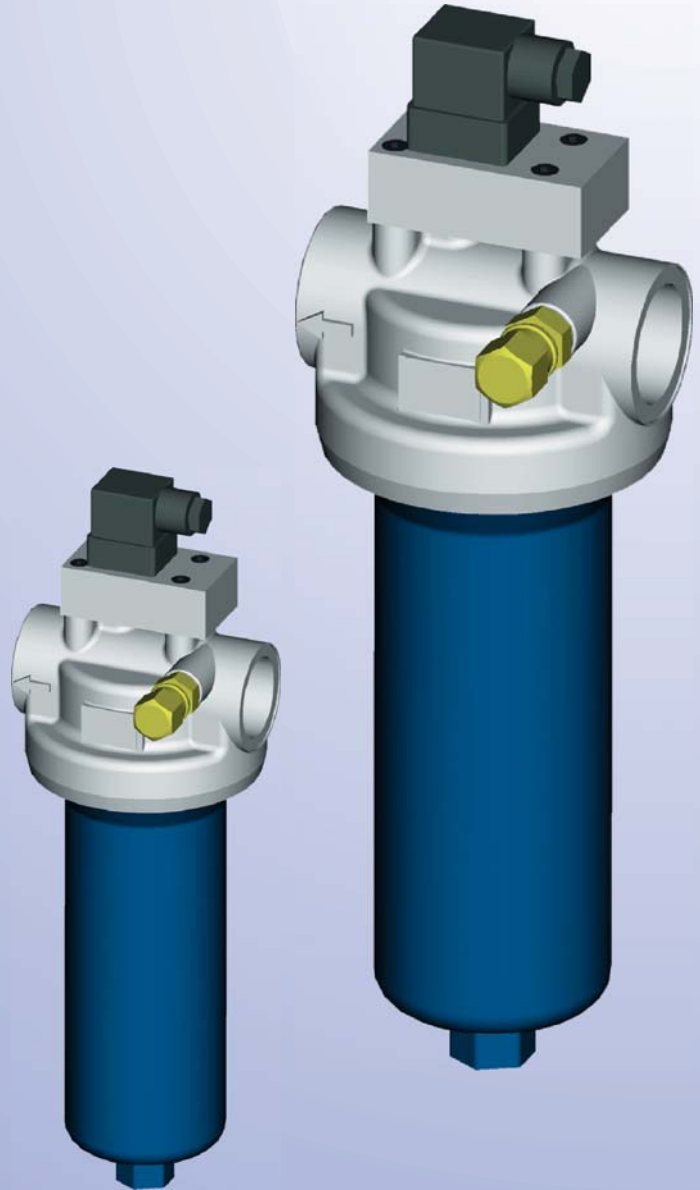




Filters . Accumulators

## *Inline Filters*

*40 / 160 LE 0005 - 0045  
40 / 160 LEN 0040 - 0400*



*Filters for inline installation*

*Wide application*

*Compact modular design*

*Optimised flow characteristics*

*Low pressure drop*

*High efficient filter media*

*Operating pressure: 40/160 bar  
Connection up to G1½"*



## Inline Filters

40/160 LE 0005-0045  
40/160 LEN 0040-0400

Operating Pressure 40/160 bar  
Operating temperature - 10°C to + 100°C  
Connection up to G 1-1/2

## Application

Filtration of pressurised fluids and lubricants.

Filtration of liquids and gases.

Direct installation in pipeline to provide wear protection of subsequent components and systems.

## Design

Filter head with inlet, outlet and filter element spigot. Filter bowl is unscrewed for small sizes, others with quick locking device.

Material: as per spare parts list in this brochure.

## Filter Element

Pleated design with optimised pleat density and various filter media. The filter element is the most important component of the filter to provide prolonged life and wear protection of the system.

Oil cleanliness, the initial pressure drop and the dirt holding capacity are the most important criteria for selection.

For further detailed information please refer our "Filter Elements" brochure.

## Accessories

### Maintenance Indicator

For monitoring the filter element's contamination status, visual and visual /electrical indicators, with one or two switching points are available.

### Bypass Valve

To protect the filter element during start up and over pressurisation due to clogging.

