

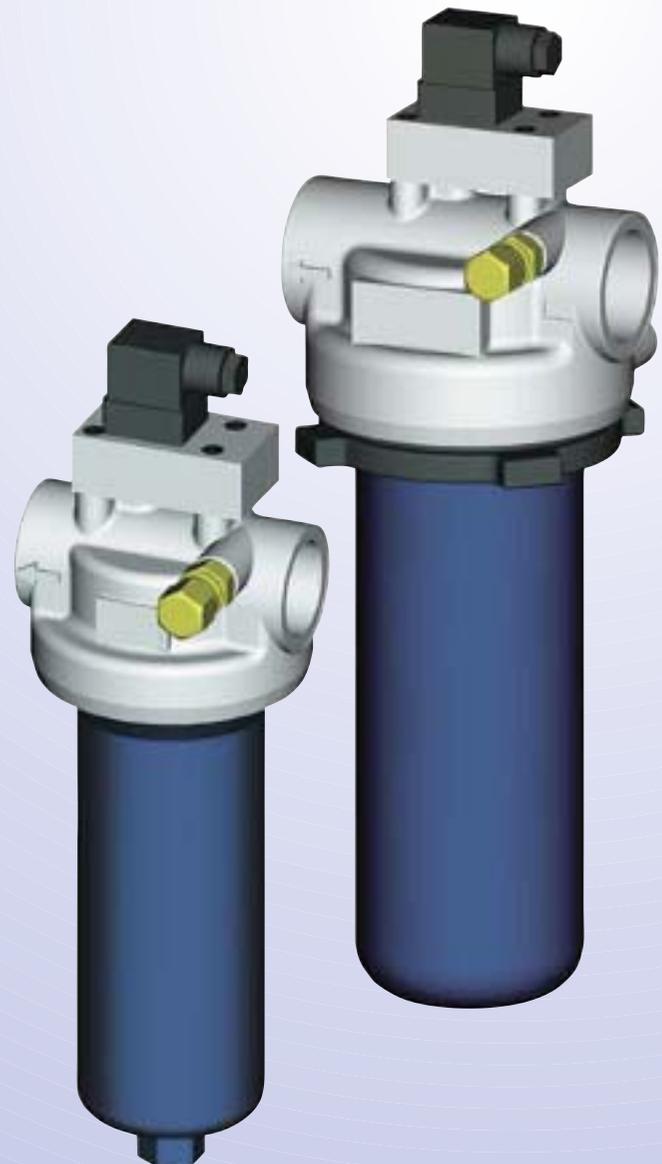


Industrial Filters · Accumulators

Inline Filters

40/160 LE 0003 - 0045

40/160 LEN 0040 - 0400



Filters for inline installation

Wide application

Compact modular design

*Optimised flow characteristics
by 3D - computer aided design*

Low pressure drop

*Special high efficient
filter media*

Operating pressure 40/160 bar

Connection up to DN 38



Quality assured!

Inline Filters

40/160 LE 0003 - 0045
40/160 LEN 0040 - 0400

Operating pressure 40/160 bar
Operating temperature -10°C to $+100^{\circ}\text{C}$
Connection up to DN 38
160 LE/LEN valid dynamic loading
max. 100 bar

Application

Filtration of pressurised fluids and lubricants.
Filtration of liquids and gases.
Direct installation in pipelines 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.

A proper filter selection is enabled by our "EPE-FILTERSELECT" software.

