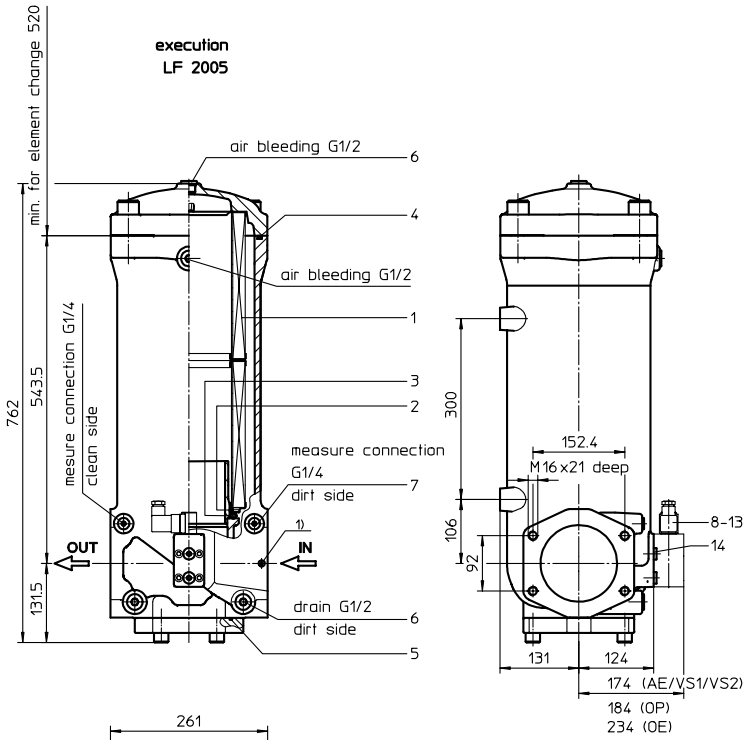
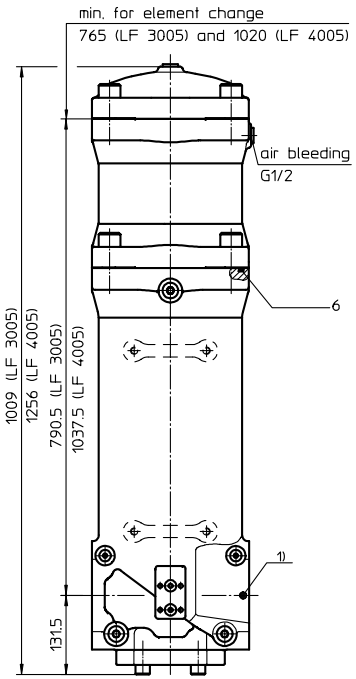
PRESSURE FILTER
Series LF 2005-4005 DN 125 PN 32

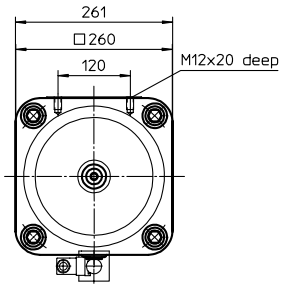
Sheet No. **1128**

execution
LF 2005



execution
LF 3005/LF 4005





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

filter	weight kg
LF 2005	81
LF 3005	112
LF 4005	129

1. Type index:

1.1. Complete filter: (ordering example)

LF. 2005. 10VG. 10. E. P. -. FS. C. -. AE

1	2	3	4	5	6	7	8	9	10	11

1 **series:**
LF = in-line filter

2 **nominal size:** 2005, 3005, 4005

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 $\mu m_{(c)}$, 16 VG = 15 $\mu m_{(c)}$, 10 VG = 10 $\mu m_{(c)}$, 6 VG = 7 $\mu m_{(c)}$, 3 VG = 5 $\mu m_{(c)}$ Interpor fleece (glass fibre)

4 **resistance of pressure difference for filter element:**
10 = Δp 10 bar

5 **filter element design:**
E = without by-pass valve
S = with by-pass valve Δp 2,0 bar

6 **sealing material:**
P = Nitrile (NBR)
V = Viton (FPM)

7 **filter element specification:** (see catalog)
- = standard
VA = stainless steel
IS06 = see sheet-no. 31601