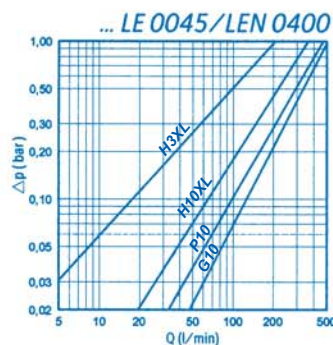
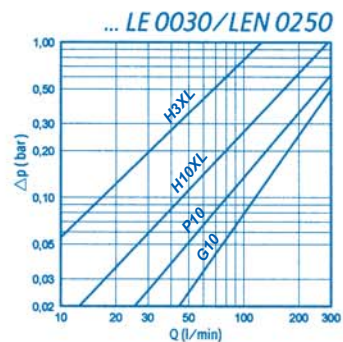
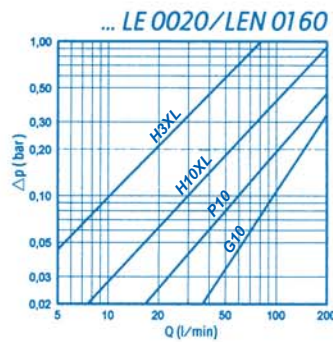
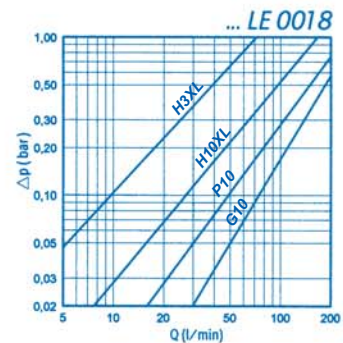
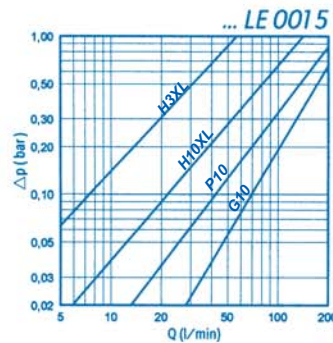
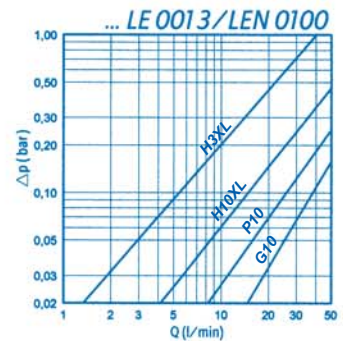
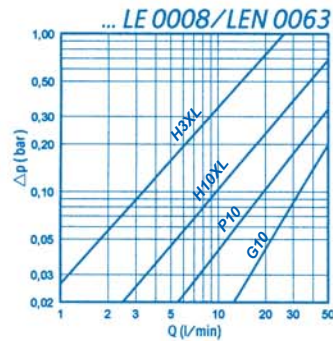
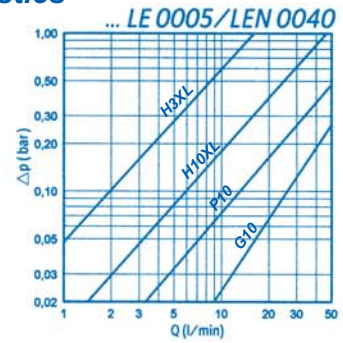
### Vent Valve

For removing the air from filter during starting and for safe depressurisation.

## Performance characteristics

$\Delta P$ -Q-characteristic lines for complete filters.  
Recommended start-  $\Delta p$  for assembly = 0.8 bar

Oil viscosity: 30 mm<sup>2</sup>/S  
Specific gravity < 0.9 kg/dm<sup>3</sup>



# Ordering Information

Special design available on request.

<b>Filter Type</b> <b>LE</b> = Inline Filter with EPE Standard filter element  <b>LEN</b> = Inline Filter with filter element according to DIN 24550	<b>Magnet</b> <b>0</b> = without	<b>Maintenance Indicator</b> <b>0</b> = without <b>A.</b> = visual mechanical indicator <b>B.</b> = combined visual/electrical indicator with electric plug <b>D.</b> = combined visual/electrical indicator with signal lights and two switching points  <b>Standard switch pressure:</b> ..2.5 bar for 40 LE and LEN ..5.0 bar for 160 LE and LEN	<b>Connection</b> <b>R0</b> = pipe thread	<b>Material</b> <b>0</b> = standard
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Filter Assembly → **160 LE 0013 H10XL - A 00 0 - 0 B5.0 - R0 P 0 0**

Seal Kit → **D 160 LE 0013 - B - R0 P 0**

Pressure	Nominal Size	Filter Media & Filtration Grade	Diff. Pressure	Element Model	Bypass Valve	Seal	Addl. Info
40 bar 160 bar	40/160 LE.... 0005 0008 0013 0015 0018 0020 0030 0045	Nominal filtration grade in µm G= stainless steel wire mesh, cleanable G10 G25 G40 G60 G80 G100 Vs=nonwoven media, 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-fibre, not cleanable H1XL H3XL H6XL H10XL H20XL AS= micro glass-fibre, water absorbing, not cleanable AS1 AS3 AS6 AS10 AS20	Max. allowed differential pressure of the filter element  A = 30 Bar D = 60 Bar C = 160 Bar	0.. = Standard adhesive T=100°C E.. = Special adhesive T=160°C  ..0 = Standard material ..Z = Zinc free	Opening Pressure 0 = without 7 = 3.5 Bar for 40-LE/LEN 9 = 7.0 Bar for 160-LE/LEN  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 = Inspection certificate  - = without 5 = Silicon free Z = Inspection certificate

