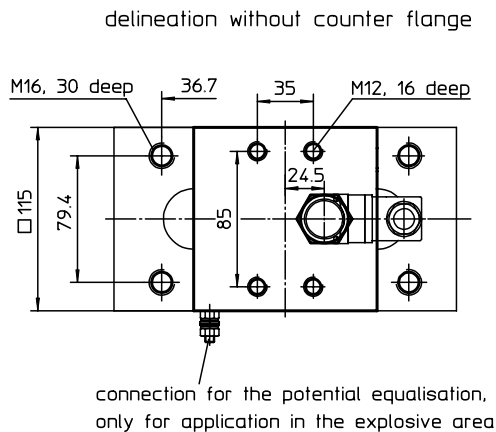
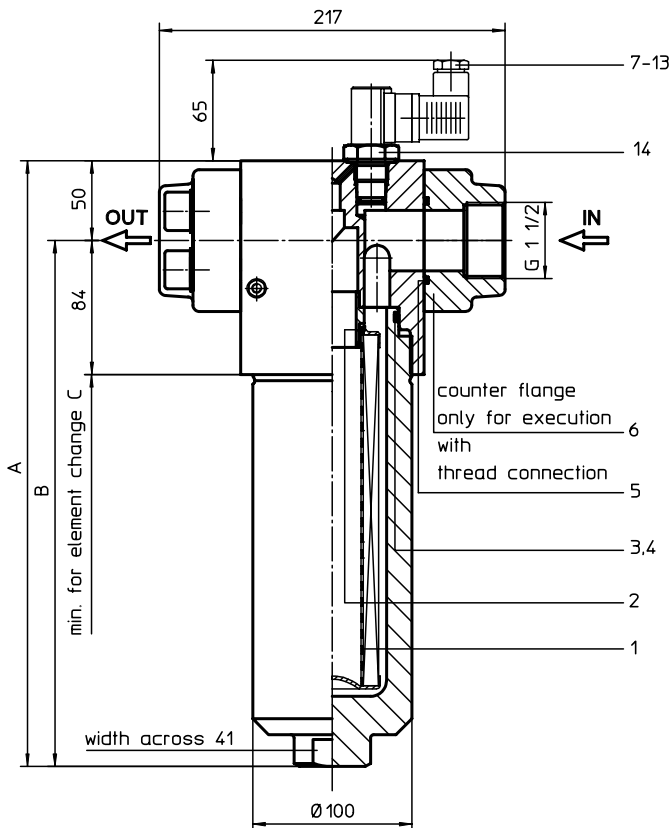


# STAINLESS STEEL - PRESSURE FILTER

## Series EH 240 - 450 DN 40 PN 420

Sheet No.  
**1431 H**



### 1. Type index:

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

**EH. 240. 10VG. HR. E. P. VA. FS. 7. VA. -. AE**

1	2	3	4	5	6	7	8	9	10	11	12
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- 1 **series:**  
EH = stainless steel-pressure filter
- 2 **nominal size:** 240, 450
- 3 **filter-material and filter-fineness:**  
80G = 80  $\mu\text{m}$ , 40G = 40  $\mu\text{m}$ ,  
25G = 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 strength  $\Delta p$  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 (only with counter flange)  
FS = SAE-flange connection 6000 PSI
- 9 **connection size:**  
7 = 1 1/2"
- 10 **filter housing specification:**  
VA = stainless steel
- 11 **internal valve:**  
- = without  
S1 = with by-pass valve  $\Delta p$  3,5 bar  
S2 = with by-pass valve  $\Delta p$  7,0 bar  
R = reversing valve,  $Q \leq 211,008$  l/min
- 12 **clogging indicator or clogging sensor :**  
- = without  
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. 240. 10VG. HR. E. P. VA**

1	2	3	4	5	6	7
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- 1 **series:**  
01E. = filter element according to INTERNORMEN factory specification
- 2 **nominal size:** 240, 450
- 3 - 7 see type index-complete filter

### 2. Dimensions:

type	connection	A	B	C	weight kg	volume tank
EH 240	G1 1/2 or	380	330	320	22	0,85 l
EH 450	SAE 1 1/2"	565	515	500	30	1,55 l