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

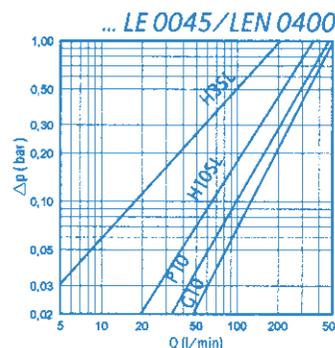
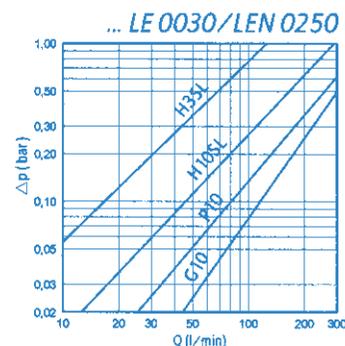
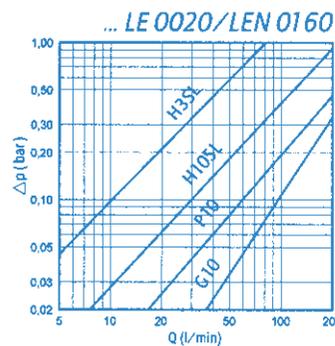
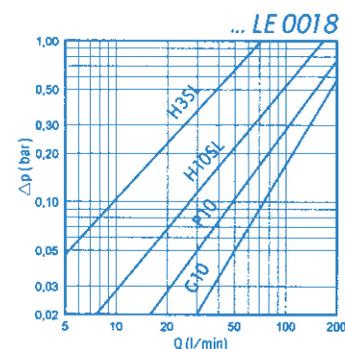
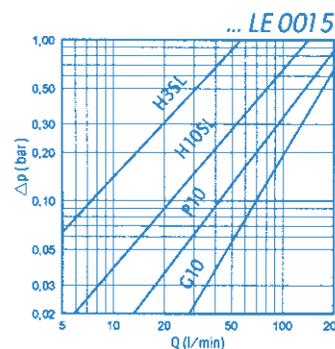
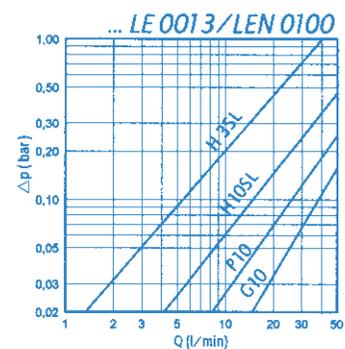
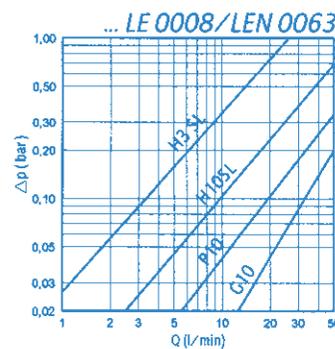
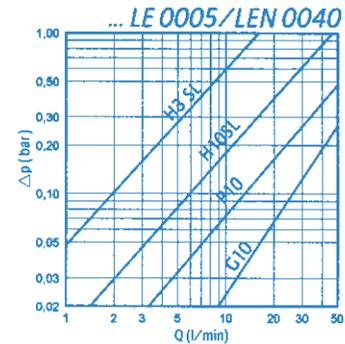
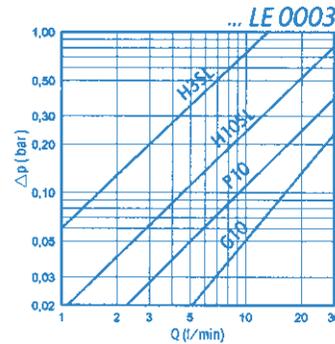
For removing the air from the filter during starting and for safe depressurisation.

Performance Characteristics

Δp -Q-characteristic lines for complete filters

recommended start- Δp for layout = 0.8 bar
recommended max. velocity 3.5 m/s

Oil Viscosity: 30 mm²/s
Specific gravity < 0.9 kg/dm³



Ordering information

Identification of filter size:
Using the computer programme "EPE-FILTERSELECT" or pressure characteristic lines in this brochure.

Special models are available on request.