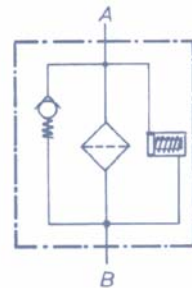
Filter Element → **2. 0013 H10XL - A 00 - 0 P -**

## Maintenance Indicator

The maintenance indicator monitors the degree of dirt of the filter elements. They are available as visual or visual/electrical. See "Maintenance Indicator" catalog for technical data.

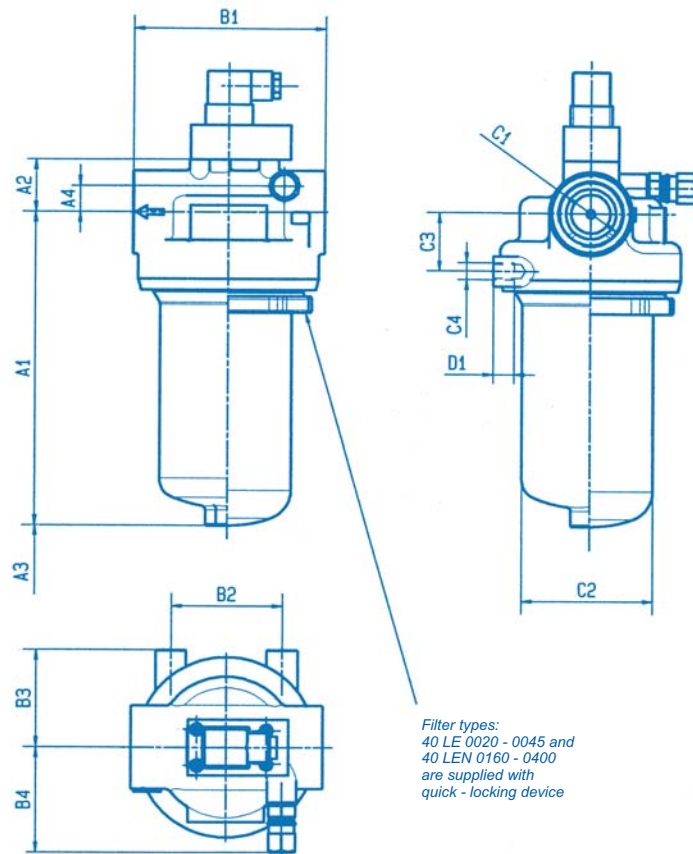
## Filter Switching Symbol

A.... Visual	B... Visual/ electrical	D... Visual /electrical With three light indicators 24 V And two switching 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%



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

## Dimensions



### Filter housing for filter Elements in accordance with EPE Standard

Type	Capacity in l	Weight in kg <sup>1)</sup>	A1	A2	A3 <sup>2)</sup>	A4	B1	B2	B3	B4	C1 Connection	C2	C3	C4	D1
40/160 LE 0005	0.21	1.47	155	32	100	14	83	45	45	62	G 1	Ø 57	21	M8	10
40/160 LE 0008	0.35	1.69	216												
40/160 LE 0013	0.53	2.03	308	38	120	15	113	60	60	72	G 1½	Ø 77	28		
40/160 LE 0015	0.76	3.87	260												
40/160 LE 0018	0.96	4.20	313	38		19	138	80	70	76	G 1½	Ø 98	42	M12	14
40/160 LE 0020	1.13	4.86	237												
40/160 LE 0030	1.60	6.25	330												
40/160 LE 0045	2.40	8.16	478												

