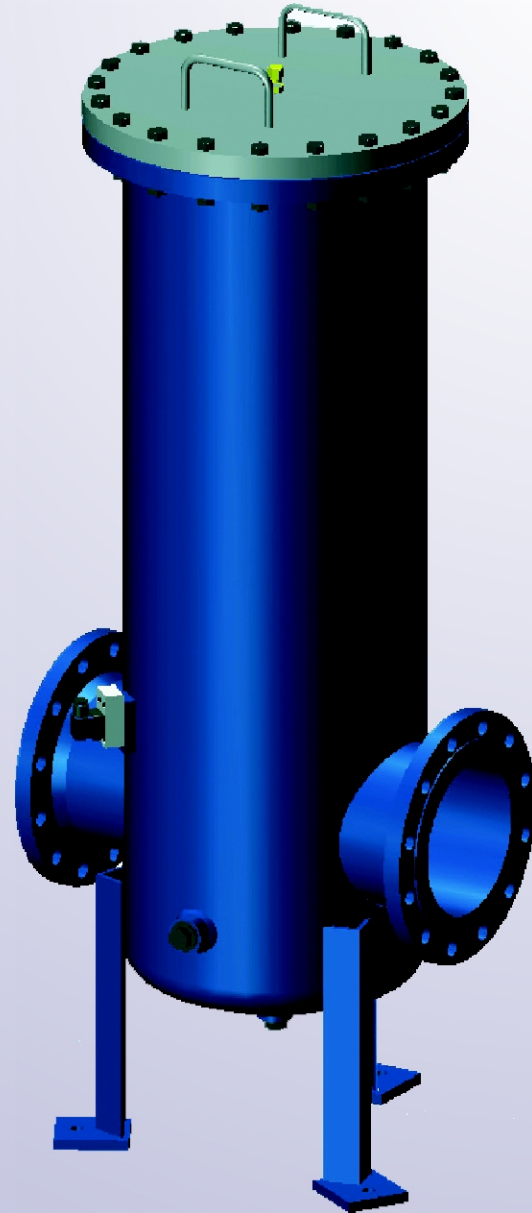




Filters . Accumulators

# Inline Filters

16 FLE 0190-1350



### Application

Filtration of pressurised liquids and lubricants. Filtration of liquids and gases. Direct installation in pipelines. Direct wear protection of subsequent components and systems.

### Design

Welded steel design including filter housing with opposite connections for inlet and outlet. Filter cover with vent valve, filter fitted with drain plug. Filter mounting by three welded legs. Material: as per spare parts list in this brochure.

### Filter Element

Pleated design with optimised pleat density and various filter media. For further detailed information please refer our "Filter Elements" brochure.

Operating pressure: 16 bar  
Connection up to DN 300



# Ordering Information

Special designs available on request.

Filter Type	Magnet	Maintenance Indicator	Connection	Material
FLE= Inline Filter	0 = without	0 = without A.. = visual indicator B.. = combined visual/electrical Indicator with electric plug D.. = combined visual/electrical indicator with signal lights and two switching points Standard switch pressure 2.5 bar  For extensive ordering information and technical data refer section "Maintenance Indicator"	Inlet: D0 = DIN flange  Outlet: DIN flange	0 = standard material as per data sheet C= stainless steel 1.4301 V= stainless steel 1.4571 D= nickel plated

Filter Assembly → **16** **FLE 0190 H10XL-0** **00 - 0** **7 C2,5** - **D0** **P** **0 0**  
 Seal Kit → **D 16** **FLE 0190** - **C** - **D0** **P** **0**

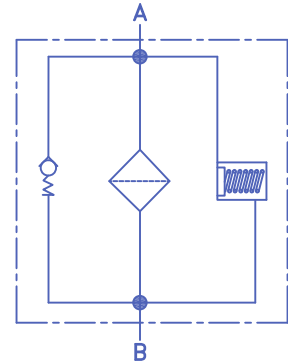
Pressure	Nominal Size	Filter Media & Filtration Grade	Diff. Pressure	Element Model	Bypass Valve	Seal	Addl. Info
16 bar	0190	Nominal filtration grade in µm G= stainless steel wire mesh, cleanable G10 G25 G40 G60 G80 G100 VS=bonded fabric, not cleanable VS 25 VS 40 VS 60 P= paper, not cleanable P5 P10 P25 Absolute filtration grade (ISO16889)in µm H..XL=micro glass, not cleanable H1XL H3XL H6XL H10XL H20XL AS= micro glass-fibre, water absorbing, not cleanable AS1 AS3 AS6 AS10 AS20	Maximum allowable differential pressure drop across the filter element  O = 15 bar A = 30 bar	0.. = Standard adhesive T=100°C E.. = Special adhesive T=160°C  ...O = Standard material ...V = stainless steel 1.4571	Opening Pressure 0 = without 7 = 3.5 Bar  For Filter Element always 0	P = Buna-N / Nitrile V = Viton E = Ethylene-Propylene N = Neoprene	0 = without 5 = Silicon free E = Vent Valve Z = Certificates

Filter Element → **1. 0190 H10XL** - **0** **00** - **0** **P** - **5** **Z**

## Maintenance Indicator

Maintenance indicators used for monitoring the filter element's contamination status. They are available as visual/electrical indicators. For technical data refer our brochure "Maintenance Indicators".