### 3. Spare parts:

item	qty.	designation	dimension		article-no.	
			EH 240	EH 450		
1	1	filter element	01E. 240	01E. 450		
2	1	O-ring	34 x 3,5		304341 (NBR)	304392 (FPM)
3	1	O-ring	76 x 4		305072 (NBR)	305322 (FPM)
4	1	support ring	84 x 3,2 x 1,5		312309	
5	1	O-ring (only with counter flange)	47,22 x 3,53		305078 (NBR)	310269 (FPM)
6	1	counter flange 6000 PSI	SAE 1 1/2"		312406	
7	1	clogging indicator, visual	AOR or AOC		see sheet no. 1606	
8	1	clogging indicator, visual-electrical	AE		see sheet no. 1615	
9	1	clogging sensor, electrical	VS1		see sheet no. 1617	
10	1	clogging sensor, electrical	VS2		see sheet no. 1618	
11	1	O-ring	15 x 1,5		315357 (NBR)	315427 (FPM)
12	1	O-ring	22 x 2		304708 (NBR)	304721 (FPM)
13	1	O-ring	14 x 2		304342 (NBR)	304722 (FPM)
14	1	screw plug	20913-4		314442	

item 14 execution only without clogging indicator or clogging sensor

### 4. Description:

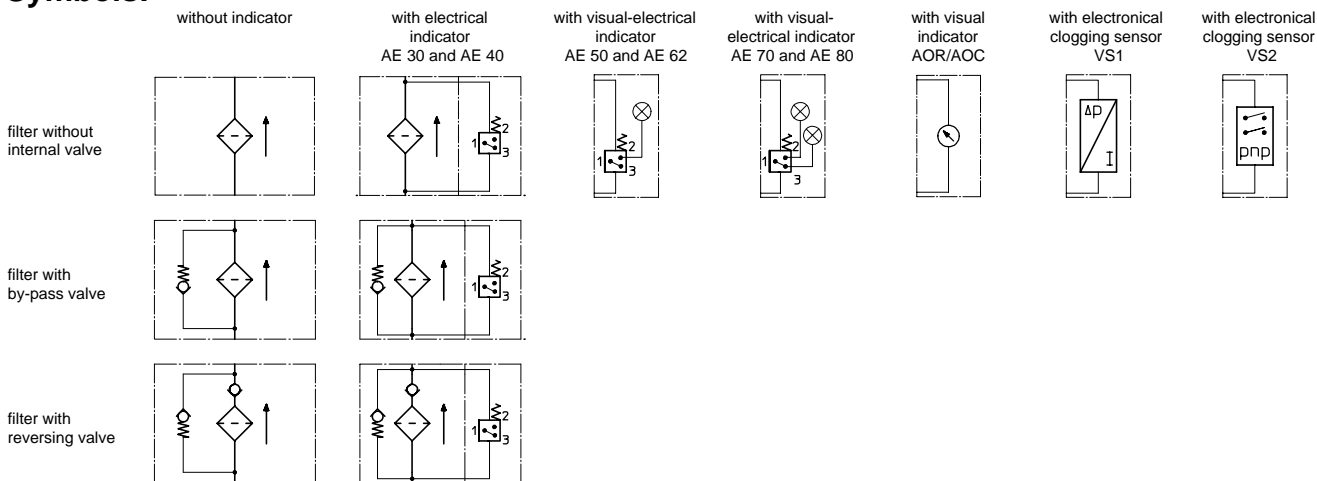
The pressure filters of the series EH are suitable for a working pressure up to 420 bar. The pressure peaks are absorbed by a sufficient margin of safety. The EH-filters are flange mounted to the hydraulic system. The filter element consists of star-shaped, pleated filter material which is supported 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 a filter fineness of  $4\mu\text{m}_{(c)}$ . 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. The internal valves are integrated into the centering pivot for the filter element. After reaching the opening pressure the by-pass valve causes that an unfiltered partial flow passes the filter. With the reverse valve a protection of the filter element is given when having a reverse flow inside the filter. The reverse flow will not be filtered.

### 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: 420 bar  
test pressure: 546 bar  
connection system: thread connection or SAE-flange connection 6000 PSI  
housing material: DIN 17440 - 1.4571 (320 S 18, 320 S 31 according to B.S.)  
sealing material: Nitrile (NBR) or Viton (FPM), other materials on request  
installation position: vertical

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).

### 6. Symbols:



**7. Pressure drop flow curves:** Precise flow rates see 'INT-Expert-System Filter', respectively  $\Delta p$ -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