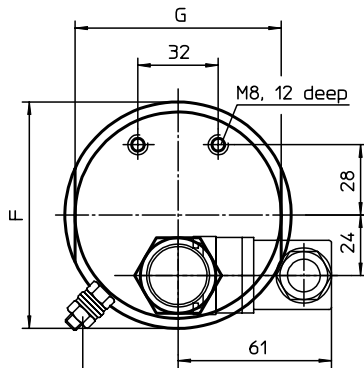
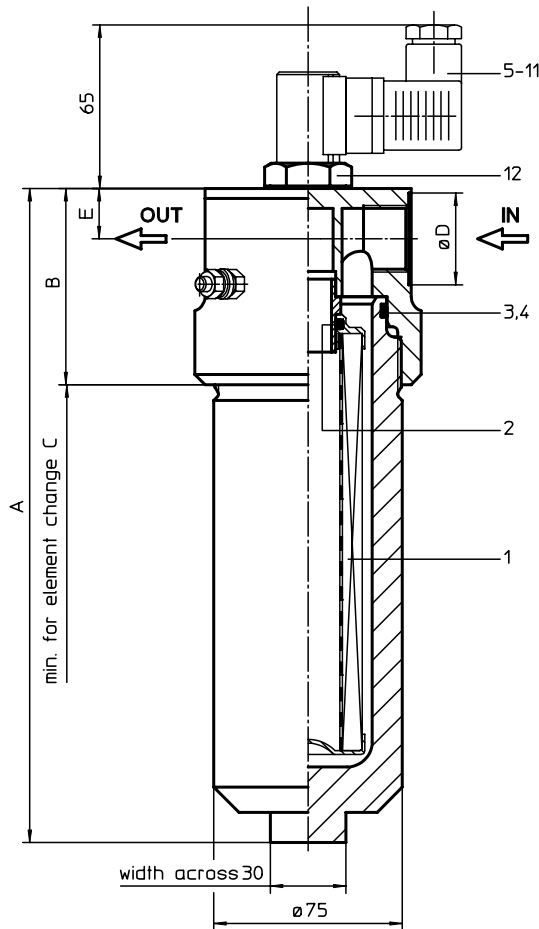


STAINLESS STEEL- PRESSURE FILTER

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:

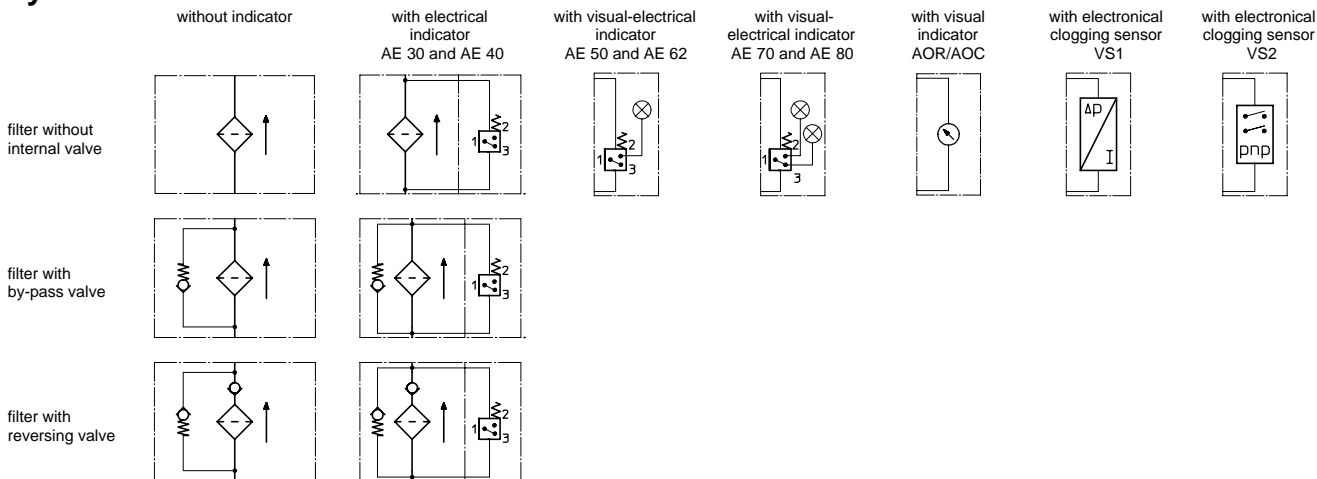
The pressure filters of the series EH are suitable for a working pressure up to 420 bar. The pressure peaks are absorbed by a sufficient margin of safety. The EH-filter is in-line mounted. The filter element consists of star-shaped, pleated filter material which is supported on the inside by a perforated 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