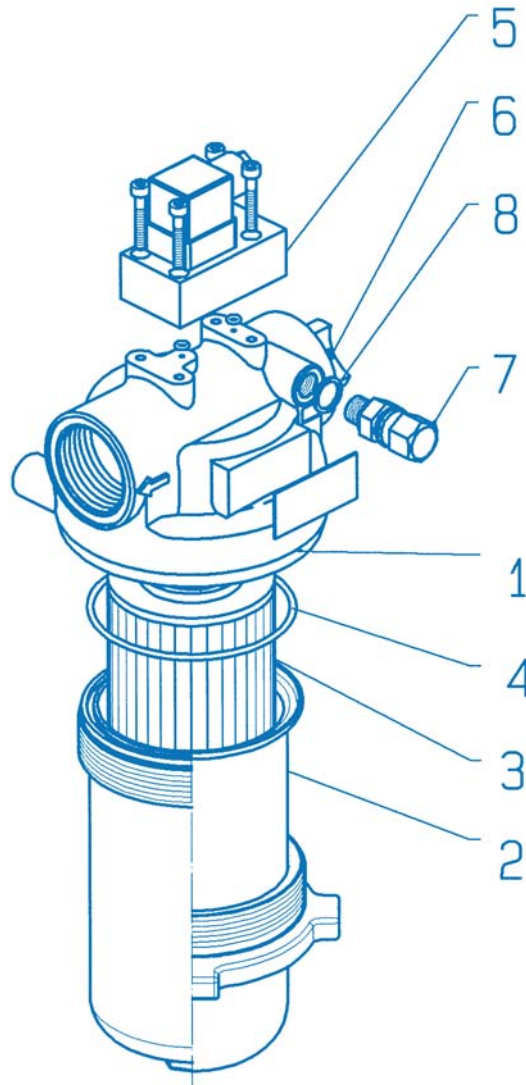
### Filter housing for Filter Elements in accordance with DIN 24550

Type	Capacity in l	Weight in kg <sup>1)</sup>	A1	A2	A3 <sup>2)</sup>	A4	B1	B2	B3	B4	C1 Connection	C2	C3	C4	D1
40/160 LE 0040	0.21	1.47	155	32	100	14	83	45	45	62	G1	Ø 57	21	M8	10
40/160 LE 0063	0.35	1.69	216												
40/160 LE 0100	0.53	2.03	308	38	120	19	138	80	70	76	G1½	Ø 98	42	M12	14
40/160 LE 0160	1.13	4.86	237												
40/160 LE 0250	1.60	6.25	330												
40/160 LE 0400	2.40	8.16	478												

1) = Weight including standard filter element and maintenance indicator  
2) = Servicing height for filter element replacement

All dimensions are in mm

## Spare Parts List



		Size LE Size LEN		0005 0040	0008 0063	0013 0100	0015	0018	0020 0160	0030 0250	0045 0400
Part	Quantity	Title	Material								
1	1	Filter head	Aluminium	Please indicate ordering information "Filter"							
2	1	Filter bowl	Carbon steel	Please indicate ordering information "Filter"							
3	1	Filter element	Various	Please indicate ordering information "Filter Element"							
4	1	O-ring	Buna N/Viton	Please indicate ordering information "Seal Set"							
5	1	Seal	Various	Please indicate ordering information "Seal Set"							
6	1	Bypass valve*	Al/synthetic	Part No.5359			Part No.5118		Part No.5360		
7	1	Vent valve	Bronze	Part No.848							
8	1	Seal ring	Copper	Please indicate ordering information "Seal Set"							
9	2	Plug for design without Indicator	St	Part No.5715							

\*Please specify opening pressure



Filters . Accumulators

## **Installation, Starting and Maintenance**

### **Installation**

Verify operating pressure with name plate information.

Mount the filter assembly using mounting holes on the head (part 1) considering flow direction (direction arrows) and servicing height required for cleaning/replacing elements.

### **Connection of electrical maintenance indicator**

Connect indicator using the three wired cable.

Please verify electrical ratings on the indicators (part 5) name plate.

Connection settings:

1. Closer 1 (black) + 3 (blue)
2. Opener 1 (black) + 2(brown)
3. Changer 1 (black) + 2(brown) + 3(blue)

### **Starting operation**

Switch on service pump.

Ventilate filter by opening the vent valve (part 7), close when operating liquid appears.

### **Maintenance**

The filter element is clogged and must be changed or cleaned when at operation temperature the red pointer on the maintenance indicator (part 5) is hard against the plastic tap and / or the switching process on the electrical indicator is triggered.

### **Filter element service**

Switch off pump, open vent valve (part 7) and ventilate system. Unscrew filter bowl (part 2), (unscrew quick locking device for size 40 LE 0020-0045 and 40 LEN 0160-0400) and remove filter element (part 3), turning slightly off from its locator in the filter head (part 1). Check filter bowl inside and clean if necessary.

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

The effectiveness of cleaning depends on the type of dirt and the level of the differential pressure at the time of changing the filter element.

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

Replace filter element by slightly turning it back on its locator. Check O-Ring (part 4) on filter bowl, replace in case of damage or wear. Screw filter bowl and tighten it at hexagon bolt using a suitable tool (size 40 LE 0020-0045 and 40 LEN 0160-0400: connect filter bowl at filter head and screw it with the quick locking device).

Operate filter as described above.

## **EPE PROCESS FILTERS & ACCUMULATORS PVT LTD**

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Technical specifications are subject to change!