8 **connection:**
FS = SAE-flange connection 3000 PSI

9 **connection size:**
C = 5"

10 **filter housing specification:** (see catalog)
- = standard
IS06 = see sheet-no. 31605

11 **clogging indicator or clogging sensor:**
- = without
AE = visual-electrical, see sheet-no. 1609
OP = visual, see sheet-no. 1628
OE = visual-electrical, see sheet-no. 1628
VS1 = electronical, see sheet-no. 1607
VS2 = electronical, see sheet-no. 1608

1.2. Filter element: (ordering example)

01E. 2001. 10VG. 10. E. P. -

1	2	3	4	5	6	7

1 **series:**
01E. = filter element according to INTERNORMEN factory specification

2 **nominal size:** 2001, 3001, 4001

3 - 7 see type index complete filter

2. Accessories:

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

Changes of measures and design are subject to alteration!

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EDV 11/07

3. Spare parts:

item	designation	qty.	dimension and article-no. LF 2005	dimension and article-no. LF 3005	dimension and article-no. LF 4005
1	filter element	1	01E. 2001	01E. 3001	01E. 4001
2	O-ring	1	135 x 10	306016 (NBR) 307045 (FPM)	
3	O-ring	1	125 x 10	304388 (NBR) 306006 (FPM)	
4	O-ring (LF 2005)	1	240 x 5	307592 (NBR)	
	O-ring (LF 3005/4005)	2		328793 (FPM)	
5	O-ring	1	136,12 x 3,53	320162 (NBR) 320163 (FPM)	
6	screw plug (LF 2005)	4	G ½	304678	
	screw plug (LF 3005/4005)	5			
7	screw plug	2	G ¼	305003	
8	clogging indicator visual-electrical	1	OE	see seet-no. 1628	
9	clogging indicator visual	1	OP	see seet-no. 1628	
10	clogging indicator visual-electrical	1	AE	see seet-no. 1609	
11	clogging sensor electronical	1	VS1	see seet-no. 1607	
12	clogging sensor electronical	1	VS2	see seet-no. 1608	
13	O-ring	2	14 x 2	304342 (NBR) 304722 (FPM)	
14	screw plug	2	G ¼	305003	

item 14 execution only without clogging indicator or clogging sensor

4. Description:

In-line filters of the type LF 2005-4005 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 consists 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 inside.
For cleaning (see special leaflet 21070-4 and 34448-4) the mesh element respectively to change the glass fibre 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 $\mu m_{(c)}$ microns 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. and others are possible.

5. Technical data:

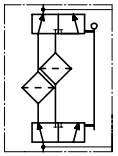
temperature range:		- 10°C to + 80°C (for a short time + 100°C)
operating medium:		mineral oil, other media on request
max. operating pressure:		32 bar
test pressure:		64 bar
connection system:		SAE-flange connection 3000 PSI
housing material:		EN-GJS-400-18-LT
sealing material:		Nitrile (NBR) or Viton (FPM), other materials on request
installation position:		vertical
measuring connections:		G ¼
evacuation-or bleeder connections:		G ½
volume tank	LF 2005:	23 l
	LF 3005:	32 l
	LF 4005:	40 l

Classification according to the Pressure Equipment Directive 97/23/EC for mineral oil (fluid group 2) -article 3, paragraph 3.
Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4).

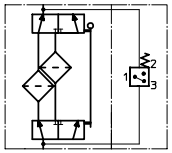
E 1128

6. Symbols:

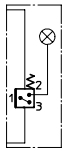
without indicator



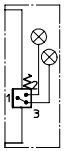
with electrical indicator AE 30 and AE 40



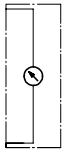
with visual-electrical indicator AE 50 and AE 62



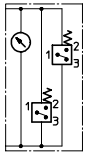
with visual-electrical indicator AE 70 and AE 80



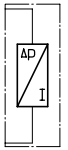
with visual indicator AOR/AOC/OP



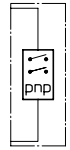
with visual-electrical indicator OE



with electronical clogging sensor VS1



with electronical clogging sensor VS2



7. Pressure drop flow curves:

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

8. 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