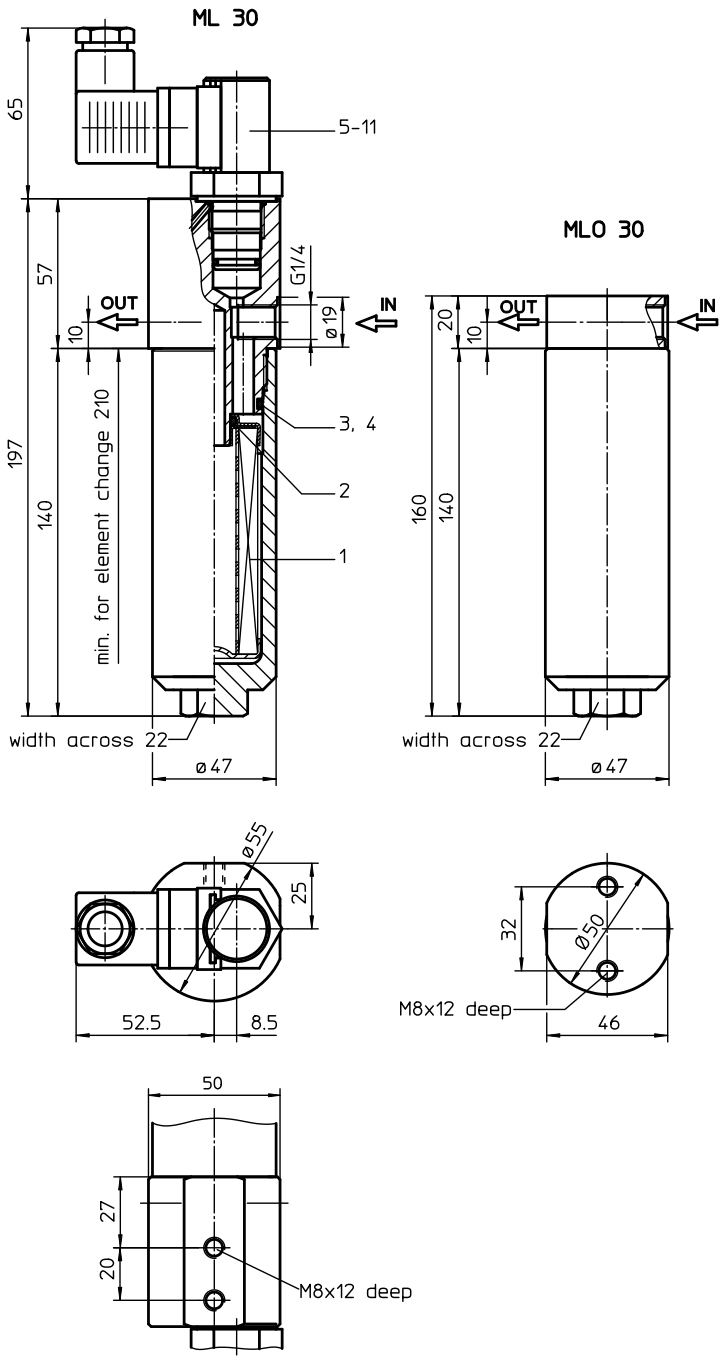
PRESSURE FILTER
Series ML 30, MLO 30 DN 6 PN 160

Sheet No.
1417 G



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

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 µm, 40 G = 40 µm, 25 G = 25µm 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:**
30 = Δp 30 bar
HR = Δp 160 bar (rupture strenght Δp 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 ¼

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 = electronical, see sheet-no. 1617
VS2 = electronical, see sheet-no. 1618

1.2. Filter element: (ordering example)

01E.	30.	10VG.	HR.	E.	P.	-
1	2	3	4	5	6	7

1 **series:**
01E. = filter element according to company standard

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

EDV 08/12

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, electronical	VS1	see sheet-no. 1617	
8	1	clogging sensor, electronical	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 $\mu m_{(c)}$.
Internormen Product Line 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 Product Line filter are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.
Internormen Product Line filter elements are available up to a pressure difference resistance of Δp 160 bar and a rupture strength of Δp 250 bar.

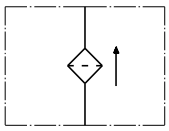
4. Technical data:

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

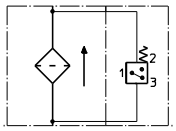
Classified under the Pressure Equipment Directive 97/23/EC for mineral oil (fluid group 2), Article 3, Para. 3.
Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4).

5. Symbols:

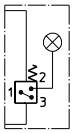
without indicator



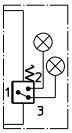
with electrical indicator AE 30 and AE 40



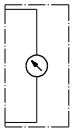
with visual-electrical indicator AE 50 and AE 62



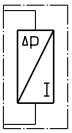
with visual-electrical indicator AE 70 and AE 80



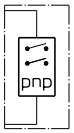
with visual indicator AOR/AOC



with electronical clogging sensor VS1



with electronical clogging sensor VS2



6. Pressure drop flow curves:

Precise flow rates see 'Interactive Product Specifier', respectively Δp-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