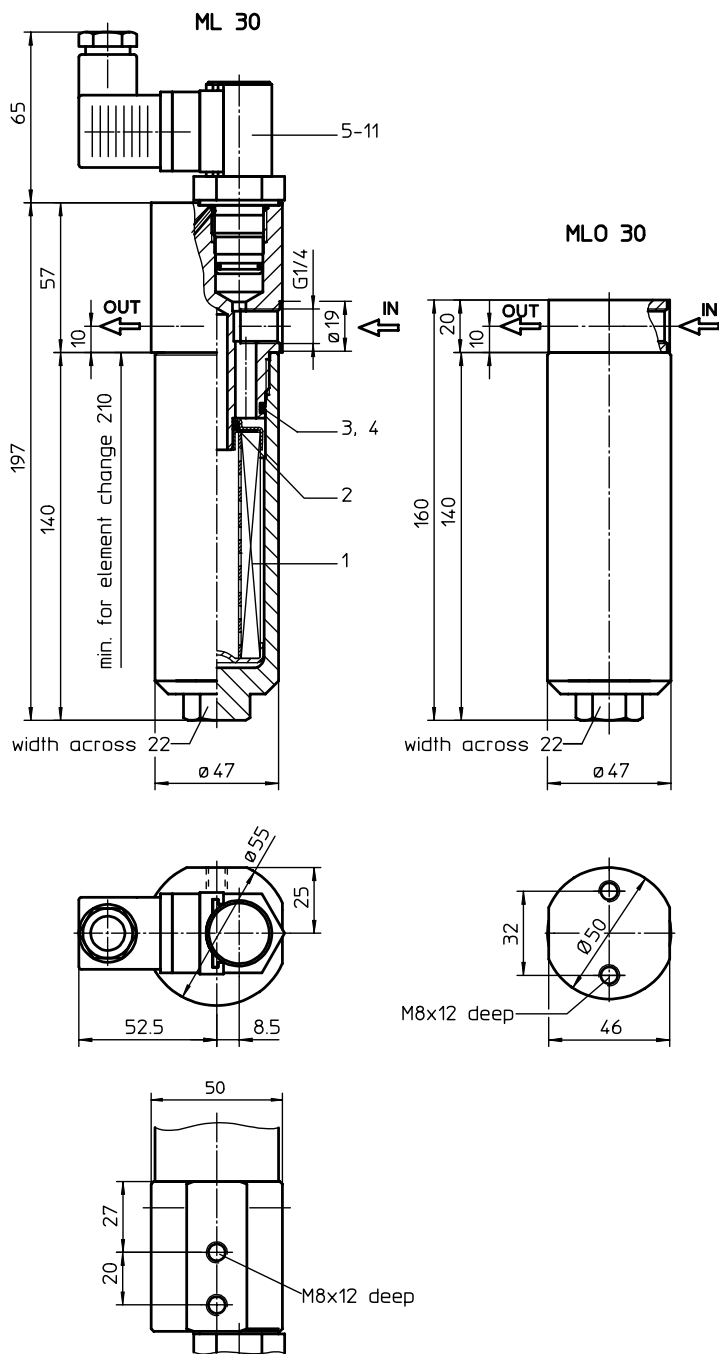


# PRESSURE FILTER

Series ML 30, MLO 30 DN 6 PN 160

Sheet No.  
**1417 F**



## 1. Type index:

### 1.1. Complete filter: (ordering example)

**ML. 30. 10VG. HR. E. P. - . G. 1. - . AE**

1	2	3	4	5	6	7	8	9	10	11
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#### 1 series:

- ML = in-line filter-medium pressure range with indicator
- MLO = in-line filter-medium pressure range without indicator

#### 2 nominal size: 30

#### 3 filter-material and filter-fineness:

- 80 G = 80  $\mu\text{m}$ , 40 G = 40  $\mu\text{m}$ , 25 G = 25  $\mu\text{m}$  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:

- 30 =  $\Delta p$  30 bar
- HR =  $\Delta p$  160 bar (rupture strenght  $\Delta p$  250 bar)

#### 5 filter element design:

- E = single-end 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

#### 8 connection:

- G = thread connection according to ISO 228

#### 9 connection size:

- 1 = G 1/4

#### 10 filter housing specification: (see catalog)

- = standard
- IS06 = see sheet-no. 31605

#### 11 clogging indicator or clogging sensor:

- series MLO:
  - = without
- series ML:
  - AOR = visual, see sheet-no. 1606
  - AOC = visual, see sheet-no. 1606
  - AE = visual-electrical, see sheet-no. 1615
  - VS1 = electrical, see sheet-no. 1617
  - VS2 = electrical, see sheet-no. 1618

## 1.2. Filter element: (ordering example)

**01E. 30. 10VG. HR. E. P. -**

1	2	3	4	5	6	7
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#### 1 series:

- 01E. = filter element according to INTERNORMEN factory specification

#### 2 nominal size: 30

#### 3 - 7 see type index-complete filter

weight without indicator: approx. 1,1 kg  
weight with indicator : approx. 1,3 kg

Changes of measures and design are subject to alteration!

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## 2. Spare parts:

item	qty.	designation	dimensions	article-no.	
1	1	filter element	01E.30		
2	1	O-ring	11 x 3	312603 (NBR)	312727 (FPM)
3	1	O-ring	32 x 2,5	306843 (NBR)	308268 (FPM)
4	1	support ring	37 x 2,1 x 1	305466	
5	1	clogging indicator, visual	AOR or AOC	see sheet-no. 1606	
6	1	clogging indicator, visual-electrical	AE	see sheet-no. 1615	
7	1	clogging sensor, electrical	VS1	see sheet-no. 1617	
8	1	clogging sensor, electrical	VS2	see sheet-no. 1618	
9	1	O-ring	15 x 1,5	315357 (NBR)	315427 (FPM)
10	1	O-ring	22 x 2	304708 (NBR)	304721 (FPM)
11	1	O-ring	14 x 2	304342 (NBR)	304722 (FPM)

## 3. Description:

Pressure filter of the series ML 30 and MLO 30 are suitable for a working pressure up to 160 bar.

The pressure peaks are absorbed by a sufficient margin of safety. The filter is in-line mounted.

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.

Filter elements are available down to 4  $\mu\text{m}_{(e)}$ .

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.

INTERNORMEN-Filter elements are available up to a pressure difference resistance of  $\Delta p$  160 bar and a rupture strength of  $\Delta p$  250 bar.

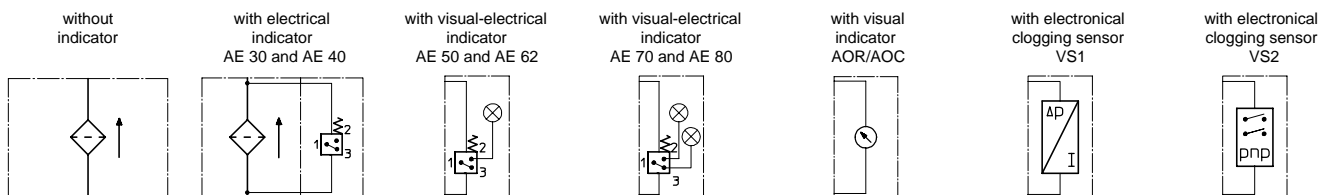
## 4. Technical data:

temperature range:	-10°C to + 80°C (for a short time + 100°C)
operating medium:	mineral oil, other media on request
max. operating pressure:	160 bar
test pressure:	229 bar
connection system:	thread connection according to ISO 228
housing material:	Al; C-steel
sealing material:	Nitrile (NBR) or Viton (FPM), other materials on request
installation position:	vertical
volume tank:	0,1 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).

## 5. Symbols:



## 6. Pressure drop flow curves:

Precise flow rates see INT-Expert-System Filter respectively  $\Delta p$ -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
- 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