Filter Type LE = Inline Filter with EPE standard filter element LEN = Inline Filter with filter element acc. to DIN 24550	Magnet 0 = without	Maintenance Indicator 0 = without A = visual maintenance 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 40 LE and LEN 5,0 bar for 160 LE and LEN See illustrations of maintenance indicator for detailed information and technical data.	Connection RO = pipe thread	Material 0 = standard
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Filter Assembly → 160 LE 0013 H10SL - A 00 - 0 9 D5,0 - RO P 0 0

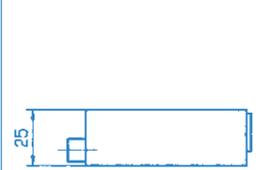
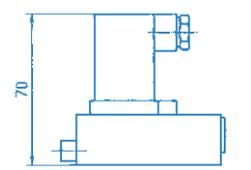
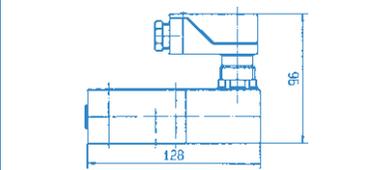
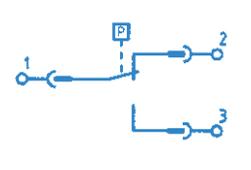
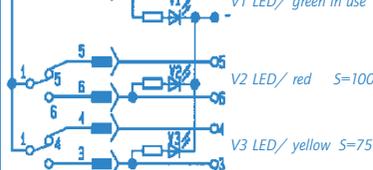
Seal Kit → D 160 LE 0013 - D - RO P 0

Pressure 40 bar 160 bar	Nominal Size 40/160 LE... 0003 * 0005 0008 0013 0015 0018 0020 0030 0045	Filtration Grade Nominal filter fineness in µm G = stainless steel wire mesh, cleanable G10 G25 G40 G60 G80 G100 VS = nonwoven, not cleanable VS25 VS40 VS60 P = paper, not cleanable P5 P10 P25 Absolute filter fineness (ISO 4572) in µm H...SL = Micro glass fibre, not cleanable H1SL H3SL H6SL H10SL H20SL AS = Micro glass fibre, water adsorbent not cleanable AS1 AS3 AS6 AS10 AS20	Diff. Pressure Max. allowed differential pressure of the filter element A = 30 bar B = 330 bar	Filter Element Design 0 = Standard adhesive T = 100°C E... = Special adhesive T = 160°C 0 = Standard material ...Z = Zinc free	Bypass Valve opening pressure 0 = without 7 = 3,5 bar for 40 LE and 40 LEN 9 = 7,0 bar for 160 LE and 160 LEN for filter element always 0	Seal P = Buna N V = Viton E = Ethylene-Propylene N = Neoprene	Addit. Info 0 = without 5 = silicone free E = vent valve Z = inspection certificate 0 = without 5 = silicone free Z = inspection certificate
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Filter Element → 2. 0013 H10SL - A 00 - 0 - P 0