## Filter Switching Symbol

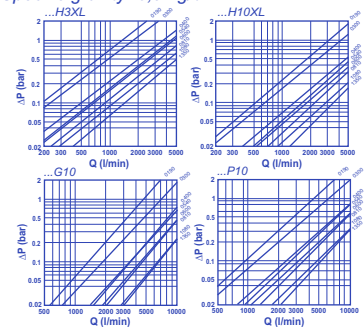


A...Optical	B.... Optical/electrical	D... Optical/electrical with three 24 V diodes and two switch points
Ordering information A2,5 = F2,5 A0 00 00P* A5,0 = F5, 0 A0 00 00P*	Ordering information B2,5 = F2,5 GW 02 00P* B5,0 = F5,0 GW 02 00P*	Ordering information D2,5 = R2,5 GW 09 ZOP* D5,0 = R5,0 GW 09 ZOP*
Switch Symbol		Switch Symbol V1 LED/green in use V2 LED/red S=100% V3 LED/yellow S=75%

## Performance Characteristics

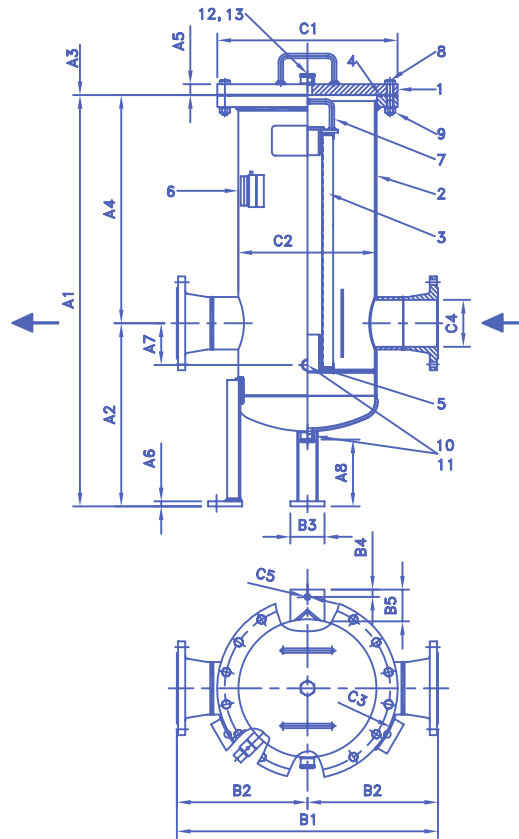
Δp-Q-characteristics lines for complete filters recommended start-Δp for layout 0,5 bar

Oil viscosity : 30mm<sup>2</sup>/s  
Specific gravity<0,9 kg/dm<sup>3</sup>



\* Buna N / Nitrile, V = Viton, E = Ethylene propylene; N = Neoprene possible

# Dimensions



## Filter housing for filter elements according to EPE standard

Type	Volume in ltrs.	Weight in kg <sup>1)</sup>	A1	A2	A3 <sup>2)</sup>	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	C1	C2	C3	C4 Connection DIN 2633	C5
16 FLE 0190	66	150	830	440	450	390	29	15	95	175	550	275	90	100	Ø480	Ø368	Ø490	Ø125	Ø18	
16 FLE 0300	103	198	1187		810	747												Ø150		
16 FLE 0400	124	225	1200	480	800	720	31	125	175	600	300	25	115	Ø510	Ø400	Ø520	Ø200	Ø23		
16 FLE 0540	154	252	1434		1000	954											Ø250			
16 FLE 0600	270	330	1578	535	800	1043	37	155	20	710	355	100	115	Ø625	Ø500	Ø670	Ø250	Ø23		
16 FLE 0810	315	396	1812		1277	Ø300														
16 FLE 1080	476	451	1894	590	1000	1304	41	180	830	415	100	115	115	Ø735	Ø600	Ø770	Ø300	Ø23		
16 FLE 1350	476	466			Ø300															

