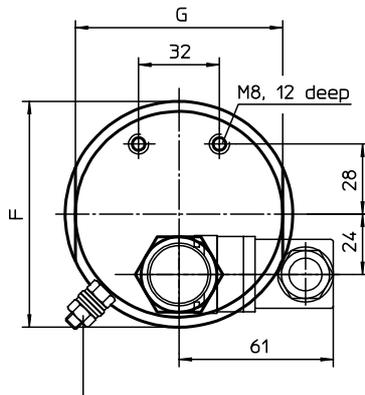
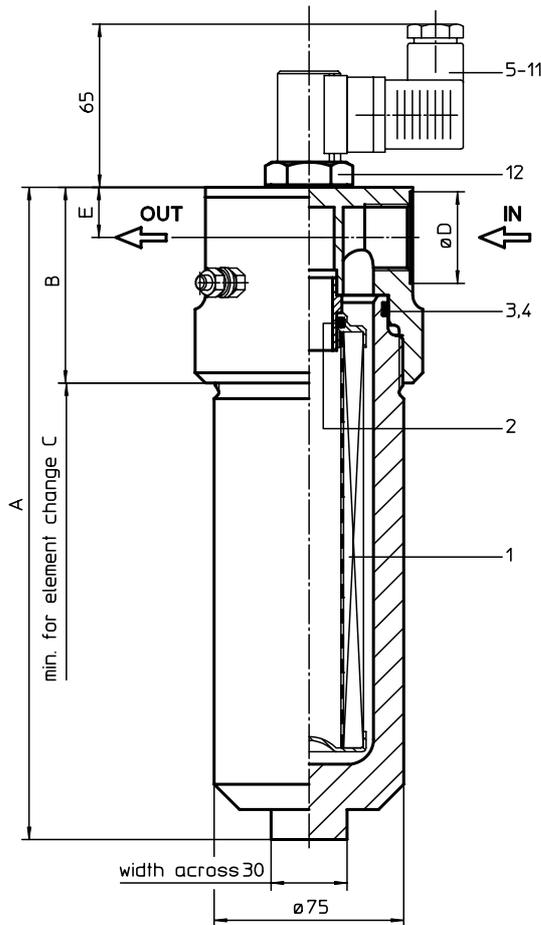


STAINLESS STEEL- PRESSURE FILTER

Series EH 60-150 DN 15-25 PN 420

Sheet No.
1430 L



connection for the potential equalisation, only for application in the explosive area

1. Type index:

1.1. Complete filter: (ordering example)

EH. 90. 10VG. HR. E. P. VA. G. 4. 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:** 60, 90, 150
- 3 **filter-material and filter-fineness:**
80G = 80 μm , 40G = 40 μm ,
25G = 25 μm 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 = Δp 30 bar
HR = Δp 160 bar (rupture strength 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
NPT = thread connection according to ANSI B1.20.1
- 9 **connection size:**
3 = $\frac{1}{2}$ "
4 = $\frac{3}{4}$ "
5 = 1"
- 10 **filter housing specification:**
VA = stainless steel
- 11 **internal valve:**
- = without
S1 = with by-pass valve Δp 3,5 bar
S2 = with by-pass valve Δp 7,0 bar
R = reversing valve, $Q \leq 70,06$ 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 = electronical, see sheet-no. 1617
VS2 = electronical, see sheet-no. 1618

1.2. Filter element: (ordering example)

01E. 90. 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:** 60, 90, 150
- 3 - 7 see type index-complete filter

2. Dimensions:

type	connection	A	B	C	D ¹⁾	E	F	G	weight kg	volume tank
EH 60	$\frac{1}{2}$ "	195	78	215	30	20	90	82	8,5	0,3 l
EH 90	$\frac{3}{4}$ "	260	78	280	36,5	20	90	82	9,5	0,4 l
EH 150	1"	370	84	390	40	23	95	84	12,5	0,6 l

Connection assignments as shown in the table are standard. To exchange connections see item 9 in type index.

¹⁾ dimension only with execution according to ISO 228

3. Spare parts:

item	qty.	designation	dimension			article-no.	
			EH 60	EH 90	EH 150		
1	1	filter element	01E.60	01E.90	01E.150		
2	1	O-ring	22 x 3,5			304341 (NBR)	304392 (FPM)
3	1	O-ring	56 x 3			305072 (NBR)	305322 (FPM)
4	1	support ring	63 x 2,6 x 1			312309	
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)
12	1	screw plug	20913-4			314442	

item 12 execution only without clogging indicator or clogging sensor

4. Description:

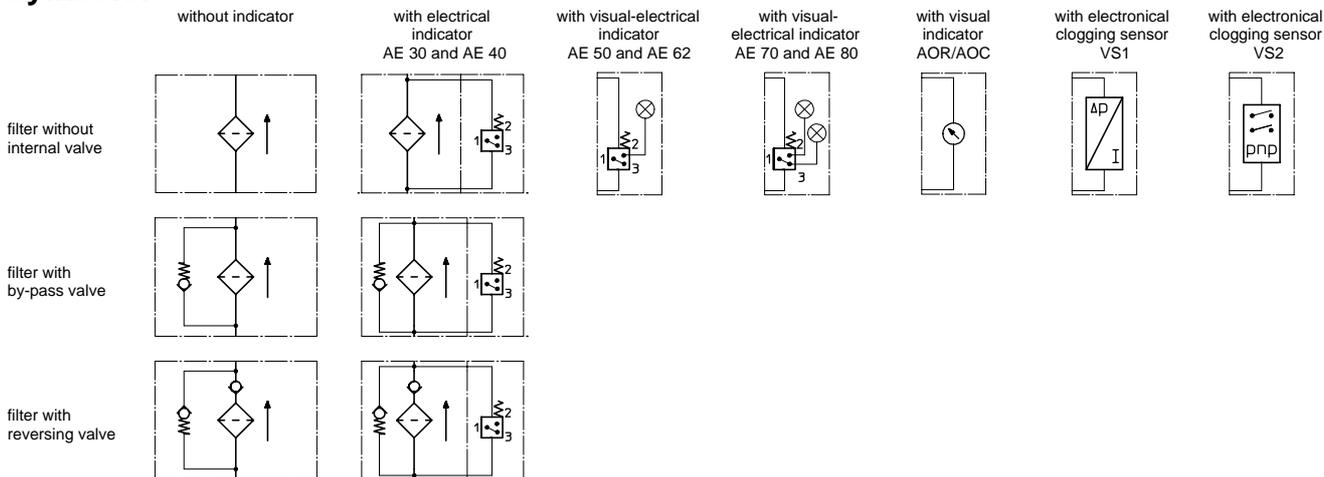
The pressure filters of the series EH are suitable for a working pressure up to 420 bar. The pressure peaks are absorbed by a sufficient margin of safety. The EH-filter is in-line mounted. The filter element consists of star-shaped, pleated filter material which is supported on the inside by a perforated 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 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 Δp 160 bar and a rupture strength of Δp 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 according to ISO 228 or ANSI B1.20.1
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 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