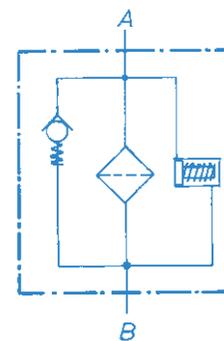
Maintenance Indicator

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

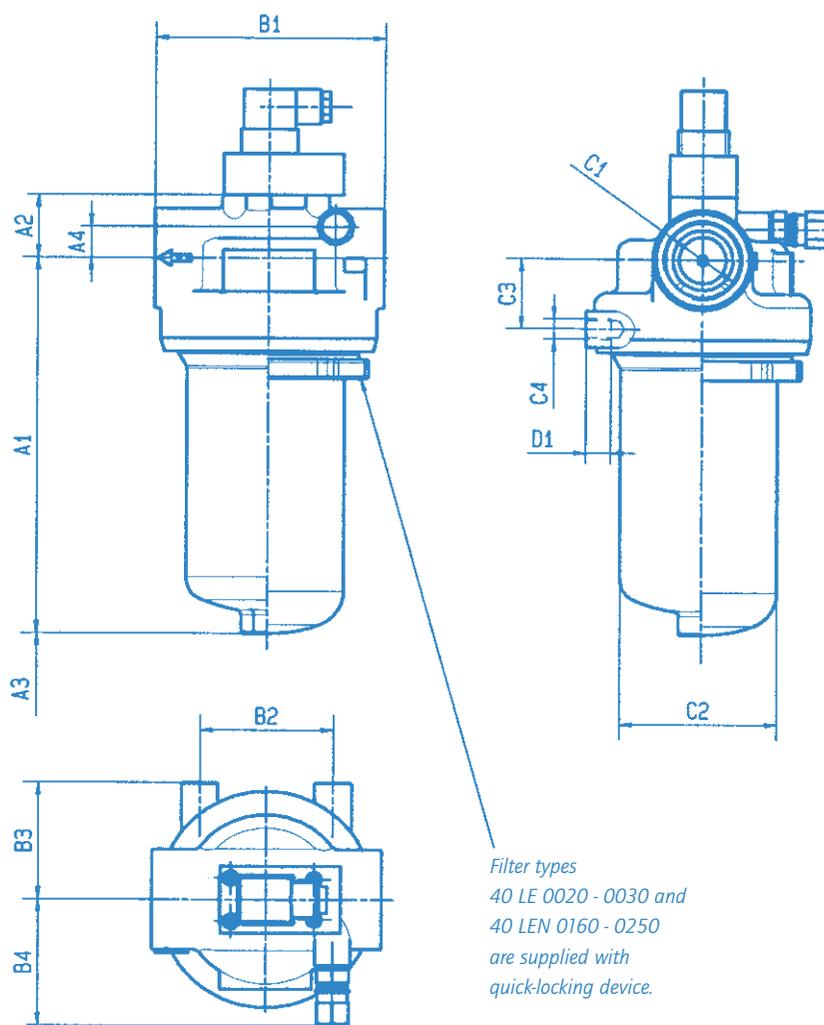
		
A...visual	B...visual/electrical	D...visual/electrical with three light indicators 24 V and two switching points
Ordering information A2,5 = F2,5 A0 00 00P* A5,0 = F5,0 A0 00 00P*	Ordering information B2,5 = F2,5 GW 02 00P* B5,0 = F5,0 GW 02 00P*	Ordering information D2,5 = R2,5 GW 09 Z0P* D5,0 = R5,0 CW 09 Z0P*
	Switching Symbol 	Switching Symbol 

*P = Buna N, V = Viton, E = Ethylene Propylene, N = Neoprene possible

Filter Switching Symbol



Dimensions



Filter types
40 LE 0020 - 0030 and
40 LEN 0160 - 0250
are supplied with
quick-locking device.

Filter housing for Filter Elements in accordance with EPE Standard

Type	Capacity in l	Weight in kg ¹⁾	A1	A2	A3 ²⁾	A4	B1	B2	B3	B4	C1 Connection	C2	C3	C4	D1						
40/160 LE 0003	0,21	1,47	150	30	80	14	84	45	45	62	G $\frac{1}{2}$	ø55	21	M8	10						
40/160 LE 0005	0,21	1,47	150		100						G1										
40/160 LE 0008	0,35	1,69	210		120						15					114	60	60	72	G1 $\frac{1}{4}$	ø76
40/160 LE 0013	0,53	2,03	300	G1 $\frac{1}{2}$																	
40/160 LE 0015	0,76	3,87	257	35		19	138	80	70	76		ø98	42	M12	14						
40/160 LE 0018	0,96	4,20	308																	G1 $\frac{1}{2}$	
40/160 LE 0020	1,13	4,86	220	38	19	138	80	70	76	ø98	42	M12	14								
40/160 LE 0030	1,60	6,25	316											G1 $\frac{1}{2}$							
40/160 LE 0045	2,40	8,16	466	38	19	138	80	70	76	ø98	42	M12	14								