## Spare Parts

Part	Qty.	Size	Material	0190	0300	0400	0540	0600	0810	1080	1350
		Designation		Please indicate ordering information "Filter Assembly"							
1	1	Filter cover	Steel	Please indicate ordering information "Filter Assembly"							
2	1	Filter housing	Steel	Please indicate ordering information "Filter Assembly"							
3	1	Filter element kit	Various	Please indicate ordering information "Filter Element"							
				3 single elements 1.0095	3 single elements 1.0120	3 single elements 1.0200	3 single elements 1.0270	4 single elements 1.0200	4 single elements 1.0270	5 single elements 1.0270	6 single elements 1.0270
4	1	O-ring	Buna N/Viton	Please indicate ordering information "Seal kit"							
5	1	O-ring kit	Buna N/Viton	Please indicate ordering information "Filter Element"							
				6xO-ring				8xO-ring		10xO-ring	12xO-ring
6	1	Maintenance indicator	Various	Please indicate ordering information "Maintenance Indicator"							
7	1	Pressure plate	Various	Please indicate ordering information "Filter Assembly"							
8	-	Hexagon head cap screw	-	16xPart.No.607		20xPart.No.607		20xPart.No.620		16xPart.No.626	
9	-	Hexagon nut	-	16xPart.No.684		20xPart.No.684		20xPart.No.686		16xPart.No.690	
10	2	Plug	-	Please indicate ordering information "Filter Assembly"							
11	2	Sealing ring	Soft iron	Please indicate ordering information "Seal kit"							
12	1	Vent valve	Various	Please indicate ordering information "Filter Assembly"							
13	1	Sealing ring	Soft iron	Please indicate ordering information "Seal kit"							

1)= weight including standard filter element and maintenance indicator  
2)= servicing height for filter element replacement



Filters . Accumulators

## Installation, Starting and Maintenance

### Filter Installation

Verify the operating pressure on the nameplate is equal or greater than the maximum system pressure. Install the filter using the mounting points provided and check the flow direction is correct and ensure sufficient clearance for filter servicing.

### Connection of electrical maintenance indicator

Connect indicator using the three wired cable.

Please verify electrical ratings on the indicators (Part6) name plate.

Connection settings:

- |                    |  |
|--------------------|--|
| 1. Normally closed | 1 (black & white) + 3 (blue)           |
| 2. Normally open   | 1 (black & white) + 2(brown)           |
| 3. Changer         | 1 (black & white) + 2(brown) + 3(blue) |

### Starting operation

Switch on system pump.

De-aerate filter by opening the vent valve (Part 12), close when liquid emerges from valve.

### Maintenance

The filter element is clogged and needs to be replaced or cleaned if the visual indicator's (Part 6) red pin reaches its final position and /or the electrical switch is activated.

### Filter element service

Switch off pump, open vent valve (Part 7) and depressurise system. Lift off filter cover (Part 19) and remove pressure plate (Part 7) with integrated bypass valves.

Open drain plug (Part 10) and drain filter.

Remove filter element(s) (Part3), turning slightly off from its/their lower spigot in the filter housing.

Check filter housing inside and clean if necessary.

Replace filter element H...XL, P...and VS... The filter element with G...media is cleanable.

The efficiency of the cleaning process depends on the characteristics of contamination and the final pressure drop prior to servicing/ cleaning the element.

If the differential pressure after the filter element's cleaning process exceeds more than 50% of the pre service value the G...element also needs to be replaced.

Replace filter element (Part 3) and pressing plate (Part 7) in filter housing.

Check O-ring (Part 4) and replace in case of damage or wear.

Lift and screw on filter cover (Part 1). Operate filter as described above.

## EPE PROCESS FILTERS & ACCUMULATORS PVT LTD

### Techni Towers

C-54/A, A.P.I.E., Balanagar

Hyderabad -500 037. A.P.,India.

Tel. Nos. : 23778803/23778804/23871445

Fax Nos. : 040-23871447.

Internet : [www.epe-india.com](http://www.epe-india.com)

E-mail : [business@epe-india.com](mailto:business@epe-india.com)

### Disposal

Before the filter is sent for disposal or recycling, it should always be de-pressurised completely. It is suggested that the filter is dismantled and the components disposed of as industrial waste.

Fluid residues are to be drained completely before disposal / recycle of the accumulator.

Filter Elements - Oil from the used filter elements is to be drained before the element is sent for disposal or recycling.

Decontaminate if needed and in accordance with local regulations.

### Environmental Protection

Careless disposal of the product and/or residual fluid contained therein can cause environmental pollution.

Dispose the product in accordance with provisions applicable in the country of use.

Fluid residues are to be disposed according to the respective safety data sheets (MSDS) valid for the specific hydraulic fluids.

### EPE PROCESS FILTERS & ACCUMULATORS PVT LTD

#### Techni Towers

C-54/A, A.P.I.E., Balanagar

Hyderabad -500 037, Telangana, India.

Tel. Nos. : 23778803/23778804/23871445

Fax Nos. : 040-23871447.

Internet : [www.epe-india.com](http://www.epe-india.com)

E-mail : [business@epe-india.com](mailto:business@epe-india.com)

