### **PRESSURE FILTER** Series LF 101 DN 25 PN 32



# 1. Type index:

1	2 3 4 5 6 7 8 9 10 11
1	series:
~	LF = in-line filter
2	nominal size: 101
3	80 G = 80 $\mu$ m, 40 G = 40 $\mu$ m, 25 G = 25 $\mu$ m stainless steel wire mesh 25 VG = 20 $\mu$ m <sub>(c)</sub> , 16 VG = 15 $\mu$ m <sub>(c)</sub> , 10 VG = 10 $\mu$ m <sub>(c)</sub> , 6 VG = 7 $\mu$ m <sub>(c)</sub> , 3 VG = 5 $\mu$ m <sub>(c)</sub> Interpor fleece (glass fibre
4	resistance of pressure difference for filter element: $16 = \Delta p \ 16 \text{ bar}$
5	filter element design: E = single-end open S = with by-pass valve $\Delta p$ 2,0 bar S1 = with by-pass valve $\Delta p$ 3.5 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 IS07 = see sheet-no. 31602
8	connection:
0	G = thread connection according to ISO 228
9	5 = G 1
10	filter housing specification: (see catalog) - = standard IS06 = see sheet-no. 31605
11	clogging indicator or clogging sensor :
	<ul> <li>- = without</li> <li>AE = visual-electrical, see sheet-no. 1609</li> <li>OP = visual, see sheet-no. 1628</li> <li>OE = visual-electrical, see sheet-no. 1628</li> <li>VS1 = electronical, see sheet-no. 1607</li> <li>VS2 = electronical, see sheet-no. 1608</li> </ul>
<b>1.2</b> 01 1	<ul> <li>Filter element: (ordering example)</li> <li>IN. 100. 10VG. 16. E. P 1 2 3 4 5 6 7</li> <li>series: 01N. = filter element according to INTERNORMEN factory specification nominal size: 100</li> </ul>

weight: 3,5 kg





fax

Changes of measures and design are subject to alteration!

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### 2. Spare parts:

item	qty.	designation	dimension	article-no.	
1	1	filter element	01N. 100		
2	1	O-ring	32 x 3,5	304378 (NBR)	304401 (FPM)
3	1	O-ring	76 x 4	305599 (NBR)	310291 (FPM)
4	2	screw plug	G 1⁄4	305003	
5	2	screw plug	G ½	304678	
6	1	clogging indicator, visual	OP	see sheet-no. 1628	
7	1	clogging indicator, visual-electrical	OE	see sheet-no. 1628	
8	1	clogging indicator, visual-electrical	AE	see sheet-no. 1609	
9	1	clogging sensor, electronical	VS1	see sheet-no. 1607	
10	1	clogging sensor, electronical	VS2	see sheet-no. 1608	
11	2	O-ring	14 x 2	304342 (NBR)	304722 (FPM)
12	2	screw plug	G ¼	305003	

item 12 execution only without clogging indicator or clogging sensor

## 3. Description:

In-line filters of the type LF 101 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.

To clean (see special leaflets 21070-4 and 34448-4) and change respectively the filter element, the filter cover will be removed and the filter element can be taken out.

Filter finer than 40 µm should use throw-away elements made of Interpor fleece (glass fibre). Filter elements as fine as 5 µm<sub>(c)</sub> 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 dirtretaining 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.

### 4. 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: thread connection according to ISO 228 housing material: aluminium-cast Nitrile (NBR) or Viton (FPM), other materials on request sealing material: installation position: vertical mini-measuring connection: G ¼ evacuation-or bleeder-connection: G ½ 1.01 volume tank:

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).

### 5. Symbols:







with visual-

AE 70 and AE 80

ctrical indicato



with visual

indicator OP





1.

with electronical clogging sensor VS1

with electronical clogging sensor vs2



6. Pressure drop flow curves:

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

#### 7. 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

Verification of flow fatigue characteristics ISO 3724

ISO 3968 Evaluation of pressure drop versus flow characteristics

ISO 16889 Multi-pass method for evaluating filtration performance