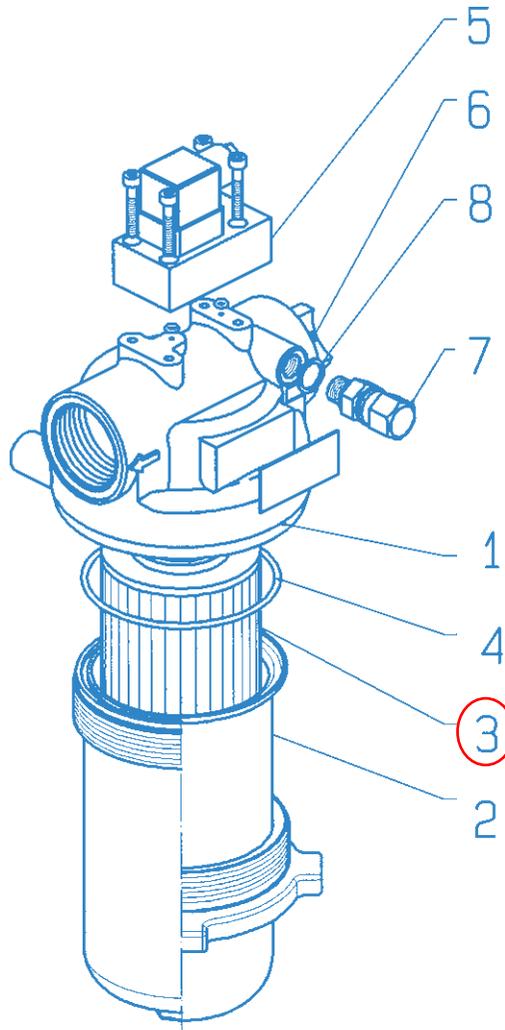
Filter housing for Filter Elements in accordance with DIN 24550

Type	Capacity in l	Weight in kg ¹⁾	A1	A2	A3 ²⁾	A4	B1	B2	B3	B4	C1 Connection	C2	C3	C4	D1									
40/160 LEN 0040	0,21	1,47	150	30	100	14	84	45	45	62	G1	ø55	21	M8	10									
40/160 LEN 0063	0,35	1,69	210		120											19	138	80	70	76	ø98	42	M12	14
40/160 LEN 0100	0,53	2,03	300		G1 $\frac{1}{2}$																			
40/160 LEN 0160	1,13	4,86	220	38	19	138	80	70	76	ø98	42	M12	14											
40/160 LEN 0250	1,60	6,25	316											G1 $\frac{1}{2}$										
40/160 LEN 0400	2,40	8,16	466	38	19	138	80	70	76	ø98	42	M12	14											

¹⁾ = Weight including standard filter element and maintenance indicator

²⁾ = Construction dimension for filter element change

Spare Parts List



		Size LE Size LEN		0003	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 Kit"								
5	1	Maintenance indicator	Various	please indicate ordering information "Maintenance Indicator"								
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 Kit"								
9	2	Plug for design without indicator	St	Part No. 5715								

* please specify opening pressure

Quality and Standardisation

The development, manufacture and assembly of EPE-industrial filters and filter elements is carried out within the framework of a certified quality management system in accordance with DIN EN ISO 9001:2000.

Certification of the filters by accredited institutions (for example TÜV, GL, LRS, LRIS, ABS, BV, DNV, DRIRE, UDT, etc.) is available on request. The stability calculation and testing of the filters proceeds according to actual standards, as well as in accordance with national and international norms.

The CE-identification mark according to the Pressure Equipment Directive 97/23/EG depends upon the individual application and operating conditions. On request we will classify the filters.



Industrial 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 variants:

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

Starting

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 needs to be replaced or cleaned when at the operating temperature the visual indicator's (Part 5) 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 ventilate system.

Unscrew filter bowl (Part 2), unscrew quick locking device for size 40 LE 0020-0030 and 40 LEN 0160-0250 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...SL, P..., AS ... 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... 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 0020-0030 and 40 LEN 0160-0250: connect filter bowl at filter head and screw it with the quick locking device).

Operate filter as described above.

K. & H. Eppensteiner GmbH & Co. KG
Hardtwaldstraße 43 · D-68775 Ketsch
P.O.Box 1120 · D-68768 Ketsch
Phone: + 49 62 02 / 6 03-0
Telefax: + 49 62 02 / 6 03-199
E-Mail: info@eppensteiner.de
Internet: www.eppensteiner.de

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